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Detection of ^{13}C Isotopomers of HC_5N ($J = 9–8$) in the Circumstellar Envelope of IRC +10216. *M. B. Bell & P. A. Feldman.* 367, L33, 17-E8 (1991)

Nitrogen Abundance in Comet Halley. *Susan Wyckoff, Stephen C. Tegler, & Lisa Engel.* 367, 641, 21-C1 (1991)

Ammonia Abundances in Four Comets. *Susan Wyckoff, Stephen C. Tegler, & Lisa Engel.* 368, 279, 26-E5 (1991)

Lithium, Age, and Metallicity in Open Clusters. *Ann Merchant Boesgaard.* 370, L95, 59-E12 (1991)

N_2H^+ in Orion: Chemical Clues to the Dynamics of the Quiescent Gas. *M. Womack, L. M. Ziurys, & S. Wyckoff.* 370, L99, 59-F1 (1991)

Primordial ^4He as a Test of Big Bang Nucleosynthesis. *G. M. Fuller, R. N. Boyd, & J. D. Kalen.* 371, L11, 66-B7 (1991)

Gas and Dust Production by Comet P/Halley (1910 II). *Ellen S. Howell, Barry L. Lutz, & V. M. Slipher.* 371, 776, 71-B11 (1991)

Signatures of Inhomogeneity in the Early Universe. *Lawrence H. Kawano, William A. Fowler, Ralph W. Kavanagh, & Robert A. Malaney.* 372, 1, 74-A11 (1991)

Densities and Abundances of Hot Cometary Ions in the Coma of P/Halley. *M. Neugebauer, R. Goldstein, B. E. Goldstein, S. A. Fuselier, H. Balsiger, & W.-H. Ip.* 372, 291, 77-E6 (1991)

A New Site for the Astrophysical Gamma-Process. *W. Michael Howard, Bradley S. Meyer, & S. E. Woosley.* 373, L5, 91-B1 (1991)

Interstellar Grains within Interstellar Grains. *Thomas J. Bernatowicz, Sachiko Amari, Ernst K. Zinner, & Roy S. Lewis.* 373, L73, 97-E10 (1991)

Chemical Abundances in Planetary Nebulae: Basic Data and Correlations between Elements. *M. Perinotto.* 76, 687, 34-C9 (1991)

Capture Cross Section Measurements of Krypton and Xenon Isotopes and the Fundamental Parameters of the *s*-Process. *Hermann Beer.* 375, 823, 122-G7 (1991)

Primordial Nucleosynthesis Redux. *Terry P. Walker, Gary Steigman, David N. Schramm, Keith A. Olive, & Ho-Shik Kang.* 376, 51, 125-F1 (1991)

Isotopically Anomalous Ti in Presolar SiC from the Murchison Meteorite. *Trevor R. Ireland, Ernst K. Zinner, & Sachiko Amari.* 376, L53, 137-D7 (1991)

Large Molecule Production by Mass-losing Carbon Stars: The Primary Source of Interstellar Polycyclic Aromatic Hydrocarbons? *William B. Latter.* 377, 187, 140-C5 (1991)

Sulfur-bearing Ions in the Ionosphere of Comet Halley. *M. L. Marconi, D. A. Mendis, D. L. Mitchell, R. P. Lin, A. Korth, & H. Réme.* 378, 756, 161-F7 (1991)

The Carbon Abundance of the Lyman-Alpha Clouds. *Limin Lu.* 379, 99, 164-C1 (1991)

An Analytical Formulation of the Double-Pulse *s*-Process Model. *Hermann Beer.* 379, 409, 168-B1 (1991)

Enrichment and Heating of the Intracluster Medium through Galactic Winds. *L. P. David, W. Forman, & C. Jones.* 380, 39, 176-E1 (1991)

The Upper Bound to the Primordial Abundance of Helium and the Consistency of the Hot Big Bang Model. *Keith A. Olive, Gary Steigman, & Terry P. Walker.* 380, L1, 181-B1 (1991)

Detection of Interstellar H_3O^+: A Confirming Line. *Alwyn Wootten, J. G. Mangum, B. E. Turner, M. Bogey, F. Boulanger, F. Combes, P. J. Encrenaz, & M. Gerin.* 380, L79, 188-E6 (1991)

s-Process Ba, Nd, and Sm in Presolar SiC from the Murchison Meteorite. *Ernst Zinner, Sachiko Amari, & Roy S. Lewis.* 382, L47, 205-E11 (1991)

Oxygen Abundances in Halo Stars. *Michael S. Bessell, Ralph S. Sutherland, & Kui Ruan.* 383, L71, 226-E6 (1991)

ACCELERATION OF PARTICLES

Acoustic Instability in Cosmic-Ray Mediated Shocks. *Hyesung Kang, T. W. Jones, & Dongsu Ryu.* 385, 193, 14-D1 (1992)

Magnetic Acceleration of Broad Emission-Line Clouds in Active Galactic Nuclei. *Robert T. Emmering, Roger D. Blandford, & Isaac Shlosman.* 385, 460, 19-A1 (1992)

The Solar Flare Event on 1990 May 24: Evidence for Two Separate Particle Accelerations. *H. Debrunner, J. A. Lockwood, & J. M. Ryan.* 387, L51, 43-F7 (1992)

π^0-Decay Gamma-Ray Emission from Winds of Massive Stars. *Richard L. White & Wan Chen.* 387, L81, 48-D6 (1992)

Proton Acceleration in Neutron Star Magnetospheres. *I. A. Smith, J. I. Katz, & P. H. Diamond.* 388, 148, 50-G7 (1992)

Relativistic Magnetosonic Shock Waves in Synchrotron Sources: Shock Structure and Nonthermal Acceleration of Positrons. *Masahiro Hoshino, Jonathan Arons, Yves A. Gallant, & A. Bruce Langdon.* 390, 454, 81-A9 (1992)

The Production of ^3He and Heavy Ion Enrichments in ^3He-rich Flares by Electromagnetic Hydrogen Cyclotron Waves. *M. Temerin & I. Roth.* 391, L105, 100-B1 (1992)

The Simulated Features of Heliospheric Cosmic-Ray Modulation with a Time-dependent Drift Model. III. General Energy Dependence. *M. S. Potgieter & J. A. Le Roux.* 392, 300, 104-F5 (1992)

Studies of the Low-Energy Galactic Cosmic-Ray Composition near 28 AU at Sunspot Minimum: The Primary-to-Primary Ratios. *W. R. Webber, P. Ferrando, A. Lukasiak, & F. B. McDonald.* 392, L91, 113-F1 (1992)

Constraints on the Acceleration of Anomalous Cosmic Rays. *J. R. Jokipii.* 393, L41, 120-F8 (1992)

Stochastic Gyroresonant Electron Acceleration in a Low-Beta Plasma. I. Interaction with Parallel Transverse Cold Plasma Waves. *Jürgen Steinacker & James A. Miller.* 393, 764, 125-C10 (1992)

A Speckle Hologram of the Interstellar Plasma. *K. M. Desai, C. R. Gwinn, J. Reynolds, E. A. King, D. Jauncey, C. Flanagan, G. Nicolson, R. A. Preston, & D. L. Jones.* 393, L75, 127-E7 (1992)

Effect of Magnetic Helicity upon Rectilinear Propagation of Charged Particles in Random Magnetic Fields. *James A. Earl.* 395, 185, 142-E1 (1992)

Ion Injection and Fermi Acceleration at Earth's Bow Shock: The 1984 September 12 Event Revisited. *M. Scholer, K. J. Trattner, & H. Kucharek.* 395, 675, 151-F1 (1992)

Diffusive Acceleration of Electrons in SN 1987A. *Lewis Ball & J. G. Kirk.* 396, L39, 160-G1 (1992)

Cosmic-Ray–modified Supernova Remnant Shocks. *T. W. Jones & Hyesung Kang.* 396, 575, 164-E9 (1992)

First-Order Fermi Acceleration in Spherically Symmetric Flows: Solutions Including Quadratic Losses. *Peter A. Becker.* 397, 88, 169-B6 (1992)

Stochastic Acceleration of Electrons. I. Effects of Collisions in Solar Flares. *Russell J. Hamilton & Vahé Petrosian.* 398, 350, 186-B5 (1992)

On "High Flyers" in Fermi Acceleration. *Lewis Ball, D. B. Melrose, & C. A. Norman.* 398, L65, 188-B7 (1992)

Kinetic Description of Electron Beams in the Solar Chromosphere. *Daniel O. Gómez & Pablo J. D. Mauas.* 398, 682, 192-E6 (1992)

Gamma-Ray Bursts from Extragalactic Radio Pulsars. *Fulvio Melia & Marco Fatuzzo.* 398, L85, 194-B10 (1992)

A Comparison of Models for Supernova Remnants Including Cosmic Rays. *Hyesung Kang & L. O'C. Drury.* 399, 182, 197-D11 (1992)

Stochastic Gyroresonant Electron Acceleration in a Low-Beta Plasma. II. Implications of Thermal Effects in a Solar Flare Plasma. *James A. Miller & Jürgen Steinacker.* 399, 284, 198-F12 (1992)

Electron Acceleration in Tycho's and Kepler's Supernova Remnants: Spectral Evidence of Fermi Shock Acceleration. *Stephen P. Reynolds & Donald C. Ellison.* 399, L75, 201-B1 (1992)

A Hybrid Thermal/Nonthermal Model for the Energetic Emissions from Solar Flares. *Gordon D. Holman & Stephen G. Benka.* 400, L79, 220-F8 (1992)

Electron Injection in Collisionless Shocks. *Amir Levinson.* 401, 73, 222-A1 (1992)

Radiative Acceleration by Synchrotron Sources. *G. Ghisellini, G. Bodo, & E. Trussoni.* 401, 87, 222-B5 (1992)

The Energy Spectra of Solar Flare Hydrogen, Helium, Oxygen, and Iron: Evidence for Stochastic Acceleration. *J. E. Mazur, G. M. Mason, B. Klecker, & R. E. McGuire.* 401, 398, 226-A5 (1992)

High-Energy Particle Acceleration by Explosive Electromagnetic Interaction in an Accretion Disk. *C. A. Haswell, T. Tajima, & J.-I. Sakai.* 401, 495, 228-G5 (1992)

Monte Carlo Calculations of Cosmic Rays in the Galaxy: Effect of the Source Distribution on the Age and Matter Distributions. *W. R. Webber.* 402, 185, 3-D1 (1993)

Particle Acceleration and Nonthermal Radio Emission in Binaries of Early-Type Stars. *D. Eichler & V. Usov.* 402, 271, 4-D11 (1993)

Ion Injection and Acceleration at Parallel Shocks: Comparisons of Self-consistent Plasma Simulations with Existing Theories. *J. Giacalone, D. Burgess, S. J. Schwartz, & Donald C. Ellison.* 402, 550, 9-D1 (1993)

Cosmic-Ray Acceleration during the Impact of Shocks on Dense Clouds. *T. W. Jones & Hyesung Kang.* 402, 560, 9-E1 (1993)

The Telegraph Equation in Charged Particle Transport. *T. I. Gombosi, J. R. Jokipii, J. Kota, K. Lorencz, & L. L. Williams.* 403, 377, 18-E1 (1993)

Dependence of the Interstellar Propagation of Ultraheavy Cosmic-Ray Nuclei on Various Parameters. *Robert R. Clinton & C. Jake Waddington.* 403, 644, 23-F1 (1993)

The Role of Merged Interaction Regions and Drifts in the Heliospheric Modulation of Cosmic Rays beyond 20 AU: A Computer Simulation. *M. S. Potgieter, J. A. Le Roux, L. F. Burlaga, & F. B. McDonald.* 403, 760, 25-C1 (1993)

A Unified Transport Equation for Both Cosmic Rays and Thermal Particles. *L. L. Williams, N. Schwadron, J. R. Jokipii, & T. I. Gombosi.* 405, L79, 54-E7 (1993)

Particle Injection and the Structure of Energetic-Particle–modified Shocks. *G. P. Zank, G. M. Webb, & D. J. Donohue.* 406, 67, 56-A1 (1993)

Coronal Proton Acceleration by Magnetohydrodynamic Waves and Related Proton Transport. *D. F. Smith & S. H. Brecht.* 406, 298, 58-F10 (1993)

A Detailed Study of Sheared Alfvén Waves and Their Possible Application to Gamma-Ray Bursts. *Marco Fatuzzo & Fulvio Melia.* 407, 680, 79-A8 (1993)

Spatial Spectral Index Variations in Galactic Shell Supernova Remnants G39.2−0.3 and G41.1−0.3. *Martha C. Anderson & Lawrence Rudnick.* 408, 514, 91-E9 (1993)

The Injection and Acceleration of Particles in Oblique Shocks: A Unified Monte Carlo Description. *Matthew G. Baring, Donald C. Ellison, & Frank C. Jones.* 409, 327, 101-B8 (1993)

Particle Dynamics in Spherical Wave Fields of Rotating Magnets: Acceleration Boundary, Plasma Border, and $1/r_0^2$ Law of Asymptotic Energy. *K. O. Thielheim.* 409, 333, 101-C1 (1993)

Lower Hybrid Resonance Acceleration of Electrons and Ions in Solar Flares and the Associated Microwave Emission. *K. G. McClements, R. Bingham, J. J. Su, J. M. Dawson, & D. S. Spicer.* 409, 465, 102-F9 (1993)

Magnetic Field Power Density Spectra during "Scatter-free" Solar Particle Events. *L. C. Tan & G. M. Mason.* 409, L29, 104-E1 (1993)

Relativistic Electron-Positron Beams in Gamma-Ray Bursters. *I. A. Smith & Richard I. Epstein.* 410, 315, 116-A6 (1993)

High-Frequency Emission of X-Ray Pulsar 1E 2259+586. *V. V. Usov.* 410, 761, 123-C1 (1993)

Spatial and Temporal Distributed Acceleration of Cosmic Rays by Supernova Remnants: Three-dimensional Simulations. *G. A. Medina Tanco & R. Opher.* 411, 690, 138-C8 (1993)

Ion Acceleration and Abundance Enhancements by Electron Beam Instabilities in Impulsive Solar Flares. *James A. Miller & Adolfo F. Viñas.* 412, 386, 146-G12 (1993)

The Cosmic-Ray ^{3}He/^{4}He Ratio from 100 to 1600 MeV amu^{-1}. *J. J. Beatty, D. J. Ficenec, S. Tobias, J. W. Mitchell, S. McKee, S. Nutter, G. Tarlé, A. Tomasch, J. Clem, T. G. Guzik, M. Lijowski, J. P. Wefel, C. R. Bower, R. M. Heinz, S. L. Mufson, J. Musser, J. J. Pitts, G. M. Spiczak, S. P. Ahlen, & B. Zhou.* 413, 268, 159-E8 (1993)

Alfvén Wave Transport Effects in the Time Evolution of Parallel Cosmic-Ray–modified Shocks. *T. W. Jones.* 413, 619, 164-C1 (1993)

Comparison of Distributed Reacceleration and Leaky-Box Models of Cosmic-Ray Abundances ($3 \leq Z \leq 28$). *John R. Letaw, Rein Silberberg, & C. H. Tsao.* 414, 601, 178-F6 (1993)

Focusing of Alfvénic Wave Power in the Context of Gamma-Ray Burst Emissivity. *Marco Fatuzzo & Fulvio Melia.* 414, L89, 185-F7 (1993)

Acceleration Efficiency in Nonthermal Sources and the Soft Gamma Rays from NGC 4151 Observed by OSSE and SIGMA. *Andrzej A. Zdziarski, Alan P. Lightman, & Andrzej Maciolek-Niedźwiecki.* 414, L93, 185-F13 (1993)

Convection above the Neutrinosphere in Type II Supernovae. *D. S. Miller, J. R. Wilson, & R. W. Mayle.* 415, 278, 188-D12 (1993)

Ion Acceleration in Impulsive Solar Flares. *Jürgen Steinacker, Uwe Jaekel, & Reinhard Schlickeiser.* 415, 342, 189-C1 (1993)

Electromagnetic Radiation from a Strong DC Electric Field. *Manuel Güdel & Donat G. Wentzel.* 415, 750, 197-B10 (1993)

The Crab Nebula's Cosmic-Ray Acceleration Zone Revealed. *P. P. Kronberg, H. Lesch, P. F. Ortiz, & M. F. Bietenholz.* 416, 251, 204-B13 (1993)

A Single-Fluid, Self-consistent Formulation of Fluid Dynamics and Particle Transport. *L. L. Williams & J. R. Jokipii.* 417, 725, 228-D5 (1993)

Particle Acceleration and Flare Triggering in Large-Scale Magnetic Loops Joining Widely Spaced Active Regions. *Robert F. Willson, Kenneth R. Lang, & Dale E. Gary.* 418, 490, 237-B1 (1993)

Gamma-Ray Bursts: Multiwaveband Spectral Predictions for Blast Wave Models. *P. Mészáros & M. J. Rees.* 418, L59, 245-B7 (1993)

Enhanced Cosmic-Ray Acceleration Rates in Highly Inclined Astrophysical Shocks. *R. Lieu, J. J. Quenby, B. Drolias, & K. Naidu.* 421, 211, 18-E11 (1994)

The Dynamical and Radiative Evolution of Clumpy Supernova Ejecta. *M. C. Anderson, T. W. Jones, L. Rudnick, I. L. Tregillis, & Hyesung Kang.* 421, L31, 21-G1 (1994)

The Dynamics of Charged Particles in Turbulent Astrophysical Plasmas. *Rüdiger Dung & Vahé Petrosian.* 421, 550, 25-A6 (1994)

Coulomb Scattering as a Mechanism for Electron Reacceleration in the Jets of Extragalactic Radio Sources. *I. E. Ekejiuba & P. N. Okeke.* 422, 537, 38-E1 (1994)

High-Energy Gamma Rays from the Intense 1993 January 31 Gamma-Ray Burst. *M. Sommer, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, G. J. Fishman, A. K. Harding, R. C. Hartman, S. D. Hunter, K. Hurley, G. Kanbach, D. A. Kniffen, C. Kouveliotou, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. Schneid, P. Sreekumar, & D. J. Thompson.* 422, L63, 45-A1 (1994)

Foreword. *Edward Chupp.* 90, 151, 10-B1 (1994)

Particle Acceleration Mechanisms. *R. D. Blandford.* 90, 515, 10-B7 (1994)

Sources and Acceleration of Energetic Particles in Planetary Magnetospheres. *Eberhard Möbius.* 90, 521, 10-C1 (1994)

Evidence for Particle Acceleration during Magnetospheric Substorms. *Ramon E. Lopez & Daniel N. Baker.* 90, 531, 10-C13 (1994)

Jupiter Radio Bursts and Particle Acceleration. *Michael D. Desch.* 90, 541, 10-D10 (1994)

Monte Carlo Simulations of Particle Acceleration at Oblique Shocks. *Matthew G. Baring, Donald C. Ellison, & Frank C. Jones.* 90, 547, 10-E6 (1994)

Drift Acceleration at Interplanetary Shocks. *G. Erdös & A. Balogh.* 90, 553, 10-F1 (1994)

A Theoretical Review of Diffusive Shock Acceleration. *Frank C. Jones.* 90, 561, 10-F10 (1994)

Transport of Solar Energetic Particles. *Wolfgang Dröge.* 90, 567, 10-G3 (1994)

Electron Acceleration at Quasi-parallel Shocks in the Solar Corona and Its Signature in Solar Type II Radio Bursts. *G. Mann & H. Lühr.* 90, 577, 11-A1 (1994)

Acceleration of Electrons at a Curved Shock. *M. Vandas.* 90, 583, 11-A8 (1994)

On the Asymmetry of the Distribution of the Anomalous Cosmic-Ray Component in the Heliosphere. *Horst Fichtner, S. Ranga Sreenivasan, Hans-Jörg Fahr, Daniel Rucinski, & Stanislaw Grzedzielski.* 90, 595, 11-B9 (1994)

Solar Hard X-Ray and Gamma-Ray Observations from *Granat*. *N. Vilmer.* 90, 611, 11-D1 (1994)

Turbulent Acceleration in Solar Flares. *D. B. Melrose.* 90, 623, 11-E1 (1994)

Pulsed Acceleration in Solar Flares. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Mukul R. Kundu.* 90, 631, 11-E11 (1994)

Weightiness of the Dispersive Rate in Stochastic Acceleration Processes. *J. Pérez-Peraza & A. Gallegos-Cruz.* 90, 669, 12-B1 (1994)

Microwave Burst Timescales and Solar Flare Acceleration Processes. *A. Krüger, B. Kliem, J. Hildebrandt, & V. V. Zaitsev.* 90, 683, 12-C3 (1994)

Another Clue About Particle Acceleration in Impulsive Hard X-Ray/Microwave Bursts. *David Batchelor.* 90, 697, 12-D7 (1994)

Efficiency for Electron Acceleration in Solar Energy Release Region as Estimated in the Context of Plasma Mechanism of Radio Emission. *B. N. Levin, V. M. Fridman, & O. A. Sheiner.* 90, 713, 12-E13 (1994)

Particle Orbits, Trapping, and Acceleration in a Filamentary Current Sheet Model. *Bernhard Kliem.* 90, 719, 12-F6 (1994)

Electron-Beam Evolution in Partially Ionized Hydrogenic Plasma with Return Currents. *D. V. Syniavskii & V. V. Zharkova.* 90, 729, 12-G4 (1994)

Quiescent Microwave Emission from Late-Type Stars. *Manuel Güdel.* 90, 743, 13-A8 (1994)

Radio Evidence for Nonthermal Particle Acceleration on Stars of Late Spectral Type. *Kenneth R. Lang.* 90, 753, 13-B5 (1994)

Acceleration from Field-Aligned Potential Drops. *Gerhard Haerendel.* 90, 765, 13-C5 (1994)

Evidence for Particle Acceleration in a Magnetized White Dwarf from Radio and Gamma-Ray Observations. *O. C. De Jager.* 90, 775, 13-D3 (1994)

Relativistic Particle Acceleration in Plerions. *Jonathan Arons & Marco Tavani.* 90, 797, 13-F1 (1994)

Radio Emission from SNR 1987A. *J. G. Kirk, P. Duffy, & Lewis Ball.* 90, 807, 13-F13 (1994)

The Spectral Turnover of the "Filled-Center" Supernova Remnant 3C 58: Implications for When Acceleration Occurs. *D. A. Green.* 90, 817, 13-G12 (1994)

Unpulsed High-Energy Radiation from the Crab Pulsar and Nebula. *W. M. Cheung & K. S. Cheng.* 90, 827, 14-A11 (1994)

Electrodynamics of Disk-accreting Magnetic Neutron Stars. *M. Coleman Miller, Frederick K. Lamb, & Russell J. Hamilton.* 90, 833, 14-B4 (1994)

Disk-Accreting Magnetic Neutron Stars as High-Energy Particle Accelerators. *Russell J. Hamilton, Frederick K. Lamb, & M. Coleman Miller.* 90, 837, 14-B9 (1994)

Evolution of Supernova Remnants with Cosmic Rays and Radiative Cooling. *E. A. Dorfi.* 90, 841, 14-B14 (1994)

Gamma-Ray Burst Theory: Back to the Drawing Board. *Alice K. Harding.* 90, 863, 14-D13 (1994)

Acceleration Processes for Gamma-Ray Bursts. *Igor G. Mitrofanov.* 90, 869, 14-E7 (1994)

Particle Acceleration in High-Energy Gamma-Ray Sources. *David Eichler.* 90, 877, 14-F3 (1994)

Electron Acceleration in Short-lived Radio Transients. *Lewis Ball.* 90, 889, 14-G4 (1994)

Polarized One-Quantum Annihilation in Strong Magnetic Fields as a Process for Particle Deceleration in Neutron Star Atmospheres. *D. Berg, M. Mentzel, & G. Wunner.* 90, 905, 15-A10 (1994)

High-Energy Gamma-Ray Observations of Active Galaxies. *Carl E. Fichtel.* 90, 917, 15-B12 (1994)

Cosmic-Ray Transport and Acceleration. *Reinhard Schlickeiser.* 90, 929, 15-D1 (1994)

The Origins of High-Energy Cosmic Rays. *W. I. Axford.* 90, 937, 15-D11 (1994)

On the Location of the Acceleration and Emission Sites in Gamma-Ray Blazars. *Charles D. Dermer & Reinhard Schlickeiser.* 90, 945, 15-E7 (1994)

Relativistic Particle Transport in Hot Accretion Disks. *Peter A. Becker, Menas Kafatos, & Michael Maisack.* 90, 949, 15-E13 (1994)

Do Relativistic Electrons either Gain or Lose Energy, outside of Extragalactic Nuclei? *Lawrence Rudnick, Debora M. Katz-Stone, & Martha C. Anderson.* 90, 955, 15-F6 (1994)

Particle Acceleration and Nonthermal Energy Release as an Effect of Magnetoactive Disk Accretion onto Gravitating Center. *N. R. Ikhsanov & L. A. Pustil'nik.* 90, 959, 15-F12 (1994)

Effect of Advected Fields on Accretion Disk Dynamos. *Arun V. Mangalam & K. Subramanian.* 90, 963, 15-G3 (1994)

Bohm Diffusion and Cosmic-Ray–Modified Shocks. *Peter Duffy.* 90, 981, 16-A12 (1994)

The Isotopic Composition of Cosmic-Ray Beryllium and Its Implication for the Cosmic Ray's Age. *A. Lukasiak, P. Ferrando, F. B. McDonald, & W. R. Webber.* 423, 426, 51-D5 (1994)

Green's Formula and Variational Principles for Cosmic-Ray Transport with Application to Rotating and Shearing Flows. *G. M. Webb, J. R. Jokipii, & G. E. Morfill.* 424, 158, 64-A1 (1994)

Focused Interplanetary Transport of $\sim$ 1MeV Solar Energetic Protons through Self-generated Alfvén Waves. *C. K. Ng & D. V. Reames.* 424, 1032, 77-F7 (1994)

On the New Theory of Ultra–High-Energy Gamma-Ray Production in Cygnus X-3. *Abhas Mitra.* 425, 782, 91-E1 (1994)

A New Path for the Electron Bulk Energization in Solar Flares: Fermi Acceleration by Magnetohydrodynamic Turbulence in Reconnection Outflows. *T. N. LaRosa, R. L. Moore, & S. N. Shore.* 425, 856, 92-D8 (1994)

Isolating the Physical Parameters of Synchrotron Sources. *Debora M. Katz-Stone & Lawrence Rudnick.* 426, 116, 97-E2 (1994)

Electron Injection and Acceleration at Nonlinear Shocks: Results of Numerical Simulations. *Amir Levinson.* 426, 327, 100-C1 (1994)

Directivity of 100–500 keV Solar Flare Hard X-Ray Emission. *P. Li, K. Hurley, C. Barat, M. Niel, R. Talon, & V. Kurt.* 426, 758, 107-G10 (1994)

Coherent Pulses in the Diffusive Transport of Charged Particles. *J. Kóta.* 427, 1035, 125-D13 (1994)

Particle Acceleration in an Evolving Active Region by an Ensemble of Shock Waves. *Anastasios Anastasiadis & Loukas Vlahos.* 428, 819, 140-D11 (1994)

Energy Transport by Relativistic Neutrons from the Core of Active Galactic Nuclei. *W. Tkaczyk.* 92, 611, 40-A7 (1994)

Diffusive Shock Acceleration in the Presence of Current Sheets. *J. Kóta & J. R. Jokipii.* 429, 385, 148-G8 (1994)

The Evolution of Cosmic-Ray–mediated Magnetohydrodynamic Shocks: A Two-Fluid Approach. *Byung-Il Jun, David A. Clarke, & Michael L. Norman.* 429, 748, 155-A3 (1994)

New Measurements of Charge-changing Cross Sections in Carbon and Hydrogen Targets above 2 GeV per Nucleon: Evidence for an Energy Dependence That May Strongly Affect Estimates of the Energy Dependence of Cosmic-Ray Diffusion in the Galaxy. *W. R. Webber, W. R. Binns, D. Crary, & M. Westphall.* 429, 764, 155-B9 (1994)

Neutral Cloud Theory of the Jovian Nebula: Anomalous Ionization Effect of Superthermal Electrons. *D. D. Barbosa.* 430, 376, 163-G10 (1994)

Coherent-Phase or Random-Phase Acceleration of Electron Beams in Solar Flares. *Markus J. Aschwanden, Arnold O. Benz, & Maria L. Montello.* 431, 432, 181-D7 (1994)

Acoustic Instability Driven by Cosmic-Ray Streaming. *Mitchell C. Begelman & Ellen G. Zweibel.* 431, 689, 187-B6 (1994)

Stochastic Reacceleration of Cosmic Rays in the Interstellar Medium. *E. S. Seo & V. S. Ptuskin.* 431, 705, 187-C10 (1994)

Stable Space Charge Configurations near the Force-free Surface of Rotating Magnets. *K. O. Thielheim & H. Wolfsteller.* 431, 718, 187-D13 (1994)

Postburst Nebular Emission of Soft Gamma-Ray Repeaters. *Marco Tavani.* 431, L83, 191-D10 (1994)

Radiative Acceleration in Outflows from Broad Absorption-Line Quasi-stellar Objects. II. Wind Models. *Nahum Arav, Zhi-Yun Li, & Mitchell C. Begelman.* 432, 62, 194-A6 (1994)

Spectral Properties of Blast-Wave Models of Gamma-Ray Burst Sources. *P. Mészáros, M. J. Rees, & H. Papathanassiou.* 432, 181, 195-D10 (1994)

Cosmic Bullets as Particle Accelerators and Radio Sources. *T. W. Jones, Hyesung Kang, & I. L. Tregillis.* 432, 194, 195-E11 (1994)

Low-Frequency Spectra of Gamma-Ray Bursts. *J. I. Katz.* 432, L107, 206-G11 (1994)

Gravitomagnetics in Stationary Media. *E. Woyk.* 433, 357, 212-F11 (1994)

Dynamo Generation of Magnetic Fields in Accretion Disks. *Arun V. Mangalam & K. Subramanian.* 434, 509, 234-F10 (1994)

Acceleration Efficiency in Line-driven Flows. *Kenneth G. Gayley & Stanley P. Owocki.* 434, 684, 237-B12 (1994)

Gamma-Ray Emission and Electron Accleration in Solar Flares. *Vahé Petrosian, James M. McTiernan, & Holger Marschhäuser.* 434, 747, 238-B2 (1994)

Structure of Relativistic Shocks in Pulsar Winds: A Model of the Wisps in the Crab Nebula. *Yves A. Gallant & Jonathan Arons.* 435, 230, 246-E4 (1994)

A Thermal/Nonthermal Model for Solar Hard X-Ray Bursts. *Stephen G. Benka & Gordon D. Holman.* 435, 469, 249-G11 (1994)

Galactic Cosmic-Ray Mediation of a Spherical Solar Wind Flow. I. The Steady State Cold Gas Hydrodynamical Approximation. *J. A. le Roux & V. S. Ptuskin.* 438, 427, 7-D2 (1995)

Gamma-Ray Lines from the Orion Complex. *Reuven Ramaty, Benzion Kozlovsky, & Richard E. Lingenfelter.* 438, L21, 10-A1 (1995)

Physics of Magnetospheric Emission in Soft Gamma-Ray Repeaters. *Fulvio Melia & Marco Fatuzzo.* 438, 904, 16-E7 (1995)

The Wall of Reconnection-driven Magnetohydrodynamic Turbulence in a Large Solar Flare. *R. L. Moore, T. N. LaRosa, & L. E. Orwig.* 438, 985, 17-F6 (1995)

On Purported Observations of Partially Ionized Galactic Cosmic Rays. *A. J. Tylka, P. R. Boberg, J. H. Adams, Jr., T. Kleis, & R. Beaujean.* 438, L83, 19-G1 (1995)

Sequences of Correlated Hard X-Ray and Type III Bursts during Solar Flares. *Markus J. Aschwanden, Maria L. Montello, Brian R. Dennis, & Arnold O. Benz.* 440, 394, 46-E14 (1995)

Pair Cascades in Extragalactic Jets. I. Gamma Rays. *R. D. Blandford & A. Levinson.* 441, 79, 60-D11 (1995)

In Search of a Source for the 320 EeV Fly's Eye Cosmic Ray. *Jerome W. Elbert & Paul Sommers.* 441, 151, 61-D9 (1995)

Propagation of Galactic Cosmic Rays under Diffusive Reacceleration. *U. Heinbach & M. Simon.* 441, 209, 62-C4 (1995)

Heating and Ionization of Stellar Chromospheres by Nonthermal Proton Beams: Implications for Impulsive Phase, Redshifted Lyman-α Radiation in Stellar Flares. *Jeffrey W. Brosius, Richard D. Robinson, & Stephen P. Maran.* 441, 385, 64-E13 (1995)

Time-dependent Simulation of Oblique MHD Cosmic-Ray Shocks Using the Two-Fluid Model. *Adam Frank, T. W. Jones, & Dongsu Ryu.* 441, 629, 70-F11 (1995)

Theoretical Overview and Modeling of the Sodium and Potassium Atmospheres of Mercury. *William H. Smyth & M. L. Marconi.* 441, 839, 73-E12 (1995)

Energetic Proton Heating of Gas in the Core of the Perseus Cluster. *Yoel Rephaeli & Joseph Silk.* 442, 91, 78-D13 (1995)

Contact and Pressure Balance Structures in Two-Fluid Cosmic-Ray Hydrodynamics. *G. M. Webb, M. Brio, G. P. Zank, & T. Story.* 442, 822, 91-E2 (1995)

The Simulation of Complete 11 and 22 Year Modulation Cycles for Cosmic Rays in the Heliosphere Using a Drift Model with Global Merged Interaction Regions. *J. A. le Roux & M. S. Potgieter.* 442, 847, 91-G3 (1995)

Effect of Adiabatic Deceleration on the Focused Transport of Solar Cosmic Rays. *D. Ruffolo.* 442, 861, 92-A12 (1995)

Charge State of Anomalous Cosmic-Ray Nitrogen, Oxygen, and Neon: *SAMPEX* Observations. *B. Klecker, M. C. McNab, J. B. Blake, D. C. Hamilton, D. Hovestadt, H. Kästle, M. D. Looper, G. M. Mason, J. E. Mazur, & M. Scholer.* 442, L69, 94-F9 (1995)

A Unified Picture for High-Energy Emission in Spin-powered Pulsars. *T. Kamae & Y. Sekimoto.* 443, 780, 108-E7 (1995)

Directivity and Its Energy Dependence in Solar Flare Energetic Emission. *Peng Li.* 443, 855, 109-F1 (1995)

Parameterization of Spectral Distributions for Pion and Kaon Production in Proton-Proton Collisions. *John P. Schneider, John W. Norbury, & Frank A. Cucinotta.* 97, 571, 20-A1 (1995)

The Mean Ionic Charge State of Solar Energetic Fe Ions above 200 MeV per Nucleon. *A. J. Tylka, P. R. Boberg, J. H. Adams, Jr., L. P. Beahm, W. F. Dietrich, & T. Kleis.* 444, L109, 131-B1 (1995)

The Relativistic ISM in M33: Role of the Supernova Remnants. *N. Duric, S. M. Gordon, W. M. Goss, F. Viallefond, & C. Lacey.* 445, 173, 134-G8 (1995)

Three Low-Energy Particle Events: Modeling the Influence of the Parent Interplanetary Shock. *A. M. Heras, B. Sanahuja, D. Lario, Z. K. Smith, T. Detman, & M. Dryer.* 445, 497, 139-D4 (1995)

Magnetic Compton-induced Pair Cascade Model for Gamma-Ray Pulsars. *Steven J. Sturner, Charles D. Dermer, & F. Curtis Michel.* 445, 736, 145-D1 (1995)

Electron Energy Losses near Pulsar Polar Caps. *Steven J. Sturner.* 446, 292, 157-C4 (1995)

Alfvén Turbulence Dissipation in Proton Injection and Acceleration in Solar Flares. *Dean F. Smith & James A. Miller.* 446, 390, 158-E12 (1995)

Derivation of Analytical Particle Spectra from the Solution of the Transport Equation by the WKBJ Method. *A. Gallegos-Cruz & J. Pérez-Peraza.* 446, 400, 158-F11 (1995)

Energy Release and Dissipation during Giant Solar Flares. *S. R. Kane, K. Hurley, J. M. McTiernan, M. Sommer, M. Boer, & M. Niel.* 446, L47, 161-A1 (1995)

Fokker-Planck Equations of Stochastic Acceleration: Green's Functions and Boundary Conditions. *Brian T. Park & Vahé Petrosian.* 446, 699, 165-F10 (1995)

Pioneer 10 and *Voyager 1* Observations of Anomalous Cosmic-Ray Hydrogen in the Outer Heliosphere. *Frank B. McDonald, Andrew Lukasiak, & William R. Webber.* 446, L101, 171-D1 (1995)

Quantum-limited Synchrotron Radiation in Inhomogeneous Magnetic Fields. *Richard Lieu & W. Ian Axford.* 447, 302, 176-E8 (1995)

A Model for the Radio Emission from SNR 1987A. *P. Duffy, Lewis Ball, & J. G. Kirk.* 447, 364, 177-D7 (1995)

Diffusive Shock Acceleration Simulations: Comparison with Particle Methods and Bow Shock Measurements. *Hyesung Kang & T. W. Jones.* 447, 944, 188-G13 (1995)

Evidence for Shock Acceleration in the Binary Pulsar System PSR B1259−63. *J. E. Grove, M. Tavani, W. R. Purcell, W. N. Johnson, J. D. Kurfess, M. S. Strickman, & J. Arons.* 447, L113, 191-B1 (1995)

Heavy Ion Acceleration beyond 10 MeV per Nucleon in Impulsive Solar Flares. *J. E. Mazur, G. M. Mason, & B. Klecker.* 448, L53, 200-B11 (1995)

Possible Association of Ultra–High-Energy Cosmic-Ray Events with Strong Gamma-Ray Bursts. *Mordehai Milgrom & Vladimir Usov.* 449, L37, 216-E10 (1995)

Solar ^{3}He-rich Events and Ion Acceleration in Two Stages. *T. X. Zhang.* 449, 916, 225-D6 (1995)

A Simple Type of Magnetically Driven Jets: An Astrophysical Plasma Gun. *J. Contopoulos.* 450, 616, 239-C12 (1995)

DC Electric Field Acceleration of Ions in Solar Flares. *Gordon D. Holman.* 452, 451, 268-C6 (1995)

Cosmological Origin for Cosmic Rays above 10^{19} eV. *Eli Waxman.* 452, L1, 269-C1 (1995)

Stochastic Proton Acceleration by Cascading Alfvén Waves in Impulsive Solar Flares. *James A. Miller & D. Aaron Roberts.* 452, 912, 277-C7 (1995)

Multidimensional Green's Functions and the Statistics of Diffusive Shock Acceleration. *G. M. Webb, G. P. Zank, C. M. Ko, & D. J. Donohue.* 453, 178, 283-F1 (1995)

Acceleration Rates and Injection Efficiencies in Oblique Shocks. *Donald C. Ellison, Matthew G. Baring, & Frank C. Jones.* 453, 873, 296-A7 (1995)

The Acceleration of Ultra–High-Energy Cosmic Rays in Gamma-Ray Bursts. *Mario Vietri.* 453, 883, 296-B6 (1995)

Pitch Angle Diffusion Coefficient in an Extended Quasi-linear Theory. *C. K. Ng & D. V. Reames.* 453, 890, 296-C3 (1995)

The Origin of Cosmic Rays above $10^{18.5}$ eV. *Colin A. Norman, Donald B. Melrose, & Abraham Achterberg.* 454, 60, 300-A12 (1995)

Comparison of Three Numerical Treatments of Charged Particle Transport. *J. A. Earl, D. Ruffolo, H. L. Pauls, & J. W. Bieber.* 454, 749, 312-A13 (1995)

Does the Crab Have a Shell? *D. A. Frail, N. E. Kassim, T. J. Cornwell, & W. M. Goss.* 454, L129, 316-C8 (1995)

Solar Electron Beams Detected in Hard X-Rays and Radio Waves. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Richard A. Schwartz.* 455, 347, 322-G12 (1995)

Solar Atmopheric Abundances and Energy Content in Flare Accelerated Ions from Gamma-Ray Spectroscopy. *Reuven Ramaty, Natalie Mandzhavidze, Benzion Kozlovsky, & Ronald J. Murphy.* 455, L193, 335-A4 (1995)

ACCRETION

Nonaxisymmetric Instabilities in Rotating Shear Flows: Internal Gravity Modes in Stratified Media and Analogies with Plane Flows. *P. Ghosh & M. A. Abramowicz.* 366, 221, 3-F13 (1991)

Structure of Thermal Pair Clouds around Gamma-Ray–emitting Black Holes. *Edison P. Liang.* 367, 470, 19-C1 (1991)

Two-Temperature Accretion Disks with Winds in a Fluid Approximation. *Masaaki Kusunose.* 370, 505, 54-F1 (1991)

Does Accretion Cease When a Star Approaches Breakup? *Robert Popham & Ramesh Narayan.* 370, 604, 56-A6 (1991)

The Effect of Anisotropic Emission from Thick Accretion Disks on the Luminosity Functions of Active Galactic Nuclei. *C. M. Urry, P. Marziani, & M. Calvani.* 371, 510, 67-G7 (1991)

A Recipe for Making Hot Accretion Disks. *Gunnlaugur Björnsson & Roland Svensson.* 371, L69, 73-C10 (1991)

Evolution of the Luminosity Function of Quasar Accretion Disks. *David M. Caditz, Vahé Petrosian, & Amri Wandel.* 372, L63, 85-C1 (1991)

Hard X-Ray Spectra from Gap Accretion onto Neutron Stars. *Włodzimierz Kluźniak & James R. Wilson.* 372, L87, 85-E1 (1991)

Diffusion and Mixing in Classical Nova Precursors. *Icko Iben, Jr., Masayuki Y. Fujimoto, & Jim MacDonald.* 375, L27, 117-D1 (1991)

Line Profiles from a Disk around a Rotating Black Hole. *Ari Laor.* 376, 90, 126-B1 (1991)

A Powerful Local Shear Instability in Weakly Magnetized Disks. I. Linear Analysis. *Steven A. Balbus & John F. Hawley.* 376, 214, 127-E11 (1991)

Luminosity Limit for Alpha-Viscosity Accretion Disks. *Edison P. Liang & Amri Wandel.* 376, 746, 135-E8 (1991)

Nonlinear Instability of the Accretion Line. *Noam Soker.* 376, 750, 135-F1 (1991)

Isothermal, Compton-heated Coronae above Accretion Disks. *Eve C. Ostriker, Christopher F. McKee, & Richard I. Klein.* 377, 593, 147-B3 (1991)

Turbulence, Convection, and Stability in Accretion Disks. *César Meirelles Filho.* 378, 266, 154-C4 (1991)

The Visual Wavelength Continua of Quasars: A Reexamination. *W. A. Stein.* 379, 107, 164-C11 (1991)

Modeling an Accretion Disk in NGC 985. *R. M. Stanga, J. M. Rodríguez Espinosa, & F. Mannucci.* 379, 592, 172-A9 (1991)

Hybrid Accretion Disks in Active Galactic Nuclei. I. Structure and Spectra. *Amri Wandel & Edison P. Liang.* 380, 84, 177-B1 (1991)

Pair-Density Transitions in Accretion Disk Coronae. *Masaaki Kusunose & Shin Mineshige.* 381, 490, 196-G1 (1991)

Polarization Properties of Emission Lines from Relativistic Accretion Disks. *Kaiyou Chen & Douglas M. Eardley.* 382, 125, 201-F10 (1991)

IRAS 02366−3101: An Accretion Disk Candidate among Luminous *IRAS* Galaxies. *Luis Colina, Sebastian Lípari, & F. Macchetto.* 382, L63, 211-B7 (1991)

Spherical Accretion onto Black Holes: A Complete Analysis of Stationary Solutions. *Luciano Nobili, Roberto Turolla, & Luca Zampieri.* 383, 250, 215-C9 (1991)

Period Evolution of PSR B1259−63: Evidence for Propeller-Torque Spin-down. *R. N. Manchester, S. Johnston, A. G. Lyne, N. D'Amico, M. Bailes, & L. Nicastro.* 445, L137, 151-F1 (1995)

ACCRETION, ACCRETION DISKS

Accretion Flows near Black Holes Mediated by Radiative Viscosity. *Abraham Loeb & Ari Laor.* 384, 115, 2-D10 (1992)

Thermal Structure of Neutron Stars with Very Low Accretion Rates. *J. L. Zdunik, P. Haensel, B. Paczyński, & J. Miralda-Escudé.* 384, 129, 2-E12 (1992)

Compton Scattering in a Converging Fluid Flow: Spherical Near-critical Accretion onto Neutron Stars. *Apostolos Mastichiadis & Nikolaos D. Kylafis.* 384, 136, 2-F7 (1992)

The Fate of Accreted CNO Elements in Neutron Star Atmospheres: X-Ray Bursts and Gamma-Ray Lines. *Lars Bildsten, Edwin E. Salpeter, & Ira Wasserman.* 384, 143, 2-G1 (1992)

The Formation of Coronal Regions in Accretion Disks. *Stephen D. Murray & Douglas N. C. Lin.* 384, 177, 3-B9 (1992)

Disk Instability and Outburst Properties of the Intermediate Polar GK Persei. *Soon-Wook Kim, J. Craig Wheeler, & Shin Mineshige.* 384, 269, 4-C7 (1992)

The Effects of Radiation Drag on Radial, Relativistic Hydromagnetic Winds. *Zhi-yun Li, Mitchell C. Begelman, & Tzihong Chiueh.* 384, 567, 9-C1 (1992)

On Mass-Transfer Rates in Classical Nova Precursors. *Icko Iben, Jr., Masayuki Y. Fujimoto, & Jim MacDonald.* 384, 580, 9-D1 (1992)

Spherically Symmetric, Polytropic Flow. *T. Theuns & M. David.* 384, 587, 9-D9 (1992)

Accretion Disks in Active Galactic Nuclei: Vertically Averaged Models. *John K. Cannizzo & Christine M. Reiff.* 385, 87, 13-B1 (1992)

Accretion Disks in Active Galactic Nuclei: Vertically Explicit Models. *John K. Cannizzo.* 385, 94, 13-B9 (1992)

Eclipse Studies of the Dwarf Nova HT Cassiopeiae. II. White Dwarf and Accretion Disk. *Janet H. Wood, Keith Horne, & Stephane Vennes.* 385, 294, 15-E6 (1992)

Radiation Dynamics in X-Ray Binaries. I. Type 1 Bursts. *Mark A. Walker.* 385, 642, 21-B1 (1992)

Radiation Dynamics in X-Ray Binaries. II. Type 2 Bursts. *Mark A. Walker.* 385, 651, 21-B12 (1992)

Radiation Dynamics in X-Ray Binaries. III. Extremely Compact Objects. *Mark A. Walker.* 385, 661, 21-C10 (1992)

Classical Nova Models with Accretion Heating at Accretion Rates of 10^{-9} and 10^{-10} $M\odot$ per Year. *Dina Prialnik & Attay Kovetz.* 385, 665, 21-D1 (1992)

Infrared Observations and Thermal Models of the β Pictoris Disk. *D. E. Backman, F. C. Gillett, & F. C. Witteborn.* 385, 670, 21-D8 (1992)

The Presence of an Accretion Disk in the Eclipsing Binary System Nova Herculis 1991 Three Weeks after Outburst. *Elia M. Leibowitz, Haim Mendelson, Ezra Mashal, Dina Prialnik, & Waltraut C. Seitter.* 385, L49, 23-D1 (1992)

Magnetic Interchange Instability of Accretion Disks. *M. Kaisig, T. Tajima, & R. V. E. Lovelace.* 386, 83, 25-B7 (1992)

Balmer Line Profiles for Infalling T Tauri Envelopes. *Nuria Calvet & Lee Hartmann.* 386, 239, 27-B8 (1992)

The Secondary Outburst Maximum of T Coronae Borealis: Implications for the Physics of Accretion Disks. *John K. Cannizzo & Scott J. Kenyon.* 386, L17, 29-C7 (1992)

Accretion in a Kerr Black Hole Magnetosphere: Energy and Angular Momentum Transport between the Magnetic Field and the Matter. *Kouichi Hirotani, Masaaki Takahashi, Shin-ya Nitta, & Akira Tomimatsu.* 386, 455, 31-A11 (1992)

On the Power Spectra of the Wind-fed X-Ray Binary Pulsar GX 301−2. *Mauro Orlandini & G. E. Morfill.* 386, 703, 34-A9 (1992)

Consequences of the Star-Stream Interaction in Algol. *Mercedes T. Richards.* 387, 329, 41-A12 (1992)

Standing Shocks in Accretion Disks and the Spectra of Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 387, L21, 43-C4 (1992)

10 AU Scale Halo Structure around DG Tauri. *Wen Ping Chen, R. R. Howell, M. Simon, & J. A. Benson.* 387, L43, 43-E8 (1992)

Proton Acceleration in Neutron Star Magnetospheres. *I. A. Smith, J. I. Katz, & P. H. Diamond.* 388, 148, 50-G7 (1992)

Gamma-Ray Bursts and Cosmic Rays from Accretion-induced Collapse. *Arnon Dar, Ben Zion Kozlowski, Shmuel Nussinov, & Reuven Ramaty.* 388, 164, 51-A11 (1992)

Convective Instability in Differentially Rotating Disks. *Dongsu Ryu & Jeremy Goodman.* 388, 438, 55-F12 (1992)

The Stability of Accretion Tori. IV. Fission and Fragmentation of Slender, Self-gravitating Annuli. *Dimitris M. Christodoulou & Ramesh Narayan.* 388, 451, 56-A1 (1992)

Diffusion and Mixing in Accreting White Dwarfs. *Icko Iben, Jr., Masayuki Y. Fujimoto, & Jim MacDonald.* 388, 521, 56-F11 (1992)

Energy Dependence of Normal Branch Quasi-periodic Intensity Oscillations in Low-Mass X-Ray Binaries. *Guy S. Miller & Frederick K. Lamb.* 388, 541, 57-A5 (1992)

CNO Destruction by Spallation and Type I X-Ray Bursts. *Jason C. Tillett & James MacDonald.* 388, 555, 57-B7 (1992)

Self-gravitating Thin Disks around Rapidly Rotating Black Holes. *Antonio Lanza.* 389, 141, 61-G1 (1992)

On the Pulsations of Relativistic Accretion Disks and Rotating Stars: The Cowling Approximation. *James R. Ipser & Lee Lindblom.* 389, 392, 64-G1 (1992)

H0538+608 (= BY Camelopardalis): An Asynchronously Rotating AM Herculis Binary? *A. Silber, H. V. Bradt, M. Ishida, T. Ohashi, & R. A. Remillard.* 389, 704, 70-B7 (1992)

Spectral Evolution of Accretion Disks of Dwarf Novae. III. Outburst Cycle of SS Cygni. *F. H. Cheng & D. N. C. Lin.* 389, 714, 70-C5 (1992)

Intrinsically Asymmetric Astrophysical Jets. *J. C. L. Wang, M. E. Sulkanen, & R. V. E. Lovelace.* 390, 46, 74-F1 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. II. Results and a Length Scale for Protostellar Cores. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 144, 75-G1 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. III. A Further Parameter Study and Magnetically Controlled Accretion Rate. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 166, 76-A11 (1992)

Spiral Shocks and Subday Variability in SS 433. *Sandip K. Chakrabarti & T. Matsuda.* 390, 639, 83-C1 (1992)

What Drives the Mass Transfer in Cygnus X-3? *Abhas Mitra.* 390, 645, 83-C8 (1992)

Evidence for an Ionized Reprocessor in NGC 6814. *T. Jane Turner, Christine Done, Richard Mushotzky, Greg Madejski, & Hideyo Kunieda.* 391, 102, 87-C4 (1992)

X-Ray Emission-Line Spectra of Photoionized Plasmas: Density Sensitivity of the Fe L-Shell Series. *Duane A. Liedahl, Steven M. Kahn, Albert L. Osterheld, & William H. Goldstein.* 391, 306, 89-F11 (1992)

Disk Instability and the Time-dependent X-Ray Emission from the Intermediate Polar GK Persei. *Insu Yi, Soon-Wook Kim, Ethan T. Vishniac, & J. Craig Wheeler.* 391, L25, 92-B6 (1992)

On the Interpretation of the Spectrum of FU Orionis. *P. P. Petrov & G. H. Herbig.* 392, 209, 103-E1 (1992)

Turbulent Convection with Overshooting: Reynolds Stress Approach. *V. M. Canuto.* 392, 218, 103-F1 (1992)

Geometrically Thin, Hot Accretion Disks: Topology of the Thermal Equilibrium Curves. *Masaaki Kusunose & Shin Mineshige.* 392, 653, 110-D1 (1992)

Is the Oort A-Value a Universal Growth Rate Limit for Accretion Disk Shear Instabilities? *Steven A. Balbus & John F. Hawley.* 392, 662, 110-D12 (1992)

The Evolution of Intermediate-Mass Protostars. II. Influence of the Accretion Flow. *Francesco Palla & Steven W. Stahler.* 392, 667, 110-E5 (1992)

Minimum Mass for D and H Burning during Slow Accretion. *E. E. Salpeter.* 393, 258, 117-C12 (1992)

Diskoseismology: Probing Accretion Disks. II. G-Modes, Gravitational Radiation Reaction, and Viscosity. *Michael A. Nowak & Robert V. Wagoner.* 393, 697, 124-E1 (1992)

Swinging Spiral Waves and Alfvén Turbulence in Accretion Disks. *M. Tagger, R. Pellat, & F. V. Coroniti.* 393, 708, 124-F1 (1992)

Eclipse Maps of the Accretion Disk in the Classical Nova V Persei. *Janet H. Wood, Timothy M. C. Abbott, & Allen W. Shafter.* 393, 729, 124-G10 (1992)

Tidal Disruption of a Star by a Massive Disk (The Axisymmetric Roche Problem). *John W. Woodward, Srivaths Sankaran, & Joel E. Tohline.* 394, 248, 131-B1 (1992)

Supersonic Infall and Causality in Accretion Disk Boundary Layers. *Robert Popham & Ramesh Narayan.* 394, 255, 131-B10 (1992)

A Flux-limited Model of Particle Diffusion and Viscosity. *Ramesh Narayan.* 394, 261, 131-C3 (1992)

The Role of the Dwarf Nova Period Distribution in Understanding the Evolution of Cataclysmic Variables. *Allen W. Shafter.* 394, 268, 131-C12 (1992)

Column Accretion with Radiation Drag and the Two-Branch Spectrum of the Low-Mass X-Ray Binary GX 5−1. *J. H. You, T. Lu, C. Y. Wei, & T. G. Wang.* 394, 283, 131-E1 (1992)

Hot Pair-dominated Accretion Disks. *Gunnlaugur Björnsson & Roland Svensson.* 394, 500, 135-E9 (1992)

Prevention of Accretion onto White Dwarfs by Stellar Winds. *James MacDonald.* 394, 619, 137-B8 (1992)

The Binary System L151−81A/B: A Potential Test of Accretion Theory. *M. A. Wood & T. D. Oswalt.* 394, L53, 139-D1 (1992)

VLBI Observations of the X-Ray Binary LS I +61°303. *A. R. Taylor, H. T. Kenny, R. E. Spencer, & A. Tzioumis.* 395, 268, 143-D11 (1992)

An Ionized Accretion Disk in Cygnus X-1. *C. Done, J. S. Mulchaey, R. F. Mushotzky, & K. A. Arnaud.* 395, 275, 143-E5 (1992)

Linear Stability Analysis of Spherical Accretion Flows onto Compact Objects. *John C. Houck & Roger A. Chevalier.* 395, 592, 150-D1 (1992)

Gamma-Ray Bursts as the Death Throes of Massive Binary Stars. *Ramesh Narayan, Bohdan Paczyński, & Tsvi Piran.* 395, L83, 153-G10 (1992)

A Determination of the Mass of Sagittarius A* from Its Radio Spectral and Source Size Measurements. *Fulvio Melia, J. R. Jokipii, & Ajay Narayanan.* 395, L87, 154-A1 (1992)

Radiative-hydrodynamical Simulations of X-Ray Burst–induced Accretion Disk Coronae. *Fulvio Melia, Gregory J. Zylstra, & Bruce Fryxell.* 396, L27, 160-E8 (1992)

Dynamical Stability of Two-dimensional Accretion Flows: An Analytic Study. *Omri Gat & Mario Livio.* 396, 542, 164-C1 (1992)

Microlensed Light Curves for Thin Accretion Disks around Schwarzschild and Kerr Black Holes. *M. Jaroszyński, J. Wambsganss, & B. Paczyński.* 396, L65, 167-A1 (1992)

Properties of Quasi-periodic Oscillations in Accreting Magnetic White Dwarfs. *Kinwah Wu, G. Chanmugam, & G. Shaviv.* 397, 232, 170-G6 (1992)

Optical Spectroscopy of Z Canis Majoris, V1057 Cygni, and FU Orionis: Accretion Disks and Signatures of Disk Winds. *Alan D. Welty, Stephen E. Strom, Suzan Edwards, Scott J. Kenyon, & Lee W. Hartmann.* 397, 260, 171-B11 (1992)

Two-dimensional Viscous Accretion Disk Models. I. On Meridional Circulations in Radiative Regions. *W. Kley & D. N. C. Lin.* 397, 600, 178-D13 (1992)

Herbig Ae/Be Stars: Intermediate-Mass Stars Surrounded by Massive Circumstellar Accretion Disks. *Lynne A. Hillenbrand, Stephen E. Strom, Frederick J. Vrba, & Jocelyn Keene.* 397, 613, 178-F1 (1992)

An Interpretation of the Multipeaked Structure in X-Ray Bursts. *Fulvio Melia & Gregory J. Zylstra.* 398, L53, 188-A1 (1992)

Tidally Driven Inclination Instability in Keplerian Disks. *Stephen H. Lubow.* 398, 525, 190-F3 (1992)

Local Magnetohydrodynamic Instabilities and the Wave-driven Dynamo in Accretion Disks. *Ethan T. Vishniac & Patrick Diamond.* 398, 561, 191-B5 (1992)

^{26}Al and Time Scales of the Solar Nebula. *Kurt Liffman.* 398, L111, 194-F1 (1992)

Near-resonant Excitation and Propagation of Eccentric Density Waves by External Forcing. *Eve C. Ostriker, Frank H. Shu, & Fred C. Adams.* 399, 192, 197-E13 (1992)

On the Evolution of Slowly Accreting Neutron Stars. *O. M. Blaes, R. D. Blandford, P. Madau, & L. Yan.* 399, 634, 205-G3 (1992)

Cool Mass-losing Boundary Layers of T Tauri Accretion Disks. *Claude Bertout & Oded Regev.* 399, L163, 208-E1 (1992)

Accretion Disk Self-Eclipse: X-Ray Light Curve and Emission Line. *G. Bao & Z. Stuchlik.* 400, 163, 211-A1 (1992)

Importance of Synchrotron Cooling in Self-consistent Spherical Accretion Models. *A. Mason & R. Turolla.* 400, 170, 211-A10 (1992)

A Powerful Local Shear Instability in Weakly Magnetized Disks. III. Long-Term Evolution in a Shearing Sheet. *John F. Hawley & Steven A. Balbus.* 400, 595, 217-F12 (1992)

A Powerful Local Shear Instability in Weakly Magnetized Disks. IV. Nonaxisymmetric Perturbations. *Steven A. Balbus & John F. Hawley.* 400, 610, 218-A1 (1992)

Dynamics of Eccentric Disks with Application to Superhump Binaries. *Stephen H. Lubow.* 401, 317, 225-A1 (1992)

AE Aquarii: An Emitter of Pulsed TeV Gamma Rays Resembling Optical Emission during Flares. *P. J. Meintjes, B. C. Raubenheimer, O. C. de Jager, C. Brink, H. I. Nel, A. R. North, G. van Urk, & B. Visser.* 401, 325, 225-A11 (1992)

A Binary Origin for FU Orionis Stars. *Ian Bonnell & Pierre Bastien.* 401, L31, 227-E1 (1992)

High-Energy Particle Acceleration by Explosive Electromagnetic Interaction in an Accretion Disk. *C. A. Haswell, T. Tajima, & J.-I. Sakai.* 401, 495, 228-G5 (1992)

General Relativistic Structure of Star-Toroid Systems. *Shogo Nishida, Yoshiharu Eriguchi, & Antonio Lanza.* 401, 618, 230-C1 (1992)

A Search for Circular Polarization in Cataclysmic Variables. *H. S. Stockman, Gary D. Schmidt, G. Berriman, James Liebert, R. L. Moore, & D. T. Wickramasinghe.* 401, 628, 230-C13 (1992)

On the Long-Term Behavior of SS Cygni. *John K. Cannizzo & Janet A. Mattei.* 401, 642, 230-E1 (1992)

Periodic Photometric Variability of the Black Hole Binary V404 Cygni. *R. Mark Wagner, T. J. Kreidl, S. B. Howell, & S. G. Starrfield.* 401, L97, 233-C13 (1992)

An Instability Associated with a Magnetosphere-Disk Interaction. *H. C. Spruit & Ronald E. Taam.* 402, 593, 10-A5 (1993)

Model Scattering Envelopes of Young Stellar Objects. II. Infalling Envelopes. *Barbara A. Whitney & Lee Hartmann.* 402, 605, 10-B5 (1993)

Mass Loss from Pre–Main-Sequence Accretion Disks. I. The Accelerating Wind of FU Orionis. *Nuria Calvet, Lee Hartmann, & Scott J. Kenyon.* 402, 623, 10-D1 (1993)

Radiation from Magnetized Accretion Disks in Active Galactic Nuclei. *G. B. Field & R. D. Rogers.* 403, 94, 15-C1 (1993)

Can We Observe Accreting, Isolated Neutron Stars? *Omer Blaes & Piero Madau.* 403, 690, 24-C8 (1993)

An Interpretation of the Narrow Positron Annihilation Feature from X-Ray Nova Muscae 1991. *Wan Chen, Neil Gehrels, & F. H. Cheng.* 403, L71, 27-D7 (1993)

Evolution of the Luminosity-Color Distribution of Quasar Accretion Disks. *David Caditz.* 404, 539, 35-F7 (1993)

Effects of Inclination Angle on the Spectra of X-Ray Binaries. *S. D. Vrtilek, Noam Soker, & J. C. Raymond.* 404, 696, 37-E10 (1993)

Numerical Simulations of Two-dimensional and Three-dimensional Wind Accretion Flows of an Isothermal Gas. *Takanori Ishii, Takuya Matsuda, Eiji Shima, Mario Livio, Ulrich Anzer, & Gerhard Börner.* 404, 706, 37-F9 (1993)

Orientation Effects in QSO Spectra. *Paul J. Francis.* 405, 119, 42-D13 (1993)

Soft Variability and Reflection Features in the X-Ray Spectrum of the Seyfert Galaxy NGC 5506. *I. A. Bond, M. Matsuoka, & M. Yamauchi.* 405, 179, 43-C7 (1993)

Gamma-Ray Bursts from Stellar Mass Accretion Disks around Black Holes. *S. E. Woosley.* 405, 273, 44-E1 (1993)

Multiple Hydrogen Flashes on Accreting Low-Mass White Dwarfs: Novae and DAO Stars. *Michael M. Shara, Dina Prialnik, & Attay Kovetz.* 406, 220, 57-G1 (1993)

Accretion Disk Models for Optical and Ultraviolet Microvariability in Active Galactic Nuclei. *Arun V. Mangalam & Paul J. Wiita.* 406, 420, 63-A1 (1993)

A Local Instability of Tidally Distorted Accretion Disks. *Jeremy Goodman.* 406, 596, 65-C8 (1993)

The Spectrum and Variability of Radio Emission from AE Aquarii. *Meil Abada-Simon, Alain Lecacheux, Tim S. Bastian, Jay A. Bookbinder, & George A. Dulk.* 406, 692, 66-D12 (1993)

The Excess Infrared Emission of Herbig Ae/Be Stars: Disks or Envelopes? *Lee Hartmann, Scott J. Kenyon, & Nuria Calvet.* 407, 219, 71-F11 (1993)

Turbulent Magnetohydrodynamic Dynamo for Accretion Disks Using the Cross-Helicity Effect. *Akira Yoshizawa & Nobumitsu Yokoi.* 407, 540, 77-C8 (1993)

Origin and Radio Pulse Properties of Millisecond Pulsars. *Kaiyou Chen & Malvin Ruderman.* 408, 179, 85-C12 (1993)

Encounters with Protostellar Disks. I. Disk Tilt and the Nonzero Solar Obliquity. *Clayton H. Heller.* 408, 337, 87-C11 (1993)

The Secondary Maxima in Black Hole X-Ray Nova Light Curves: Clues toward a Complete Picture. *Wan Chen, Mario Livio, & Neil Gehrels.* 408, L5, 88-E8 (1993)

Helium Destruction and Gamma-Ray Line Emission in Accreting Neutron Stars. *Lars Bildsten, Edwin E. Salpeter, & Ira Wasserman.* 408, 615, 92-G9 (1993)

Wave Propagation in Accretion Disks: Axisymmetric Case. *S. H. Lubow & J. E. Pringle.* 409, 360, 101-E3 (1993)

Winds from Accretion Disks: Ultraviolet Line Formation in Cataclysmic Variables. *Isaac Shlosman & Peter Vitello.* 409, 372, 101-F1 (1993)

The 1991 V603 Aquilae Campaign: Superhumps and *P*-Dots. *Joseph Patterson, Gino Thomas, David R. Skillman, & Marcos Diaz.* 86, 235, 17-B7 (1993)

A Search for Rapid Variability in the Broad Hα Profiles of Seyfert and Radio Galaxies. *Michael Eracleous & Jules P. Halpern.* 409, 584, 106-C1 (1993)

Two-dimensional Viscous Accretion Disk Models. II. On Viscous Overstability. *W. Kley, J. C. B. Papaloizou, & D. N. C. Lin.* 409, 739, 108-C6 (1993)

The Origin of Forbidden Line Emission from Young Stellar Objects. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 409, 748, 108-D3 (1993)

Features of the Fluorescent Iron Line from Highly Inclined Disks: Some Possible Examples for NGC 6814. *G. Bao.* 409, L41, 111-C1 (1993)

The Structure of Protostellar Accretion Disks and the Origin of Bipolar Flows. *Mark Wardle & Arieh Königl.* 410, 218, 114-G6 (1993)

A Model of Nonthermal Radiation from Accreting X-Ray Pulsars. *P. P. Leung, K. S. Cheng, & P. C. W. Fung.* 410, 309, 115-G12 (1993)

Wind-driven Angular Momentum Loss in Binary Systems. I. Ballistic Case. *Leigh Brookshaw & Marco Tavani.* 410, 719, 122-F6 (1993)

Ultraviolet Line Diagnostics of Accretion Disk Winds in Cataclysmic Variables. *Peter Vitello & Isaac Shlosman.* 410, 815, 123-G11 (1993)

The Discovery of Variable Polarization over the 13.9 Minute Spin Period of the Intermediate Polar RE 0751+14. *V. Piirola, P. Hakala, & G. V. Coyne, S.J.* 410, L107, 126-C3 (1993)

Statistical Evidence for Accretion Disks in Active Galactic Nuclei. *David Caditz.* 411, 103, 128-C13 (1993)

Hard Apex Transition in Quasi-periodic Oscillators: Closing of the Accretion Gap. *Garrett T. Biehle & Roger D. Blandford.* 411, 302, 131-A8 (1993)

The Optical Light Curve of Nova Herculis 1991 and of Other Classical Novae. *Elia M. Leibowitz.* 411, L29, 134-A1 (1993)

Neutron Star Accretion in a Stellar Envelope. *Roger A. Chevalier.* 411, L33, 134-A7 (1993)

The Inner-Disk and Stellar Properties of the Young Stellar Object WL 16. *John S. Carr, Alan T. Tokunaga, Joan Najita, Frank H. Shu, & Alfred E. Glassgold.* 411, L37, 134-A13 (1993)

Spiral Shocks in Accretion Disks As a Contributor to Variability in Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 411, 602, 137-B6 (1993)

Binary Black Holes in Stationary Orbits and a Test of the Active Galactic Nucleus Paradigm. *Sandip K. Chakrabarti.* 411, 610, 137-C2 (1993)

A Self-consistent Model for the Long-Term Gamma-Ray Spectral Variability of Cygnus X-1. *Fulvio Melia & Ranjeev Misra.* 411, 797, 139-F8 (1993)

A Turbulent Model of Time Variability in X-Ray Binary Pulsars. *Masahiro Hoshino & Toshiaki Takeshima.* 411, L79, 142-D9 (1993)

The Quasi-periodic Oscillations and Very Low Frequency Noise of Scorpius X-1 as Transient Chaos: A Dripping Handrail? *Jeffrey D. Scargle, Thomas Steiman-Cameron, Karl Young, David L. Donoho, James P. Crutchfield, & James Imamura.* 411, L91, 142-E13 (1993)

The Structure and Stability of Transonic Accretion Disks Surrounding Black Holes. *Xingming Chen & Ronald E. Taam.* 412, 254, 145-C4 (1993)

A Model of an X-Ray–illuminated Accretion Disk and Corona. *John C. Raymond.* 412, 267, 145-D6 (1993)

CP Puppis: No Ordinary Old Nova. *James C. White II, R. Kent Honeycutt, & Keith Horne.* 412, 278, 145-E6 (1993)

The Effect of Helium Breakup on Two-Temperature Accretion Disks including Cooling Processes. *Cesar Meirelles Filho.* 412, 288, 145-F5 (1993)

Mass Transfer Rate and Outburst Cycle of SS Cygni. *Alexander Hempelmann & Jürgen Kurths.* 412, L41, 148-E1 (1993)

The Stability of Accretion Tori. V. Unstable Modes and Avoided Crossings in Extended, Self-gravitating Annuli. *Dimitris M. Christodoulou.* 412, 696, 152-D13 (1993)

The Temperature Profile of T Tauri Disks. *Antonella Natta.* 412, 761, 153-C6 (1993)

Infrared CO Emission from Young Stars: High-Resolution Spectroscopy. *C. J. Chandler, J. E. Carlstrom, N. Z. Scoville, W. R. F. Dent, & T. R. Geballe.* 412, L71, 155-D13 (1993)

Successive X-Ray Bursts from Accreting Neutron Stars. *Ronald E. Taam, S. E. Woosley, T. A. Weaver, & D. Q. Lamb.* 413, 324, 160-C8 (1993)

Effect of Radiation Forces on Disk Accretion by Weakly Magnetic Neutron Stars. *M. Coleman Miller & Frederick K. Lamb.* 413, L43, 162-F9 (1993)

X-Ray Spectra from Two-Phase Accretion Disks. *Francesco Haardt & Laura Maraschi.* 413, 507, 162-G3 (1993)

Can Isolated Stellar-Mass Black Holes Explain the Hard X-Ray Sources in the Galactic Center Region? *Sergio Campana & Sandro Mereghetti.* 413, L89, 168-E10 (1993)

A Reprocessing Model for the Ultraviolet and Optical Light from 4U 1820−30. *Jonathan Arons & Ivan R. King.* 413, L121, 169-B4 (1993)

The Contribution of Disks and Envelopes to the Millimeter Continuum Emission from Very Young Low-Mass Stars. *S. Terebey, C. J. Chandler, & P. André.* 414, 759, 180-F6 (1993)

Circumstellar Material in TX Ursae Majoris. *Geary E. Albright & Mercedes T. Richards.* 414, 830, 181-E6 (1993)

Extreme Ultraviolet Explorer Observations of the Magnetic Cataclysmic Variable RE 1938−461. *John K. Warren, John V. Vallerga, Christopher W. Mauche, Koji Mukai, & Oswald H. W. Siegmund.* 414, L69, 185-D2 (1993)

Detection of Accreting Gas toward HD 45677: A Newly Recognized, Herbig Be Proto–Planetary System. *C. A. Grady, K. S. Bjorkman, D. Shepherd, R. E. Schulte-Ladbeck, M. R. Pérez, D. de Winter, & P. S. Thé.* 415, L39, 192-B6 (1993)

Formation of Planets around Pulsars. *M. Banit, M. A. Ruderman, J. Shaham, & J. H. Applegate.* 415, 779, 197-E6 (1993)

Boundary Layers in Pre–Main-Sequence Accretion Disks. *Robert Popham, Ramesh Narayan, Lee Hartmann, & Scott Kenyon.* 415, L127, 200-D9 (1993)

Compton Backscattered Annihilation Radiation and the Mass of Nova Muscae. *Xin-Min Hua & Richard E. Lingenfelter.* 416, L17, 207-C11 (1993)

Structure and Circulation of Self-gravitating Toroids. *Yoshiharu Eriguchi & Ewald Müller.* 416, 666, 211-F6 (1993)

On the Angular Momentum Transport Associated with Convective Eddies in Accretion Disks. *W. Kley, J. C. B. Papaloizou, & D. N. C. Lin.* 416, 679, 211-G7 (1993)

On the Nonaxisymmetric Convective Instabilities in Accretion Disks. *D. N. C. Lin, J. C. B. Papaloizou, & W. Kley.* 416, 689, 212-A4 (1993)

Superhumps in Cataclysmic Binaries. II. PG 0917+342. *David R. Skillman & Joseph Patterson.* 417, 298, 221-B13 (1993)

Evolution of the Solar Nebula. II. Thermal Structure during Nebula Formation. *Alan P. Boss.* 417, 351, 222-A1 (1993)

Smoothed Particle Hydrodynamics Confronts Theory: Formation of Standing Shocks in Accretion Disks and Winds around Black Holes. *Sandip K. Chakrabarti & Diego Molteni.* 417, 671, 227-F7 (1993)

Numerical Simulations of Shock-driven Accretion. *M. Różyczka & H. C. Spruit.* 417, 677, 227-G1 (1993)

Spectrum of the "Invisible" Companion of Z Canis Majoris Revealed in Polarized Light. *Barbara A. Whitney, Geoffrey C. Clayton, Regina E. Schulte-Ladbeck, Nuria Calvet, Lee Hartmann, & Scott J. Kenyon.* 417, 687, 228-A1 (1993)

Turbulent Generation of Trapped Oscillations in Black Hole Accretion Disks. *Michael A. Nowak & Robert V. Wagoner.* 418, 187, 233-D1 (1993)

Nonthermal Cyclotron Emission from Low-Luminosity Accretion onto Magnetic Neutron Stars. *Robert W. Nelson, E. E. Salpeter, & Ira Wasserman.* 418, 874, 243-D12 (1993)

Vertical Structure and Emission Spectrum of an Accretion Disk around a Massive Black Hole. *Toshiya Shimura & Fumio Takahara.* 419, 78, 247-B3 (1993)

Forbidden Line Formation in Hydromagnetic Disk Winds. I. Oblique Shocks. *Rachid Ouyed & Ralph E. Pudritz.* 419, 255, 249-C13 (1993)

The X-Ray Spectrum of Cygnus X-1. *F. E. Marshall, R. F. Mushotzky, R. Petre, & P. J. Serlemitsos.* 419, 301, 250-A2 (1993)

Dynamically Comptonized Spectra from Near-critical Accretion onto Neutron Stars. *Luca Zampieri, Roberto Turolla, & Aldo Treves.* 419, 311, 250-B1 (1993)

The Accretion Disk Limit Cycle Model: Toward an Understanding of the Long-Term Behavior of SS Cygni. *John K. Cannizzo.* 419, 318, 250-B10 (1993)

Formation of a Jet in the Galactic Center Black Hole Candidate 1E 1740.7−2942. *Ranjeev Misra & Fulvio Melia.* 419, L25, 252-D9 (1993)

Tidal Instability of Accretion Disks. *S. H. Lubow, J. E. Pringle, & R. R. Kerswell.* 419, 758, 257-B1 (1993)

The Evolution of Accreting Stars with Turbulent Mixing. *M. Y. Fujimoto.* 419, 768, 257-B13 (1993)

On the Observability of Microsecond Temporal Structure in the Emission from X-Ray Binary Pulsars. *Mauro Orlandini & Elihu Boldt.* 419, 776, 257-C9 (1993)

The Secondary Outburst Maximum of T Coronae Borealis: Hydrodynamic Simulations of the Blob and Accretion Disk. *Maximilian Ruffert, John K. Cannizzo, & Scott J. Kenyon.* 419, 780, 257-D1 (1993)

"Spherical" Disks: Moving toward a Unified Source Model for L1551. *Harold M. Butner, Antonella Natta, & Neal J. Evans II.* 420, 326, 5-A1 (1994)

Dynamics of the Magnetic Shearing Instability and Magnetohydrodynamic Turbulence in Accretion Disks. I. Vertical Magnetic Field. *W. Zhang, P. H. Diamond, & E. T. Vishniac.* 420, 705, 11-F2 (1994)

Local Shear Instabilities in Weakly Ionized, Weakly Magnetized Disks. *Omer M. Blaes & Steven A. Balbus.* 421, 163, 18-A12 (1994)

Disks and Jets in Planetary Nebulae. *Noam Soker & Mario Livio.* 421, 219, 18-F7 (1994)

Evolutionary Sequences of Very Hot, Low-Mass, Accreting White Dwarfs with Application to Symbiotic Variables and Ultrasoft/Supersoft Low-Luminosity X-Ray Sources. *Edward M. Sion & Sumner G. Starrfield.* 421, 261, 19-C1 (1994)

Double-peaked Emission Lines in Active Galactic Nuclei. *Michael Eracleous & Jules P. Halpern.* 90, 1, 1-B1 (1994)

Composition and Radiative Properties of Grains in Molecular Clouds and Accretion Disks. *James B. Pollack, David Hollenbach, Steven Beckwith, Damon P. Simonelli, Ted Roush, & Wesley Fong.* 421, 615, 26-A1 (1994)

Formation, Early Evolution, and Gravitational Stability of Protoplanetary Disks. *Taishi Nakamoto & Yoshitsugu Nakagawa.* 421, 640, 26-C1 (1994)

Dynamics of Binary-Disk Interaction. I. Resonances and Disk Gap Sizes. *Paweł Artymowicz & Stephen H. Lubow.* 421, 651, 26-D1 (1994)

The Vertical Structure and Stability of Accretion Disks Surrounding Black Holes and Neutron Stars. *J. A. Milsom, Xingming Chen, & Ronald E. Taam.* 421, 668, 26-E6 (1994)

Nonlinear Evolution of Tidally Distorted Accretion Disks: Two-dimensional Simulations. *Dongsu Ryu & Jeremy Goodman.* 422, 269, 33-D10 (1994)

On High Mass Accretion Rates in Magnetized Column Accretion onto White Dwarfs. *Insu Yi.* 422, 289, 33-F5 (1994)

Hot Accretion Disks with Pairs: Effects of Magnetic Field and Thermal Cyclosynchrotron Radiation. *Masaaki Kusunose & Andrzej A. Zdziarski.* 422, 737, 41-A9 (1994)

Accretion Disk Corona Line Emission from X0614+091. *D. J. Christian, N. E. White, & J. H. Swank.* 422, 791, 41-F6 (1994)

Electrodynamics of Disk-accreting Magnetic Neutron Stars. *M. Coleman Miller, Frederick K. Lamb, & Russell J. Hamilton.* 90, 833, 14-B4 (1994)

Disk-Accreting Magnetic Neutron Stars as High-Energy Particle Accelerators. *Russell J. Hamilton, Frederick K. Lamb, & M. Coleman Miller.* 90, 837, 14-B9 (1994)

Relativistic Particle Transport in Hot Accretion Disks. *Peter A. Becker, Menas Kafatos, & Michael Maisack.* 90, 949, 15-E13 (1994)

Particle Acceleration and Nonthermal Energy Release as an Effect of Magnetoactive Disk Accretion onto Gravitating Center. *N. R. Ikhsanov & L. A. Pustil'nik.* 90, 959, 15-F12 (1994)

Effect of Advected Fields on Accretion Disk Dynamos. *Arun V. Mangalam & K. Subramanian.* 90, 963, 15-G3 (1994)

Ram-Pressure Stripping of Gas from Companions and Accretion onto a Spiral Galaxy: A Gaseous Merger. *Yoshiaki Sofue.* 423, 207, 48-F3 (1994)

Predictions of a Population of Cataclysmic Variables in Globular Clusters. *R. Di Stefano & S. Rappaport.* 423, 274, 49-D13 (1994)

Do Quiescent Soft X-Ray Transients Contain Millisecond Radio Pulsars? *L. Stella, S. Campana, M. Colpi, S. Mereghetti, & M. Tavani.* 423, L47, 53-F11 (1994)

Two-Phase Model of Accretion Disks: Pressure Balance. *Masaaki Kusunose & Shin Mineshige.* 423, 600, 56-A1 (1994)

A Numerical Study of Viscous Flows in Axisymmetric α-Accretion Disks. *Michał Różyczka, Peter Bodenheimer, & K. R. Bell.* 423, 736, 57-F10 (1994)

Constraints on Accreting, Isolated Neutron Stars from the *ROSAT* and *EUVE* Surveys. *Piero Madau & Omer Blaes.* 423, 748, 57-G10 (1994)

Forbidden-Line Formation in Hydromagnetic Disk Winds. II. Line Profiles. *Rachid Ouyed & Ralph E. Pudritz.* 423, 753, 58-A3 (1994)

Near-Infrared Observations of the 1E 1740.7−2942 Field at the Galactic Center. *Joseph W. Haller & Fulvio Melia.* 423, L109, 60-F5 (1994)

Recycling Pulsars to Millisecond Periods in General Relativity. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 423, L117, 60-G3 (1994)

Structure of X-Ray Shots of Cygnus X-1 in Its Low State. *Hitoshi Negoro, Sigenori Miyamoto, & Shunji Kitamoto.* 423, L127, 61-A13 (1994)

Magnetic Activity in Thick Accretion Disks and Associated Observable Phenomena. I. Flux Expulsion. *Sandip K. Chakrabarti & Sydney D'Silva.* 424, 138, 63-F7 (1994)

Magnetic Activity in Thick Accretion Disks and Associated Observable Phenomena. II. Flux Storage. *Sydney D'Silva & Sandip K. Chakrabarti.* 424, 149, 63-G6 (1994)

Capture and Induced Disk Accretion in Young Star Encounters. *Eve C. Ostriker.* 424, 292, 65-D14 (1994)

Accretion onto a 1.4 $M_\odot$ White Dwarf: Classical Nova, Recurrent Nova, or Supernova? *Attay Kovetz & Dina Prialnik.* 424, 319, 65-G1 (1994)

Disk-Overflow Accretion in GK Persei? *Coel Hellier & Mario Livio.* 424, L57, 69-G12 (1994)

Two-dimensional Hydrodynamical Simulations of Wind-compressed Disks around Rapidly Rotating B Stars. *Stanley P. Owocki, Steven R. Cranmer, & John M. Blondin.* 424, 887, 75-G2 (1994)

1H 1752+081: An Eclipsing Cataclysmic Variable with a Small Accretion Disk. *Andrew D. Silber, Ronald A. Remillard, Keith Horne, & Hale V. Bradt.* 424, 955, 76-F3 (1994)

Simulation of Thick Accretion Disks with Standing Shocks by Smoothed Particle Hydrodynamics. *Diego Molteni, Giuseppe Lanzafame, & Sandip K. Chakrabarti.* 425, 161, 82-B13 (1994)

The High-State/Low-State Transition in V794 Aquilae. *R. Kent Honeycutt, John K. Cannizzo, & Jeff W. Robertson.* 425, 835, 92-B9 (1994)

An Upper Limit to the Electrodynamic Power Output from a Thin Accretion Disk around a Black Hole. *Seok Jae Park & Ethan T. Vishniac.* 426, 131, 97-F11 (1994)

HST Eclipse Mapping of Dwarf Nova OY Carinae in Quiescence: An "Fe II Curtain" with Mach $\simeq$ 6 Velocity Dispersion Veils the White Dwarf. *Keith Horne, T. R. Marsh, F. H. Cheng, Ivan Hubeny, & Thierry Lanz.* 426, 294, 99-G1 (1994)

Time-dependent Disk Accretion in X-Ray Nova Muscae 1991. *Shin Mineshige, Akira Hirano, Shunji Kitamoto, Tatsuya T. Yamada, & Jun Fukue.* 426, 308, 100-A3 (1994)

Spherical Accretion onto Neutron Stars Revisited: Are Hot Solutions Possible? *R. Turolla, L. Zampieri, M. Colpi, & A. Treves.* 426, L35, 103-E1 (1994)

An Accreting Black Hole Model for Sagittarius A*. II. A Detailed Study. *Fulvio Melia.* 426, 577, 105-E9 (1994)

Structure of Steady State Accretion Shocks with Several Cooling Functions: Closed Integral-Form Solution. *Kinwah Wu, G. Chanmugan, & G. Shaviv.* 426, 664, 106-F5 (1994)

Magnetospheric Accretion Models for T Tauri Stars. I. Balmer Line Profiles without Rotation. *Lee Hartmann, Robert Hewett, & Nuria Calvet.* 426, 669, 106-F13 (1994)

Three-dimensional Hydrodynamic Bondi-Hoyle Accretion. I. Code Validation and Stationary Accretors. *Maximilian Ruffert.* 427, 342, 114-B7 (1994)

Three-dimensional Hydrodynamic Bondi-Hoyle Accretion. II. Homogeneous Medium at Mach 3 with $\gamma = 5/3$. *Maximilian Ruffert & David Arnett.* 427, 351, 114-C3 (1994)

A General Relativistic Toroid around a Black Hole. *Shogo Nishida & Yoshiharu Eriguchi.* 427, 429, 115-B13 (1994)

Using FU Orionis Outbursts to Constrain Self-regulated Protostellar Disk Models. *K. R. Bell & D. N. C. Lin.* 427, 987, 125-A1 (1994)

Dense Molecular Shocks and Accretion onto Protostellar Disks. *David A. Neufeld & David J. Hollenbach.* 428, 170, 130-C11 (1994)

Advection-dominated Accretion: A Self-similar Solution. *Ramesh Narayan & Insu Yi.* 428, L13, 134-C5 (1994)

Nonthermal Pair Models, Reflection, and X-Ray Spectral Variability of Active Galaxies. *P. Grandi, C. Done, & C. M. Urry.* 428, 599, 137-F5 (1994)

Photoevaporation of Disks around Massive Stars and Application to Ultracompact H II Regions. *David Hollenbach, Doug Johnstone, Susana Lizano, & Frank Shu.* 428, 654, 138-D10 (1994)

Magnetic Braking in Spin Evolution of Magnetized T Tauri Stars. *Insu Yi.* 428, 760, 139-F6 (1994)

Soft Gamma-Ray Repeaters: Black Holes in Giant Molecular Clouds? *Jonathan E. Grindlay.* 92, 465, 38-A8 (1994)

Compton Reflection in Scorpius X-1 and Cygnus X-3? *Michael Maisack, Eckhard Kendziorra, Hongchao Pan, Gerry Skinner, Jakob Englhauser, Claus Reppin, Valeri Efremov, & Rashid Sunyaev.* 92, 473, 38-B7 (1994)

Similarities in Neutron Star and Black Hole Accretion. *M. van der Klis.* 92, 511, 38-F1 (1994)

Multifrequency Emission from Hot Ion Disks. *Michael Maisack, Peter A. Becker, & Menas Kafatos.* 92, 533, 38-G13 (1994)

10 Micron Detection of the Hard X-Ray Transient GRO J0422+32: Free-Free Emission from an X-Ray–driven Accretion Disk Wind? *J. van Paradijs, C. M. Telesco, C. Kouveliotou, & G. J. Fishman.* 429, L19, 150-C10 (1994)

ROSAT Observations of the Black Hole Candidate V404 Cygni in Quiescence. *R. Mark Wagner, S. G. Starrfield, R. M. Hjellming, S. B. Howell, & T. J. Kreidl.* 429, L25, 150-D3 (1994)

A General Class of Self-similar Self-gravitating Fluids. *Ue-Li Pen.* 429, 759, 155-B2 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. I. A Generalized Model. *Frank Shu, Joan Najita, Eve Ostriker, Frank Wilkin, Steven Ruden, & Susana Lizano.* 429, 781, 155-D5 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. II. Formulation of the Dynamical Problem. *Frank H. Shu, Joan Najita, Steven P. Ruden, & Susana Lizano.* 429, 797, 155-E9 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. III. Numerical Solution of the Sub-Alfvénic Region. *Joan R. Najita & Frank H. Shu.* 429, 808, 155-F9 (1994)

Ultraviolet Observations of the Accretion Disk in LMC X-3. *A. P. Cowley, P. C. Schmidtke, J. B. Hutchings, & D. Crampton.* 429, 826, 156-A1 (1994)

Protostellar Collapse in a Self-gravitating Sheet. *Lee Hartmann, Alan Boss, Nuria Calvet, & Barbara Whitney.* 430, L49, 165-G5 (1994)

Helium-accreting Degenerate Dwarfs as Presupernovae and Scenarios for the Ultrasoft X-Ray Sources. *Icko Iben, Jr., & A. V. Tutukov.* 431, 264, 179-D6 (1994)

Emission Lines from X-Ray–heated Accretion Disks in Low-Mass X-Ray Binaries. *Yuan-Kuen Ko & Timothy R. Kallman.* 431, 273, 179-E4 (1994)

The Early Evolution of Protostellar Disks. *Steven W. Stahler, D. G. Korycansky, Maxwell J. Brothers, & Jihad Touma.* 431, 341, 180-C11 (1994)

Causality in Strong Shear Flows. *Ramesh Narayan, Abraham Loeb, & Pawan Kumar.* 431, 359, 180-E4 (1994)

Weak Soft X-Ray Excesses Need Not Result from the High-Frequency Tail of the Optical/Ultraviolet Bump in Active Galactic Nuclei. *Bożena Czerny & Piotr T. Życki.* 431, L5, 182-C7 (1994)

Low-Frequency Quasi-periodic Oscillations in Low-Mass X-Ray Binaries and Galactic Black Hole Candidates. *Xingming Chen & Ronald E. Taam.* 431, 732, 187-F3 (1994)

Merging Neutron Stars. I. Initial Results for Coalescence of Noncorotating Systems. *M. B. Davies, W. Benz, T. Piran, & F. K. Thielemann.* 431, 742, 187-G1 (1994)

Smoothed Particle Hydrodynamics: Physical Viscosity and the Simulation of Accretion Disks. *O. Flebbe, S. Münzel, H. Herold, H. Riffert, & H. Ruder.* 431, 754, 188-A1 (1994)

Secondary Maxima of Black Hole X-Ray Transients: A Clue to Understanding X-Ray Irradiation. *S. Mineshige.* 431, L99, 191-F7 (1994)

PX Andromedae and the SW Sexantis Phenomenon. *Coel Hellier & E. L. Robinson.* 431, L107, 191-G6 (1994)

An Atlas of Doppler Emission-Line Tomography of Cataclysmic Variable Stars. *Ronald H. Kaitchuck, Eric M. Schlegel, R. Kent Honeycutt, Keith Horne, T. R. Marsh, J. C. White II, & Cathy S. Mansperger.* 93, 519, 49-G3 (1994)

Parasitic Instabilities in Magnetized, Differentially Rotating Disks. *Jeremy Goodman & Guohong Xu.* 432, 213, 195-G7 (1994)

Impact-driven Eccentricity in Accretion Disks. *Stephen H. Lubow.* 432, 224, 196-A6 (1994)

On the Origin of Obscuring Tori in the Galactic Nucleus and Active Galactic Nuclei. *Insu Yi, George B. Field, & Eric G. Blackman.* 432, L31, 199-E2 (1994)

Evidence from Masers for a Rapidly Rotating Disk at the Nucleus of NGC 4258. *William D. Watson & Bradley K. Wallin.* 432, L35, 199-E8 (1994)

Causally Limited Viscosity and the Stability Properties of Isothermal Accretion Disks. *Xue-Bing Wu & Lan-Tian Yang.* 432, 672, 204-D3 (1994)

A Model for the X-Ray and Ultraviolet Emission from Seyfert Galaxies and Galactic Black Holes. *Francesco Haardt, Laura Maraschi, & Gabriele Ghisellini.* 432, L95, 206-F7 (1994)

Accretion Rates in X-Ray Bursting Sources. *Iosif Lapidus, Luciano Nobili, & Roberto Turolla.* 433, 287, 211-G11 (1994)

Emergence of Double-peaked Emission Lines in the Broad-Line Radio Galaxy Pictor A. *Jules P. Halpern & Michael Eracleous.* 433, L17, 214-F5 (1994)

Spectral Energy Distributions of the Brightest Palomar-Green Quasars at Intermediate Redshifts. *Todd M. Tripp, Jill Bechtold, & Richard F. Green.* 433, 533, 217-E12 (1994)

Numerical Simulations of Magnetic Accretion Disks. *James M. Stone & Michael L. Norman.* 433, 746, 220-D1 (1994)

On the Global Stability of Magnetized Accretion Disks. I. Axisymmetric Modes. *Charles Curry, Ralph E. Pudritz, & Peter G. Sutherland.* 434, 206, 228-C7 (1994)

Flat Spectrum T Tauri Stars: The Case for Infall. *Nuria Calvet, Lee Hartmann, Scott J. Kenyon, & Barbara A. Whitney.* 434, 330, 230-A6 (1994)

Disk-driven Hydromagnetic Winds as a Key Ingredient of Active Galactic Nuclei Unification Schemes. *Arieh Königl & John F. Kartje.* 434, 446, 233-G9 (1994)

Dynamo Generation of Magnetic Fields in Accretion Disks. *Arun V. Mangalam & K. Subramanian.* 434, 509, 234-F10 (1994)

Variable Emission Lines as Evidence of Spiral Shocks in Accretion Disks around Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 434, 518, 234-G9 (1994)

Small-Scale Structure and Position of Sagittarius A* from VLBI at 3 Millimeter Wavelength. *Alan E. E. Rogers, Sheperd Doeleman, Melvyn C. H. Wright, Geoffrey C. Bower, Donald C. Backer, Stephen Padin, J. A. Philips, Darrel T. Emerson, Lincoln Greenhill, James M. Moran, & Kenneth I. Kellermann.* 434, L59, 241-E8 (1994)

Protostellar Accretion Disks Resolved with the JCMT-CSO Interferometer. *O. P. Lay, J. E. Carlstrom, R. E. Hills, & T. G. Phillips.* 434, L75, 241-G9 (1994)

Emission-Line Profiles from a Relativistic Accretion Disk and the Role of Its Multiple Images. *G. Bao, P. Hadrava, & E. Østgaard.* 435, 55, 244-A8 (1994)

Nonaxisymmetric Three-dimensional Instability in Thin Accretion Disks. *Tzihong Chiueh & Yao-Huan Tseng.* 435, 379, 248-E11 (1994)

On the Decay of Outbursts in Dwarf Novae and X-Ray Novae. *John K. Cannizzo.* 435, 389, 248-F11 (1994)

Normalized Power Spectral Densities of Two X-Ray Components from GS 1124−683. *Sigenori Miyamoto, Shunji Kitamoto, Sayuri Iga, Kiyoshi Hayashida, & Kentaro Terada.* 435, 398, 248-G10 (1994)

X-Ray Emission from 4U 2129+47 (=V1727 Cygni) in Quiescence. *Michael R. Garcia.* 435, 407, 249-A9 (1994)

The Soft X-Ray Properties of a Complete Sample of Optically Selected Quasars. I. First Results. *Ari Laor, Fabrizio Fiore, Martin Elvis, Belinda J. Wilkes, & Jonathan C. McDowell.* 435, 611, 254-E3 (1994)

Accretion Disk Coronae in High-Luminosity Systems. *Stephen D. Murray, John I. Castor, Richard I. Klein, & Christopher F. McKee.* 435, 631, 254-F13 (1994)

Disk-Instability Model for Black Hole Transients: Interplay of Thermal and Tidal Instabilities. *S. Ichikawa, S. Mineshige, & T. Kato.* 435, 748, 256-D2 (1994)

The Shadow Wind in High-Mass X-Ray Binaries. *John M. Blondin.* 435, 756, 256-D13 (1994)
Low-Frequency Modes and Nonbarotropic Effects in Pseudo-Newtonian Accretion Disks. *James R. Ipser.* 435, 767, 256-E13 (1994)
Is HL Tauri an FU Orionis System in Quiescence? *D. N. C. Lin, M. Hayashi, K. R. Bell, & N. Ohashi.* 435, 821, 257-D4 (1994)
The Hard X-Ray Emission Spectra from Accretion Columns in Intermediate Polars. *Insu Yi & Ethan T. Vishniac.* 435, 829, 257-E1 (1994)
Is a Black Hole Accretion Disk in a Self-organized Critical State? *S. Mineshige, M. Takeuchi, & H. Nishimori.* 435, L125, 260-A10 (1994)
The Gravitomagnetic Dynamo Effect in Accretion Disks of Rotating Black Holes. *Ramon Khanna & Max Camenzind.* 435, L129, 260-B3 (1994)
Simulation of Interactions of an Orbiting Compact Star with an Accretion Disk by Smoothed Particle Hydrodynamics. *Diego Molteni, G. Gerardi, & Sandip K. Chakrabarti.* 436, 249, 264-F1 (1994)
On the Effects of Tidal Interaction on Thin Accretion Disks: An Analytic Study. *R. Dgani, M. Livio, & O. Regev.* 436, 270, 265-A6 (1994)
Multiwavelength Observations of Hercules X-1/HZ Herculis. *S. D. Vrtilek, T. Mihara, F. A. Primini, P. Kahabka, H. Marshall, F. Agerer, P. A. Charles, F. H. Cheng, K. Dennerl, C. la Dous, E. M. Hu, R. Rutten, P. Serlemitsos, Y. Soong, J. Stull, J. Trümper, W. Voges, R. M. Wagner, & R. Wilson.* 436, L9, 268-D3 (1994)
ASCA Observations of SS Cygni during an Anomalous Outburst. *John A. Nousek, Christopher J. Baluta, Robin H. D. Corbet, Koji Makai, Julian P. Osborne, & Manabu Ishida.* 436, L19, 268-E7 (1994)
Black Hole Accretion Disks with Coronae. *Roland Svensson & Andrzej A. Zdziarski.* 436, 599, 273-F13 (1994)
Circumprotostellar Environments. II. Envelopes, Activity, and Evolution. *G. H. Moriarty-Schieven, P. G. Wannier, Jocelyn Keene, & M. Tamura.* 436, 800, 276-F1 (1994)
Accretion onto and Radiation from the Compact Object Formed in SN 1987A. *G. E. Brown & J. C. Weingartner.* 436, 843, 277-C9 (1994)
Quiescent Accretion Disks in Black Hole X-Ray Novae. *Jerome A. Orosz, Charles D. Bailyn, Ronald A. Remillard, Jeffrey E. McClintock, & Craig B. Foltz.* 436, 848, 277-D3 (1994)
Implosive Accretion and Outbursts of Active Galactic Nuclei. *R. V. E. Lovelace, M. M. Romanova, & W. I. Newman.* 437, 136, 285-A13 (1994)
Resonantly Driven Nonlinear Density Waves in Protostellar Disks. *Chi Yuan & Pat Cassen.* 437, 338, 287-G6 (1994)
X-Ray Variability and Period Determinations in the Eclipsing Polar DP Leonis. *Craig R. Robinson & France A. Córdova.* 437, 436, 289-B4 (1994)
Yet Another Model of Soft Gamma Repeaters. *J. I. Katz, H. A. Tooie, & S. H. Unruh.* 437, 727, 295-F6 (1994)
Non-LTE Effects on the Strength of the Lyman Edge in Quasar Accretion Disks. *H. Störzer, P. H. Hauschildt, & F. Allard.* 437, L91, 298-G8 (1994)
Thermal Equilibria of Accretion Disks. *Marek A. Abramowicz, Xingming Chen, Shoji Kato, Jean-Pierre Lasota, & Oded Regev.* 438, L37, 10-C5 (1995)
Elliptical Accretion Disks in Active Galactic Nuclei. *Michael Eracleous, Mario Livio, Jules P. Halpern, & Thaisa Storchi-Bergmann.* 438, 610, 12-E8 (1995)
Evolution of Magnetized Protoplanetary Disks. *Mauricio Reyes-Ruiz & Tomasz F. Stepinski.* 438, 750, 14-E10 (1995)
On the Dynamics of Warped Accretion Disks. *J. C. B. Papaloizou & D. N. C. Lin.* 438, 841, 15-G2 (1995)
Propagation of Nuclear Burning Fronts on Accreting Neutron Stars: X-Ray Bursts and Sub-Hertz Noise. *Lars Bildsten.* 438, 852, 16-A2 (1995)
The Evolutionary Thermal Response of a White Dwarf to Compressional Heating by Periodic Dwarf Nova Accretion Events. *Edward M. Sion.* 438, 876, 16-C1 (1995)
A Potential Cyclotron Line Signature in Low-Luminosity X-Ray Sources. *Robert W. Nelson, John C. L. Wang, E. E. Salpeter, & Ira Wasserman.* 438, L99, 20-B1 (1995)
Doppler Tomography of the Gas Stream in Short-Period Algol Binaries. *Mercedes T. Richards, Geary E. Albright, & Larissa M. Bowles.* 438, L103, 20-B8 (1995)
A Multizone Model for Composite Disk-Corona Structure and Spectral Formation in Active Galactic Nuclei. *Toshiya Shimura, Shin Mineshige, & Fumio Takahara.* 439, 74, 22-B12 (1995)
Millimeter-Wave Continuum Measurements of Young Stars. *M. Osterloh & V. W. Beckwith.* 439, 288, 25-B8 (1995)
Consequential Angular Momentum Loss and the Period Gap of Cataclysmic Variables. *A. R. King & U. Kolb.* 439, 330, 25-F7 (1995)
Tremendous Outburst Amplitude Dwarf Novae. *Steve B. Howell, Paula Szkody, & John K. Cannizzo.* 439, 337, 25-G3 (1995)
Critical Radiation Fluxes and Luminosities of Black Holes and Relativistic Stars. *Frederick K. Lamb & M. Coleman Miller.* 439, 828, 36-A11 (1995)
X-Ray Spectra from Neutron Stars Accreting at Low Rates. *Luca Zampieri, Roberto Turolla, Silvia Zane, & Aldo Treves.* 439, 849, 36-C12 (1995)
Asymmetric Mass Accretion in the Magnetic Cataclysmic Variable RE 1149+28. *Steve B. Howell, Martin M. Sirk, Roger F. Malina, J. P. D. Mittaz, & K. O. Mason.* 439, 991, 38-C11 (1995)
Magnetohydrodynamic Simulations of Outflows from Accretion Disks. *G. V. Ustyugova, A. V. Koldoba, M. M. Romanova, V. M. Chechetkin, & R. V. E. Lovelace.* 439, L39, 40-C3 (1995)
Hot Accretion Disks with Nonthermal Pairs. *Masaaki Kusunose & Shin Mineshige.* 440, 100, 42-E7 (1995)
Emission-Line Profiles from Self-gravitating Thin Disks. *V. Karas, A. Lanza, & D. Vokrouhlický.* 440, 108, 42-F4 (1995)
Neutron Star Accretion and Binary Pulsar Formation. *G. E. Brown.* 440, 270, 44-G12 (1995)
Disk Tides and Accretion Runaway. *William R. Ward & Joseph M. Hahn.* 440, L25, 48-E1 (1995)
Emission Spectrum Integrated over an Accretion Disk: Comparison with Observations of Active Galactic Nuclei. *Toshiya Shimura & Fumio Takahara.* 440, 610, 51-E9 (1995)
Fe II and Fe I Emission in IRAS 07598+6508 and PHL 1092. *John Kwan, Fu-zhen Cheng, Li-zhi Fang, Wei Zheng, & Jian Ge.* 440, 628, 51-G6 (1995)
Local Three-dimensional Magnetohydrodynamic Simulations of Accretion Disks. *John F. Hawley, Charles F. Gammie, & Steven A. Balbus.* 440, 742, 53-D4 (1995)
Composite Spectra in Young Stars: Accretion or Close Companions? *Chris D. Koresko.* 440, 764, 53-F1 (1995)
Oscillatory Modes in Near-critical Accretion Flows. *Guy S. Miller & Myeong-Gu Park.* 440, 771, 53-F11 (1995)
The Long-Period AM Herculis–like Cataclysmic Variable RXJ 051541+0104.6. *Frederick M. Walter, Scott J. Wolk, & Nancy R. Adams.* 440, 834, 54-E10 (1995)
Variability of Accretion Disks Surrounding Black Holes: The Role of Inertial-Acoustic Mode Instabilities. *Xingming Chen & Ronald E. Taam.* 441, 354, 64-C2 (1995)
Dust Particle Settling in Passive Disks around T Tauri Stars: Models and *IRAS* Observations. *Kotaro Miyake & Yoshitsugu Nakagawa.* 441, 361, 64-C13 (1995)
Velocity Profile of the Ionized Disk and the Mass of the Black Hole in M87. *Sandip K. Chakrabarti.* 441, 576, 70-A6 (1995)
Optically Thin Accretion Disks in the Kerr Metric. *Gunnlaugur Björnsson.* 441, 765, 72-D12 (1995)
Phase Lags in Cygnus X-1. *M. Coleman Miller.* 441, 770, 72-E6 (1995)
Observations of the X-Ray Nova GRO J0422+32. I. Outburst and the Decay to Quiescence. *Paul J. Callanan, Michael R. Garcia, Jeffrey E. McClintock, Ping Zhao, Ronald A. Remillard, Charles D. Bailyn, Jerome A. Orosz, B. Alan Harmon, & William S. Paciesas.* 441, 786, 72-G3 (1995)
The Transient Accretion Disk in the Algol-Type Binary U Sagittae. *Geary E. Albright & Mercedes T. Richards.* 441, 806, 73-B2 (1995)
Accretion Disk Boundary Layers in Cataclysmic Variables. I. Optically Thick Boundary Layers. *Robert Popham & Ramesh Narayan.* 442, 337, 81-F10 (1995)
The Dim Inner Accretion Disk of the Quiescent Black Hole A0620−00. *Jeffrey E. McClintock, Keith Horne, & Ronald A. Remillard.* 442, 358, 82-A6 (1995)
The Radial-azimuthal Instability of Accretion Disks. I. Radiation Pressure Domination. *Xue-Bing Wu, Qi-Bin Li, Yong-Heng Zhao, & Lan-Tian Yang.* 442, 736, 90-C10 (1995)
The Radial-azimuthal Instability of Accretion Disks. II. Gas Pressure Domination. *Xue-Bing Wu, Qi-Bin Li, Yong-Heng Zhao, & Lan-Tian Yang.* 442, 743, 90-D7 (1995)
Magnetized Accretion and Spin Evolution in Classical T Tauri Stars. *Insu Yi.* 442, 768, 90-G2 (1995)
Postaccretion Magnetic Field Evolution of Neutron Stars. *E. J. Young & G. Chanmugam.* 442, L53, 94-D3 (1995)
Variability Spectra of Orbiting Blobs around a Black Hole. *G. Bao & E. Østgaard.* 443, 54, 96-A4 (1995)
Turbulent Convection in Thin Accretion Disks. *Itzhak Goldman & Amri Wandel.* 443, 187, 97-F6 (1995)

The Formation of Protostellar Disks. II. Disks around Intermediate-Mass Stars. *Harold W. Yorke, Peter Bodenheimer, & Gregory Laughlin.* 443, 199, 97-G7 (1995)

Hubble Space Telescope Observations of the Dwarf Nova Z Chamaeleontis through Two Eruption Cycles. *E. L. Robinson, Janet H. Wood, R. C. Bless, J. C. Clemens, J. F. Dolan, J. L. Elliot, M. J. Nelson, J. W. Percival, M. J. Taylor, G. W. van Citters, & E. Zhang.* 443, 295, 99-C9 (1995)

The Effects of Redshifts and Focusing on the Spectrum of an Accretion Disk in the Galactic Center Black Hole Candidate Sagittarius A*. *J. M. Hollywood & Fulvio Melia.* 443, L17, 102-D6 (1995)

Unified Description of Accretion Flows around Black Holes. *Xingming Chen, Marek A. Abramowicz, Jean-Pierre Lasota, Ramesh Narayan, & Insu Yi.* 443, L61, 111-E4 (1995)

Advection-dominated Accretion: Self-Similarity and Bipolar Outflows. *Ramesh Narayan & Insu Yi.* 444, 231, 116-F1 (1995)

Nonaxisymmetric Secular Instabilities Driven by Star/Disk Coupling. *James N. Imamura, Joseph Toman, Richard H. Durisen, Brian K. Pickett, & Shelby Yang.* 444, 363, 118-E4 (1995)

The FU Orionis Outburst as a Thermal Accretion Event: Observational Constraints for Protostellar Disk Models. *K. R. Bell, D. N. C. Lin, L. W. Hartmann, & S. J. Kenyon.* 444, 376, 118-F8 (1995)

Gravitational Microlensing Is Not Required to Explain Quasar Variability. *Frederick K. Baganoff & Matthew A. Malkan.* 444, L13, 121-C8 (1995)

Mass Transfer Cycles in Cataclysmic Variables. *A. R. King, J. Frank, U. Kolb, & H. Ritter.* 444, L37, 121-F7 (1995)

Magnetohydrodynamic Disk-Wind Connection: Self-similar Solutions. *Zhi-Yun Li.* 444, 848, 128-B11 (1995)

The Dust Disk around the Vega-Excess Star SAO 26804. *C. J. Skinner, R. J. Sylvester, J. R. Graham, M. J. Barlow, M. Meixner, E. Keto, J. F. Arens, & J. G. Jernigan.* 444, 861, 128-C13 (1995)

Detection of Shocked Molecular Hydrogen in Infrared Companions to T Tauri Stars: Evidence for Ongoing Accretion. *T. M. Herbst, C. D. Koresko, & Christoph Leinert.* 444, L93, 130-F13 (1995)

Growth of Protoplanetary Disks around Young Stellar Objects. *Taishi Nakamoto & Yoshitsugu Nakagawa.* 445, 330, 137-A12 (1995)

Magnetic Interchange Instability in Accretion Disks. *Stephen H. Lubow & Hendrik C. Spruit.* 445, 337, 137-B9 (1995)

A Duty Cycle Hypothesis for the Central Engines of LINERs. *Michael Eracleous, Mario Livio, & Luc Binette.* 445, L1, 140-B1 (1995)

Low-State Disks and Low-Beta Disks. *Shin Mineshige, Masaaki Kusunose, & Ryoji Matsumoto.* 445, L43, 140-G11 (1995)

Magnetic Viscosity by Localized Shear Flow Instability in Magnetized Accretion Disks. *R. Matsumoto & T. Tajima.* 445, 767, 145-G1 (1995)

On the Spectral Hardening Factor of the X-Ray Emission from Accretion Disks in Black Hole Candidates. *Toshiya Shimura & Fumio Takahara.* 445, 780, 146-A4 (1995)

An Extended Grid of Multicycle Nova Evolution Models. *Dina Prialnik & Attay Kovetz.* 445, 789, 146-B3 (1995)

Extreme Ultraviolet Light Curves of UZ Fornacis: Evidence for Accretion Stream Absorption and Vertical Extent of the Accretion Spot. *John K. Warren, Martin M. Sirk, & John V. Vallerga.* 445, 909, 147-F13 (1995)

Extreme Ultraviolet Spectroscopy and Photometry of VV Puppis during a High Accretion State. *Stéphane Vennes, Paula Szkody, Edward M. Sion, & Knox S. Long.* 445, 921, 148-A1 (1995)

The Unusual Helium Variable AM Canum Venaticorum. *J. L. Provencal, D. E. Winget, R. E. Nather, E. L. Robinson, J.-E. Solheim, J. C. Clemens, P. A. Bradley, S. J. Kleinman, A. Kanaan, C. F. Claver, C. J. Hansen, T. M. K. Marar, S. Seetha, B. N. Ashoka, E. M. Leibowitz, E. G. Meištas, A. Bruvold, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, A. E. Sansom, R. W. Tweedy, G. Fontaine, P. Bergeron, S. O. Kepler, M. A. Wood, & A. D. Grauer.* 445, 927, 148-A11 (1995)

Hydrodynamic Simulations of the Mass Transfer in Algol. *John M. Blondin, Mercedes T. Richards, & Michael L. Malinowski.* 445, 939, 148-B13 (1995)

Accretion Disk Structure and Branch Behavior of Cygnus X-2. *Akira Hirano, Shunji Kitamoto, Tatsuya T. Yamada, Shin Mineshige, & Jun Fukue.* 446, 350, 158-A10 (1995)

Dynamo-generated Turbulence and Large-Scale Magnetic Fields in a Keplerian Shear Flow. *Axel Brandenburg, Åke Nordlund, Robert F. Stein, & Ulf Torkelsson.* 446, 741, 166-C7 (1995)

Infrared CO Emission from Young Stars: Accretion Disks and Neutral Winds. *C. J. Chandler, J. E. Carlstrom, & N. Z. Scoville.* 446, 793, 167-A7 (1995)

EUVE Observations of the Anomalous 1993 August Outburst of SS Cygni. *Christopher W. Mauche, John C. Raymond, & Janet A. Mattei.* 446, 842, 167-F7 (1995)

Beryllium and Boron Abundances of Metal-deficient Halo Stars and Accretion of Interstellar Matter. *Y. Yoshii, G. J. Mathews, & T. Kajino.* 447, 184, 174-F8 (1995)

Goddard High-Resolution Spectrograph Observations of the Interacting Binary System W Serpentis. *J. L. Weiland, S. N. Shore, E. A. Beaver, R. W. Lyons, & E. I. Rosenblatt.* 447, 401, 177-G13 (1995)

The Mass Accretion Rate through the Masing Molecular Disk in the Active Galaxy NGC 4258. *David A. Neufeld & Philip R. Maloney.* 447, L17, 180-E11 (1995)

Magnetocentrifugally Driven Flows from Young Stars and Disks. IV. The Accretion Funnel and Dead Zone. *Eve C. Ostriker & Frank H. Shu.* 447, 813, 187-B11 (1995)

A Stringent Constraint on Alternatives to a Massive Black Hole at the Center of NGC 4258. *Eyal Maoz.* 447, L91, 190-F1 (1995)

General Relativistic Flux Modulations in the Galactic Center Black Hole Candidate Sagittarius A*. *J. M. Hollywood, Fulvio Melia, Laird M. Close, Donald W. McCarthy, Jr., & Tatia A. DeKeyser.* 448, L21, 199-E1 (1995)

Cold Accretion Disks with Coronae and Advection. *Xingming Chen.* 448, 803, 206-A4 (1995)

Hydrodynamic Studies of Accretion onto Massive White Dwarfs: ONeMg-enriched Nova Outbursts. I. Dependence on White Dwarf Mass. *M. Politano, S. Starrfield, J. W. Truran, A. Weiss, & W. M. Sparks.* 448, 807, 206-A11 (1995)

Numerical Techniques for Three-dimensional Smoothed Particle Hydrodynamics Simulations: Appliçations to Accretion Disks. *James C. Simpson.* 448, 822, 206-C1 (1995)

IRAS 08159−3543: Optical Detection of the Dusty, Neutral Bipolar Wind of a Luminous Young Stellar Object. *Th. Neckel & H. J. Staude.* 448, 832, 206-D1 (1995)

A Model for the Space Density of Dwarf Carbon Stars. *Martijn de Kool & Paul J. Green.* 449, 236, 213-D10 (1995)

On the Geometry of the X-Ray–Emitting Region in Seyfert Galaxies. *Boris E. Stern, Juri Poutanen, Roland Svensson, Marek Sikora, & Mitchell C. Begelman.* 449, L13, 216-B9 (1995)

ROSAT Observation of the Old Classical Nova CP Puppis. *Şölen Balman, Marina Orio, & Hakki Ögelman.* 449, L47, 216-F11 (1995)

Structure of a Fluid Disk around a Magnetized Compact Object in the Presence of a Self-consistent Toroidal Magnetic Field. *D. Banerjee, J. R. Bhatt, A. C. Das, & A. R. Prasanna.* 449, 789, 223-E12 (1995)

Nonradial Oscillations in Neutron Star Oceans: A Source of Quasi-periodic X-Ray Oscillations? *Lars Bildsten & Curt Cutler.* 449, 800, 223-F12 (1995)

Hot Accretion Disks with Electron-Positron Pair Winds. *Ranjeev Misra & Fulvio Melia.* 449, 813, 224-A1 (1995)

ROSAT Observations of Scattered X-Rays from LMC X-4 in Its Low State. *Jonathan W. Woo, George W. Clark, & Alan M. Levine.* 449, 880, 224-G7 (1995)

Extended Infrared Emission in the Galaxy Cluster 1E 1111.9−3754: No Evidence for a Low-Mass Accretion Population. *Marshall Joy, Andrea H. Prestwich, Michael Burton, & Stephen Guimond.* 449, L113, 226-G10 (1995)

On the Torque Exerted by a Magnetically Threaded Accretion Disk. *Y.-M. Wang.* 449, L153, 227-F1 (1995)

The Structure and Evolution of an Accretion Flow Interacting with the Central Star. *Masayuki Y. Fujimoto.* 450, 262, 231-E13 (1995)

Quasar Lyman Edge Regions in Polarized Light. *A. Koratkar, R. R. J. Antonucci, R. W. Goodrich, H. Bushouse, & A. L. Kinney.* 450, 501, 237-F1 (1995)

Relativistic Accretion Disk Structure Revisited. *H. Riffert & H. Herold.* 450, 508, 237-F11 (1995)

Burstlike Events in the Z Source Cygnus X-2. *E. Kuulkers, M. van der Klis, & J. van Paradijs.* 450, 748, 241-A11 (1995)

Disk Dissipation in Single and Binary Young Star Systems in Taurus. *M. Simon & L. Prato.* 450, 824, 242-A12 (1995)

A Model of the Galactic X-Ray Binary Population. I. High-Mass X-Ray Binaries. *Icko Iben, Jr., Alexander V. Tutukov, & Lev R. Yungelson.* 100, 217, 49-B1 (1995)

A Model of the Galactic X-Ray Binary Population. II. Low-Mass X-Ray Binaries in the Galactic Disk. *Icko Iben, Jr., Alexander V. Tutukov, & Lev R. Yungelson.* 100, 233, 49-C5 (1995)

Accretion Disk Winds from Active Galactic Nuclei. *N. Murray, J. Chiang, S. A. Grossman, & G. M. Voit.* 451, 498, 254-B9 (1995)

The Dynamics of Flux Tubes in a High-β Plasma. II. Buoyancy in Stars and Accretion Disks. *Ethan T. Vishniac.* 451, 816, 258-D12 (1995)

Stable and Unstable Accretion Flows with Angular Momentum near a Point Mass. *Dongsu Ryu, Garry L. Brown, Jeremiah P. Ostriker, & Abraham Loeb.* 452, 364, 267-B7 (1995)

The Evolution of Accretion Disks with Coronae: A Model for the Low-Frequency Quasi-periodic Oscillations in X-Ray Binaries. *Marek A. Abramowicz, Xingming Chen, & Ronald E. Taam.* 452, 379, 267-C11 (1995)

Mass Flux and Terminal Velocities of Magnetically Driven Jets from Accretion Disks. *Takahiro Kudoh & Kazunari Shibata.* 452, L41, 270-B1 (1995)

Statistics of X-Ray Fluctuations from Cygnus X-1: Reservoirs in the Disk? *H. Negoro, S. Kitamoto, M. Takeuchi, & S. Mineshige.* 452, L49, 270-C1 (1995)

NGC 1333 IRAS 4: Further Multiplicity Revealed with the CSO-JCMT Interferometer. *O. P. Lay, J. E. Carlstrom, & R. E. Hills.* 452, L73, 270-F7 (1995)

Advection-dominated Accretion: Underfed Black Holes and Neutron Stars. *Ramesh Narayan & Insu Yi.* 452, 710, 274-D13 (1995)

Disk Accretion and Mass Loss from Young Stars. *Patrick Hartigan, Suzan Edwards, & Louma Ghandour.* 452, 736, 274-G4 (1995)

An Archival Study of *Hubble Space Telescope* Observations of Hercules X-1/HZ Herculis. *F. H. Cheng, S. D. Vrtilek, & John C. Raymond.* 452, 825, 276-A10 (1995)

Periodic Outbursts from the Ultrasoft X-Ray Transient 4U 1630−47. *A. N. Parmar, L. Angelini, & N. E. White.* 452, L129, 280-C10 (1995)

Implications of Gamma-Ray Transparency Constraints in Blazars: Minimum Distances and Gamma-Ray Collimation. *Peter A. Becker & Menas Kafatos.* 453, 83, 282-C12 (1995)

Disk-Corona Model of Active Galactic Nuclei with Nonthermal Pairs. *Sachiko Tsuruta & Michael Kellen.* 453, L9, 289-C7 (1995)

On the Global Stability of Magnetized Accretion Disks. II. Vertical and Azimuthal Magnetic Fields. *Charles Curry & Ralph E. Pudritz.* 453, 697, 293-D6 (1995)

Testing Models for the Quasar Big Blue Bump via Color-Color Diagrams. *Aneta Siemiginowska, Olga Kuhn, Martin Elvis, Fabrizio Fiore, Jonathan McDowell, & Belinda J. Wilkes.* 454, 77, 300-C7 (1995)

The Corrugation Instability in Slow Magnetosonic Shock Waves. *James M. Stone & Mark Edelman.* 454, 182, 301-G7 (1995)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. IV. Effect of Ultraviolet Ionization and Magnetically Controlled Infall Rate. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 454, 194, 302-A10 (1995)

Accreting, Isolated Neutron Stars. III. Preheating of Infalling Gas and Cometary H II Regions. *Omer Blaes, Orlando Warren, & Piero Madau.* 454, 370, 304-D3 (1995)

Disk Winds from T Tauri Stars. *John Kwan & Eugene Tademaru.* 454, 382, 304-E5 (1995)

Modeling the Multiwavelength Accretion Disk Spectrum of X-Ray–selected Active Galactic Nuclei. *R. J. Thompson, Jr.* 454, 660, 310-F13 (1995)

The Accretion Disk Limit Cycle Instability in Black Hole X-Ray Binaries. *John K. Cannizzo, Wan Chen, & Mario Livio.* 454, 880, 314-A3 (1995)

Radiation Hydrodynamic Models of Eclipsing Low-Mass X-Ray Binaries. *Stephen D. Murray, D. Tod Woods, John I. Castor, Richard I. Klein, & Christopher F. McKee.* 454, L133, 316-D2 (1995)

X-Ray Emission from Magnetic Cataclysmic Variables and White Dwarf Mass Estimates. *Kinwah Wu, G. Chanmugam, & G. Shaviv.* 455, 260, 321-F8 (1995)

Radiation Pressure–driven Magnetic Disk Winds in Broad Absorption Line Quasi-stellar Objects. *Martijn de Kool & Mitchell C. Begelman.* 455, 448, 328-B3 (1995)

Spectral Properties of Accretion Disks around Galactic and Extragalactic Black Holes. *Sandip Chakrabarti & Lev G. Titarchuk.* 455, 623, 330-E1 (1995)

The H_2O Megamasers in NGC 2639—Evidence for an Accretion Disk in a LINER Nucleus. *A. S. Wilson, J. A. Braatz, & C. Henkel.* 455, L127, 333-F12 (1995)

Spiral Structure in the Circumnuclear Disk at the Center of NGC 4258. *Eyal Maoz.* 455, L131, 333-G4 (1995)

Magnetocentrifugally Driven Flows from Young Stars and Disks. V. Asymptotic Collimation into Jets. *Frank H. Shu, Joan Najita, Eve C. Ostriker, & Hsien Shang.* 455, L155, 334-C6 (1995)

ANALYTICAL METHODS

The Imaging Performance of the *Hubble Space Telescope*. *Christopher J. Burrows, Jon A. Holtzman, S. M. Faber, Pierre Y. Bely, Hashima Hasan, C. R. Lynds, & Daniel Schroeder.* 369, L21, 45-C1 (1991)

Tomographic Separation of Composite Spectra: The Components of the O-Star Spectroscopic Binary AO Cassiopeiae. *William G. Bagnuolo, Jr., & Douglas R. Gies.* 376, 266, 128-C1 (1991)

Primordial Nucleosynthesis without a Computer. *Rahim Esmailzadeh, Glenn D. Starkman, & Savas Dimopoulos.* 378, 504, 158-F7 (1991)

Periodic Stellar Pulsations: Stability Analysis and Amplitude Equations. *J. Robert Buchler, Pawel Moskalik, & Géza Kovács.* 380, 185, 178-D1 (1991)

Precollapse Scale Invariance in Gravitational Instability. *F. Moutarde, J.-M. Alimi, F. R. Bouchet, R. Pellat, & A. Ramani.* 382, 377, 206-C5 (1991)

ARTIFICIAL SATELLITES, SPACE PROBES

Preliminary Results of a Balloon Flight of the Solar Disk Sextant. *E. Maier, L. Twigg, & S. Sofia.* 389, 447, 65-D11 (1992)

Variable Carbon and Oxygen Abundances in the Solar Wind as Observed in Earth's Magnetosheath by *AMPTE/CCE*. *R. von Steiger, S. P. Christon, G. Gloeckler, & F. M. Ipavich.* 389, 791, 71-B10 (1992)

The Hopkins Ultraviolet Telescope: Performance and Calibration during the Astro-1 Mission. *Arthur F. Davidsen, Knox S. Long, Samuel T. Durrance, William P. Blair, Charles W. Bowers, Steven J. Conard, Paul D. Feldman, Henry C. Ferguson, Glen H. Fountain, Randy A. Kimble, Gerard A. Kriss, H. Warren Moos, & Kenneth A. Potocki.* 392, 264, 104-C1 (1992)

The Case for Liquid Mirrors in Orbiting Telescopes. *Ermanno F. Borra.* 392, 375, 105-E7 (1992)

The Particle Background of the *ROSAT* PSPC. *S. L. Snowden, P. P. Plucinsky, U. Briel, G. Hasinger, & E. Pfeffermann.* 393, 819, 126-B1 (1992)

Detection of Fundamental and Harmonic Type III Radio Emission and the Associated Langmuir Waves at the Source Region. *M. J. Reiner, R. G. Stone, & J. Fainberg.* 394, 340, 132-B12 (1992)

The Ultraviolet Imaging Telescope: Design and Performance. *Theodore P. Stecher, Gerald R. Baker, Donna D. Bartoe, Frank H. Bauer, Albert Blum, Ralph C. Bohlin, Harvey R. Butcher, Peter C. Chen, Nicholas R. Collins, Robert H. Cornett, John J. Deily, Michael R. Greason, Gregory S. Hennessy, Jesse K. Hill, Robert S. Hill, Paul M. Hintzen, Joan E. Isensee, Peter J. Kenny, Wayne B. Landsman, David L. Linard, Stephen P. Maran, Susan G. Neff, Granville R. Nichols, Joseph Novello, Robert W. O'Connell, Joel D. Offenberg, Ronald A. Parise, Barbara B. Pfarr, Thomas B. Plummer, Foy F. Richardson, Morton S. Roberts, Susan D. Sitko, Andrew M. Smith, Alfred K. Stober, John D. Stolarik, & Jack C. Tebay.* 395, L1, 144-C7 (1992)

The *COBE* Mission: Its Design and Performance Two Years after Launch. *N. W. Boggess, J. C. Mather, R. Weiss, C. L. Bennett, E. S. Cheng, E. Dwek, S. Gulkis, M. G. Hauser, M. A. Janssen, T. Kelsall, S. S. Meyer, S. H. Moseley, T. L. Murdock, R. A. Shafer, R. F. Silverberg, G. F. Smoot, D. T. Wilkinson, & E. L. Wright.* 397, 420, 175-G11 (1992)

COBE Differential Microwave Radiometers: Preliminary Systematic Error Analysis. *A. Kogut, G. F. Smoot, C. L. Bennett, E. L. Wright, J. Aymon, G. De Amici, G. Hinshaw, P. D. Jackson, E. Kaita, P. Keegstra, C. Lineweaver, K. Loewenstein, L. Rokke, L. Tenorio, N. W. Boggess, E. S. Cheng, S. Gulkis, M. G. Hauser, M. A. Janssen, T. Kelsall, J. C. Mather, S. Meyer, S. H. Moseley, T. L. Murdock, R. A. Shafer, R. F. Silverberg, R. Weiss, & D. T. Wilkinson.* 401, 1, 221-B1 (1992)

The Scattered Solar X-Ray Background of the *ROSAT* PSPC. *S. L. Snowden & M. J. Freyberg.* 404, 403, 32-G3 (1993)

Cosmic-Ray Modulation, Merged Interaction Regions, and Multifractals. *L. F. Burlaga, J. Perko, & J. Pirraglia.* 407, 347, 73-D3 (1993)

Calibration of the Energetic Gamma-Ray Experiment Telescope (EGRET) for the *Compton Gamma-Ray Observatory*. *D. J. Thompson, D. L. Bertsch, C. E. Fichtel, R. C. Hartman, R. Hofstadter, E. B. Hughes, S. D. Hunter, B. W. Hughlock, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, C. von Montigny, P. L. Nolan, H. I. Nel, K. Pinkau, H. Rothermel, E. J. Schneid, M. Sommer, P. Sreekumar, D. Tieger, & A. H. Walker.* 86, 629, 22-F1 (1993)

Instrument Description and Performance of the Imaging Gamma-Ray Telescope COMPTEL aboard the *Compton Gamma-Ray Observatory*. *V. Schönfelder, H. Aarts, K. Bennett, H. de Boer, J. Clear, W. Collmar,*

A. Connors, A. Deerenberg, R. Diehl, A. von Dordrecht, J. W. den Herder, W. Hermsen, M. Kippen, L. Kuiper, G. Lichti, J. Lockwood, J. Macri, M. McConnell, D. Morris, R. Much, J. Ryan, G. Simpson, M. Snelling, G. Stacy, H. Steinle, A. Strong, B. N. Swanenburg, B. Taylor, C. de Vries, & C. Winkler. 86, 657, 23-A5 (1993)

The Oriented Scintillation Spectrometer Experiment: Instrument Description. *W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, W. R. Purcell, D. A. Grabelsky, M. P. Ulmer, D. A. Hillis, G. V. Jung, & R. A. Cameron.* 86, 693, 23-D3 (1993)

In-Flight Performance and Preliminary Results from the Far Ultraviolet Space Telescope (Faust) Flown on ATLAS-1. *Stuart Bowyer, Timothy P. Sasseen, Michael Lampton, & Xiaoyi Wu.* 415, 875, 198-G12 (1993)

An Updated Calibration of the *ROSAT* PSPC Particle Background for the Analysis of Diffuse and Extended Sources. *P. P. Plucinsky, S. L. Snowden, U. G. Briel, G. Hasinger, & E. Pfeffermann.* 418, 519, 237-D10 (1993)

ASTEROIDS

Observation of a Rapid Decrease in the Brightness of the Coma of 2060 Chiron in 1990 January. *Bonnie J. Buratti & R. Scott Dunbar.* 366, L47, 6-F1 (1991)

Light-Curve Inversion Formalism. *Walter J. Wild.* 368, 622, 32-G9 (1991)

ASTROMETRY

High-Precision Timing of Millisecond Pulsars. I. Astrometry and Masses of the PSR 1855+09 System. *M. F. Ryba & J. H. Taylor.* 371, 739, 70-F9 (1991)

Binary Star Observations with the *Hubble Space Telescope* Fine Guidance Sensors. I. ADS 11300. *O. G. Franz, T. J. N. Kreidl, L. W. Wasserman, A. J. Bradley, G. F. Benedict, P. D. Hemenway, W. H. Jefferys, B. McArthur, J. E. McCartney, E. Nelan, P. J. Shelus, D. Story, A. L. Whipple, R. L. Duncombe, L. W. Fredrick, & Wm. F. van Altena.* 377, L17, 143-C6 (1991)

Multichannel Astrometric Photometer–based Parallaxes of Evolved Stars: χ Cygni, 51 Andromedae, and OP Andromedae. *John W. Stein.* 377, 669, 148-A5 (1991)

High-Precision Timing of Millisecond Pulsars. II. Astrometry, Orbital Evolution, and Eclipses of PSR 1957+20. *M. F. Ryba & J. H. Taylor.* 380, 557, 185-B7 (1991)

The Radio "Lobes" of Scorpius X-1 Are Unrelated Background Sources. *E. B. Fomalont & B. J. Geldzahler.* 383, 289, 215-G1 (1991)

A Complete, Multicolor Survey of Absolute Proper Motions to $B \sim 22.5$: Galactic Structure and Kinematics at the North Galactic Pole. *Steven Raymond Majewski.* 78, 87, 2-F11 (1992)

Extending the MACHO Search to $\sim 10^6\ M_\odot$. *Andrew Gould.* 392, 442, 107-G1 (1992)

Catalog-to-Catalog Reductions: Results for the FK, N30, and GC Catalogs. *L. G. Taff, B. Bucciarelli, & M. G. Lattanzi.* 392, 746, 111-E9 (1992)

Mid-Infrared Imaging of Orion BN/KL: Astrometry of IRc2 and the SiO Maser. *Daniel Y. Gezari.* 396, L43, 160-G8 (1992)

First Orbits for the Visual Double Stars WDS 00516N2238, WDS 17366N0722, WDS 17563N0259, and WDS 23020N4800. *J. A. Docobo & J. M. Costa.* 82, 323, 53-G7 (1992)

Microarcsecond Proper Motions of Extragalactic Water Vapor Masers in M33. *L. J. Greenhill, J. M. Moran, M. J. Reid, K. M. Menten, & H. Hirabayashi.* 406, 482, 63-F13 (1993)

High-Resolution Mid-Infrared Imaging and Astrometry of the Nucleus of the Seyfert Galaxy NGC 1068. *J. A. Braatz, A. S. Wilson, D. Y. Gezari, F. Varosi, & C. A. Beichman.* 409, L5, 104-B1 (1993)

Deflection of Light by the Earth. *Andrew Gould.* 414, L37, 175-F11 (1993)

A Deeply Embedded Companion to LkHα 198. *P. O. Lagage, G. Olofsson, S. Cabrit, C. J. Cesarsky, L. Nordh, & J. M. Rodriguez Espinosa.* 417, L79, 230-D6 (1993)

Proper Motions and Radial Velocities in the Globular Cluster M22 and the Cluster Distance. *Ruth C. Peterson & Kyle M. Cudworth.* 420, 612, 10-C7 (1994)

Revised Proper-Motion Results for the Soft X-Ray–emitting Radio Pulsar PSR 0656+14. *R. J. Thompson, Jr., & F. A. Córdova.* 421, L13, 21-D11 (1994)

A Search for Binaries in the Globular Cluster NGC 3201. *Patrick Côté, Douglas L. Welch, Philippe Fischer, G. S. Da Costa, Peter Tamblyn, Patrick Seitzer, & M. J. Irwin.* 90, 83, 2-B5 (1994)

Proper Motions of MACHOs. *Andrew Gould.* 421, L71, 29-D7 (1994)

MACHO Velocities from Satellite-based Parallaxes. *Andrew Gould.* 421, L75, 29-D13 (1994)

Microlensing Events: Thin Disk, Thick Disk, or Halo? *Andrew Gould, Jordi Miralda-Escudé, & John N. Bahcall.* 423, L105, 60-E13 (1994)

Orbits of Six Visual Double Stars. *J. A. Docobo, J. F. Ling, & C. Prieto.* 91, 793, 29-G5 (1994)

MAP-based Trigonometric Parallaxes of Open Clusters: The Praesepe. *George Gatewood & Joost Kiewiet de Jonge.* 428, 166, 130-C5 (1994)

High-Precision Timing of Millisecond Pulsars. III. Long-Term Monitoring of PSRs B1855+09 and B1937+21. *V. M. Kaspi, J. H. Taylor, & M. F. Ryba.* 428, 713, 139-B9 (1994)

Hypersonic Acceleration and Turbulence of H_2O Masers in W49N. *C. R. Gwinn.* 429, 241, 147-B3 (1994)

The Analysis of Star Catalogs. I. An Intercomparison among the FK3, the FK4, and the FK5. *B. Bucciarelli, M. G. Lattanzi, & L. G. Taff.* 433, 831, 221-D13 (1994)

The Analysis of Star Catalogs. II. An Intercomparison among the GC, the N30, and the FK5 (B1950.0/FK4). *L. G. Taff & B. Bucciarelli.* 433, 845, 221-F1 (1994)

High-Precision Timing of PSR J1713+0747: Shapiro Delay. *F. Camilo, R. S. Foster, & A. Wolszczan.* 437, L39, 291-F13 (1994)

MACHO Parallaxes from a Single Satellite. *Andrew Gould.* 441, L21, 66-F1 (1995)

Transverse Velocities of Galaxies from Microlens Parallaxes. *Andrew Gould.* 444, 556, 124-A13 (1995)

MAP-based Trigonometric Parallaxes of Open Clusters: Coma. *George Gatewood.* 445, 712, 145-A7 (1995)

Period Evolution of PSR B1259−63: Evidence for Propeller-Torque Spin-down. *R. N. Manchester, S. Johnston, A. G. Lyne, N. D'Amico, M. Bailes, & L. Nicastro.* 445, L137, 151-F1 (1995)

The Mass Spectrum of MACHOs from Parallax Measurements. *Cheongho Han & Andrew Gould.* 447, 53, 173-A1 (1995)

A New MACHO Search Strategy. *Andrew Gould.* 447, 491, 182-E8 (1995)

Detection of Proper Motions in the M87 Jet. *J. A. Biretta, F. Zhou, & F. N. Owen.* 447, 582, 183-G6 (1995)

Variation of Gravitational Delay in Pulsar Timing Observations due to Proper Motion of Foreground Stars and Measurement of Stellar Mass. *Kouji Ohnishi, Mizuhiko Hosokawa, Toshio Fukushima, & Mine Takeuti.* 448, 271, 196-A1 (1995)

Removing Degeneracy of Microlensing Light Curves through Narrowband Photometry of Giants. *Abraham Loeb & Dimitar Sasselov.* 449, L33, 216-E3 (1995)

Vertical Disk Structure in HL Tauri. *Steven V. W. Beckwith & Christoph C. Birk.* 449, L59, 217-A4 (1995)

Rayleigh Beacon Adaptive Optics Imaging of ADS 9731: Measurements of the Isoplanatic Field of View. *Julian C. Christou, Brent Ellerbroek, Robert Q. Fugate, Domenico Bonaccini, & Ruggero Stanga.* 450, 369, 233-A12 (1995)

Full Adaptive Optics Images of ADS 9731 and μ Cassiopeiae: Orbits and Masses. *Jack D. Drummond, Julian C. Christou, & Robert Q. Fugate.* 450, 380, 233-B12 (1995)

The Intercomparison of Star Catalogs. III. Comparing the AGK3, the AGK3U, the ACRS (Part 1), and the PPM to the General Catalog. *D. Daou, J. E. Morrison, & L. G. Taff.* 451, 768, 257-F12 (1995)

Microlensed Image Motions. *Mark A. Walker.* 453, 37, 281-F7 (1995)

An Intercomparison among Star Catalogs. IV. An Extension of the Theory. *J. E. Morrison & L. G. Taff.* 454, 361, 304-C4 (1995)

ASTRONOMICAL DATA BASES: MISCELLANEOUS

The Distribution of Neutral Hydrogen in the Interstellar Medium. I. The Data. *Antonella Fruscione, Isabel Hawkins, Patrick Jelinsky, & Alexandria Wiercigroch.* 94, 127, 53-E3 (1994)

ATLASES

A Spectrophotometric Atlas of Galaxies. *Robert C. Kennicutt, Jr.* 79, 255, 17-F7 (1992)

An X-Ray Catalog and Atlas of Galaxies. *G. Fabbiano, D.-W. Kim, & G. Trinchieri.* 80, 531, 31-A11 (1992)

A Compendium of Radio Spectra and Luminosities for Three Complete Samples of Radio Sources. *T. Herbig & A. C. S. Readhead.* 81, 83, 36-B11 (1992)

A New Library of Stellar Optical Spectra. *David R. Silva & Mark E. Cornell.* 81, 865, 48-A9 (1992)

Spectral Synthesis in the Ultraviolet. IV. A Library of Mean Stellar Groups. *Michael N. Fanelli, Robert W. O'Connell, David Burstein, & Chi-Chao Wu.* 82, 197, 52-A1 (1992)

An Atlas of Ultraviolet Spectra of Star-forming Galaxies. *A. L. Kinney, R. C. Bohlin, D. Calzetti, N. Panagia, & Rosemary F. G. Wyse.* 86, 5, 14-B9 (1993)

An Ultraviolet Spectral Atlas of the Sun between 1190 and 1730 Å. *P. Brekke.* 87, 443, 33-C9 (1993)

An Hα Atlas of Nearby Southern Spiral Galaxies. *Stuart D. Ryder & Michael A. Dopita.* 88, 415, 45-F7 (1993)

Young Open Clusters as Probes of the Star Formation Process. I. An Atlas of Open Cluster Photometry. *Randy L. Phelps & Kenneth A. Janes.* 90, 31, 1-D6 (1994)

The Tololo Nova Survey: Spectra of Recent Novae. *R. E. Williams, M. M. Phillips, & M. Hamuy.* 90, 297, 5-F1 (1994)

A High-Resolution Spectral Atlas of Carbon Stars. *Cecilia Barnbaum.* 90, 317, 5-G10 (1994)

An Atlas of the Interstellar Environment of Wolf-Rayet Stars in the Magellanic Clouds. *M. A. Dopita, J. F. Bell, Y.-H. Chu, & T. A. Lozinskaya.* 93, 455, 48-G7 (1994)

An Atlas of Doppler Emission-Line Tomography of Cataclysmic Variable Stars. *Ronald H. Kaitchuck, Eric M. Schlegel, R. Kent Honeycutt, Keith Horne, T. R. Marsh, J. C. White II, & Cathy S. Mansperger.* 93, 519, 49-G3 (1994)

The EMSS Catalog of X-Ray–selected Clusters of Galaxies. I. An Atlas of CCD Images of 41 Distant Clusters. *I. M. Gioia & G. A. Luppino.* 94, 583, 59-G13 (1994)

Atlas of Quasar Energy Distributions. *Martin Elvis, Belinda J. Wilkes, Jonathan C. McDowell, Richard F. Green, Jill Bechtold, S. P. Willner, M. S. Oey, Elisha Polomski, & Roc Cutri.* 95, 1, 64-A2 (1994)

An Atlas of Ultraviolet P Cygni Profiles. *Theodore P. Snow, Henny J. G. L. M. Lamers, Douglas M. Lindholm, & Andrew P. Odell.* 95, 163, 66-C8 (1994)

Neural Network Classification of the Near-Infrared Spectra of A-Type Stars. *Wm. Bruce Weaver & Ana V. Torres-Dodgen.* 446, 300, 157-D1 (1995)

A Search for "Dwarf" Seyfert Nuclei. II. An Optical Spectral Atlas of the Nuclei of Nearby Galaxies. *Luis C. Ho, Alexei V. Filippenko, & Wallace L. W. Sargent.* 98, 477, 29-E2 (1995)

Atlas of Synthetic Ultraviolet Spectra of Massive Star Populations. *Claus Leitherer, Carmelle Robert, & Timothy M. Heckman.* 99, 173, 36-F1 (1995)

An H I/Optical Atlas of H II Galaxies and Their Companions. *Christopher L. Taylor, Elias Brinks, Randy M. Grashuis, & Evan D. Skillman.* 99, 427, 41-A2 (1995)

New Far-Ultraviolet Intrinsic Spectral Fluxes of Hot Stars and Their Photospheric Temperatures. *Richard H. Buss, Jr., J. W. Kruk, & H. C. Ferguson.* 454, L55, 308-C12 (1995)

ATMOSPHERIC EFFECTS

First Results of an On-Line Adaptive Optics System with Atmospheric Wavefront Sensing by an Artificial Neural Network. *M. Lloyd-Hart, P. Wizinowich, B. McLeod, D. Wittman, D. Colucci, R. Dekany, D. McCarthy, J. R. P. Angel, & D. Sandler.* 390, L41, 78-F8 (1992)

Atmospheric Fluctuations: Empirical Structure Functions and Projected Performance of Future Instruments. *M. Bester, W. C. Danchi, C. G. Degiacomi, L. J. Greenhill, & C. H. Townes.* 392, 357, 105-D1 (1992)

Direct 75 Milliarcsecond Images from the Multiple Mirror Telescope with Adaptive Optics. *M. Lloyd-Hart, R. Dekany, B. McLeod, D. Wittman, D. Colucci, D. McCarthy, & R. Angel.* 402, L81, 13-B7 (1993)

Tip-Tilt Compensation: Resolution Limits for Ground-based Telescopes Using Laser Guide Star Adaptive Optics. *Scot S. Olivier, Claire E. Max, Donald T. Gavel, & James M. Brase.* 407, 428, 74-D1 (1993)

Gamma Rays from Grazing Incidence Cosmic Rays in the Earth's Atmosphere. *Andrew Ulmer.* 429, L95, 158-E3 (1994)

On Purported Observations of Partially Ionized Galactic Cosmic Rays. *A. J. Tylka, P. R. Boberg, J. H. Adams, Jr., T. Kleis, & R. Beaujean.* 438, L83, 19-G1 (1995)

Adaptive Optics Experiments Using Sodium Laser Guide Stars. *M. Lloyd-Hart, J. R. P. Angel, B. Jacobsen, D. Wittman, R. Dekany, D. McCarthy, E. Kibblewhite, W. Wild, B. Carter, & J. Beletic.* 439, 455, 27-D2 (1995)

Evaluation of Earth's Atmospheric Brightness Temperature at Decimetric Wavelengths. *C. Ajello, G. Bonelli, & G. Sironi.* 96, 643, 10-E13 (1995)

Adaptive Optics Imaging of Proto–Planetary Nebulae: Frosty Leo and the Red Rectangle. *F. Roddier, C. Roddier, J. E. Graves, & M. J. Northcott.* 443, 249, 98-E7 (1995)

Theoretical Overview and Modeling of the Sodium and Potassium Atmospheres of the Moon. *William H. Smyth & M. L. Marconi.* 443, 371, 100-C4 (1995)

Effects of Atmospheric Emission on Ground-based Microwave Background Measurements. *M. Bersanelli, M. Bensadoun, L. Danese, G. De Amici, A. Kogut, S. Levin, M. Limon, D. Maino, G. F. Smoot, & C. Witebsky.* 448, 8, 192-C11 (1995)

Rayleigh Beacon Adaptive Optics Imaging of ADS 9731: Measurements of the Isoplanatic Field of View. *Julian C. Christou, Brent Ellerbroek, Robert Q. Fugate, Domenico Bonaccini, & Ruggero Stanga.* 450, 369, 233-A12 (1995)

Solar Lyman Series Line Profiles and Atomic Hydrogen Excitation Rates. *R. R. Meier.* 452, 462, 268-E1 (1995)

Electron Excitation Function of the N_2 Second Positive System. *D. E. Shemansky, J. M. Ajello, & I. Kanik.* 452, 472, 268-F1 (1995)

Optimization and Performance of Adaptive Optics for Imaging Extrasolar Planets. *Steven M. Stahl & David G. Sandler.* 454, L153, 316-F13 (1995)

ATOMIC DATA

Toward a Resolution of the Bump and Beat Cepheid Mass Discrepancies. *Paweł Moskalik, J. Robert Buchler, & Ariel Marom.* 385, 685, 21-E13 (1992)

Mg IX Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, L. K. Harra, & K. G. Widing.* 386, 371, 28-G1 (1992)

Interior Opacities and the Standard Solar Model. *John Faulkner & Fritz J. Swenson.* 386, L55, 36-D1 (1992)

The Oscillator Strength of the Si II $3s^2 3p\ ^2P$–$3s3p^2\ ^2D$ Multiplet and the Interstellar Abundance of Silicon. *P. L. Dufton, F. P. Keenan, A. Hibbert, P. C. Ojha, & R. P. Stafford.* 387, 414, 42-B1 (1992)

Ne V Line Ratios in the EUV Spectra of Solar Flares. *F. P. Keenan, E. S. Conlon, L. K. Harra, K. M. Aggarwal, & K. G. Widing.* 389, 440, 65-D1 (1992)

Improved Calculations for the C III $\lambda\lambda$1907,1909 and Si III $\lambda\lambda$1883,1892 Electron Density Sensitive Emission-Line Ratios, and a Comparison with *IUE* Observations. *F. P. Keenan, W. A. Feibelman, & K. A. Berrington.* 389, 443, 65-D5 (1992)

Radiative Atomic Rosseland Mean Opacity Tables. *Forrest J. Rogers & Carlos A. Iglesias.* 79, 507, 20-G11 (1992)

L-Shell X-Ray Opacity of Many-Electron Atoms. *Young-Dae Jung & Robert J. Gould.* 391, 403, 91-A7 (1992)

Collision Strengths and Excitation Rate Coefficients for Transitions in Ca XV. *K. M. Aggarwal.* 80, 453, 28-F3 (1992)

Solar Opacities Based on the Ion-Sphere and Ion-Correlation Models. *Balazs F. Rozsnyai.* 393, 409, 119-C1 (1992)

Analytical Cross Sections and Rate Coefficients for H-H Inelastic Collisions. *W. H. Soon.* 394, 717, 138-D6 (1992)

Lithium Dilution through Main-Sequence Mass Loss. *Fritz J. Swenson & John Faulkner.* 395, 654, 151-D3 (1992)

Spin-Orbit Interaction Effects on the Rosseland Mean Opacity. *Carlos A. Iglesias, Forrest J. Rogers, & Brian G. Wilson.* 397, 717, 180-A7 (1992)

New Results for Photoionization and Recombination of Astrophysically Abundant Atoms and Ions: The Carbon Sequence. *Sultana N. Nahar & Anil K. Pradhan.* 397, 729, 180-B10 (1992)

Dielectronic Recombination as a Function of Electric Field Strength. *Daniel B. Reisenfeld.* 398, 386, 186-E9 (1992)

Iron Ionization and Recombination Rates and Ionization Equilibrium. *M. Arnaud & J. Raymond.* 398, 394, 186-F5 (1992)

A Burst Model for Line Emission in the Solar Atmosphere. II. Coronal Extreme Ultraviolet Lines. *U. Feldman, J. M. Laming, P. Mandelbaum, W.H. Goldstein, & A. Osterheld.* 398, 692, 192-F3 (1992)

On the Calculation of Atomic Term Populations. *S. O. Kastner & A. K. Bhatia.* 398, 698, 192-F11 (1992)

Photoelectric Absorption Cross Sections with Variable Abundances. *Monika Balucińska-Church & Dan McCammon.* 400, 699, 219-B11 (1992)

Rosseland Mean Opacities for Variable Compositions. *Forrest J. Rogers & Carlos A. Iglesias.* 401, 361, 225-E1 (1992)

Accurate Oscillator Strengths for Ultraviolet Lines of Ar I: Implications for Interstellar Material. *S. R. Federman, D. J. Beideck, R. M. Schectman, & D. G. York.* 401, 367, 225-E9 (1992)

Extreme Ultraviolet Line Ratios for Ca XV Applicable to Solar Flare Spectra. *F. P. Keenan, E. S. Conlon, V. J. Foster, K. M. Aggarwal, & K. G. Widing.* 401, 411, 226-B5 (1992)

A 25 mÅ Isotope Shift in B I at 2090 Å: A Possible Diagnostic of the Cosmic $^{11}B/^{10}B$ Ratio? *Sveneric G. Johansson, Ulf Litzén, Jörg Kasten, & Manfred Kock.* 403, L25, 20-C11 (1993)

Electron Impact Excitation of Fe XXVI: Collision Strengths and Rate Coefficients. *K. M. Aggarwal & A. E. Kingston.* 85, 187, 8-F3 (1993)

Effective Collision Strengths for Transitions in O III. *K. M. Aggarwal.* 85, 197, 8-G1 (1993)

Accurate Oscillator Strengths for Interstellar Ultraviolet Lines of Cl I. *R. M. Schectman, S. R. Federman, D. J. Beideck, & D. G. Ellis.* 406, 735, 67-B6 (1993)

Electric Field Effects on Dielectronic Recombination in a Collisional-Radiative Model. *N. R. Badnell, M. S. Pindzola, W. J. Dickson, H. P. Summers, D. C. Griffin, & J. Lang.* 407, L91, 82-F11 (1993)

Radiative Lifetimes, Branching Ratios, and Absolute Transition Probabilities in Cr II and Zn II. *S. D. Bergeson & J. E. Lawler.* 408, 382, 88-A3 (1993)

Effective Collision Strengths for O II. *Brendan M. McLaughlin & Kenneth L. Bell.* 408, 753, 94-E3 (1993)

Semiclassical Approximation for Electron Impact Excitation of Hydrogenic Ions. *Young-Dae Jung.* 409, 841, 109-E12 (1993)

High-Resolution Measurements, Line Identification, and Spectral Modeling of Kα Transitions in Fe XVIII–Fe XXV. *P. Beiersdorfer, T. Phillips, V. L. Jacobs, K. W. Hill, M. Bitter, S. von Goeler, & S. M. Kahn.* 409, 846, 109-F6 (1993)

New Excitation Rates and Line Ratios for [Fe II]. *Anil K. Pradhan & Hong Lin Zhang.* 409, L77, 111-G8 (1993)

Fe III Emission Lines in the Optical Spectrum of the Planetary Nebula IC 4997. *F. P. Keenan, L. H. Aller, S. Hyung, E. S. Conlon, & G. A. Warren.* 410, 430, 117-D3 (1993)

Atomic Transition Probabilities of Fe II Lines Determined from Solar Emission Spectra. I. The 2000–2800 Å Wavelength Range. *J. O. Ekberg & U. Feldman.* 86, 611, 22-D7 (1993)

Measurement of the Transition Probability of the C III 190.9 Nanometer Intersystem Line. *Victor H. S. Kwong, Z. Fang, T. T. Gibbons, W. H. Parkinson, & Peter L. Smith.* 411, 431, 132-G7 (1993)

The Interstellar Abundances of Tin and Four Other Heavy Elements. *L. M. Hobbs, D. E. Welty, D. C. Morton, L. Spitzer, & D. G. York.* 411, 750, 139-A13 (1993)

Radiative Accelerations on Iron Using Opacity Project Data. *G. Alecian, G. Michaud, & J. Tully.* 411, 882, 140-G1 (1993)

New *f*-Values in C I and the CNO Abundances in the Sun. *E. Biémont, A. Hibbert, M. Godefroid, & N. Vaeck.* 412, 431, 147-D12 (1993)

Radiative Opacities for Carbon- and Oxygen-rich Mixtures. *Carlos A. Iglesias & Forrest J. Rogers.* 412, 752, 153-B8 (1993)

Detection of Boron, Cobalt, and Other Weak Interstellar Lines toward ζ Ophiuchi. *S. R. Federman, Y. Sheffer, D. L. Lambert, & R. L. Gilliland.* 413, L51, 162-G7 (1993)

Radiative Lifetimes of the $2s2p^2(^4P)$ Metastable Levels of N III. *Z. Fang, Victor H. S. Kwong, & W. H. Parkinson.* 413, L141, 169-D1 (1993)

Oscillator Strengths of the Si II 181 Nanometer Resonance Multiplet. *S. D. Bergeson & J. E. Lawler.* 414, L137, 186-D9 (1993)

Transition Probabilities for the $3s^23p(^2P^o)$–$3s3p^2(^4P)$ Intersystem Lines of Si II. *Anthony G. Calamai, Peter L. Smith, & S. D. Bergeson.* 415, L59, 192-D12 (1993)

Electron Density Diagnostics for Gaseous Nebulae Involving the O IV Intercombination Lines near 1400 Å. *F. P. Keenan, E. S. Conlon, D. A. Bowden, W. A. Feibelman, & A. K. Pradhan.* 88, 169, 42-E1 (1993)

Excitation Rate Coefficients and Line Ratios for the Optical and Ultraviolet Transitions in S II. *Wei Cai & Anil K. Pradhan.* 88, 329, 44-C7 (1993)

Ultraviolet Transitions of Low Condensation Temperature Heavy Elements and New Data for Interstellar Arsenic, Selenium, Tellurium, and Lead. *Jason A. Cardelli, S. R. Federman, David L. Lambert, & C. E. Theodosiou.* 416, L41, 207-F5 (1993)

Electron Impact Broadening Parameters Predictions from Regularities: Fe I, Fe II, Fe III, Fe IV, C IV, and Si IV. *J. Purić, M. H. Miller, & A. Lesage.* 416, 825, 213-F7 (1993)

Helium-like Argon Line Emission in Solar Flares. *K. J. H. Phillips, L. K. Harra, F. P. Keenan, D. M. Zarro, & M. Wilson.* 419, 426, 251-E3 (1993)

Quadrupolar Transition Probabilities for Open-Shell Atomic Systems. *T. K. Ghosh, A. K. Das, & P. K. Mukherjee.* 419, 855, 258-C1 (1993)

A High-Resolution ^{13}C Isotope Study in the Vacuum Ultraviolet of Spectra of CO($A \rightarrow X$), C I, and C II. *C. Haridass & K. P. Huber.* 420, 433, 6-C1 (1994)

Comparative Pulsation Calculations with OP and Opal Opacities. *Shashi M. Kanbur & Norman R. Simon.* 420, 880, 13-G5 (1994)

Comparison of New Experimental and Astrophysical *f*-Values for Some Ru II Lines, Observed in *HST* Spectra of χ Lupi. *Sveneric G. Johansson, Ali Joueizadeh, Ulf Litzén, Jörgen Larsson, Anders Persson, Claes-Göran Wahlström, Sune Svanberg, David S. Leckrone, & Glenn M. Wahlgren.* 421, 809, 28-C8 (1994)

Ne VI Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, G. A. Warren, A. K. Pradhan, H. L. Zhang, D. H. Sampson, & K. G. Widing.* 421, 851, 28-G8 (1994)

Interstellar Carbon Chemistry: Reaction Rates of Neutral Atomic Carbon with Organic Molecules. *D. C. Clary, N. Haider, D. Husain, & M. Kabir.* 422, 416, 35-C6 (1994)

The Classical Hyades Lithium Problem Resolved? *Fritz J. Swenson, John Faulkner, Carlos A. Iglesias, Forrest J. Rogers, & David R. Alexander.* 422, L79, 45-B6 (1994)

Radiative Hyperfine Transitions. *Robert J. Gould.* 423, 522, 52-F1 (1994)

A Measurement of the $J = 2 \leftarrow 1$ Fine-Structure Interval for ^{28}Si and ^{29}Si in the Ground ^3P State. *John M. Brown, Lyndon R. Zink, & K. M. Evenson.* 423, L151, 61-D13 (1994)

The Hyades Lithium Problem Revisited. *Fritz J. Swenson, John Faulkner, Forrest J. Rogers, & Carlos A. Iglesias.* 425, 286, 83-G3 (1994)

Electron Collisional Excitation Strengths for Fe XVI. *S. S. Tayal.* 426, 449, 101-G3 (1994)

Si XIII Emission Lines in Solar Flare X-Ray Spectra Obtained with the *P78-1* Satellite. *F. P. Keenan, D. L. McKenzie, K. J. H. Phillips, & E. S. Conlon.* 426, 454, 101-G10 (1994)

The Fe XIV Spectrum: Predicted Line Intensities and Solar Identifications. *A. K. Bhatia, S. O. Kastner, F. P. Keenan, E. S. Conlon, & K. G. Widing.* 427, 497, 116-B8 (1994)

Charge Transfer in Helium-rich Supernova Plasma. *Douglas A. Swartz.* 428, 267, 131-D13 (1994)

Oscillator Strengths of Selected Resonance Transitions in Neutral Sulfur. *D. J. Beideck, R. M. Schectman, S. R. Federman, & D. G. Ellis.* 428, 393, 133-B3 (1994)

The Fine-Structure Intervals of $^{14}N^+$ by Far-Infrared Laser Magnetic Resonance. *John M. Brown, Thomas D. Varberg, Kenneth M. Evenson, & Andrew L. Cooksy.* 428, L37, 134-E13 (1994)

The Properties of Ni → Co → Fe Decay. *D. K. Nadyozhin.* 92, 527, 38-G6 (1994)

Analysis of the $3d^64s(^6D)4f$–$5g$ Supermultiplet of Fe I in Laboratory and Solar Infrared Spectra. *S. Johansson, G. Nave, M. Geller, A. J. Sauval, N. Grevesse, W. G. Schoenfeld, E. S. Chang, & C. B. Farmer.* 429, 419, 149-C11 (1994)

Accurate Calculation of the Isotope Shift and Hyperfine Structure in the Boron (B II) Line at 1362 Å. *Per Jönsson, Sveneric G. Johansson, & Charlotte Froese Fischer.* 429, L45, 150-F7 (1994)

New Measurements of Charge-changing Cross Sections in Carbon and Hydrogen Targets above 2 GeV per Nucleon: Evidence for an Energy Dependence That May Strongly Affect Estimates of the Energy Dependence of Cosmic-Ray Diffusion in the Galaxy. *W. R. Webber, W. R. Binns, D. Crary, & M. Westphall.* 429, 764, 155-B9 (1994)

Atomic Sulfur: Frequency Measurement of the $J = 0 \leftarrow 1$ Fine-Structure Transition at 56.3 Microns by Laser Magnetic Resonance. *John M. Brown, Kenneth M. Evenson, & Lyndon R. Zink.* 431, L147, 192-E2 (1994)

Fe XVI Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, V. J. Foster, S. S. Tayal, & K. G. Widing.* 432, 809, 206-B1 (1994)

A New Multiplet Table for Fe I. *G. Nave, S. Johansson, R. C. M. Learner, A. P. Thorne, & J. W. Brault.* 94, 221, 54-F12 (1994)

Collisional Excitation of Fe X due to Electron Impact Using the **R**-Matrix Method. *M. Mohan, A. Hibbert, & A. E. Kingston.* 434, 389, 230-G12 (1994)

Oscillator Strengths for Fe II Transitions at 224.918 and 226.008 Nanometers. *S. D. Bergeson, K. L. Mullman, & J. E. Lawler.* 435, L157, 260-E11 (1994)

Low-Temperature Rosseland Opacities. *D. R. Alexander & J. W. Ferguson.* 437, 879, 297-F8 (1994)

N IV Emission Lines in the Ultraviolet Spectra of Gaseous Nebulae. *F. P. Keenan, C. A. Ramsbottom, K. L. Bell, K. A. Berrington, A. Hibbert, W. A. Feibelman, & W. P. Blair.* 438, 500, 8-E3 (1995)

New Calculations of Fe *L*-Shell X-Ray Spectra in High-Temperature Plasmas. *Duane A. Liedahl, Albert L. Osterheld, & William H. Goldstein.* 438, L115, 20-D2 (1995)

The Neutral Oxygen Spectrum. I. Collisionally Excited Level Populations and Line Intensities under Optically Thin Conditions. *A. K. Bhatia & S. O. Kastner.* 96, 325, 5-F10 (1995)

Calculations on the Structure and Corresponding Permitted Spontaneous Transitions for the Low-lying States of Fe^{+24} and Fe^{+25}. *Haiguang Xu, Shiwei Zhang, Junfeng Chen, & Junhan You.* 441, 443, 65-E1 (1995)

Atomic Iron in Its ^5D Ground State: A Direct Measurement of the $J = 0 \leftarrow 1$ and $J = 1 \leftarrow 2$ Fine-Structure Intervals. *John M. Brown & Kenneth M. Evenson.* 441, L97, 76-D11 (1995)

Discrepancies between OPAL and OP Opacities at High Densities and Temperatures. *Carlos A. Iglesias & Forrest J. Rogers.* 443, 460, 101-D6 (1995)

The O IV and S IV Intercombination Lines in Solar and Stellar Ultraviolet Spectra. *J. W. Cook, F. P. Keenan, P. L. Dufton, A. E. Kingston, A. K. Pradhan, H. L. Zhang, J. G. Doyle, & M. A. Hayes.* 444, 936, 129-C9 (1995)

Model Atmospheres for M (Sub)Dwarf Stars. I. The Base Model Grid. *France Allard & Peter H. Hauschildt.* 445, 433, 138-E2 (1995)

Transition Probabilities for the UV0.01 Multiplet in N III. *Tomas Brage, Charlotte Froese Fischer, & Philip G. Judge.* 445, 457, 138-G7 (1995)

Effective Collision Strengths for Electron Excitation of Fine-Structure Transitions in Fe XIII. *S. S. Tayal.* 446, 895, 168-E5 (1995)

Unified Electron-Ion Recombination Rate Coefficients of Silicon and Sulfur Ions. *Sultana N. Nahar & Anil K. Pradhan.* 447, 966, 189-B13 (1995)

Accurate Multiconfiguration Hartree-Fock Calculations of Oscillator Strengths in Light Atoms: The Boron (B II) Line at 1362 Å. *Michel Godefroid, Jeppe Olsen, Per Jönsson, & Charlotte Froese Fischer.* 450, 473, 234-E3 (1995)

Transition Probabilities for the $3s^23p^2\ ^3P_{2,1}$–$3s3p^3\ ^5S^o_2$ Intersystem Lines of S III. *Claas Heise, Peter L. Smith, & Anthony G. Calamai.* 451, L41, 252-F10 (1995)

Atomic Physics with the Goddard High-Resolution Spectrograph on the *Hubble Space Telescope*. I. Oscillator Strengths for Neutral Sulfur. *S. R. Federman & Jason A. Cardelli.* 452, 269, 265-G6 (1995)

Astrophysical Limits on the Evolution of Dimensionless Physical Constants over Cosmological Time. *Lennox L. Cowie & Antoinette Songaila.* 453, 596, 292-B3 (1995)

Accurate Wavenumbers for Mid-Infrared Fine-Structure Lines. *Douglas M. Kelly & John H. Lacy.* 454, L161, 317-A1 (1995)

Systematic Studies of N IV Transitions of Astrophysical Importance. *J. Fleming, T. Brage, K. L. Bell, N. Vaeck, A. Hibbert, M. R. Godefroid, & C. Froese Fischer.* 455, 758, 332-C13 (1995)

Far-Ultraviolet Emission Cross Sections of Ne II and Ne III Excited by Electron Impact. *Geoffrey K. James, Isik Kanik, & Joseph M. Ajello.* 455, 769, 332-D13 (1995)

Fine-Structure Resolved Dielectronic Recombination Rates for the $n = 3$ Excited Configurations of Fe XVI–Fe XIX. *Arati Dasgupta.* 101, 401, 59-C4 (1995)

Electron-Ion Recombination Rate Coefficients for Si I, Si II, S II, S III, C II, and C-like Ions C I, N II, O III, F IV, Ne V, Na VI, Mg VII, Al VIII, Si IX, and S XI. *Sultana N. Nahar.* 101, 423, 59-E1 (1995)

ATOMIC PROCESSES

Relative Populations for Levels in the $3d^2$ Ground Configuration of Fe VII. *F. P. Keenan & P. H. Norrington.* 368, 486, 31-B7 (1991)

Collisional Excitation and Radiative Properties of N II: The Strong Intercombination (^1D–$^3P^o$) Transition at 748 Å. *T. M. Tripp, D. E. Shemansky, G. K. James, & J. M. Ajello.* 368, 641, 33-B6 (1991)

Nitrogen Recombination Lines and Abundance in Nova Shells. *Vladimir Escalante & Alexander Dalgarno.* 369, 213, 38-E7 (1991)

Fe XII Line Ratios in Solar Flares. *S. S. Tayal, Ronald J. W. Henry, F. P. Keenan, S. M. McCann, & K. G. Widing.* 369, 567, 44-G1 (1991)

Laboratory Observation of the $^3P_1$–$^3P_0$ Transition of the Neutral Carbon Atom by Submillimeter-Wave Absorption Spectroscopy. *Satoshi Yamamoto & Shuji Saito.* 370, L103, 59-F7 (1991)

Recalculation of Radial Matrix Integrals for the Electric Dipole Transitions in Hydrogen. *G. P. Malik, Usha Malik, & Vijaya S. Varma.* 371, 418, 65-D1 (1991)

Cross Sections for Production of H($2p$, $2s$, $1s$) by Electron Collisional Dissociation of H_2. *J. M. Ajello, D. E. Shemansky, & G. K. James.* 371, 422, 65-D5 (1991)

Ne V in Planetary Nebulae. *F. P. Keenan, V. M. Burke, & K. M. Aggarwal.* 371, 636, 69-D13 (1991)

The Energies and Structure of X-Ray K-Absorption Edges. *Robert J. Gould & Young-Dae Jung.* 373, 271, 89-D1 (1991)

Accurate Collision Integrals for the Attractive Static Screened Coulomb Potential with Application to Electrical Conductivity. *James MacDonald.* 76, 369, 29-F3 (1991)

Bowen Fluorescence in AM Herculis Stars. *Jonathan Schachter, Alexei V. Filippenko, Steven M. Kahn, & Frits B. S. Paerels.* 373, 633, 95-G4 (1991)

Ultraviolet High-Excitation Fe II Fluorescence Lines Excited by O VI, C IV, and H I Resonance Emission As Seen in *IUE* Spectra. *Walter A. Feibelman, Frederick C. Bruhweiler, & Sveneric Johansson.* 373, 649, 96-A8 (1991)

Fe XIV Line Ratios in the Sun. *F. P. Keenan, P. L. Dufton, M. B. Boylan, A. E. Kingston, & K. G. Widing.* 373, 695, 96-E13 (1991)

Large-Scale [C II] 158 Micron Emission from the Galaxy. *Hiroshi Shibai, Haruyuki Okuda, Takao Nakagawa, Hideo Matsuhara, Toshinori Maihara, Kohei Mizutani, Yukiyasu Kobayashi, Norihisa Hiromoto, Tetsuo Nishimura, & Frank J. Low.* 374, 522, 105-F1 (1991)

Rosseland and Planck Mean Opacities of a Zero-Metallicity Gas. *Paolo Lenzuni, David F. Chernoff, & Edwin E. Salpeter.* 76, 759, 35-B13 (1991)

Energy Degradation of Fast Electrons in Hydrogen Gas. *Yueming Xu & Richard McCray.* 375, 190, 113-D1 (1991)

Near-Infrared Emission of Neutral Carbon from Photon-dominated Regions. *V. Escalante, A. Sternberg, & A. Dalgarno.* 375, 630, 120-E1 (1991)

Accurate Oscillator Strengths of Astrophysical Interest for Neutral Oxygen. *E. Biémont, A. Hibbert, M. Godefroid, N. Vaeck, & B. C. Fawcett.* 375, 818, 122-G1 (1991)

A Critical Assessment of Electron Excitation between the $2s^22p^2$ and $2s2p^3$ Configurations of Mg^{+6}. *A. Burgess, H. E. Mason, & J. A. Tully.* 376, 803, 136-D1 (1991)

Energy Deposition by X-Ray Photoelectrons into Interstellar Molecular Clouds. *G. Mark Voit.* 377, 158, 140-A1 (1991)

First Results from the Goddard High-Resolution Spectrograph: High-Resolution Observations of the 1942 Å Resonance Line of Hg II in the Chemically Peculiar B Star, χ Lupi. *David S. Leckrone, Glenn M. Wahlgren, & Sveneric G. Johansson.* 377, L37, 143-E1 (1991)

Forbidden Lines of np^q Ions. II. Line Intensities. *John P. Lynch & Menas Kafatos.* 76, 1169, 41-F7 (1991)

Dielectronic Recombination Rate Coefficients for S^{q+} (q = 1–5) Ions. *N. R. Badnell.* 379, 356, 167-D9 (1991)

The $3s^23p\ ^2P$–$3s3p^2\ ^4P$ Intercombination Lines of Fe XIV in the Sun. *F. P. Keenan, P. L. Dufton, E. S. Conlon, M. B. Boylan, A. E. Kingston, & K. G. Widing.* 379, 406, 168-A11 (1991)

Atomic Data for Resonance Absorption Lines. I. Wavelengths Longward of the Lyman Limit. *Donald C. Morton.* 77, 119, 45-B1 (1991)

On Solar Emission Lines. *G. P. Malik, L. K. Pande, & Vijaya S. Varma.* 379, 788, 174-E1 (1991)

Collisional Rates and Cooling within Atomic Hydrogen Plasmas. *T. T. Scholz & H. R. J. Walters.* 380, 302, 180-A5 (1991)

Radiative Widths and Splitting of Cyclotron Lines in Superstrong Magnetic Fields. *G. G. Pavlov, V. G. Bezchastnov, P. Mészáros, & S. G. Alexander.* 380, 541, 185-A1 (1991)

Integral and Differential Cross Sections for Electron Impact Ionization. *R. E. H. Clark, J. Abdallah, Jr., & J. B. Mann.* 381, 597, 198-B9 (1991)

N III Line Emission in Planetary Nebulae: Not Bowen Fluorescence. *S. O. Kastner & A. K. Bhatia.* 381, L59, 199-D7 (1991)

Improved Line Ratio Calculations Involving $\Delta n = 1$ (2–3) Transitions in O V and a Reanalysis of *Skylab* Observations of Solar Flares. *F. P. Keenan, P. L. Dufton, L. K. Harra, E. S. Conlon, K. A. Berrington, A. E. Kingston, & K. G. Widing.* 382, 349, 204-E1 (1991)

Regularities of Stark Parameters along the Periodic Table. *J. Purić, M. Ćuk, M. S. Dimitrijević, & A. Lesage.* 382, 353, 204-E7 (1991)

Effective Collision Strengths among Fine-Structure Levels of Ca XV: Erratum. *K. M. Aggarwal, K. A. Berrington, & F. P. Keenan.* 77, 441, 50-F1 (1991)

The Rosseland Mean Free-Free Gaunt Factor of the Dense High-Temperature Stellar Plasma. *Naoki Itoh, Fumiyoshi Kuwashima, Koki Ichihashi, & Haruhiko Mutoh.* 382, 636, 209-E1 (1991)

New Photoionization Models of Intergalactic Clouds. *Megan Donahue & J. Michael Shull.* 383, 511, 220-F1 (1991)

Collision Strengths and Excitation Rate Coefficients for Transitions in Fe XXI. *Kanti M. Aggarwal.* 77, 677, 54-A1 (1991)

The Zeeman Effect in Astrophysical Water Masers and the Observation of Strong Magnetic Fields in Regions of Star Formation. *Gerald E. Nedoluha & William D. Watson.* 384, 185, 3-C5 (1992)

Level Populations for Fe III Applicable to Astrophysical Plasmas and a Comparison with Planetary Nebula Observations. *F. P. Keenan, K. A. Berrington, P. G. Burke, C. J. Zeippen, M. Le Dourneuf, & R. E. S. Clegg.* 384, 385, 5-F7 (1992)

Fe II Emission Lines. II. Excitation Mechanisms in Cool Stars. *P. G. Judge, C. Jordan, & U. Feldman.* 384, 613, 9-F10 (1992)

Al II Emission-Line Strengths in Low-Density Astrophysical Plasmas. *F. P. Keenan, L. K. Harra, K. M. Aggarwal, & W. A. Feibelman.* 385, 375, 16-E1 (1992)

Fe XVIII Emission-Line Intensities in the Sun. *D. L. McKenzie, F. P. Keenan, S. M. McCann, K. A. Berrington, A. Hibbert, & M. Mohan.* 385, 378, 16-E5 (1992)

C IV Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, L. K. Harra, V. M. Burke, & K. G. Widing.* 385, 381, 16-E9 (1992)

Transitions from Metastable Levels Emitted during Short-Duration Bursts: How Valid Are Their Calculated Intensities? *Uri Feldman.* 385, 758, 22-E1 (1992)

Mg IX Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, L. K. Harra, & K. G. Widing.* 386, 371, 28-G1 (1992)

The Effect of Electron Collisions on Rotational Populations of Cometary Water. *Xingfa Xie & Michael J. Mumma.* 386, 720, 34-C4 (1992)

Anisotropic Line Emission and the Geometry of the Broad-Line Region in Active Galactic Nuclei. *G. J. Ferland, B. M. Peterson, K. Horne, W. F. Welsh, & S. N. Nahar.* 387, 95, 38-C1 (1992)

The Oscillator Strength of the Si II $3s^23p\ ^2P$–$3s3p^2\ ^2D$ Multiplet and the Interstellar Abundance of Silicon. *P. L. Dufton, F. P. Keenan, A. Hibbert, P. C. Ojha, & R. P. Stafford.* 387, 414, 42-B1 (1992)

A New Scheme for Multidimensional Line Transfer. II. ETLA Method in One Dimension with Application to Iron Kα Lines. *John I. Castor, Pieter G. Dykema, & Richard I. Klein.* 387, 561, 45-F1 (1992)

Solar Si II Line Ratios from the High-Resolution Telescope and Spectrograph. *F. P. Keenan, J. W. Cook, P. L. Dufton, & A. E. Kingston.* 387, 726, 47-F9 (1992)

The Optically Thick C III Spectrum. I. Term Populations and Multiplet Intensities at Lower Optical Depths. *A. K. Bhatia & S. O. Kastner.* 79, 139, 14-G3 (1992)

Ne V Line Ratios in the EUV Spectra of Solar Flares. *F. P. Keenan, E. S. Conlon, L. K. Harra, K. M. Aggarwal, & K. G. Widing.* 389, 440, 65-D1 (1992)

What Caused an Unusually Broad He I 10830 Å Emission Line in a Solar Limb Flare? *J. Q. You & G. K. Oertel.* 389, L33, 66-E1 (1992)

On the Density and Field Sensitivities of Dielectronic Recombination. *Daniel B. Reisenfeld, John C. Raymond, Albert R. Young, & John L. Kohl.* 389, L37, 66-E5 (1992)

N III Line Emission in Planetary Nebulae: Continuum Fluorescence. *G. J. Ferland.* 389, L63, 73-D1 (1992)

Radiative Atomic Rosseland Mean Opacity Tables. *Forrest J. Rogers & Carlos A. Iglesias.* 79, 507, 20-G11 (1992)

Spectrophotometry of Bowen Resonance Fluorescence Lines in Three Planetary Nebulae. *C. R. O'Dell & Christopher O. Miller.* 390, 219, 76-F4 (1992)

Gamma-Ray Deposition and Nonthermal Excitation in Supernovae. *Cecilia Kozma & Claes Fransson.* 390, 602, 82-G1 (1992)

X-Ray Emission-Line Spectra of Photoionized Plasmas: Density Sensitivity of the Fe L-Shell Series. *Duane A. Liedahl, Steven M. Kahn, Albert L. Osterheld, & William H. Goldstein.* 391, 306, 89-F11 (1992)

Rate Coefficients for the Excitation of Infrared and Ultraviolet Lines in C II, N III, and O IV. *Robert D. Blum & Anil K. Pradhan.* 80, 425, 28-C11 (1992)

Excitation Rate Coefficients for Transitions among the $n = 1$, 2, and 3 Levels of He^+. *K. M. Aggarwal, J. Callaway, A. E. Kingston, & K. Unnikrishnan.* 80, 473, 28-G13 (1992)

Electron Impact Polarization of Atomic Spectral Lines. I. A General Theoretical Scheme. *Silvano Fineschi & Egidio Landi Degl'Innocenti.* 392, 337, 105-B6 (1992)

On the Use of Forbidden Lines as Density Diagnostics in Stratified Media. *Pedro N. Safier.* 392, 492, 108-D5 (1992)

An Opacity Mechanism for the Pulsations of OB Stars. *Arthur N. Cox, Siobahn M. Morgan, Forrest J. Rogers, & Carlos A. Iglesias.* 393, 272, 117-E3 (1992)

Ortho-para–Hydrogen Equilibration on Jupiter. *Barbara E. Carlson, Andrew A. Lacis, & William B. Rossow.* 393, 357, 118-E6 (1992)

X-Ray Emission-Line Ratios in Mg XI as Electron Temperature Diagnostics for Solar Flares and Active Regions. *F. P. Keenan, K. J. H. Phillips, L. K. Harra, E. S. Conlon, & A. E. Kingston.* 393, 815, 126-A9 (1992)

Analytical Cross Sections and Rate Coefficients for H-H Inelastic Collisions. *W. H. Soon.* 394, 717, 138-D6 (1992)

Maximum Principal Quantum Numbers of the Atomic Hydrogen in the Solar Chromosphere and Photosphere. *J. A. Kunc & W. H. Soon.* 396, 364, 159-E11 (1992)

A Simple Correction for the Born Approximation for Electron Impact Excitation of Hydrogenic Ions. *Young-Dae Jung.* 396, 725, 166-C11 (1992)

Spin-Orbit Interaction Effects on the Rosseland Mean Opacity. *Carlos A. Iglesias, Forrest J. Rogers, & Brian G. Wilson.* 397, 717, 180-A7 (1992)

New Results for Photoionization and Recombination of Astrophysically Abundant Atoms and Ions: The Carbon Sequence. *Sultana N. Nahar & Anil K. Pradhan.* 397, 729, 180-B10 (1992)

Dielectronic Recombination as a Function of Electric Field Strength. *Daniel B. Reisenfeld.* 398, 386, 186-E9 (1992)

Iron Ionization and Recombination Rates and Ionization Equilibrium. *M. Arnaud & J. Raymond.* 398, 394, 186-F5 (1992)

A Burst Model for Line Emission in the Solar Atmosphere. II. Coronal Extreme Ultraviolet Lines. *U. Feldman, J. M. Laming, P. Mandelbaum, W.H. Goldstein, & A. Osterheld.* 398, 692, 192-F3 (1992)

On the Calculation of Atomic Term Populations. *S. O. Kastner & A. K. Bhatia.* 398, 698, 192-F11 (1992)

Heating the Warm Ionized Medium. *R. J. Reynolds & D. P. Cox.* 400, L33, 214-D10 (1992)

Rosseland Mean Opacities for Variable Compositions. *Forrest J. Rogers & Carlos A. Iglesias.* 401, 361, 225-E1 (1992)

Accurate Oscillator Strengths for Ultraviolet Lines of Ar I: Implications for Interstellar Material. *S. R. Federman, D. J. Beideck, R. M. Schectman, & D. G. York.* 401, 367, 225-E9 (1992)

Extreme Ultraviolet Line Ratios for Ca XV Applicable to Solar Flare Spectra. *F. P. Keenan, E. S. Conlon, V. J. Foster, K. M. Aggarwal, & K. G. Widing.* 401, 411, 226-B5 (1992)

Photon Escape Probabilities from Resolved Sources: Application to Solar C III Limb Emission. *S. O. Kastner & A. K. Bhatia.* 401, 416, 226-C1 (1992)

Continuous Absorption of He I λ10830 in Planetary Nebulae. *J. Kingdon & G. J. Ferland.* 403, 211, 16-E7 (1993)

The He II 1640 Å Multiplet Observed from Solar Prominences. *J. M. Laming & U. Feldman.* 403, 434, 19-B11 (1993)

Rational Function Approximations for Fermi-Dirac Integrals. *H. M. Antia.* 84, 101, 2-D9 (1993)

Electrical and Thermal Conductivities of Dense Matter in the Crystalline Lattice Phase. II. Impurity Scattering. *Naoki Itoh & Yasuharu Kohyama.* 404, 268, 31-C1 (1993)

Identification of the Fe XV $3s3p\ ^1P$–$3p^2\ ^1S$ Line in Solar Flare Spectra and Its Use as an Electron Density Diagnostic. *F. P. Keenan, P. L. Dufton, E. S. Conlon, V. J. Foster, A. E. Kingston, & K. G. Widing.* 405, 798, 53-A7 (1993)

Rate Coefficients for Momentum Transfer, Charge Transfer, and Radiative Association Processes in Collisions of H^+ with He below 10^5 K. *M. Kimura, N. F. Lane, A. Dalgarno, & R. G. Dixson.* 405, 801, 53-A11 (1993)

Solar Coronal Observations and Formation of the He II 304 Å Line. *S. D. Jordan, W. T. Thompson, R. J. Thomas, & W. M. Neupert.* 406, 346, 59-C8 (1993)

Theoretical Emission-Line Strengths for Fe XXIII and a Comparison with Solar Observational Data. *F. P. Keenan, E. S. Conlon, G. A. Warren, A. W. Boone, & P. H. Norrington.* 406, 350, 59-D1 (1993)

Electron Impact Excitation of Fe XXVI: Collision Strengths and Rate Coefficients. *K. M. Aggarwal & A. E. Kingston.* 85, 187, 8-F3 (1993)

Effective Collision Strengths for Transitions in O III. *K. M. Aggarwal.* 85, 197, 8-G1 (1993)

C III Spectra in WC Wolf-Rayet Stars: Does Collisional Excitation Dominate? *S. O. Kastner & A. K. Bhatia.* 406, 708, 66-F6 (1993)

Photoionization of the Hydrogen Atom in Strong Magnetic Fields. *Alexander Yu. Potekhin & George G. Pavlov.* 407, 330, 73-B11 (1993)

Electric Field Effects on Dielectronic Recombination in a Collisional-Radiative Model. *N. R. Badnell, M. S. Pindzola, W. J. Dickson, H. P. Summers, D. C. Griffin, & J. Lang.* 407, L91, 82-F11 (1993)

The Optically Thin C III Spectrum: Line and Multiplet Intensities. *A. K. Bhatia & S. O. Kastner.* 408, 744, 94-D7 (1993)

Cross Section Parameterizations for Cosmic-Ray Nuclei. I. Single Nucleon Removal. *John W. Norbury & Lawrence W. Townsend.* 86, 307, 18-A11 (1993)

Semiclassical Approximation for Electron Impact Excitation of Hydrogenic Ions. *Young-Dae Jung.* 409, 841, 109-E12 (1993)

High-Resolution Measurements, Line Identification, and Spectral Modeling of Kα Transitions in Fe XVIII–Fe XXV. *P. Beiersdorfer, T. Phillips, V. L. Jacobs, K. W. Hill, M. Bitter, S. von Goeler, & S. M. Kahn.* 409, 846, 109-F6 (1993)

The Ratio of Optical-to-Infrared Emission Line Strengths in Ar III as Electron Density Diagnostics for Planetary Nebulae. *F. P. Keenan & E. S. Conlon.* 410, 426, 117-C12 (1993)

Measurement of the Transition Probability of the C III 190.9 Nanometer Intersystem Line. *Victor H. S. Kwong, Z. Fang, T. T. Gibbons, W. H. Parkinson, & Peter L. Smith.* 411, 431, 132-G7 (1993)

New *f*-Values in C I and the CNO Abundances in the Sun. *E. Biémont, A. Hibbert, M. Godefroid, & N. Vaeck.* 412, 431, 147-D12 (1993)

Radiative Opacities for Carbon- and Oxygen-rich Mixtures. *Carlos A. Iglesias & Forrest J. Rogers.* 412, 752, 153-B8 (1993)

S XI Line Ratios in the Sun. *F. P. Keenan, V. J. Foster, E. S. Conlon, K. M. Aggarwal, & K. G. Widing.* 413, 826, 166-F3 (1993)

Radiative Lifetimes of the $2s2p^2(^4P)$ Metastable Levels of N III. *Z. Fang, Victor H. S. Kwong, & W. H. Parkinson.* 413, L141, 169-D1 (1993)

Infrared Coronal Emission Lines and the Possibility of Their Laser Emission in Seyfert Nuclei. *Matthew A. Greenhouse, Uri Feldman, Howard A. Smith, Marcel Klapisch, Anand K. Bhatia, & Avi Bar-Shalom.* 88, 23, 40-C11 (1993)

A Masing [Fe XI] Line. *G. J. Ferland.* 88, 49, 40-F13 (1993)

Cooling Functions for Low-Density Astrophysical Plasmas. *Ralph S. Sutherland & M. A. Dopita.* 88, 253, 43-D9 (1993)

Thomas-Fermi Calculations of Atoms and Matter in Magnetic Neutron Stars: Effects of Higher Landau Bands. *Ö. E. Rögnvaldsson, I. Fushiki, E. H. Gudmundsson, C. J. Pethick, & J. Yngvason.* 416, 276, 204-E3 (1993)

Finite-Velocity Effects on Atoms in Strong Magnetic Fields and Implications for Neutron Star Atmospheres. *G. G. Pavlov & P. Mészáros.* 416, 752, 212-F8 (1993)

Double Troughs in Broad Absorption Line Quasars and Lyα–N V Line Locking. *Kirk T. Korista, G. Mark Voit, Simon L. Morris, & Ray J. Weymann.* 88, 357, 45-B1 (1993)

Rate Coefficients for Charge Transfer of He^+ with C. *M. Kimura, A. Dalgarno, L. Chantranupong, Y. Li, G. Hirsch, & R. J. Buenker.* 417, 812, 229-E2 (1993)

Electrical and Thermal Conductivities of Dense Matter in the Crystalline Lattice Phase. III. Inclusion of Lower Densities. *Naoki Itoh, Hiroshi Hayashi, & Yasuharu Kohyama.* 418, 405, 236-A13 (1993)

On the Surface Sputtering Effects of Magnetospheric Charged Particles at Mercury. *W.-H. Ip.* 418, 451, 236-E12 (1993)

The Optically Thick C III Spectrum. II. Level/Term Populations and Line/Multiplet Intensities Using an Improved Hybrid Model. *A. K. Bhatia & S. O. Kastner.* 89, 227, 51-G11 (1993)

Helium-like Argon Line Emission in Solar Flares. *K. J. H. Phillips, L. K. Harra, F. P. Keenan, D. M. Zarro, & M. Wilson.* 419, 426, 251-E3 (1993)

Quadrupolar Transition Probabilities for Open-Shell Atomic Systems. *T. K. Ghosh, A. K. Das, & P. K. Mukherjee.* 419, 855, 258-C1 (1993)

New Pre–Main-Sequence Tracks for $M \leq 2.5 M\odot$ as Tests of Opacities and Convection Model. *Francesca D'Antona & Italo Mazzitelli.* 90, 467, 8-D14 (1994)

More Missing Stellar Opacity? *Richard B. Stothers & Chao-wen Chin.* 421, L91, 29-F9 (1994)

Interstellar Carbon Chemistry: Reaction Rates of Neutral Atomic Carbon with Organic Molecules. *D. C. Clary, N. Haider, D. Husain, & M. Kabir.* 422, 416, 35-C6 (1994)

Radiative Hyperfine Transitions. *Robert J. Gould.* 423, 522, 52-F1 (1994)

N III Intercombination Lines in the *IUE* Spectra of Gaseous Nebulae. *F. P. Keenan, P. L. Dufton, W. A. Feibelman, K. L. Bell, A. Hibbert, & R. P. Stafford.* 423, 882, 59-G3 (1994)

One-Photon Annihilation of Thermal Positrons with Bound Atomic Electrons. *Young-Dae Jung.* 424, 988, 77-B3 (1994)

Solar Coronal Temperature Diagnostics Using Emission Lines from Multiple Stages of Ionization of Iron. *Jeffrey W. Brosius, Joseph M. Davila, Roger J. Thomas, & William T. Thompson.* 425, 343, 84-E7 (1994)

The Allowed Lines of O IV near 1340 Å in High Electron Density Solar Flares. *J. W. Cook, F. P. Keenan, & A. K. Bhatia.* 425, 861, 92-E1 (1994)

Rotational Excitation of H_2 in Collision with H. *Y. Sun & A. Dalgarno.* 427, 1053, 125-F9 (1994)

Charge Transfer in Helium-rich Supernova Plasma. *Douglas A. Swartz.* 428, 267, 131-D13 (1994)

Recombinational Lines of P_S (Positronium) as Tracer of Annihilation Processes. *V. V. Burdyuzha & V. L. Kauts.* 92, 549, 39-B6 (1994)

Charge Exchange Reaction Rates of Thermal Positrons in H, H_2, and He. *P. Wallyn, C. Chapuis, & Ph. Durouchoux.* 92, 551, 39-B10 (1994)

New Measurements of Charge-changing Cross Sections in Carbon and Hydrogen Targets above 2 GeV per Nucleon: Evidence for an Energy Dependence That May Strongly Affect Estimates of the Energy Dependence of Cosmic-Ray Diffusion in the Galaxy. *W. R. Webber, W. R. Binns, D. Crary, & M. Westphall.* 429, 764, 155-B9 (1994)

Coronal Electron Density Diagnostic from Fe XII. *J. W. Cook, F. P. Keenan, L. K. Harra, & S. S. Tayal.* 429, 924, 157-B9 (1994)

Radiative and Nonradiative Charge Transfer in Collisions of H^+ with Li below 1 keV. *M. Kimura, C. M. Dutta, & N. Shimakura.* 430, 435, 164-F14 (1994)

High Rydberg State Carbon Recombination Lines toward Cassiopeia A: Physical Conditions and a New Class of Models. *H. E. Payne, K. R. Anantharamaiah, & W. C. Erickson.* 430, 690, 170-D7 (1994)

Weak Soft X-Ray Excesses Need Not Result from the High-Frequency Tail of the Optical/Ultraviolet Bump in Active Galactic Nuclei. *Bożena Czerny & Piotr T. Życki.* 431, L5, 182-C7 (1994)

On the Thermochemical Stability of the Pregalactic Gas. I. The Equilibrium States. *Patricia Rosenzweig, Antonio Parravano, Miguel H. Ibáñez S., & Yu. I. Izotov.* 432, 485, 202-A7 (1994)

Fe XVI Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, V. J. Foster, S. S. Tayal, & K. G. Widing.* 432, 809, 206-B1 (1994)

Laser Action in Far-Infrared Astrophysical Sources. *Jianfang Peng & Anil K. Pradhan.* 432, L123, 207-B7 (1994)

Symmetries in Neutrino-Electron Scattering. *J. Cernohorsky.* 433, 247, 211-D1 (1994)

Collisional Excitation of Fe X due to Electron Impact Using the **R**-Matrix Method. *M. Mohan, A. Hibbert, & A. E. Kingston.* 434, 389, 230-G12 (1994)

Relative Emission-Line Strengths for the 146 and 63 Micron Transitions in O I and a Comparison with Far-Infrared Observations of Photodissociation Regions. *F. P. Keenan, E. S. Conlon, & R. H. Rubin.* 434, 811, 239-B3 (1994)

Analytical Fits for Electron Collisionally Excited Effective Collision Strengths of O II. *Brendan M. McLaughlin & Kenneth L. Bell.* 94, 825, 63-B12 (1994)

Electron Energy Loss in Oxygen Plasmas. *G. A. Victor, John C. Raymond, & J. L. Fox.* 435, 864, 258-A7 (1994)

Fe XXV Temperatures in Flares from the *Yohkoh* Bragg Crystal Spectrometer. *Alphonse C. Sterling, George A. Doschek, & C. David Pike.* 435, 898, 258-E3 (1994)

Associative Ionization Processes within Interstellar Clouds. *Simon Petrie & Diethard K. Bohme.* 436, 411, 267-A8 (1994)

Emission Lines from Condensing Intracluster Gas. *G. Mark Voit, Megan Donahue, & Jonathan D. Slavin.* 95, 87, 65-C8 (1994)

On the Predicted Abundances of Iron and Nickel Supported by Radiative Levitation in the Atomospheres of Hot DA White Dwarfs. *P. Chayer, F. LeBlanc, G. Fontaine, F. Wesemael, G. Michaud, & S. Vennes.* 436, L161, 281-F7 (1994)

Excitation of O I Lines in the Solar Chromosphere. *R. Grant Athay & Philip G. Judge.* 438, 491, 8-D4 (1995)

N IV Emission Lines in the Ultraviolet Spectra of Gaseous Nebulae. *F. P. Keenan, C. A. Ramsbottom, K. L. Bell, K. A. Berrington, A. Hibbert, W. A. Feibelman, & W. P. Blair.* 438, 500, 8-E3 (1995)

Neutral Gas Contributions to [S II] Emission. *S. J. Petuchowski & C. L. Bennett.* 438, 735, 14-D3 (1995)

New Calculations of Fe *L*-Shell X-Ray Spectra in High-Temperature Plasmas. *Duane A. Liedahl, Albert L. Osterheld, & William H. Goldstein.* 438, L115, 20-D2 (1995)

The Neutral Oxygen Spectrum. II. Pumping by Hydrogen Lyman-β under the Optically Thin Condition: A First Application to the Classical Novae. *S. O. Kastner & A. K. Bhatia.* 439, 346, 26-A1 (1995)

The Neutral Oxygen Spectrum. I. Collisionally Excited Level Populations and Line Intensities under Optically Thin Conditions. *A. K. Bhatia & S. O. Kastner.* 96, 325, 5-F10 (1995)

Electron Excitation Cross Sections for the $2s^22p^3\ {}^4S^o \rightarrow 2s^22p^3\ {}^2D^o$ (Forbidden) and $^4S^o \rightarrow 2s2p^4\ {}^4P$ (Resonance) Transitions in O II. *M. Zuo, Steven J. Smith, A. Chutjian, I. D. Williams, S. S. Tayal, & Brendan M. McLaughlin.* 440, 421, 47-A10 (1995)

Screening Effects on Nonrelativistic Bremsstrahlung in the Scattering of Electrons by Neutral Atoms. *Young-Dae Jung & Kun-Sang Lee.* 440, 830, 54-E2 (1995)

Spectroscopic Studies of DB White Dwarfs: Confirmation and Modeling of New Forbidden Components of He I. *A. Beauchamp, F. Wesemael, P. Bergeron, & James Liebert.* 441, L85, 76-C4 (1995)

Collisional Effects in He I: An Observational Analysis. *J. Kingdon & G. J. Ferland.* 442, 714, 90-A8 (1995)

Stellar Coronal Abundances. III. The Solar First Ionization Potential Effect Determined from Full-Disk Observation. *J. Martin Laming, Jeremy J. Drake, & Kenneth G. Widing.* 443, 416, 100-G2 (1995)

Discrepancies between OPAL and OP Opacities at High Densities and Temperatures. *Carlos A. Iglesias & Forrest J. Rogers.* 443, 460, 101-D6 (1995)

High-Resolution Measurements of the Kα Spectra of Low-Ionization Species of Iron: A New Spectral Signature of Nonequilibrium Ionization Conditions in Young Supernova Remnants. *V. Decaux, P. Beiersdorfer, A. Osterheld, M. Chen, & S. M. Kahn.* 443, 464, 101-D13 (1995)

New Model Atmospheres for Very Cool White Dwarfs with Mixed H/He and Pure He Compositions. *P. Bergeron, D. Saumon, & F. Wesemael.* 443, 764, 108-D1 (1995)

New Model of Iron Spectra in the Extreme Ultraviolet and Application to SERTS and *EUVE* Observations: A Solar Active Region and Capella. *N. S. Brickhouse, J. C. Raymond, & B. W. Smith.* 97, 551, 19-F4 (1995)

The O IV and S IV Intercombination Lines in Solar and Stellar Ultraviolet Spectra. *J. W. Cook, F. P. Keenan, P. L. Dufton, A. E. Kingston, A. K. Pradhan, H. L. Zhang, J. G. Doyle, & M. A. Hayes.* 444, 936, 129-C9 (1995)

Instabilities and the Transport of Polarized Astrophysical Maser Radiation. *Bradley K. Wallin & William D. Watson.* 445, 465, 139-A4 (1995)

Thermal Cyclotron Absorption Coefficients. II. Opacities in the Stokes Formalism. *H. M. Väth & G. Chanmugam.* 98, 295, 26-A9 (1995)

Effects of Heavy Metals on Astrophysical Opacities. *C. A. Iglesias, B. G. Wilson, F. J. Rogers, W. H. Goldstein, A. Bar-Shalom, & J. Oreg.* 445, 855, 147-A3 (1995)

Interpretation of Anomalous Ultraviolet Transitions of Fe II Observed in Laboratory Fourier Transform Spectra and Stellar *HST* and *IUE* Spectra. *Sveneric Johansson, Tomas Brage, David S. Leckrone, Gillian Nave, & Glenn M. Wahlgren.* 446, 361, 158-C1 (1995)

Effective Collision Strengths for Electron Excitation of Fine-Structure Transitions in Fe XIII. *S. S. Tayal.* 446, 895, 168-E5 (1995)

Radiative Hyperfine Transitions. *R. H. Garstang.* 447, 962, 189-B6 (1995)

Unified Electron-Ion Recombination Rate Coefficients of Silicon and Sulfur Ions. *Sultana N. Nahar & Anil K. Pradhan.* 447, 966, 189-B13 (1995)

A Theory of Winds from Wolf-Rayet Stars. *D. Eichler, A. Bar Shalom, & J. Oreg.* 448, 858, 206-F6 (1995)

Bound-Bound Transitions in Strongly Magnetized Hydrogen Plasma. *George G. Pavlov & Alexander Y. Potekhin.* 450, 883, 243-B6 (1995)

Satellites on Lyman Alpha Due to H-H and H-H^+ Collisions. *John F. Kielkopf & Nicole F. Allard.* 450, L75, 245-A8 (1995)

Atomic Physics with the Goddard High-Resolution Spectrograph on the *Hubble Space Telescope*. II. Oscillator Strengths for Singly Ionized Iron. *Jason A. Cardelli & Blair D. Savage.* 452, 275, 266-A1 (1995)

Solar Lyman Series Line Profiles and Atomic Hydrogen Excitation Rates. *R. R. Meier.* 452, 462, 268-E1 (1995)

The $2p^53l$ Configurations of Highly Stripped Ne-like Ions: Possibility of X-Ray Laser Emission. *T. K. Ghosh, A. K. Das, T. K. Mukherjee, & P. K. Mukherjee.* 452, 949, 277-G13 (1995)

Independent Confirmation of the 8.665 GHz Hyperfine Line of $^3He^+$ in W51. *M. B. Bell.* 453, 773, 294-E7 (1995)

Extreme Ultraviolet Emission Lines of Fe XIII in Solar and Stellar Spectra. *F. P. Keenan, V. J. Foster, J. J. Drake, S. S. Tayal, & K. G. Widing.* 453, 906, 296-D9 (1995)

Radiative $He^+(1s)$ + $He(1s^2)$ Processes as the Source of the DB White Dwarf Atmosphere Electromagnetic Continuous Spectra. *A. A. Mihajlov, M. S. Dimitrijević, Lj. M Ignjatović, & Z. Djurić.* 454, 420, 305-B3 (1995)

Improved Calculations of the Equilibrium Abundances of Heavy Elements Supported by Radiative Levitation in the Atmospheres of Hot DA White Dwarfs. *P. Chayer, S. Vennes, A. K. Pradhan, P. Thejll, A. Beauchamp, G. Fontaine, & F. Wesemael.* 454, 429, 305-D4 (1995)

The Oxygen Temperature of SN 1987A. *Weihong Liu & A. Dalgarno.* 454, 472, 305-G1 (1995)

Simultaneous Observation of Direct and Raman-scattered O VI Lines in the Symbiotic Nova RR Telescopii. *Brian R. Espey, Regina E. Schulte-Ladbeck, Gerard A. Kriss, Fred Hamann, Hans M. Schmid, & Joni J. Johnson.* 454, L61, 308-D8 (1995)

Partial Redistribution in Multilevel Atoms. I. Method and Application to the Solar Hydrogen Line Formation. *I. Hubeny & B. W. Lites.* 455, 376, 323-C8 (1995)

The Iron L/K Emission-Line Ratio in Photoionized Gases. *T. R. Kallman.* 455, 603, 330-C1 (1995)

Systematic Studies of N IV Transitions of Astrophysical Importance. *J. Fleming, T. Brage, K. L. Bell, N. Vaeck, A. Hibbert, M. R. Godefroid, & C. Froese Fischer.* 455, 758, 332-C13 (1995)

Far-Ultraviolet Emission Cross Sections of Ne II and Ne III Excited by Electron Impact. *Geoffrey K. James, Isik Kanik, & Joseph M. Ajello.* 455, 769, 332-D13 (1995)

Fine-Structure Resolved Dielectronic Recombination Rates for the $n = 3$ Excited Configurations of Fe XVI–Fe XIX. *Arati Dasgupta.* 101, 401, 59-C4 (1995)

Electron-Ion Recombination Rate Coefficients for Si I, Si II, S II, S III, C II, and C-like Ions C I, N II, O III, F IV, Ne V, Na VI, Mg VII, Al VIII, Si IX, and S XI. *Sultana N. Nahar.* 101, 423, 59-E1 (1995)

BALLOONS

The Solar Diameter and Oblateness Measured by the Solar Disk Sextant on the 1992 September 30 Balloon Flight. *S. Sofia, W. Heaps, & L. W. Twigg.* 427, 1048, 125-F2 (1994)

Detection of a Flaring Low-Energy Gamma-Ray Source. *Dipen Bhattacharya & Alan Owens.* 430, 371, 163-G2 (1994)

Gamma-Ray Observations in the Galactic Center Region with an Imaging Detector. *Jalal Samimi & Robert L. Kinzer.* 434, 136, 227-A8 (1994)

Balloon-borne Measurements of the SN 1987A Hard X-Ray Continuum. *Geoffrey N. Pendleton, William S. Paciesas, Gerald J. Fishman, Charles A. Meegan, & Robert B. Wilson.* 439, 963, 37-G13 (1995)

Evaluation of Earth's Atmospheric Brightness Temperature at Decimetric Wavelengths. *C. Ajello, G. Bonelli, & G. Sironi.* 96, 643, 10-E13 (1995)

BLACK HOLE PHYSICS

Accretion Flows near Black Holes Mediated by Radiative Viscosity. *Abraham Loeb & Ari Laor.* 384, 115, 2-D10 (1992)

A Reanalysis of the Orbital Inclination of Cygnus XR-1 Determined Polarimetrically. *Joseph F. Dolan.* 384, 249, 4-A9 (1992)

Angular Momentum and Black Hole Formation in Stellar Systems: A Statistical Approach. *Fernando de Felice, Yunqiang Yu, & Guorong Zhou.* 384, 560, 9-B5 (1992)

Accretion Disks in Active Galactic Nuclei: Vertically Averaged Models. *John K. Cannizzo & Christine M. Reiff.* 385, 87, 13-B1 (1992)

Accretion Disks in Active Galactic Nuclei: Vertically Explicit Models. *John K. Cannizzo.* 385, 94, 13-B9 (1992)

Gas Clouds from Tidally Disrupted Stars in Active Galactic Nuclei. *Nico Roos.* 385, 108, 13-C11 (1992)

The Optical Variability of PKS 2155−304. *Michael T. Carini & H. Richard Miller.* 385, 146, 13-G1 (1992)

Variability of the Galactic Center in the Hard X-Ray Range. *A. Bazzano, C. La Padula, P. Ubertini, & R. K. Sood.* 385, L17, 17-C1 (1992)

Magnetic Acceleration of Broad Emission-Line Clouds in Active Galactic Nuclei. *Robert T. Emmering, Roger D. Blandford, & Isaac Shlosman.* 385, 460, 19-A1 (1992)

Radiation Dynamics in X-Ray Binaries. III. Extremely Compact Objects. *Mark A. Walker.* 385, 661, 21-C10 (1992)

Accretion in a Kerr Black Hole Magnetosphere: Energy and Angular Momentum Transport between the Magnetic Field and the Matter. *Kouichi Hirotani, Masaaki Takahashi, Shin-ya Nitta, & Akira Tomimatsu.* 386, 455, 31-A11 (1992)

Standing Shocks in Accretion Disks and the Spectra of Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 387, L21, 43-C4 (1992)

An Accreting Black Hole Model for Sagittarius A*. *Fulvio Melia.* 387, L25, 43-C10 (1992)

Hard X-Ray Imaging of the Galactic Black Hole Candidate GX 339−4. *C. E. Covault, J. E. Grindlay, & R. P. Manandhar.* 388, L65, 59-C12 (1992)

Self-gravitating Thin Disks around Rapidly Rotating Black Holes. *Antonio Lanza.* 389, 141, 61-G1 (1992)

X-Ray Nova in Musca (GRS 1124−68): Hard X-Ray Source with Narrow Annihilation Line. *R. Sunyaev, E. Churazov, M. Gilfanov, A. Dyachkov, N. Khavenson, S. Grebenev, R. Kremnev, K. Sukhanov, A. Goldwurm, J. Ballet, B. Cordier, J. Paul, M. Denis, G. Vedrenne, M. Niel, & E. Jourdain.* 389, L75, 73-E1 (1992)

Periodic Variability in the Optical Counterpart of X-Ray Nova Muscae 1991. *Charles D. Bailyn.* 391, 298, 89-F1 (1992)

Canonical Time Variations of X-Rays from Black Hole Candidates in the Low-Intensity State. *Sigenori Miyamoto, Shunji Kitamoto, Sayuri Iga, Hitoshi Negoro, & Kentaro Terada.* 391, L21, 92-B1 (1992)

Active Galactic Nuclei. IV. Supplying Black Hole Clusters by Tidal Disruption and by Tidal Capture of Stars. *W. R. Stoeger, S.J., A. G. Pacholczyk, & T. F. Stepinski.* 391, 550, 94-F13 (1992)

Cosmic Gamma-Ray Bursts from Black Hole Tidal Disruption of Stars? *Brandon Carter.* 391, L67, 99-D13 (1992)

SIGMA Observation of Hard X-Ray Emission from the Ultrasoft X-Ray Transient Triangulum Australe X-1 (A1524−62). *D. Barret, J. P. Roques, P. Mandrou, L. Bouchet, F. Lebrun, A. Goldwurm, P. Laurent, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, A. Diachkov, N. Kavenson, B. Novikov, I. Chulkov, & A. Kuznetsov.* 392, L19, 106-C7 (1992)

Geometrically Thin, Hot Accretion Disks: Topology of the Thermal Equilibrium Curves. *Masaaki Kusunose & Shin Mineshige.* 392, 653, 110-D1 (1992)

On the Origin of Variable 511 keV Line Emission from the Galactic Center Region. *R. Ramaty, M. Leventhal, K. W. Chan, & R. E. Lingenfelter.* 392, L63, 113-C5 (1992)

Evidence for a Supermassive Black Hole in NGC 3115. *John Kormendy & Douglas Richstone.* 393, 559, 122-G1 (1992)

Hot Pair-dominated Accretion Disks. *Gunnlaugur Björnsson & Roland Svensson.* 394, 500, 135-E9 (1992)

Discovery and X-Ray Properties of GS 1124−683 (=Nova Muscae). *Shunji Kitamoto, Hiroshi Tsunemi, Sigenori Miyamoto, & Kiyoshi Hayashida.* 394, 609, 137-A6 (1992)

Gamma-Ray Bursts as the Death Throes of Massive Binary Stars. *Ramesh Narayan, Bohdan Paczyński, & Tsvi Piran.* 395, L83, 153-G10 (1992)

A Determination of the Mass of Sagittarius A* from Its Radio Spectral and Source Size Measurements. *Fulvio Melia, J. R. Jokipii, & Ajay Narayanan.* 395, L87, 154-A1 (1992)

Gravitational Wave Burst Produced by Merging of Central Black Holes of Galaxies. *Toshiyuki Fukushige, Toshikazu Ebisuzaki, & Junichiro Makino.* 396, L61, 166-G7 (1992)

Microlensed Light Curves for Thin Accretion Disks around Schwarzschild and Kerr Black Holes. *M. Jaroszyński, J. Wambsganss, & B. Paczyński.* 396, L65, 167-A1 (1992)

The Nucleus of M31. *Fulvio Melia.* 398, L95, 194-C8 (1992)

Populations of Low-Mass Black Hole Binaries. *Roger W. Romani.* 399, 621, 205-F1 (1992)

Evidence for a Black Hole in the X-Ray Binary Nova Muscae 1991. *Ronald A. Remillard, Jeffrey E. McClintock, & Charles D. Bailyn.* 399, L145, 208-C7 (1992)

Accretion Disk Self-Eclipse: X-Ray Light Curve and Emission Line. *G. Bao & Z. Stuchlík.* 400, 163, 211-A1 (1992)

Importance of Synchrotron Cooling in Self-consistent Spherical Accretion Models. *A. Mason & R. Turolla.* 400, 170, 211-A10 (1992)

Tidal Interactions of Inspiraling Compact Binaries. *Lars Bildsten & Curt Cutler.* 400, 175, 211-B1 (1992)

Possibility of Unique Detection of Primordial Black Hole Gamma-Ray Bursts. *David B. Cline & Woopyo Hong.* 401, L57, 232-F3 (1992)

Periodic Photometric Variability of the Black Hole Binary V404 Cygni. *R. Mark Wagner, T. J. Kreidl, S. B. Howell, & S. G. Starrfield.* 401, L97, 233-C13 (1992)

Relativistic Matter Distribution around a Black Hole: Astrophysical Consequences. *Ran Zamir.* 403, 278, 17-C12 (1993)

Cosmological Formation of Quasar Black Holes. *Abraham Loeb.* 403, 542, 22-C12 (1993)

An Interpretation of the Narrow Positron Annihilation Feature from X-Ray Nova Muscae 1991. *Wan Chen, Neil Gehrels, & F. H. Cheng.* 403, L71, 27-D7 (1993)

Smoothed Particle Hydrodynamics near a Black Hole. *Pablo Laguna, Warner A. Miller, & Wojciech H. Zurek.* 404, 678, 37-D3 (1993)

Finding Protoquasars at High Redshifts. *Abraham Loeb.* 404, L37, 40-B6 (1993)

Gamma-Ray Bursts from Stellar Mass Accretion Disks around Black Holes. *S. E. Woosley.* 405, 273, 44-E1 (1993)

The Secondary Maxima in Black Hole X-Ray Nova Light Curves: Clues toward a Complete Picture. *Wan Chen, Mario Livio, & Neil Gehrels.* 408, L5, 88-E8 (1993)

Massive Star Formation near the Galactic Center and the Fate of the Stellar Remnants. *Mark Morris.* 408, 496, 91-D1 (1993)

VLA Observations of 1E 1740.7−2942: A Search for Radio Recombination Lines of Positronium. *K. R. Anantharamaiah, K. S. Dwarakanath, D. Morris, W. M. Goss, & V. Radhakrishnan.* 410, 110, 113-E1 (1993)

Tidal Disruptions by Supermassive Black Holes: Hydrodynamic Evolution of Stars on a Schwarzschild Background. *Pablo Laguna, Warner A. Miller, Wojciech H. Zurek, & Melvyn B. Davies.* 410, L83, 125-G9 (1993)

Spiral Shocks in Accretion Disks As a Contributor to Variability in Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 411, 602, 137-B6 (1993)

Binary Black Holes in Stationary Orbits and a Test of the Active Galactic Nucleus Paradigm. *Sandip K. Chakrabarti.* 411, 610, 137-C2 (1993)

A Self-consistent Model for the Long-Term Gamma-Ray Spectral Variability of Cygnus X-1. *Fulvio Melia & Ranjeev Misra.* 411, 797, 139-F8 (1993)

On the Mass of the Compact Object in the Black Hole Binary A0620−00. *Carole A. Haswell, Edward L. Robinson, Keith Horne, Rae F. Stiening, & Timothy M. C. Abbott.* 411, 802, 139-G1 (1993)

The Structure and Stability of Transonic Accretion Disks Surrounding Black Holes. *Xingming Chen & Ronald E. Taam.* 412, 254, 145-C4 (1993)

Can Isolated Stellar-Mass Black Holes Explain the Hard X-Ray Sources in the Galactic Center Region? *Sergio Campana & Sandro Mereghetti.* 413, L89, 168-E10 (1993)

The Einsteinian Gravitational Field of the Rigidly Rotating Disk of Dust. *G. Neugebauer & R. Meinel.* 414, L97, 185-G5 (1993)

Compton Backscattered Annihilation Radiation and the Mass of Nova Muscae. *Xin-Min Hua & Richard E. Lingenfelter.* 416, L17, 207-C11 (1993)

Smoothed Particle Hydrodynamics Confronts Theory: Formation of Standing Shocks in Accretion Disks and Winds around Black Holes. *Sandip K. Chakrabarti & Diego Molteni.* 417, 671, 227-F7 (1993)

N-Body Evolution of Dense Clusters of Compact Stars. *Man Hoi Lee.* 418, 147, 232-G12 (1993)

Weak Tidal Encounters of a Star with a Massive Black Hole. *A. Khokhlov, I. D. Novikov, & C. J. Pethick.* 418, 163, 233-B1 (1993)

Strong Effects during Close Encounters of a Star with a Massive Black Hole. *A. Khokhlov, I. D. Novikov, & C. J. Pethick.* 418, 181, 233-C7 (1993)

Turbulent Generation of Trapped Oscillations in Black Hole Accretion Disks. *Michael A. Nowak & Robert V. Wagoner.* 418, 187, 233-D1 (1993)

Three Years of Monitoring GRS 1758−258: An Extremely Hard X-Ray Source near GX 5−1. *M. Gilfanov, E. Churazov, R. Sunyaev, N. Khavenson, B. Novikov, A. Dyachkov, R. Kremnev, K. Sukhanov, L. Bouchet, P. Mandrou, J. P. Roques, G. Vedrenne, B. Cordier, A. Goldwurm, P. Laurent, & J. Paul.* 418, 844, 243-A13 (1993)

Vertical Structure and Emission Spectrum of an Accretion Disk around a Massive Black Hole. *Toshiya Shimura & Fumio Takahara.* 419, 78, 247-B3 (1993)

Formation of a Jet in the Galactic Center Black Hole Candidate 1E 1740.7−2942. *Ranjeev Misra & Fulvio Melia.* 419, L25, 252-D9 (1993)

Early Cosmic Formation of Massive Black Holes. *Masayuki Umemura, Abraham Loeb, & Edwin L. Turner.* 419, 459, 253-D13 (1993)

Relativistic Stellar Systems with Spindle Singularities. *Stuart L. Shapiro & Saul A. Teukolsky.* 419, 622, 255-D10 (1993)

Relativistic Stellar Systems with Rotation. *Stuart L. Shapiro & Saul A. Teukolsky.* 419, 636, 255-E12 (1993)

Optical Caustics in a Kerr Spacetime and the Origin of Rapid X-Ray Variability in Active Galactic Nuclei. *Kevin P. Rauch & Roger D. Blandford.* 421, 46, 16-F1 (1994)

The Vertical Structure and Stability of Accretion Disks Surrounding Black Holes and Neutron Stars. *J. A. Milsom, Xingming Chen, & Ronald E. Taam.* 421, 668, 26-E6 (1994)

Relativistic Precession of the Orbit of a Star near a Supermassive Black Hole. *V. Karas & D. Vokrouhlický.* 422, 208, 32-F6 (1994)

Neutron Tori around Kerr Black Holes. *H. J. Witt, M. Jaroszyński, P. Haensel, B. Paczyński, & J. Wambsganss.* 422, 219, 32-G5 (1994)

Rapidly Rotating Polytropes in General Relativity. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 422, 227, 33-A1 (1994)

A Broad-Band X-Ray Telescope Observation of the Black Hole Candidate LMC X-1. *Eric M. Schlegel, F. E. Marshall, R. F. Mushotzky, A. P. Smale, K. A. Weaver, P. J. Serlemitsos, R. Petre, & K. M. Jahoda.* 422, 243, 33-B5 (1994)

The Aftermath of Tidal Disruption: The Dynamics of Thin Gas Streams. *Christopher S. Kochanek.* 422, 508, 38-B11 (1994)

A Kinematic Model for Black Hole X-Ray Power Spectra. *Michael A. Nowak.* 422, 688, 40-D7 (1994)

Two-Phase Model of Accretion Disks: Pressure Balance. *Masaaki Kusunose & Shin Mineshige.* 423, 600, 56-A1 (1994)

A Scenario for a Large Number of Low-Mass Black Holes in the Galaxy. *G. E. Brown & H. A. Bethe.* 423, 659, 56-F11 (1994)

Near-Infrared Observations of the 1E 1740.7−2942 Field at the Galactic Center. *Joseph W. Haller & Fulvio Melia.* 423, L109, 60-F5 (1994)

Binary Radiopulsars with Black Holes. *V. M. Lipunov, K. A. Postnov, M. E. Prokhorov, & E. Yu. Osminkin.* 423, L121, 60-G9 (1994)

Structure of X-Ray Shots of Cygnus X-1 in Its Low State. *Hitoshi Negoro, Sigenori Miyamoto, & Shunji Kitamoto.* 423, L127, 61-A13 (1994)

Magnetic Activity in Thick Accretion Disks and Associated Observable Phenomena. I. Flux Expulsion. *Sandip K. Chakrabarti & Sydney D'Silva.* 424, 138, 63-F7 (1994)

Observations of Cygnus X-1 by COMPTEL during 1991. *M. McConnell, D. Forrest, J. Ryan, W. Collmar, V. Schönfelder, H. Steinle, A. Strong, R. van Dijk, W. Hermsen, & K. Bennett.* 424, 933, 76-D1 (1994)

Multiple Images and Light Curves of an Emitting Source on a Relativistic Eccentric Orbit around a Black Hole. *G. Bao, P. Hadrava, & E. Østgaard.* 425, 63, 81-A5 (1994)

Simulation of Thick Accretion Disks with Standing Shocks by Smoothed Particle Hydrodynamics. *Diego Molteni, Giuseppe Lanzafame, & Sandip K. Chakrabarti.* 425, 161, 82-B13 (1994)

Observation of GX 339−4 Hard State Outbursts in 1991 and 1992. *B. A. Harmon, C. A. Wilson, W. S. Paciesas, G. N. Pendleton, M. S. Briggs, B. C. Rubin, M. H. Finger, G. J. Fishman, M. N. Brock, R. B. Wilson, & C. A. Meegan.* 425, L17, 85-C11 (1994)

An Upper Limit to the Electrodynamic Power Output from a Thin Accretion Disk around a Black Hole. *Seok Jae Park & Ethan T. Vishniac.* 426, 131, 97-F11 (1994)

Time-dependent Disk Accretion in X-Ray Nova Muscae 1991. *Shin Mineshige, Akira Hirano, Shunji Kitamoto, Tatsuya T. Yamada, & Jun Fukue.* 426, 308, 100-A3 (1994)

An Accreting Black Hole Model for Sagittarius A*. II. A Detailed Study. *Fulvio Melia.* 426, 577, 105-E9 (1994)

On the Optical Counterparts, Long-Term Variabilities, Radio Jets, and Accretion Sources in 1E 1740.7−2942 and GRS 1758−258. *Wan Chen, Neil Gehrels, & Marvin Leventhal.* 426, 586, 105-F6 (1994)

A General Relativistic Toroid around a Black Hole. *Shogo Nishida & Yoshiharu Eriguchi.* 427, 429, 115-B13 (1994)

Advection-dominated Accretion: A Self-similar Solution. *Ramesh Narayan & Insu Yi.* 428, L13, 134-C5 (1994)

Annihilation and Backscattered Lines in the Galactic Center Region. *Ph. Durouchoux, P. Wallyn, & C. Chapuis.* 92, 405, 37-B13 (1994)

Observation of Transient High-Energy Emission Features in the Spectra of Black Hole Candidates and the Crab Nebula by *GRANAT*/SIGMA. *M. Gilfanov, E. Churazov, R. Sunyaev, N. Khavenson, B. Novikov, A. Dyachkov, I. Tserenin, K. Sukhanov, L. Bouchet, M. Denis, M. C. Schmitz-Fraysse, P. Mandrou, J. Paul, B. Cordier, A. Goldwurm, & F. Lebrun.* 92, 411, 37-C6 (1994)

SIGMA Observations of the Bright X-Ray Transient Nova Persei: A New Black Hole Candidate? *J. P. Roques, L. Bouchet, E. Jourdain, P. Mandrou, A. Goldwurm, J. Ballet, A. Claret, F. Lebrun, A. Finoguenov, E. Churazov, M. Gilfanov, R. Sunyaev, B. Novikov, I. Chulkov, N. Kuleshova, & I. Tserenin.* 92, 451, 37-G2 (1994)

Soft Gamma-Ray Repeaters: Black Holes in Giant Molecular Clouds? *Jonathan E. Grindlay.* 92, 465, 38-A8 (1994)

Similarities in Neutron Star and Black Hole Accretion. *M. van der Klis.* 92, 511, 38-F1 (1994)

Multifrequency Emission from Hot Ion Disks. *Michael Maisack, Peter A. Becker, & Menas Kafatos.* 92, 533, 38-G13 (1994)

The Gamma-Ray Signature of the Disruption of a Neutron Star by a Black Hole. *M. Hernanz, J. Isern, X. Martin, & R. Mochkovitch.* 92, 627, 40-C1 (1994)

ROSAT Observations of the Black Hole Candidate V404 Cygni in Quiescence. *R. Mark Wagner, S. G. Starrfield, R. M. Hjellming, S. B. Howell, & T. J. Kreidl.* 429, L25, 150-D3 (1994)

Observations of 1E 1740.7−2942 with *ROSAT* and the VLA. *William A. Heindl, Thomas A. Prince, & John M. Grunsfeld.* 430, 829, 172-B12 (1994)

Compton Scattering in Jets: A Mechanism for ∼0.4 and ≤ 0.2 MeV Line Production. *J. G. Skibo, C. D. Dermer, & R. Ramaty.* 431, L39, 182-G5 (1994)

Low-Frequency Quasi-periodic Oscillations in Low-Mass X-Ray Binaries and Galactic Black Hole Candidates. *Xingming Chen & Ronald E. Taam.* 431, 732, 187-F3 (1994)

Secondary Maxima of Black Hole X-Ray Transients: A Clue to Understanding X-Ray Irradiation. *S. Mineshige.* 431, L99, 191-F7 (1994)

Collapse of Primordial Gas Clouds and the Formation of Quasar Black Holes. *Abraham Loeb & Frederic A. Rasio.* 432, 52, 193-G8 (1994)

On the Origin of Obscuring Tori in the Galactic Nucleus and Active Galactic Nuclei. *Insu Yi, George B. Field, & Eric G. Blackman.* 432, L31, 199-E2 (1994)

Relativistic Tidal Interaction of a White Dwarf with a Massive Black Hole. *V. P. Frolov, A. M. Khokhlov, I. D. Novikov, & C. J. Pethick.* 432, 680, 204-D13 (1994)

On the Stellar Kinematical Evidence for Massive Black Holes in Galactic Nuclei Expected with the *Hubble Space Telescope*. *Roeland P. van der Marel.* 432, L91, 206-F1 (1994)

Baryonic Dark Clusters in Galactic Halos and Their Observable Consequences. *Ira Wasserman & Edwin E. Salpeter.* 433, 670, 219-D5 (1994)

Orbital Evolution of a Massive Black Hole Pair by Dynamical Friction. *Alberto Vecchio, Monica Colpi, & Alexander G. Polnarev.* 433, 733, 220-B13 (1994)

Active Galactic Nuclei. V. X-Ray Variability and the Black Hole Cluster Paradigm. *A. G. Pacholczyk & W. R. Stoeger, S.J.* 434, 435, 233-F9 (1994)

Search of the Energetic Gamma-Ray Experiment Telescope (EGRET) Data for High-Energy Gamma-Ray Microsecond Bursts. *C. E. Fichtel, D. L. Bertsch, B. L. Dingus, J. A. Esposito, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, L. McDonald, P. F. Michelson, C. von Montigny, P. L. Nolan, E. J. Schneid, P. Sreekumar, & D. J. Thompson.* 434, 557, 235-E2 (1994)

Emission-Line Profiles from a Relativistic Accretion Disk and the Role of Its Multiple Images. *G. Bao, P. Hadrava, & E. Østgaard.* 435, 55, 244-A8 (1994)

Normalized Power Spectral Densities of Two X-Ray Components from GS 1124−683. *Sigenori Miyamoto, Shunji Kitamoto, Sayuri Iga, Kiyoshi Hayashida, & Kentaro Terada.* 435, 398, 248-G10 (1994)

Narrowband *HST* Images of M87: Evidence for a Disk of Ionized Gas around a Massive Black Hole. *Holland C. Ford, Richard J. Harms, Zlatan I. Tsvetanov, George F. Hartig, Linda L. Dressel, Gerard A. Kriss, Ralph C. Bohlin, Arthur F. Davidsen, Bruce Margon, & Ajay K. Kochhar.* 435, L27, 251-F11 (1994)

HST FOS Spectroscopy of M87: Evidence for a Disk of Ionized Gas around a Massive Black Hole. *Richard J. Harms, Holland C. Ford, Zlatan I. Tsvetanov, George F. Hartig, Linda L. Dressel, Gerard A. Kriss, Ralph Bohlin, Arthur F. Davidsen, Bruce Margon, & Ajay K. Kochhar.* 435, L35, 252-A3 (1994)

Disk-Instability Model for Black Hole Transients: Interplay of Thermal and Tidal Instabilities. *S. Ichikawa, S. Mineshige, & T. Kato.* 435, 748, 256-D2 (1994)

Li Abundances in Late-Type Companions to Neutron Stars and Black Hole Candidates. *Eduardo L. Martín, Rafael Rebolo, Jorge Casares, & Philip A. Charles.* 435, 791, 257-A4 (1994)

Is a Black Hole Accretion Disk in a Self-organized Critical State? *S. Mineshige, M. Takeuchi, & H. Nishimori.* 435, L125, 260-A10 (1994)

The Gravitomagnetic Dynamo Effect in Accretion Disks of Rotating Black Holes. *Ramon Khanna & Max Camenzind.* 435, L129, 260-B3 (1994)

Simulation of Interactions of an Orbiting Compact Star with an Accretion Disk by Smoothed Particle Hydrodynamics. *Diego Molteni, G. Gerardi, & Sandip K. Chakrabarti.* 436, 249, 264-F1 (1994)

On the Detection of Individual Primordial Black Hole Explosions. *D. V. Semikoz.* 436, 254, 264-F9 (1994)

Slingshot Ejections from Clusters of Three and Four Black Holes. *M. J. Valtonen, S. Mikkola, P. Heinämäki, & H. Valtonen.* 95, 69, 65-B1 (1994)

Black Hole Accretion Disks with Coronae. *Roland Svensson & Andrzej A. Zdziarski.* 436, 599, 273-F13 (1994)

Triple Black Holes in the Cores of Galaxies. *Junichiro Makino & Toshikazu Ebisuzaki.* 436, 607, 273-G10 (1994)

Accretion onto and Radiation from the Compact Object Formed in SN 1987A. *G. E. Brown & J. C. Weingartner.* 436, 843, 277-C9 (1994)

Quiescent Accretion Disks in Black Hole X-Ray Novae. *Jerome A. Orosz, Charles D. Bailyn, Ronald A. Remillard, Jeffrey E. McClintock, & Craig B. Foltz.* 436, 848, 277-D3 (1994)

Detection of a Nuclear Radio Source in NGC 7331: A Relatively "Radio-quiet" Liner. *John J. Cowan, W. Romanishin, & David Branch.* 436, L139, 281-C9 (1994)

Dynamics of Massive Black Holes as a Possible Candidate of Galactic Dark Matter. *Guohong Xu & Jeremiah P. Ostriker.* 437, 184, 285-F9 (1994)

Massive Black Holes and Light-Element Nucleosynthesis in a Baryonic Universe. *Nickolay Y. Gnedin, Jeremiah P. Ostriker, & Martin J. Rees.* 438, 40, 1-G8 (1995)

The Difference between Radio-loud and Radio-quiet Active Galaxies. *A. S. Wilson & E. J. M. Colbert.* 438, 62, 2-B10 (1995)

Elliptical Accretion Disks in Active Galactic Nuclei. *Michael Eracleous, Mario Livio, Jules P. Halpern, & Thaisa Storchi-Bergmann.* 438, 610, 12-E3 (1995)

Infrared Photometry of the Black Hole Candidate Sagittarius A*. *Laird M. Close, Donald W. McCarthy, Jr., & Fulvio Melia.* 439, 682, 34-A1 (1995)

Critical Radiation Fluxes and Luminosities of Black Holes and Relativistic Stars. *Frederick K. Lamb & M. Coleman Miller.* 439, 828, 36-A11 (1995)

Hot Accretion Disks with Nonthermal Pairs. *Masaaki Kusunose & Shin Mineshige.* 440, 100, 42-E7 (1995)

Emission-Line Profiles from Self-gravitating Thin Disks. *V. Karas, A. Lanza, & D. Vokrouhlický.* 440, 108, 42-F4 (1995)

Neutron Star Accretion and Binary Pulsar Formation. *G. E. Brown.* 440, 270, 44-G12 (1995)

Models of Galaxies with Central Black Holes: Adiabatic Growth in Spherical Galaxies. *Gerald D. Quinlan, Lars Hernquist, & Steinn Sigurdsson.* 440, 554, 50-G8 (1995)

Minioutbursts from the Black Hole Candidate Nova Velorum 1993. *Charles D. Bailyn & Jerome A. Orosz.* 440, L73, 57-G8 (1995)

Variability of Accretion Disks Surrounding Black Holes: The Role of Inertial-Acoustic Mode Instabilities. *Xingming Chen & Ronald E. Taam.* 441, 354, 64-C2 (1995)

Velocity Profile of the Ionized Disk and the Mass of the Black Hole in M87. *Sandip K. Chakrabarti.* 441, 576, 70-A6 (1995)

Optically Thin Accretion Disks in the Kerr Metric. *Gunnlaugur Björnsson.* 441, 765, 72-D12 (1995)

Phase Lags in Cygnus X-1. *M. Coleman Miller.* 441, 770, 72-E6 (1995)

On the Nature of the Binary Radio Pulsar PSR B0042−73 in the Small Magellanic Cloud. *V. M. Lipunov, K. A. Postnov, & M. E. Prokhorov.* 441, 776, 72-F1 (1995)

The Dim Inner Accretion Disk of the Quiescent Black Hole A0620−00. *Jeffrey E. McClintock, Keith Horne, & Ronald A. Remillard.* 442, 358, 82-A6 (1995)

Dynamical and Observable Constraints on RAMBOs: Robust Associations of Massive Baryonic Objects. *Ben Moore & Joseph Silk.* 442, L5, 84-D10 (1995)

Large Hysteretic Behavior of Stellar Black Hole Candidate X-Ray Binaries. *Sigenori Miyamoto, Shunji Kitamoto, Kiyoshi Hayashida, & Wataru Egoshi.* 442, L13, 84-F1 (1995)

Origin of Quasar Progenitors from the Collapse of Low-Spin Cosmological Perturbations. *Daniel J. Eisenstein & Abraham Loeb.* 443, 11, 95-D3 (1995)

Variability Spectra of Orbiting Blobs around a Black Hole. *G. Bao & E. Østgaard.* 443, 54, 96-A4 (1995)

The Effects of Redshifts and Focusing on the Spectrum of an Accretion Disk in the Galactic Center Black Hole Candidate Sagittarius A*. *J. M. Hollywood & Fulvio Melia.* 443, L17, 102-D6 (1995)

Computing Supernova Collapse to Neutron Stars and Black Holes. *Thomas W. Baumgarte, Stuart L. Shapiro, & Saul A. Teukolsky.* 443, 717, 107-F13 (1995)

Competition of Supermassive Black Holes and Galactic Spheroids in the Destruction of Globular Clusters. *Jane C. Charlton & Pablo Laguna.* 444, 193, 116-A11 (1995)

Gradual Approach to Coalescence for Compact Stars Orbiting Massive Black Holes. *Dieter Hils & Peter L. Bender.* 445, L7, 140-B10 (1995)

Low-State Disks and Low-Beta Disks. *Shin Mineshige, Masaaki Kusunose, & Ryoji Matsumoto.* 445, L43, 140-G11 (1995)

Quasar Populations in a Cosmological Constant–dominated Flat Universe. *Sangeeta Malhotra & Edwin L. Turner.* 445, 553, 142-F3 (1995)

On the Spectral Hardening Factor of the X-Ray Emission from Accretion Disks in Black Hole Candidates. *Toshiya Shimura & Fumio Takahara.* 445, 780, 146-A4 (1995)

Models of Galaxies with Central Black Holes: Simulation Methods. *Steinn Sigurdsson, Lars Hernquist, & Gerald D. Quinlan.* 446, 75, 154-C6 (1995)

Ultra–Low-Frequency Gravitational Radiation from Massive Black Hole Binaries. *Mohan Rajagopal & Roger W. Romani.* 446, 543, 163-E11 (1995)

Orbital Parameters of the Candidate Black Hole Binary GRO J0422+32. *Jerome A. Orosz & Charles D. Bailyn.* 446, L59, 170-D12 (1995)

The Inverse Compton Thermostat in Hot Plasmas near Accreting Black Holes. *Paola Pietrini & Julian H. Krolik.* 447, 526, 183-B1 (1995)

General Relativistic Flux Modulations in the Galactic Center Black Hole Candidate Sagittarius A*. *J. M. Hollywood, Fulvio Melia, Laird M. Close, Donald W. McCarthy, Jr., & Tatia A. DeKeyser.* 448, L21, 199-E1 (1995)

Prompt Subsidence of a Proto–Neutron Star into a Black Hole. *N. K. Glendenning.* 448, 797, 205-G9 (1995)

Cold Accretion Disks with Coronae and Advection. *Xingming Chen.* 448, 803, 206-A4 (1995)

Hot Accretion Disks with Electron-Positron Pair Winds. *Ranjeev Misra & Fulvio Melia.* 449, 813, 224-A1 (1995)

Relativistic Accretion Disk Structure Revisited. *H. Riffert & H. Herold.* 450, 508, 237-F11 (1995)

Stable and Unstable Accretion Flows with Angular Momentum near a Point Mass. *Dongsu Ryu, Garry L. Brown, Jeremiah P. Ostriker, & Abraham Loeb.* 452, 364, 267-B7 (1995)

Statistics of X-Ray Fluctuations from Cygnus X-1: Reservoirs in the Disk? *H. Negoro, S. Kitamoto, M. Takeuchi, & S. Mineshige.* 452, L49, 270-C1 (1995)

Advection-dominated Accretion: Underfed Black Holes and Neutron Stars. *Ramesh Narayan & Insu Yi.* 452, 710, 274-D13 (1995)

Implications of Gamma-Ray Transparency Constraints in Blazars: Minimum Distances and Gamma-Ray Collimation. *Peter A. Becker & Menas Kafatos.* 453, 83, 282-C12 (1995)

Two X-Ray Sources in 30 Doradus: Wolf-Rayet + Black Hole Binaries? *Q. Daniel Wang.* 453, 783, 294-F9 (1995)

The Iron Kα Line Profile in NGC 4151. *T. Yaqoob, R. Edelson, K. A. Weaver, R. S. Warwick, R. F. Mushotzky, P. J. Serlemitsos, & S. S. Holt.* 453, L81, 298-D8 (1995)

The Accretion Disk Limit Cycle Instability in Black Hole X-Ray Binaries. *John K. Cannizzo, Wan Chen, & Mario Livio.* 454, 880, 314-A3 (1995)

High-Energy Spectral Complexity from Thermal Gradients in Black Hole Atmospheres. *J. G. Skibo & C. D. Dermer.* 455, L25, 324-F1 (1995)

The Mass of the Probable Black Hole in the X-Ray Nova GRO J0422+32. *Alexei V. Filippenko, Thomas Matheson, & Luis C. Ho.* 455, 614, 330-D1 (1995)

Spectral Properties of Accretion Disks around Galactic and Extragalactic Black Holes. *Sandip Chakrabarti & Lev G. Titarchuk.* 455, 623, 330-E1 (1995)

A Black Hole in the X-Ray Nova GS 2000+25. *Alexei V. Filippenko, Thomas Matheson, & Aaron J. Barth.* 455, L139, 334-A4 (1995)

BLACK HOLES

"Superlow-State" Hard X-Ray Observation of Cygnus X-1. *P. Ubertini, A. Bazzano, F. Perotti, E. Quadrini, A. Court, A. J. Dean, N. Dipper, R. Lewis, L. Bassani, & J. B. Stephen.* 366, 544, 9-G1 (1991)

Accretion Disk Emission from a BL Lacertae Object. *Amri Wandel & C. Megan Urry.* 367, 78, 13-A5 (1991)

Application of a General Relativistic Accretion Disk Model to LMC X-1, LMC X-3, X1608−522, and X1636−536. *Ken Ebisawa, Kazuhisa Mitsuda, & Tomoyuki Hanawa.* 367, 213, 14-F8 (1991)

Universal Particle Acceleration. *J. I. Katz.* 367, 407, 18-E1 (1991)

Structure of Thermal Pair Clouds around Gamma-Ray–emitting Black Holes. *Edison P. Liang.* 367, 470, 19-C1 (1991)

Dynamical and Luminosity Evolution of Active Galactic Nuclei: Models with a Mass Spectrum. *Brian W. Murphy, Haldan N. Cohn, & Richard H. Durisen.* 370, 60, 47-G1 (1991)

Two-Temperature Accretion Disks with Winds in a Fluid Approximation. *Masaaki Kusunose.* 370, 505, 54-F1 (1991)

Radius-Luminosity and Mass-Luminosity Relationships for Active Galactic Nuclei. *Anuradha P. Koratkar & C. Martin Gaskell.* 370, L61, 59-B1 (1991)

Cosmic Rays from Primordial Black Holes. *Jane H. MacGibbon & B. J. Carr.* 371, 447, 67-B5 (1991)

The Effect of Anisotropic Emission from Thick Accretion Disks on the Luminosity Functions of Active Galactic Nuclei. *C. M. Urry, P. Marziani, & M. Calvani.* 371, 510, 67-G7 (1991)

A Recipe for Making Hot Accretion Disks. *Gunnlaugur Björnsson & Roland Svensson.* 371, L69, 73-C10 (1991)

New Model for the 0957+561 Gravitational Lens System: Bounds on Masses of a Possible Black Hole and Dark Matter and Prospects for Estimation of H_0. *E. E. Falco, M. V. Gorenstein, & I. I. Shapiro.* 372, 364, 80-D1 (1991)

Magnetically Dominated Accretion onto Black Holes. *Brian Punsly.* 372, 424, 81-B1 (1991)

Evolution of the Luminosity Function of Quasar Accretion Disks. *David M. Caditz, Vahé Petrosian, & Amri Wandel.* 372, L63, 85-C1 (1991)

IUE Observations of NGC 5548, 1978–1988: The Sizes and Kinematics of the Broad-Line Region. *Anuradha P. Koratkar & C. Martin Gaskell.* 375, 85, 112-A13 (1991)

Are Hypernovae Detectable? *Seok Jae Park & Ethan T. Vishniac.* 375, 565, 119-F9 (1991)

Line Profiles from a Disk around a Rotating Black Hole. *Ari Laor.* 376, 90, 126-B1 (1991)

Luminosity Limit for Alpha-Viscosity Accretion Disks. *Edison P. Liang & Amri Wandel.* 376, 746, 135-E8 (1991)

Radiative-hydrodynamical Simulations of Accretion Disk Coronae. *Fulvio Melia, Gregory J. Zylstra, & Bruce Fryxell.* 377, L101, 150-E11 (1991)

Diskoseismology: Probing Accretion Disks. I. Trapped Adiabatic Oscillations. *Michael A. Nowak & Robert V. Wagoner.* 378, 656, 160-E9 (1991)

Neutron Star and Black Hole Binaries in the Galaxy. *Ramesh Narayan, Tsvi Piran, & Amotz Shemi.* 379, L17, 169-B11 (1991)

The Rate of Neutron Star Binary Mergers in the Universe: Minimal Predictions for Gravity Wave Detectors. *E. S. Phinney.* 380, L17, 181-C6 (1991)

Galactic Center Gasdynamics: A One-armed Spiral in a Keplerian Disk. *J. H. Lacy, J. M. Achtermann, & E. Serabyn.* 380, L71, 188-D6 (1991)

Massive Black Holes in the Nuclei of Spiral Galaxies: M31 and the Problem of the Initial Conditions. *M. Bradley, A. Curir, & F. de Felice.* 381, 72, 189-G11 (1991)

Compton Backscattered 511 keV Annihilation Line Emission and the 170 keV Line from the Galactic Center Direction. *Richard E. Lingenfelter & Xin-Min Hua.* 381, 426, 196-A10 (1991)

Pair-Density Transitions in Accretion Disk Coronae. *Masaaki Kusunose & Shin Mineshige.* 381, 490, 196-G1 (1991)

Three-dimensional Simulations of Black Hole Tori. *John F. Hawley.* 381, 496, 196-G9 (1991)

Spherical Accretion onto Black Holes: A Complete Analysis of Stationary Solutions. *Luciano Nobili, Roberto Turolla, & Luca Zampieri.* 383, 250, 215-C9 (1991)

Low-Flux Hard X-Ray Observation of Cygnus X-1. *P. Ubertini, A. Bazzano, C. La Padula, R. K. Manchanda, V. F. Polcaro, R. Staubert, E. Kendziorra, & F. Perotti.* 383, 263, 215-D9 (1991)

Relativistic Electron-Positron Beam Formation in the Framework of the Two-Flow Model for Active Galactic Nuclei. *Gilles Henri & Guy Pelletier.* 383, L7, 219-B1 (1991)

SIGMA Discovery of Variable e^+-e^- Annihilation Radiation from the Near Galactic Center Variable Compact Source 1E 1740.7−2942. *L. Bouchet, P. Mandrou, J. P. Roques, G. Vedrenne, B. Cordier, A. Goldwurm, F. Lebrun, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, M. Pavlinsky, S. Grebenev, G. Babalyan, I. Dekhanov, & N. Khavenson.* 383, L45, 226-C1 (1991)

Three Spectral States of 1E 1740.7−2942: From Standard Cygnus X-1 Type Spectrum to the Evidence of Electron-Positron Annihilation Feature. *R. Sunyaev, E. Churazov, M. Gilfanov, M. Pavlinsky, S. Grebenev, G. Babalyan, I. Dekhanov, N. Khavenson, L. Bouchet, P. Mandrou, J. P. Roques, G. Vedrenne, B. Cordier, A. Goldwurm, F. Lebrun, & J. Paul.* 383, L49, 226-C6 (1991)

BL LACERTAE OBJECTS

BL Lacertae Objects and Radio-loud Quasars within an Evolutionary Unified Scheme. *F. Vagnetti, E. Giallongo, & A. Cavaliere.* 368, 366, 29-E11 (1991)

Fanaroff-Riley I Galaxies as the Parent Population of BL Lacertae Objects. II. Optical Constraints. *P. Padovani & C. M. Urry.* 368, 373, 29-F6 (1991)

The Number Count Distribution for X-Ray–selected BL Lacertae Objects and Constraints on the Luminosity Function. *Anna Wolter, I. M. Gioia, T. Maccacaro, S. L. Morris, & J. T. Stocke.* 369, 314, 41-F5 (1991)

A Ubiquitous Absorption Feature in the X-Ray Spectra of BL Lacertae Objects. *Greg M. Madejski, Richard F. Mushotzky, Kimberly A. Weaver, Keith A. Arnaud, & C. Megan Urry.* 370, 198, 49-F1 (1991)

Altered Luminosity Functions for Relativistically Beamed Objects. II. Distribution of Lorentz Factors and Parent Populations with Complex Luminosity Functions. *C. M. Urry & P. Padovani.* 371, 60, 60-G5 (1991)

Detection of Local Interstellar CO Absorption toward BL Lacertae. *Alan P. Marscher, Thomas M. Bania, & Zhong Wang.* 371, L77, 73-D7 (1991)

Rapid Ultraviolet Variability in the BL Lacertae Object PKS 2155−304. *R. A. Edelson, J. Saken, G. Pike, C. M. Urry, I. M. George, R. S. Warwick, H. R. Miller, M. T. Carini, & J. R. Webb.* 372, L9, 79-B5 (1991)

Correlated Radio and Optical Variability in the BL Lacertae Object 0716+714. *A. Quirrenbach, A. Witzel, S. Wagner, F. Sanchez-Pons, T. P. Krichbaum, R. Wegner, K. Anton, U. Erkens, M. Haehnelt, J. A. Zensus, & K. J. Johnston.* 372, L71, 85-C9 (1991)

Unsaturated Comptonization of Isotropic Photon Spectra by Relativistic Electrons. *Abraham Loeb, Christopher F. McKee, & Ofer Lahav.* 374, 44, 98-E5 (1991)

Synchrotron Emission from Shocked Relativistic Jets. III. Models for the Centimeter Wave Band Quiescent and Burst Emission from 3C 279 and OT 081. *P. A. Hughes, H. D. Aller, & M. F. Aller.* 374, 57, 98-F5 (1991)

The Complete Sample of 1 Jansky BL Lacertae Objects. I. Summary Properties. *M. Stickel, P. Padovani, C. M. Urry, J. W. Fried, & H. Kühr.* 374, 431, 104-E1 (1991)

Optical Polarization of a Complete Sample of Radio Sources. *C. D. Impey, C. R. Lawrence, & S. Tapia.* 375, 46, 111-E10 (1991)

Scattering-induced Optical Polarization in Thick Accretion Disks. *John F. Kartje & Arieh Königl.* 375, 69, 111-G6 (1991)

The *Einstein Observatory* Extended Medium-Sensitivity Survey. II. The Optical Identifications. *John T. Stocke, Simon L. Morris, I. M. Gioia, T. Maccacaro, R. Schild, A. Wolter, Thomas A. Fleming, & J. Patrick Henry.* 76, 813, 36-B1 (1991)

A Model for the Spectral Variability of BL Lacertae Objects at High Frequencies. *A. Celotti, L. Maraschi, & A. Treves.* 377, 403, 144-G1 (1991)

The *EXOSAT* High Galactic Latitude Survey. *P. Giommi, G. Tagliaferri, K. Beuermann, G. Branduardi-Raymont, R. Brissenden, U. Graser, K. O. Mason, J. D. P. Mittaz, P. Murdin, G. Pooley, H.-C. Thomas, & I. Tuohy.* 378, 77, 152-A5 (1991)

UBVRI Photometry of Stars in the Fields of X-Ray Selected BL Lacertae Objects. *Paul S. Smith, Buell T. Jannuzi, & Richard Elston.* 77, 67, 44-D1 (1991)

The Luminosity Function and Cosmological Evolution of X-Ray–selected BL Lacertae Objects. *Simon L. Morris, John T. Stocke, Isabella M. Gioia, Rudy E. Schild, Anna Wolter, Tommaso Maccacaro, & Roberto Della Ceca.* 380, 49, 176-F1 (1991)

Short-Term X-Ray Variability of the BL Lacertae Object PKS 2155−304: Power Spectrum and Cross-Correlation Analysis. *G. Tagliaferri, L. Stella, L. Maraschi, A. Treves, & A. Celotti.* 380, 78, 177-A5 (1991)

On the Nebulosity Surrounding the BL Lacertae Object PKS 2155−304. *R. Falomo, E. Giraud, L. Maraschi, J. Melnick, E. G. Tanzi, & A. Treves.* 380, L67, 188-D1 (1991)

Fanaroff-Riley I Galaxies as the Parent Population of BL Lacertae Objects. III. Radio Constraints. *C. M. Urry, P. Padovani, & M. Stickel.* 382, 501, 207-F13 (1991)

Multifrequency Observations of BL Lacertae in 1988. *N. Kawai, M. Matsuoka, J. N. Bregman, H. D. Aller, M. F. Aller, P. A. Hughes, S. A. Balbus, T. J. Balonek, K. C. Chambers, R. E. S. Clegg, S. D. Clements, R. J. Leacock, A. G. Smith, R. Goodrich, J. S. Miller, M. Hereld, M. G. Hoare, V. A. Hughes, G. K. Miley, G. H. Moriarty-Schieven, K. Matthews, G. Neugebauer, T. Ohashi, P. F. Roche, H. A. Thronson, E. Valtaoja,*

H. Terasranta, J. R. Webb, B. J. Wills, & D. Wills. 382, 508, 207-G8 (1991)

Optical Polarimetry of PKS 2155−304 and Constraints on Accretion Disk Models for BL Lacertae Objects. *Paul S. Smith & Michael L. Sitko.* 383, 580, 221-D9 (1991)

CA II EMISSION

Near-Infrared Time-resolved Spectroscopy of the Cataclysmic Variable YY Draconis. *Mario Mateo, Paula Szkody, & Peter Garnavich.* 370, 370, 51-G8 (1991)

Ca II H and K Measurements Made at Mount Wilson Observatory, 1966–1983. *Douglas K. Duncan, Arthur H. Vaughan, Olin C. Wilson, George W. Preston, James Frazer, Howard Lanning, Anthony Misch, Jean Mueller, David Soyumer, L. Woodard, Sallie L. Baliunas, Robert W. Noyes, Lee W. Hartmann, Alain Porter, Cornelis Zwaan, Frans Middelkoop, René G. M. Rutten, & Dimitri Mihalas.* 76, 383, 29-G9 (1991)

The Chromospheric Emission–Age Relation for Stars of the Lower Main Sequence and Its Implications for the Star Formation Rate. *David R. Soderblom, Douglas K. Duncan, & Dean R. H. Johnson.* 375, 722, 121-F5 (1991)

CATALOGS

A Catalog of Co-added *IRAS* Fluxes of Orion Population Stars. *Wm. Bruce Weaver & Gordon Jones.* 78, 239, 4-G7 (1992)

Systematic QSO Emission-Line Velocity Shifts and New Unbiased Redshifts. *David Tytler & Xiao-Ming Fan.* 79, 1, 12-B1 (1992)

A New Catalog of 30,239 1.4 GHz Sources. *Richard L. White & Robert H. Becker.* 79, 331, 18-G9 (1992)

Galactic Worms. I. Catalog of Worm Candidates. *Bon-Chul Koo, Carl Heiles, & William T. Reach.* 390, 108, 75-D6 (1992)

The *Einstein* Slew Survey. *Martin Elvis, David Plummer, Jonathan Schachter, & G. Fabbiano.* 80, 257, 25-E9 (1992)

Catalog-to-Catalog Reductions: Results for the FK, N30, and GC Catalogs. *L. G. Taff, B. Bucciarelli, & M. G. Lattanzi.* 392, 746, 111-E9 (1992)

An X-Ray Catalog and Atlas of Galaxies. *G. Fabbiano, D.-W. Kim, & G. Trinchieri.* 80, 531, 31-A11 (1992)

An *Einstein Observatory* SAO-based Catalog of B-Type Stars. *F. Grillo, S. Sciortino, G. Micela, G. S. Vaiana, & F. R. Harnden, Jr.* 81, 795, 46-G13 (1992)

A Catalog of Faint A, F, and G Stars at the South Galactic Pole. *Phillip K. Lu, Jeffrey Miller, & Donald Platt.* 83, 203, 59-E3 (1992)

A Catalog of X-Ray Spectra of BL Lacertae Objects. *P. Ciliegi, L. Bassani, & E. Caroli.* 85, 111, 7-D7 (1993)

All-Sky Catalogs of Superclusters of Abell-ACO Clusters. *Elena Zucca, Giovanni Zamorani, Roberto Scaramella, & Giampaolo Vettolani.* 407, 470, 76-D10 (1993)

A Catalog of Stellar Lyman-Alpha Fluxes. *Wayne Landsman & Theodore Simon.* 408, 305, 87-A1 (1993)

A $UBV\beta$ Data Base for Stephenson-Sanduleak Southern Luminous Stars. *B. Cameron Reed.* 87, 367, 31-F13 (1993)

A Catalog of Intracluster Gas Temperatures. *L. P. David, A. Slyz, C. Jones, W. Forman, S. D. Vrtilek, & K. A. Arnaud.* 412, 479, 149-E9 (1993)

A Revised and Updated Catalog of Quasi-stellar Objects. *A. Hewitt & G. Burbidge.* 87, 451, 34-B1 (1993)

The Planetary Nebula System and Dynamics of NGC 5128. II. A Planetary Nebula Catalog. *Xiaohui Hui, Holland C. Ford, Robin Ciardullo, & George H. Jacoby.* 88, 423, 46-B1 (1993)

Catalog of 558 Pulsars. *J. H. Taylor, R. N. Manchester, & A. G. Lyne.* 88, 529, 47-C9 (1993)

A Search for *IRAS* Galaxies behind the Southern Milky Way. *Toru Yamada, Tadafumi Takata, Thomas Djamaluddin, Akihiko Tomita, Kentaro Aoki, Aki Takeda, & Mamoru Saitō.* 89, 57, 49-F5 (1993)

A Catalog of Blue and Red Supergiants in M33. *Georgi R. Ivanov, Wendy L. Freedman, & Barry F. Madore.* 89, 85, 50-A9 (1993)

The Parkes-MIT-NRAO (PMN) Map Catalog of Radio Sources Covering $-88° < \delta < -37°$ at 4.85 GHz. *P. C. Gregory, J. D. Vavasour, W. K. Scott, & J. J. Condon.* 90, 173, 3-B12 (1994)

The Parkes-MIT-NRAO (PMN) Surveys. III. Source Catalog for the Tropical Survey ($-29° < \delta < -9.5°$). *Mark R. Griffith, Alan E. Wright, B. F. Burke, & R. D. Ekers.* 90, 179, 3-C6 (1994)

The Parkes-MIT-NRAO (PMN) Surveys. II. Source Catalog for the Southern Survey ($-87.5° < \delta < -37°$). *Alan E. Wright, Mark R. Griffith, B. F. Burke, & R. D. Ekers.* 91, 111, 18-E13 (1994)

A Catalog of Bright-rimmed Clouds with *IRAS* Point Sources: Candidates for Star Formation by Radiation-driven Implosion. II. The Southern Hemisphere. *Koji Sugitani & Katsuo Ogura.* 92, 163, 33-D11 (1994)

A Catalog of Recent Supernovae. *Sidney van den Bergh.* 92, 219, 34-B12 (1994)

The First BATSE Gamma-Ray Burst Catalog. *Gerald J. Fishman, Charles A. Meegan, Robert B. Wilson, Martin N. Brock, John M. Horack, Chryssa Kouveliotou, Sethanne Howard, William S. Paciesas, Michael S. Briggs, Geoffrey N. Pendleton, Thomas M. Koshut, Robert S. Mallozzi, Mark Stollberg, & John Patrick Lestrade.* 92, 229, 34-C10 (1994)

BATSE Spectroscopy Catalog of Bright Gamma-Ray Bursts. *Bradley E. Schaefer, Bonnard J. Teegarden, Stephan F. Fantasia, David Palmer, Thomas L. Cline, James L. Matteson, David L. Band, Lyle A. Ford, Gerald J. Fishman, Charles A. Meegan, Robert B. Wilson, William S. Paciesas, Geoffrey N. Pendleton, Michael S. Briggs, & John P. Lestrade.* 92, 285, 34-G12 (1994)

A Sensitive 1.5 GHz Radio Survey around the North Ecliptic Pole. *Ronald I. Kollgaard, Wolfgang Brinkmann, Margaret McMath Chester, Eric D. Feigelson, Paul Hertz, Patricia Reich, & Richard Wielebinski.* 93, 145, 43-F10 (1994)

Summary of ΔS Metallicity Measurements for Bright RR Lyrae Variables Observed at Lick Observatory and KPNO between 1972 and 1987. *Nicholas B. Suntzeff, Robert P. Kraft, & T. D. Kinman.* 93, 271, 45-D2 (1994)

The First *Extreme Ultraviolet Explorer* Source Catalog. *S. Bowyer, R. Lieu, M. Lampton, J. Lewis, X. Wu, J. J. Drake, & R. F. Malina.* 93, 569, 50-F3 (1994)

The Distribution of Neutral Hydrogen in the Interstellar Medium. I. The Data. *Antonella Fruscione, Isabel Hawkins, Patrick Jelinsky, & Alexandria Wiercigroch.* 94, 127, 53-E3 (1994)

The Analysis of Star Catalogs. I. An Intercomparison among the FK3, the FK4, and the FK5. *B. Bucciarelli, M. G. Lattanzi, & L. G. Taff.* 433, 831, 221-D13 (1994)

The Analysis of Star Catalogs. II. An Intercomparison among the GC, the N30, and the FK5 (B1950.0/FK4). *L. G. Taff & B. Bucciarelli.* 433, 845, 221-F1 (1994)

High-Energy Spectra of Active Galactic Nuclei. I. The Catalog. *G. Malaguti, L. Bassani, & E. Caroli.* 94, 517, 59-B7 (1994)

Molecular Clouds in Cygnus. I. A Large-Scale ^{13}CO Survey. *Kazuhito Dobashi, Jean-Phillipe Bernard, Yoshinori Yonekura, & Yasuo Fukui.* 95, 419, 70-B2 (1994)

The Catalog of Southern Ringed Galaxies. *R. Buta.* 96, 39, 1-E4 (1995)

A Search for T Tauri Stars in High-Latitude Molecular Clouds. II. The *IRAS* Faint Source Survey Catalog. *Loris Magnani, Jean-Pierre Caillault, Ari Buchalter, & C. A. Beichman.* 96, 159, 3-F3 (1995)

A Catalog of Far-Ultraviolet Point Sources Detected with the FAUST Telescope on ATLAS-1. *Stuart Bowyer, Timothy P. Sasseen, Xiaoyi Wu, & Michael Lampton.* 96, 461, 8-D9 (1995)

A Spectroscopic Database for Stephenson-Sanduleak Southern Luminous Stars. *B. Cameron Reed & Amy E. Beatty.* 97, 189, 13-D8 (1995)

Rotation Curves of 967 Spiral Galaxies. *Massimo Persic & Paolo Salucci.* 99, 501, 42-A11 (1995)

A Catalog of Stellar Velocity Dispersions. II. 1994 Update. *Douglas B. McElroy.* 100, 105, 47-C1 (1995)

The Intercomparison of Star Catalogs. III. Comparing the AGK3, the AGK3U, the ACRS (Part 1), and the PPM to the General Catalog. *D. Daou, J. E. Morrison, & L. G. Taff.* 451, 768, 257-F12 (1995)

An Intercomparison among Star Catalogs. IV. An Extension of the Theory. *J. E. Morrison & L. G. Taff.* 454, 361, 304-C4 (1995)

The Canada-France Redshift Survey. III. "Single Emission-Line" Objects, Analysis of Repeat Observations, and Spectroscopic Identifications in the 1415+52 and 2215+00 Fields. *S. J. Lilly, F. Hammer, O. Le Fèvre, & David Crampton.* 455, 75, 319-C6 (1995)

The Canada-France Redshift Survey. IV. Spectroscopic Selection Effects and 0300+00 Field Spectroscopic Data. *Francois Hammer, David Crampton, Olivier Le Fèvre, & Simon J. Lilly.* 455, 88, 319-D10 (1995)

The Second EGRET Catalog of High-Energy Gamma-Ray Sources. *D. J. Thompson, D. L. Bertsch, B. L. Dingus, J. A. Esposito, A. Etienne, C. E. Fichtel, D. P. Friedlander, R. C. Hartman, S. D. Hunter, D. J. Kendig, J. R. Mattox, L. M. McDonald, C. von Montigny, R. Mukherjee, P. V. Ramanamurthy, P. Sreekumar, J. M. Fierro, Y. C. Lin, P. F. Michelson, P. L. Nolan, S. K. Shriver, T. D. Willis, G. Kanbach, H. A.*

Mayer-Hasselwander, M. Merck, H.-D. Radecke, D. A. Kniffen, & E. J. Schneid. 101, 259, 57-B11 (1995)

CELESTIAL MECHANICS, STELLAR DYNAMICS

Relaxation-driven Binary Mergers. *Sergio Gelato, David F. Chernoff, & Ira Wasserman.* 384, 15, 1-C1 (1992)

The Orbital Structure of Galactic Halos. *Joanna F. Lees & M. Schwarzschild.* 384, 491, 8-C1 (1992)

Angular Momentum and Black Hole Formation in Stellar Systems: A Statistical Approach. *Fernando de Felice, Yunqiang Yu, & Guorong Zhou.* 384, 560, 9-B5 (1992)

Two-Component Gravitating Systems and Red Giant–like Structure. *Masayuki Y. Fujimoto & Kohji Tomisaka.* 385, 445, 18-F10 (1992)

The Dynamical Evolution of Tidal Capture Binaries. *Christopher S. Kochanek.* 385, 604, 20-E13 (1992)

Projections of Box-shaped Galaxies. *Barbara S. Ryden.* 386, 42, 24-E10 (1992)

A New Tidal Model of the Magellanic Stream. *W. L. H. Shuter.* 386, 101, 25-D1 (1992)

Fokker-Planck Models and Globular Cluster Evolution: The Problem of M71. *G. A. Drukier, G. G. Fahlman, & H. B. Richer.* 386, 106, 25-D7 (1992)

A Self-consistent Field Method for Galactic Dynamics. *Lars Hernquist & Jeremiah P. Ostriker.* 386, 375, 30-B6 (1992)

Tidal Evolution of Globular Clusters. I. Method. *K. S. Oh, D. N. C. Lin, & S. J. Aarseth.* 386, 506, 31-F4 (1992)

Tidal Evolution of Globular Clusters. II. The Effects of Galactic Tidal Field and Diffusion. *K. S. Oh & D. N. C. Lin.* 386, 519, 31-G5 (1992)

Peculiar Velocities of Field Spiral Galaxies near and beyond the Great Attractor. *Gregory D. Bothun, Robert A. Schommer, T. B. Williams, Jeremy R. Mould, & J. P. Huchra.* 388, 253, 53-D10 (1992)

Equilibrium Stellar Systems with Spindle Singularities. *Stuart L. Shapiro & Saul A. Teukolsky.* 388, 287, 53-G10 (1992)

Triaxial Galaxy Models with Thin Tube Orbits. *C. Hunter & P. T. de Zeeuw.* 389, 79, 61-B1 (1992)

A Rotating Stäckel Potential. *G. Contopoulos & Peter O. Vandervoort.* 389, 118, 61-E1 (1992)

The Evolution of a Primordial Binary Population in a Globular Cluster. *Piet Hut, Steve McMillan, & Roger W. Romani.* 389, 527, 68-A8 (1992)

Three-dimensional Hydrodynamical Simulations of Colliding Stars. III. Collisions and Tidal Captures of Unequal-Mass Main-Sequence Stars. *W. Benz & J. G. Hills.* 389, 546, 68-C8 (1992)

Close Encounters in Coulomb and Gravitational Scattering. I. Relaxation of Isotropic Test-Particle Distributions by Like-Particle Collisions. *Edward C. Shoub.* 389, 558, 68-D8 (1992)

Kinematics and Age of RS Canum Venaticorum and BY Draconis Stars. *Zeki Eker.* 79, 481, 20-E9 (1992)

The Continuum Model in Astrophysics. *Richard L. Liboff.* 390, 1, 74-B1 (1992)

Dynamical Friction from Fluctuations in Stellar Dynamical Systems. *Jacob D. Bekenstein & Eyal Maoz.* 390, 79, 75-A10 (1992)

Possible Observational Consequences of Primordial Binaries in Globular Clusters. *Ronald E. Taam & D. N. C. Lin.* 390, 440, 80-G6 (1992)

Collision and Tidal Interaction between Planetesimals. *Sei-ichiro Watanabe & Shoken M. Miyama.* 391, 318, 89-G11 (1992)

Inferring the Mass of Spherical Stellar Systems from Velocity Moments. *Herwig Dejonghe & David Merritt.* 391, 531, 94-E6 (1992)

Active Galactic Nuclei. IV. Supplying Black Hole Clusters by Tidal Disruption and by Tidal Capture of Stars. *W. R. Stoeger, S.J., A. G. Pacholczyk, & T. F. Stepinski.* 391, 550, 94-F13 (1992)

A Lower Cutoff in Velocity Distribution: Is It a Threat to Dynamical Friction? *Ran Zamir.* 392, 65, 101-G1 (1992)

The Evolutionary History of the Interacting Galaxy System NGC 7714/7715 (Arp 284). *Beverly J. Smith & John F. Wallin.* 393, 544, 122-E7 (1992)

The Potential Energy Tensors for Subsystems. *R. Caimmi & L. Secco.* 395, 119, 141-E11 (1992)

Stability of Scale-invariant Nonlinear Gravitational Clustering. *Laddawan Ruamsuwan & J. N. Fry.* 396, 416, 162-F1 (1992)

Production of Recycled Pulsars in Globular Clusters via Two-Body Tidal Capture. *R. Di Stefano & S. Rappaport.* 396, 587, 164-F9 (1992)

Mass Segregation, Relaxation, and the Coulomb Logarithm in *N*-Body Systems. *Haywood Smith, Jr.* 398, 519, 190-E10 (1992)

Tidally Driven Inclination Instability in Keplerian Disks. *Stephen H. Lubow.* 398, 525, 190-F3 (1992)

Cold Dissipationless Collapse of Spherical Systems: Sensitivity to the Initial Density Law. *John K. Cannizzo & Timothy C. Hollister.* 400, 58, 209-E6 (1992)

Core Velocity Dispersions and Metallicities of Three Globular Clusters Belonging to the Fornax Dwarf Spheroidal Galaxy. *P. Dubath, G. Meylan, & M. Mayor.* 400, 510, 216-F1 (1992)

Stellar Encounters Involving Neutron Stars in Globular Cluster Cores. *M. B. Davies, W. Benz, & J. G. Hills.* 401, 246, 224-B1 (1992)

Binary–Single-Star Scattering. III. Numerical Experiments for Equal-Mass Hard Binaries. *Piet Hut.* 403, 256, 17-B1 (1993)

Binary–Single-Star Scattering. V. Steady State Binary Distribution in a Homogeneous Static Background of Single Stars. *Jeremy Goodman & Piet Hut.* 403, 271, 17-C4 (1993)

Orbital Deflections in *N*-Body Systems. *Siqin Huang, John Dubinski, & R. G. Carlberg.* 404, 73, 29-A1 (1993)

Trajectories of Nonzero–Rest-Mass Particles in Curved Spacetime. *P. S. Negi, A. K. Pande, & M. C. Durgapal.* 406, 1, 55-B1 (1993)

Three-Body Effects in the PSR 1257+12 Planetary System. *Renu Malhotra.* 407, 266, 72-D3 (1993)

Binary–Single-Star Scattering. IV. Analytic Approximations and Fitting Formulae for Cross Sections and Reaction Rates. *Douglas C. Heggie & Piet Hut.* 85, 347, 11-G7 (1993)

Globally Stable Equilibria of Collisionless Self-gravitating Matter with Nonvanishing Total Angular Momentum. *Heinz Wiechen & Harald J. Ziegler.* 408, 293, 86-F13 (1993)

Encounters with Protostellar Disks. I. Disk Tilt and the Nonzero Solar Obliquity. *Clayton H. Heller.* 408, 337, 87-C11 (1993)

Self-consistent Models for Triaxial Galaxies with Flat Rotation Curves: The Disk Case. *Konrad Kuijken.* 409, 68, 97-G1 (1993)

Mapping Spherical Potentials with Discrete Radial Velocities. *David Merritt & Prasenjit Saha.* 409, 75, 97-G10 (1993)

Galactic Bars with Central Mass Concentrations: Three-dimensional Dynamics. *Hashima Hasan, Daniel Pfenniger, & Colin Norman.* 409, 91, 98-B1 (1993)

Postcollapse Evolution of Globular Clusters Dominated by Tidal Binary Heating. *Hyung Mok Lee & Jeremiah P. Ostriker.* 409, 617, 106-F3 (1993)

Nonlocal and Collective Relaxation in Stellar Systems. *Martin D. Weinberg.* 410, 543, 120-D8 (1993)

Encounters between Binaries and Neutron Stars. *M. B. Davies, W. Benz, & J. G. Hills.* 411, 285, 130-F13 (1993)

A Model for the Vertical Distribution of Stars in Disk Galaxies. *James B. Dove & Harley A. Thronson, Jr.* 411, 632, 137-E7 (1993)

Collisions and Close Encounters between Massive Main-Sequence Stars. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 412, 593, 151-B7 (1993)

The Angular Momentum Behavior in the Dissipationless Collapse of Triaxial Systems. *Anna Curir, Antonaldo Diaferio, & Fernando de Felice.* 413, 70, 157-A6 (1993)

Dynamical Mapping of Hot Stellar Systems. *David Merritt.* 413, 79, 157-B3 (1993)

Stability of Dense Stellar Clusters against Relativistic Collapse. *G. S. Bisnovatyi-Kogan, M. Merafina, R. Ruffini, & E. Vesperini.* 414, 187, 172-C13 (1993)

An $O(N \log N)$ Integration Scheme for Collisional Stellar Systems. *Stephen L. W. McMillan & Sverre J. Aarseth.* 414, 200, 172-E1 (1993)

Binary–Single Star Interactions in Globular Clusters. *Steinn Sigurdsson & E. S. Phinney.* 415, 631, 195-F3 (1993)

Self-gravitating Symplectic Systems. *G. Rosensteel.* 416, 291, 204-F7 (1993)

Tidally Induced Elongation and Alignments of Galaxy Clusters. *Eduard Salvador-Solé & José María Solanes.* 417, 427, 224-F1 (1993)

N-Body Evolution of Dense Clusters of Compact Stars. *Man Hoi Lee.* 418, 147, 232-G12 (1993)

Strong Effects during Close Encounters of a Star with a Massive Black Hole. *A. Khokhlov, I. D. Novikov, & C. J. Pethick.* 418, 181, 233-C7 (1993)

The Potential Energy Tensors for Subsystems. II. Mass Distributions with Ellipsoidal, Similar, and Coaxial Strata. *R. Caimmi.* 419, 615, 255-D1 (1993)

Relativistic Stellar Systems with Spindle Singularities. *Stuart L. Shapiro & Saul A. Teukolsky.* 419, 622, 255-D10 (1993)

Relativistic Stellar Systems with Rotation. *Stuart L. Shapiro & Saul A. Teukolsky.* 419, 636, 255-E12 (1993)

The Onset of Gravothermal Oscillations in Globular Cluster Evolution. *Joseph L. Breeden, Haldan N. Cohn, & Piet Hut.* 421, 195, 18-D6 (1994)

Orbital Evolution of Bodies Crossing Disks Due to Density and Bending Wave Excitation. *Pawel Artymowicz.* 423, 581, 55-F8 (1994)

Capture and Induced Disk Accretion in Young Star Encounters. *Eve C. Ostriker.* 424, 292, 65-D14 (1994)

Close Encounters of the Third-Body Kind. *M. B. Davies, W. Benz, & J. G. Hills.* 424, 870, 75-E8 (1994)

Bending Instabilities in Stellar Systems. *David Merritt & J. A. Sellwood.* 425, 551, 88-E5 (1994)

On the Velocity Dispersion in the Core of the Globular Cluster M15. *P. Dubath, G. Meylan, & M. Mayor.* 426, 192, 98-E2 (1994)

Mass Segregation, Relaxation, and the Coulomb Logarithm in N-Body Systems (Again). *R. T. Farouki & E. E. Salpeter.* 427, 676, 121-B5 (1994)

Is There a Planet in the PSR 1620−26 Triple System? *Frederic A. Rasio.* 427, L107, 127-C11 (1994)

The Range of Core Size of Postcollapse Clusters Supported by Primordial Binaries. *E. Vesperini & D. F. Chernoff.* 431, 231, 179-A7 (1994)

Topological Analysis of Chaotic Orbits: Revisiting Hyperion. *Patricia T. Boyd, Gabriel B. Mindlin, Robert Gilmore, & Hernán G. Solari.* 431, 425, 181-C12 (1994)

Linear Stability of Spherical Collisionless Stellar Systems. *G. Bertin, F. Pegoraro, F. Rubini, & E. Vesperini.* 434, 94, 226-D8 (1994)

Triple Black Holes in the Cores of Galaxies. *Junichiro Makino & Toshikazu Ebisuzaki.* 436, 607, 273-G10 (1994)

Cosmic Acceleration of Earth and the Moon by Dark Matter. *Kenneth L. Nordtvedt.* 437, 529, 290-D2 (1994)

Binary-Binary Interactions and the Formation of the PSR B1620−26 Triple System in M4. *Frederic A. Rasio, Steve McMillan, & Piet Hut.* 438, L33, 10-B11 (1995)

Tidal-Shock Relaxation: A Reexamination of Tidal Shocks in Stellar Systems. *Tomislav Kundić & Jeremiah P. Ostriker.* 438, 702, 13-G7 (1995)

CCD Photometry of Globular Cluster Core Structure. II. U-Band Profiles for 15 Candidate Collapsed-Core Clusters. *Phyllis M. Lugger, Haldan N. Cohn, & Jonathan E. Grindlay.* 439, 191, 23-G10 (1995)

On the Luminosity Function, Lifetimes, and Origin of Blue Stragglers in Globular Clusters. *Charles D. Bailyn & Marc H. Pinsonneault.* 439, 705, 34-C13 (1995)

Radial Orbit Instability in a Hubble-expanding Universe. *Daniel D. Carpintero & Juan C. Muzzio.* 440, 5, 41-C8 (1995)

A Comparison of Two Algorithms for Simulating Collisionless Systems. *Shunsuke Hozumi & Lars Hernquist.* 440, 60, 42-A10 (1995)

Disk Tides and Accretion Runaway. *William R. Ward & Joseph M. Hahn.* 440, L25, 48-E1 (1995)

Influence of the Stellar Mass Function on the Evaporation Rate of Tidally Limited Postcollapse Globular Clusters. *Hyung Mok Lee & Jeremy Goodman.* 443, 109, 96-F4 (1995)

Building a Better Leapfrog. *Piet Hut, Jun Makino, & Steve McMillan.* 443, L93, 112-C5 (1995)

Finite Disks with Power-Law Potentials. *Rafael Brada & Mordehai Milgrom.* 444, 71, 114-C4 (1995)

Competition of Supermassive Black Holes and Galactic Spheroids in the Destruction of Globular Clusters. *Jane C. Charlton & Pablo Laguna.* 444, 193, 116-A11 (1995)

Small Deviations from the $R^{1/4}$ Law, the Fundamental Plane, and Phase Densities of Elliptical Galaxies. *Jens Hjorth & Jes Madsen.* 445, 55, 133-B6 (1995)

The Minimum Detectable Core Radius of Star Clusters. *Bruce J. Sams III.* 445, 221, 135-E6 (1995)

Nonperiodic Variations in Astrophysical Systems: Investigating Frequency Evolution. *Patricia T. Boyd, Patricia H. Carter, Robert Gilmore, & Joseph F. Dolan.* 445, 861, 147-A12 (1995)

On Blue Straggler Formation by Direct Collisions of Main-Sequence Stars. *James C. Lombardi, Jr., Frederic A. Rasio, & Stuart L. Shapiro.* 445, L117, 151-C1 (1995)

The Orbital Eccentricities of Binary Millisecond Pulsars in Globular Clusters. *Frederic A. Rasio & Douglas C. Heggie.* 445, L133, 151-E9 (1995)

An Axisymmetric Distribution Function for the Galactic Bulge. *Konrad Kuijken.* 446, 194, 155-G8 (1995)

A Parallel Self-consistent Field Code. *Lars Hernquist, Steinn Sigurdsson, & Greg L. Bryan.* 446, 717, 166-A4 (1995)

Chaos in Core Oscillations of Globular Clusters. *Joseph L. Breeden & Haldan N. Cohn.* 448, 672, 204-A12 (1995)

Improved Bounds on Nonluminous Matter in Solar Orbit. *John D. Anderson, Eunice L. Lau, Timothy P. Krisher, Duane A. Dicus, Doris C. Rosenbaum, & Vigdor L. Teplitz.* 448, 885, 207-B7 (1995)

Dynamics and Interactions of Binaries and Neutron Stars in Globular Clusters. *Steinn Sigurdsson & E. S. Phinney.* 99, 609, 43-D7 (1995)

The Role of Chaos in the Circularization of Tidal Capture Binaries. I. The Chaos Boundary. *Rosemary A. Mardling.* 450, 722, 240-F7 (1995)

The Role of Chaos in the Circularization of Tidal Capture Binaries. II. Long-Time Evolution. *Rosemary A. Mardling.* 450, 732, 240-G6 (1995)

The Optimal N-Body Method for Stability Studies of Galaxies. *David J. D. Earn & J. A. Sellwood.* 451, 533, 254-E12 (1995)

Mass Segregation in the Globular Cluster NGC 6397. *Ivan R. King, Craig Sosin, & Adrienne M. Cool.* 452, L33, 269-G8 (1995)

Fokker-Planck Models of NGC 6397. *G. A. Drukier.* 100, 347, 51-A7 (1995)

Relativistic Collisionless Clusters with Arbitrarily Large Central Redshift. *M. Merafina & R. Ruffini.* 454, L89, 315-E4 (1995)

Encounters with Protostellar Disks. II. Disruption and Binary Formation. *Clayton H. Heller.* 455, 252, 321-E10 (1995)

MOND and the Seven Dwarfs. *Mordehai Milgrom.* 455, 439, 328-A1 (1995)

An Empirical Condition for Stability of Hierarchical Triple Systems. *Peter Eggleton & Ludmila Kiseleva.* 455, 640, 330-F8 (1995)

CHAOS

Chaos in Core Oscillations of Globular Clusters. *Joseph L. Breeden & Haldan N. Cohn.* 448, 672, 204-A12 (1995)

The Role of Chaos in the Circularization of Tidal Capture Binaries. I. The Chaos Boundary. *Rosemary A. Mardling.* 450, 722, 240-F7 (1995)

The Role of Chaos in the Circularization of Tidal Capture Binaries. II. Long-Time Evolution. *Rosemary A. Mardling.* 450, 732, 240-G6 (1995)

CHAOTIC PHENOMENA

The Gravitational Sculpting of the Kuiper Belt. *Harold F. Levison & Martin J. Duncan.* 406, L35, 61-A8 (1993)

The Quasi-periodic Oscillations and Very Low Frequency Noise of Scorpius X-1 as Transient Chaos: A Dripping Handrail? *Jeffrey D. Scargle, Thomas Steiman-Cameron, Karl Young, David L. Donoho, James P. Crutchfield, & James Imamura.* 411, L91, 142-E13 (1993)

CLUSTERS: ASSOCIATIONS

Spectroscopic Binaries in the Orion OB1 Association. *Nidia Morrell & Hugo Levato.* 75, 965, 15-F5 (1991)

The Detection of X-Ray Emission from the OB Associations of the Large Magellanic Cloud. *Q. Wang & D. J. Helfand.* 373, 497, 94-B7 (1991)

Rotation Periods for Seven Stars in the Trapezium Cluster. *Gregory N. Mandel & William Herbst.* 383, L75, 226-E11 (1991)

CLUSTERS: DYNAMICS

The Postcollapse Core of M15 Imaged with the *HST* Planetary Camera. *Tod R. Lauer, Jon A. Holtzman, S. M. Faber, William A. Baum, Douglas G. Currie, S. P. Ewald, Edward J. Groth, J. Jeff Hester, T. Kelsall, Robert M. Light, C. Roger Lynds, Earl J. O'Neil, Jr., Donald P. Schneider, Edward J. Shaya, & James A. Westphal.* 369, L45, 45-F1 (1991)

CLUSTERS: GLOBULAR

Application of Oxygen-enhanced Evolutionary Sequences to the Horizontal Branch of M15. *Ben Dorman, Young-Wook Lee, & Don A. VandenBerg.* 366, 115, 2-D11 (1991)

Multicomponent Models for the Dynamic Evolution of Globular Clusters. *Hyung Mok Lee, Gregory G. Fahlman, & Harvey B. Richer.* 366, 455, 8-E1 (1991)

Thermal Instabilities in Proto–Globular Clusters Resulting from Time-dependent Potentials. *Stephen D. Murray & Douglas N. C. Lin.* 367, 149, 13-G6 (1991)

Abundances in the Red Giants of M13 and M22. *M. D. Lehnert, R. A. Bell, & J. G. Cohen.* 367, 514, 19-F9 (1991)

Stellar Evolution and Period Changes in RR Lyrae Stars. *Young-Wook Lee.* 367, 524, 19-G7 (1991)

Metal Abundances of RR Lyrae Variables in Selected Galactic Star Fields. V. The Lick Astrographic Fields at Intermediate Galactic Latitudes. *Nicholas B. Suntzeff, T. D. Kinman, & Robert P. Kraft.* 367, 528, 19-G13 (1991)

A Search for Instability in Two Families of Spherical Stellar Models. *Martin D. Weinberg.* 368, 66, 24-A1 (1991)

Star Clusters in the Clouds of Magellan. *Sidney van den Bergh.* 369, 1, 36-A11 (1991)

The Postcollapse Core of M15 Imaged with the *HST* Planetary Camera. *Tod R. Lauer, Jon A. Holtzman, S. M. Faber, William A. Baum, Douglas G. Currie, S. P. Ewald, Edward J. Groth, J. Jeff Hester, T. Kelsall, Robert M. Light, C. Roger Lynds, Earl J. O'Neil, Jr., Donald P. Schneider, Edward J. Shaya, & James A. Westphal.* 369, L45, 45-F1 (1991)

Faint Object Camera Observations of a Globular Cluster Nova Field. *Bruce Margon, Scott F. Anderson, Ronald A. Downes, Ralph C. Bohlin, & Peter Jakobsen.* 369, L71, 46-C1 (1991)

Extragalactic Globular Clusters. II. The M31 Globular Cluster System. *John P. Huchra, Jean P. Brodie, & Stephen M. Kent.* 370, 495, 54-E5 (1991)

Fokker-Planck Calculations of Star Clusters with Primordial Binaries. *Bin Gao, Jeremy Goodman, Haldan Cohn, & Brian Murphy.* 370, 567, 55-E1 (1991)

Spatial Structure of the Interstellar Gas toward the Globular Cluster M22. *B. Bates & M. G. Catney.* 371, L37, 66-E7 (1991)

Diffusion and Mixing of Lithium and Helium in Population II Dwarfs. *Charles R. Proffitt & Georges Michaud.* 371, 584, 68-G1 (1991)

Multicolor CCD Photometry of Globular Clusters in Two Virgo Elliptical Galaxies. *Jean Couture, William E. Harris, & J. W. B. Allwright.* 372, 97, 75-C1 (1991)

Star Cluster Evolution with Primordial Binaries. II. Detailed Analysis. *Steve McMillan, Piet Hut, & Junichiro Makino.* 372, 111, 75-D5 (1991)

Modification of Stellar Populations in Post–Core-Collapse Globular Clusters. *S. Djorgovski, G. Piotto, E. S. Phinney, & D. F. Chernoff.* 372, L41, 79-E11 (1991)

Limits on Cluster Binaries. *Roger W. Romani & Martin D. Weinberg.* 372, 487, 81-G5 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

The Luminosity Distribution of Globular Clusters in Three Giant Virgo Ellipticals. *William E. Harris, J. W. B. Allwright, Christopher J. Pritchet, & Sidney van den Bergh.* 76, 115, 25-D11 (1991)

Analysis of C IV Absorption Lines from Clouds at High Redshifts. *Wei Peng & Jon C. Weisheit.* 373, 471, 93-G4 (1991)

C and N Abundances among 47 Tucanae Main-Sequence Stars. *Michael M. Briley, James E. Hesser, & R. A. Bell.* 373, 482, 94-A1 (1991)

The Globular Cluster ω Centauri: The Origin of the Mysterious Correlation between the RR Lyrae Luminosity and [Fe/H]. *Young-Wook Lee.* 373, L43, 97-B7 (1991)

Timing Observations of the 8 Hour Binary Pulsar 2127+11C in the Globular Cluster M15. *T. A. Prince, S. B. Anderson, S. R. Kulkarni, & A. Wolszczan.* 374, L41, 110-C1 (1991)

Observation of Neutral Hydrogen in the Globular Cluster NGC 2808. *D. J. Faulkner, Tania R. Scott, P. R. Wood, & Alan E. Wright.* 374, L45, 110-C6 (1991)

Isochrones for H-burning Globular Cluster Stars. II. The Metallicity Range $-2.3 <$ [Fe/H] < -0.5. *Oscar Straniero & Alessandro Chieffi.* 76, 525, 32-D1 (1991)

Diameters of Galactic Globular Clusters. *Sidney van den Bergh, Christopher Morbey, & John Pazder.* 375, 594, 120-B1 (1991)

The Formation and Detection of Strongly Magnetic White Dwarf Binaries in Globular Clusters. *G. Chanmugam, A. Ray, & K. P. Singh.* 375, 600, 120-B9 (1991)

On the Formation of Globular Clusters. I. Dynamical Limits on Globular Cluster Metallicities. *J. H. Brown, A. Burkert, & James W. Truran.* 376, 115, 126-D1 (1991)

The Evolution of He-burning Stars: Horizontal and Asymptotic Branches in Galactic Globulars. *V. Castellani, A. Chieffi, & L. Pulone.* 76, 911, 37-C5 (1991)

Inhomogeneous Halo Collapse and Early Galactic Chemical Evolution: Globular Cluster Metallicities. *G. Malinie, D. H. Hartmann, & G. J. Mathews.* 376, 520, 132-G9 (1991)

On Spectra of X-Ray Bursters in the Expansion Phase. *I. I. Lapidus.* 377, L93, 150-E1 (1991)

The Metallicity of RR Lyrae Stars in Baade's Window. *Alistair R. Walker & Donald M. Terndrup.* 378, 119, 152-D13 (1991)

Extragalactic Globular Clusters. III. Metallicity Comparisons and Anomalies. *Jean P. Brodie & John P. Huchra.* 379, 157, 165-A1 (1991)

A Grain-heated, Dusty Planetary Nebula in M22. *Kazimierz J. Borkowski & J. Patrick Harrington.* 379, 168, 165-B1 (1991)

Lithium in Halo Stars: Constraining the Effects of Helium Diffusion on Globular Cluster Ages and Cosmology. *Constantine P. Deliyannis & Pierre Demarque.* 379, 216, 165-F7 (1991)

Discovery with the Sigma Telescope of Hard X-Rays from the Globular Cluster Terzan 2. *D. Barret, S. Mereghetti, J. P. Roques, P. Mandrou, L. Salotti, F. Lebrun, Ph. Laurent, J. Ballet, E. Churazov, M. Gilfanov, R. Sunyaev, N. Khavenson, I. Chulkov, B. Novikov, A. Kuznetzov, & A. Dyachkov.* 379, L21, 169-C1 (1991)

The Stellar Content and Structure of the Globular Cluster NGC 5053. *Gregory G. Fahlman, Harvey B. Richer, & James Nemec.* 380, 124, 177-E11 (1991)

Interaction of Mass Lost in Globular Clusters with the Halo Medium. *D. J. Faulkner & Graeme H. Smith.* 380, 441, 183-F7 (1991)

Globular Cluster Mass Functions. *Harvey B. Richer, Gregory G. Fahlman, Roberto Buonanno, Flavio Fusi Pecci, Leonard Searle, & Ian B. Thompson.* 381, 147, 190-G7 (1991)

Carbon Isotopic Abundances in Giant Stars in the CN-bimodal Globular Clusters NGC 6752 and M4. *Nicholas B. Suntzeff & Verne V. Smith.* 381, 160, 191-A8 (1991)

Stellar Encounters Involving Red Giants in Globular Cluster Cores. *M. B. Davies, W. Benz, & J. G. Hills.* 381, 449, 196-C7 (1991)

Detection of the Helium Flash Gap in the Integrated $(U - B)$ versus $(B - V)$ Diagram for 624 Large Magellanic Cloud Clusters. *E. Bica, J. J. Clariá, H. Dottori, J. F. C. Santos, Jr., & A. Piatti.* 381, L51, 199-C7 (1991)

Metal-rich Giant Branches of Bulge Clusters: Application to Color-Magnitude Diagrams of M31 and M32. *E. Bica, B. Barbuy, & S. Ortolani.* 382, L15, 205-B12 (1991)

Deep VLA Images of Globular Clusters. *Helen M. Johnston, Shrinivas R. Kulkarni, & W. M. Goss.* 382, L89, 211-D11 (1991)

On Core Collapse. *Junichiro Makino & Piet Hut.* 383, 181, 214-C9 (1991)

The Formation of Primordial Binaries in Globular Clusters by Star-Disk Interactions. *Stephen D. Murray, C. J. Clarke, & J. E. Pringle.* 383, 192, 214-D7 (1991)

Two High-Velocity Stars Shot Out from the Core of the Globular Cluster 47 Tucanae. *G. Meylan, P. Dubath, & M. Mayor.* 383, 587, 221-E4 (1991)

Implications of Helium Diffusion for Globular Cluster Isochrones and Luminosity Functions. *Charles R. Proffitt & Don A. VandenBerg.* 77, 473, 51-C10 (1991)

CLUSTERS: OPEN

Spectroscopic Binaries in the Orion Nebula Cluster. *Helmut A. Abt, Ruyou Wang, & Octavio Cardona.* 367, 155, 14-A1 (1991)

A 21 Centimeter Line Survey of a Region around Four Outer Galaxy Open Clusters. *D. Leisawitz & E. J. de Geus.* 75, 835, 13-A1 (1991)

Spectroscopic Binaries in the Open Cluster Trumpler 16. *Hugo Levato, Stella Malaroda, Nidia Morrell, Beatriz García, & Carlos Hernández.* 75, 869, 13-C13 (1991)

Lithium, Age, and Metallicity in Open Clusters. *Ann Merchant Boesgaard.* 370, L95, 59-E12 (1991)

Carbon Isotope Ratios along the Giant Branch of M67. *Kalpana Krishnaswamy Gilroy & Jeffery A. Brown.* 371, 578, 68-F7 (1991)

DD 13: A Very Young and Heavily Reddened Early O Star in the Large Magellanic Cloud. *Peter S. Conti & Edward L. Fitzpatrick.* 373, 100, 87-C5 (1991)

The Lithium Abundance of M67 Blue Stragglers: A Constraint on the Blue Straggler Phenomenon. *C. J. Pritchet & J. W. Glaspey.* 373, 105, 87-C12 (1991)

The Structure and Evolution of Rich Star Clusters in the Large Magellanic Cloud. *Rebecca A. W. Elson.* 76, 185, 26-E9 (1991)

On the Dispersion in Direction of Interstellar Polarization. *P. C. Myers & A. A. Goodman.* 373, 509, 94-C9 (1991)

The Chromospheric Activity of Low-Mass Stars in the Hyades. *John R. Stauffer, Mark S. Giampapa, William Herbst, James M. Vincent, Lee W. Hartmann, & Robert A. Stern.* 374, 142, 99-G1 (1991)

Photometric Binary Stars in Praesepe and the Search for Globular Cluster Binaries. *Michael Bolte.* 376, 514, 132-G1 (1991)

Radial Velocity Measurements in the Pleiades. *T. Liu, Kenneth A. Janes, & T. M. Bania.* 377, 141, 139-F7 (1991)

Topography of the Galactic Disk: Z-Structure and Large-Scale Star Formation. *Emilio J. Alfaro, Jesús Cabrera-Caño, & Antonio J. Delgado.* 378, 106, 152-C10 (1991)

Reinvestigation of the Binary Frequency in the Open Cluster IC 4665. *Nidia Morrell & Helmut A. Abt.* 378, 157, 153-A1 (1991)

The LkHα 101 Infrared Cluster. *M. Barsony, J. M. Schombert, & K. Kis-Halas.* 379, 221, 165-G1 (1991)

IUE Observations of Solar-Type Stars in the Pleiades and the Hyades. *Jean-Pierre Caillault, Osmi Vilhu, & Jeffrey L. Linsky.* 383, 594, 221-F1 (1991)

Rotation Periods for Seven Stars in the Trapezium Cluster. *Gregory N. Mandel & William Herbst.* 383, L75, 226-E11 (1991)

A Model for the Infrared Emission from an OB Star Cluster Environment. *D. Leisawitz.* 77, 451, 51-B1 (1991)

COMETS

The Formation of an Ice Crust below the Dust Mantle of a Cometary Nucleus. *Dina Prialnik & Yuri Mekler.* 366, 318, 5-A6 (1991)

Observation of a Rapid Decrease in the Brightness of the Coma of 2060 Chiron in 1990 January. *Bonnie J. Buratti & R. Scott Dunbar.* 366, L47, 6-F1 (1991)

Nitrogen Abundance in Comet Halley. *Susan Wyckoff, Stephen C. Tegler, & Lisa Engel.* 367, 641, 21-C1 (1991)

Ammonia Abundances in Four Comets. *Susan Wyckoff, Stephen C. Tegler, & Lisa Engel.* 368, 279, 26-E5 (1991)

New Ultraviolet Spectroscopic Features Found in Comet Brorsen-Metcalf (1989o). *C. R. O'Dell, Christopher O. Miller, Anita L. Cochran, William D. Cochran, Chet B. Opal, & Edwin S. Barker.* 368, 616, 32-G1 (1991)

Gas and Dust Production by Comet P/Halley (1910 II). *Ellen S. Howell, Barry L. Lutz, & V. M. Slipher.* 371, 776, 71-B11 (1991)

Densities and Abundances of Hot Cometary Ions in the Coma of P/Halley. *M. Neugebauer, R. Goldstein, B. E. Goldstein, S. A. Fuselier, H. Balsiger, & W.-H. Ip.* 372, 291, 77-E6 (1991)

A Sensitive Upper Limit on the Methane Abundance in Comet Levy (1990c). *T. Y. Brooke, A. T. Tokunaga, H. A. Weaver, G. Chin, & T. R. Geballe.* 372, L113, 85-G1 (1991)

Synthetic Profile Analysis of the Observed (0,0) Swan Band of Comet Halley. *K. S. Krishna Swamy.* 373, 266, 89-C7 (1991)

Analysis of the Swings Effect and Greenstein Effect in Comet P/Halley. *Wayne A. Jaworski & Jeremy B. Tatum.* 377, 306, 141-F11 (1991)

Sulfur-bearing Ions in the Ionosphere of Comet Halley. *M. L. Marconi, D. A. Mendis, D. L. Mitchell, R. P. Lin, A. Korth, & H. Réme.* 378, 756, 161-F7 (1991)

Observations of Comet Levy (1990c) with the Hopkins Ultraviolet Telescope. *P. D. Feldman, A. F. Davidsen, W. P. Blair, C. W. Bowers, W. V. Dixon, S. T. Durrance, H. C. Ferguson, R. C. Henry, R. A. Kimble, G. A. Kriss, J. W. Kruk, K. S. Long, H. W. Moos, O. Vancura, & T. R. Gull.* 379, L37, 169-D7 (1991)

Observations of Solar Wind Ion Charge Exchange in the Comet Halley Coma. *S. A. Fuselier, E. G. Shelley, B. E. Goldstein, R. Goldstein, M. Neugebauer, W.-H. Ip, H. Balsiger, & H. Rème.* 379, 734, 173-G8 (1991)

The Formation and Role of Water Dimers in a Cometary Atmosphere, with Application to Comet P/Halley. *J. F. Crifo & Z. Slanina.* 383, 351, 216-F1 (1991)

Comet P/Halley: Spatial Distributions and Scale Lengths for C_2, CN, NH_2, and H_2O. *Uwe Fink, Michael R. Combi, & Michael A. DiSanti.* 383, 356, 216-F9 (1991)

COMETS: GENERAL

The Contribution of Methanol to the 3.4 Micron Emission Feature in Comets. *Dennis C. Reuter.* 386, 330, 28-C11 (1992)

Crystallization, Sublimation, and Gas Release in the Interior of a Porous Comet Nucleus. *Dina Prialnik.* 388, 196, 51-D8 (1992)

Extremely Low Thermal Conductivity of Amorphous Ice: Relevance to Comet Evolution. *A. Kouchi, J. M. Greenberg, T. Yamamoto, & T. Mukai.* 388, L73, 59-D9 (1992)

Cometary Gas-Phase Chemistry Taking into Account Homogeneous and Ion-induced Water Recondensation. *J. F. Crifo.* 391, 336, 90-B1 (1992)

Combined Infrared and Analytical Electron Microscope Studies of Interplanetary Dust Particles. *J. P. Bradley, H. J. Humecki, & M. S. Germani.* 394, 643, 137-D8 (1992)

The Formation of Magnetic Cavities in Comets. *Z. Klopman, A. Eviatar, & R. Goldstein.* 394, 652, 137-E10 (1992)

A Three-dimensional Axisymmetric Photochemical Flow Model of the Cometary "Inner" Shock Layer. *M. C. Damas & D. A. Mendis.* 396, 704, 166-B1 (1992)

Comet Outbursts and Polymers of HCN. *Terrence W. Rettig, Stephen C. Tegler, Daniel J. Pasto, & Michael J. Mumma.* 398, 293, 185-D5 (1992)

Observational Constraints on Solar Nebula Nitrogen Chemistry: N_2/NH_3. *Maria Womack, Susan Wyckoff, & L. M. Ziurys.* 401, 728, 231-E6 (1992)

Far-Infrared Investigations of a Methanol Clathrate Hydrate: Implications for Astronomical Observations. *Reggie L. Hudson & Marla H. Moore.* 404, L29, 33-G1 (1993)

A Survey of Bimolecular Ion-Molecule Reactions for Use in Modeling the Chemistry of Planetary Atmospheres, Cometary Comae, and Interstellar Clouds: 1993 Supplement. *V. G. Anicich.* 84, 215, 4-C11 (1993)

The Gravitational Sculpting of the Kuiper Belt. *Harold F. Levison & Martin J. Duncan.* 406, L35, 61-A8 (1993)

The OH Distribution in Cometary Atmospheres: A Collisional Monte Carlo Model for Heavy Species. *Michael R. Combi, Brent J. Bos, & William H. Smyth.* 408, 668, 93-E1 (1993)

Numerical Solution of Wave Equations for the Stability of the Inner Cometo-Sheath. *Krishna M. Srivastava, Bruce T. Tsurutani, & Bruce E. Goldstein.* 409, 782, 108-G7 (1993)

On the Convective Instability of the Cometary Ionosphere. *A. I. Ershkovich & P. L. Israelevich.* 411, 891, 140-G12 (1993)

Analysis of Hydrogen Hα Observations of the Coma of Comet P/Halley. *William H. Smyth, M. L. Marconi, Frank Scherb, & Fred L. Roesler.* 413, 756, 165-G6 (1993)

Do Observations Exclude Gamma-Ray Bursts Originating in the Oort Cloud of Comets? *Eyal Maoz.* 414, 877, 182-B12 (1993)

A Two-Zone Steady State Crystallization Model for Comets. *Dina Prialnik.* 418, L49, 238-F6 (1993)

Ion Thermalization in the Inner Coma of a Comet. *P. Puhl, T. E. Cravens, & J. Lindgren.* 418, 899, 243-G1 (1993)

Thermal Behavior of Rocky Material in Contact with Ice. *Norbert I. Kömle, Gerhard Steiner, & Eberhard Grün.* 421, 350, 20-C9 (1994)

Comparison of the Plasma Tails of Four Comets: P/Halley, Okazaki-Levy-Rudenko, Austin, and Levy. *Tony L. Farnham & Karen J. Meech.* 91, 419, 24-A7 (1994)

The 8–13 Micron Spectra of Comets and the Composition of Silicate Grains. *Martha S. Hanner, David K. Lynch, & Ray W. Russell.* 425, 274, 83-F3 (1994)

Infrared Spectra of Crystalline Phase Ices Condensed on Silicate Smokes at $T < 20$ K. *Marla H. Moore, Robert F. Ferrante, Reggie L. Hudson, Joseph A. Nuth III, & Bertram Donn.* 428, L81, 143-A7 (1994)

On a Thermodynamic Origin of the Cometary Ion Rays. *W.-H. Ip.* 432, L143, 207-D11 (1994)

The Cometary Fluorescence Spectrum of Cyanogen: A Model. *Marvin Kleine, Susan Wyckoff, Peter A. Wehinger, & Bruce A. Peterson.* 436, 885, 278-A1 (1994)

A General Physicochemical Model of the Inner Coma of Active Comets. I. Implications of Spatially Distributed Gas and Dust Production. *J. F. Crifo.* 445, 470, 139-A12 (1995)

Model of a Kuiper Belt Small Grain Population and Resulting Far-Infrared Emission. *D. E. Backman, A. Dasgupta, & R. E. Stencel.* 450, L35, 236-A11 (1995)

The Discovery of Halley-sized Kuiper Belt Objects Using the *Hubble Space Telescope*. *Anita L. Cochran, Harold F. Levison, S. Alan Stern, & Martin J. Duncan.* 455, 342, 322-G3 (1995)

COMETS: INDIVIDUAL

Name: Austin 1989c

Near-Ultraviolet Spectroscopy of Comet Austin (1989c1). *Jacobus H. Valk, C. R. O'Dell, Anita L. Cochran, William D. Cochran, Chet B. Opal, & Edwin S. Barker.* 388, 621, 58-A1 (1992)

Simultaneous Visible and Near-Infrared Spectrophotometry of Comet Austin $1989c_1$. *Stephen C. Tegler, Humberto Campins, Stephen Larson, Marvin Kleine, Douglas Kelly, & Marcia Rieke.* 396, 711, 166-B9 (1992)

Name: Austin 1990 V

Infrared Observations of Comet Austin (1990 V) by the *COBE*/Diffuse Infrared Background Experiment. *C. M. Lisse, H. T. Freudenreich, M. G. Hauser, T. Kelsall, S. H. Moseley, W. T. Reach, & R. F. Silverberg.* 432, L71, 200-B13 (1994)

Name: Bradfield 1987 XXIX

Ion Abundances and Implications for Photochemistry in Comets Halley (1986 III) and Bradfield (1987 XXIX). *Barry L. Lutz, Maria Womack, & R. Mark Wagner.* 407, 402, 74-A9 (1993)

Name: Brorsen-Metcalf

NH_3 and NH_2 in the Coma of Comet Brorsen-Metcalf. *Stephen C. Tegler, Luke F. Burke, Susan Wyckoff, Maria Womack, Uwe Fink, & Michael DiSanti.* 384, 292, 4-E6 (1992)

Name: Halley

The Effect of Electron Collisions on Rotational Populations of Cometary Water. *Xingfa Xie & Michael J. Mumma.* 386, 720, 34-C4 (1992)

The Abundance of Ammonia in Comet P/Halley Derived from Ultraviolet Spectrophotometry of NH by *ASTRON* and *IUE*. *P. D. Feldman, K. B. Fournier, V. P. Grinin, & A. M. Zvereva.* 404, 348, 32-B11 (1993)

P/Halley: Effects of Time-dependent Production Rates on Spatial Emission Profiles. *Michael R. Combi & Uwe Fink.* 409, 790, 109-A1 (1993)

The Disconnection Events of 1986 April 13–18 and the Cessation of Plasma Tail Activity in Comet Halley in 1986 May. *Y. Yi, J. C. Brandt, C. E. Randall, & M. Snow.* 414, 883, 182-C6 (1993)

The Flow in the Cometosheath of Comet Halley. *M. C. Damas, K. R. Flammer, D. A. Mendis, & K. Altwegg.* 421, 355, 20-D1 (1994)

The Trend of Production Rates with Heliocentric Distance for Comet P/Halley. *Uwe Fink.* 423, 461, 51-G12 (1994)

Pre- and Postperihelion Abundances of Gas and Dust in Comet Halley. *Maria Womack, Barry L. Lutz, & R. Mark Wagner.* 433, 886, 222-B11 (1994)

Time-dependent Analysis of 8 Days of CN Spatial Profiles in Comet P/Halley. *Michael Combi, Bormin Huang, Anita Cochran, Uwe Fink, & Rita Schulz.* 435, 870, 258-B2 (1994)

The Carbon Isotope Abundance Ratio in Comet Halley. *Marvin Kleine, Susan Wyckoff, Peter A. Wehinger, & Bruce A. Peterson.* 439, 1021, 38-F13 (1995)

Observations and Analysis of O(^1D) and NH_2 Line Profiles for the Coma of Comet P/Halley. *William H. Smyth, Michael R. Combi, Fred L. Roesler, & Frank Scherb.* 440, 349, 46-A6 (1995)

Name: Halley 1986 III

Ion Abundances and Implications for Photochemistry in Comets Halley (1986 III) and Bradfield (1987 XXIX). *Barry L. Lutz, Maria Womack, & R. Mark Wagner.* 407, 402, 74-A9 (1993)

Name: P/Hartley 2

Detection of CO Cameron Band Emission in Comet P/Hartley 2 (1991 XV) with the *Hubble Space Telescope*. *H. A. Weaver, P. D. Feldman, J. B. McPhate, M. F. A'Hearn, C. Arpigny, & T. E. Smith.* 422, 374, 34-F7 (1994)

Name: Shoemaker-Levy/9

Seismological Consequences of the Collision of Shoemaker-Levy/9 with Jupiter. *Mark S. Marley.* 427, L63, 118-A9 (1994)

Global Oscillation Amplitudes Excited by the Jupiter-Comet Collision. *U. Lee & H. M. Van Horn.* 428, L41, 134-F5 (1994)

Explosions of Infalling Comets in Jupiter's Atmosphere. *Roger A. Chevalier & Craig L. Sarazin.* 429, 863, 156-D6 (1994)

Explosion of Comet Shoemaker-Levy 9 on Entry into the Jovian Atmosphere. *Mordecai-Mark Mac Low & Kevin Zahnle.* 434, L33, 232-E11 (1994)

The Behavior of Fragments of Comet Shoemaker-Levy 9 in the Atmosphere of Jupiter. *G. B. Field & A. Ferrara.* 438, 957, 17-C11 (1995)

Excitation of Low-Order Jovian *p*-Modes by Cometary Impacts. *Andrew J. Dombard & Stephen P. Boughn.* 443, L89, 112-B11 (1995)

Name: Yanaka 1988r

What Is New about the New Comet Yanaka (1988r)? *J. Mayo Greenberg, P. D. Singh, & A. A. de Almeida.* 414, L45, 175-G7 (1993)

CONDUCTION

On the Thermal Conductivity due to Collisions between Relativistic Degenerate Electrons. *F. X. Timmes.* 390, L107, 85-D9 (1992)

Semiempirical Limits on the Thermal Conductivity of Intracluster Gas. *Laurence P. David, John P. Hughes, & Wallace H. Tucker.* 394, 452, 135-A7 (1992)

The Conductive Propagation of Nuclear Flames. I. Degenerate C + O and O + Ne + Mg White Dwarfs. *F. X. Timmes & S. E. Woosley.* 396, 649, 165-D9 (1992)

Two-Temperature Models of Old Supernova Remnants with Ion and Electron Thermal Conduction. *Wei Cui & Donald P. Cox.* 401, 206, 223-F1 (1992)

Magnetic Field Decay from the Core of Neutron Stars: Effects of Interpinning of $^3P_2$ Neutron Superfluid and $^1S_0$ Proton Superconducting Fluid. *K. Y. Ding, K. S. Cheng, & H. F. Chau.* 408, 167, 85-B11 (1993)

The Conductive Propagation of Nuclear Flames. II. Convectively Bounded Flames in C+O and O+Ne+Mg Cores. *F. X. Timmes, S. E. Woosley, & Ronald E. Taam.* 420, 348, 5-B13 (1994)

CONVECTION

Turbulent Compressible Convection. *Fausto Cattaneo, Nicholas H. Brummell, Juri Toomre, Andrea Malagoli, & Neal E. Hurlburt.* 370, 282, 50-F10 (1991)

Stellar Turbulent Convection: A New Model and Applications. *V. M. Canuto & I. Mazzitelli.* 370, 295, 51-A1 (1991)

Power Spectra of Solar Convection. *D.-Y. Chou, B. J. LaBonte, D. C. Braun, & T. L. Duvall, Jr.* 372, 314, 77-G5 (1991)

The Lithium Abundance of M67 Blue Stragglers: A Constraint on the Blue Straggler Phenomenon. *C. J. Pritchet & J. W. Glaspey.* 373, 105, 87-C12 (1991)

The Location of the Source of High-Frequency Solar Acoustic Oscillations. *Pawan Kumar & Edward Lu.* 375, L35, 117-D12 (1991)

Modeling Mesogranules and Exploders on the Solar Surface. *G. W. Simon, A. M. Title, & N. O. Weiss.* 375, 775, 122-C7 (1991)

Li Depletion in F Stars by Internal Gravity Waves. *Ramón J. García López & Hendrik C. Spruit.* 377, 268, 141-C7 (1991)

Numerical Study of Compressible Solar Magnetoconvection with an Open Transitional Boundary. *H. Hanami & T. Tajima.* 377, 694, 148-C6 (1991)

Turbulence, Convection, and Stability in Accretion Disks. *César Meirelles Filho.* 378, 266, 154-C4 (1991)

Dynamical Buoyancy of Hydrodynamic Eddies. *E. N. Parker.* 380, 251, 179-B5 (1991)

Three-dimensional Compressible Hydrodynamic Convection in the Sun and Stars. *Murshed Hossain & D. J. Mullan.* 380, 631, 186-A10 (1991)

Metal Opacities and Convective Core Overshooting in Population I Stars. *Richard B. Stothers & Chao-wen Chin.* 381, L67, 199-E7 (1991)

Observational Tests of Convective Core Overshooting in Stars of Intermediate to High Mass in the Galaxy. *Richard B. Stothers.* 383, 820, 224-D8 (1991)

Compressible Magnetic Convection: Formulation and Two-dimensional Models. *Peter A. Fox, Michael L. Theobald, & Sabatino Sofia.* 383, 860, 225-A1 (1991)

Equilibrium of a Magnetic Flux Tube in a Compressible Flow. *Richard Kerswell & Stephen Childress.* 385, 746, 22-D1 (1992)

On the Evidence for Mesogranules in Solar Power Spectra. *Gregory P. Ginet & George W. Simon.* 386, 359, 28-F1 (1992)

On the Influence of the Convective Efficiency on the Determination of the Atmospheric Parameters of DA White Dwarfs. *P. Bergeron, F. Wesemael, & G. Fontaine.* 387, 288, 40-E1 (1992)

Convective Instability in Differentially Rotating Disks. *Dongsu Ryu & Jeremy Goodman.* 388, 438, 55-F12 (1992)

Diffusion and Mixing in Accreting White Dwarfs. *Icko Iben, Jr., Masayuki Y. Fujimoto, & Jim MacDonald.* 388, 521, 56-F11 (1992)

Large-Scale Flows and Solar Luminosity Variations. *S. Arendt.* 389, 421, 65-B6 (1992)

Further Improvements of a New Model for Turbulent Convection in Stars. *V. M. Canuto & I. Mazzitelli.* 389, 724, 70-D1 (1992)

Downflows and Entropy Gradient Reversal in Deep Convection. *Kwing L. Chan & Detlef Gigas.* 389, L87, 73-F3 (1992)

Propagation of Cosmic-Ray Nuclei in a Diffusing Galaxy with Convective Halo and Thin Matter Disk. *W. R. Webber, M. A. Lee, & M. Gupta.* 390, 96, 75-C3 (1992)

Stellar Evolution in Blue Populous Clusters of the Small Magellanic Cloud and the Problems of Envelope Semiconvection and Convective Core Overshooting. *Richard B. Stothers & Chao-wen Chin.* 390, 136, 75-F6 (1992)

Criterion for Convection in an Inhomogeneous Star. *Richard B. Stothers & Chao-wen Chin.* 390, L33, 78-E9 (1992)

Turbulent Convection with Overshooting: Reynolds Stress Approach. *V. M. Canuto.* 392, 218, 103-F1 (1992)

Dynamo Action in Stratified Convection with Overshoot. *Åke Nordlund, Axel Brandenburg, Richard L. Jennings, Michel Rieutord, Juha Ruokolainen, Robert F. Stein, & Ilkka Tuominen.* 392, 647, 110-C6 (1992)

Power Spectra of Median- and Small-Scale Solar Convection. *D.-Y. Chou, C.-S. Chen, K.-T. Ou, & C.-C. Wang.* 396, 333, 159-B11 (1992)

Multiple Periodicities in the Solar Magnetic Field: Possible Origin in a Multiple-Mode Solar Dynamo. *D. W. Boyer & E. H. Levy.* 396, 340, 159-C6 (1992)

A Formulation of Convection for Stellar Structure and Evolution Calculations without the Mixing-Length Theory Approximations. I. Application to the Sun. *Thomas Joseph Lydon, Peter A. Fox, & Sabatino Sofia.* 397, 701, 179-G3 (1992)

On Nonlinear Radial Oscillations in Convective RR Lyrae Stars. I. The Mathematical Description. *Michael Gehmeyr.* 399, 265, 198-E1 (1992)
On Nonlinear Radial Oscillations in Convective RR Lyrae Stars. II. Comparison of a Radiative and a Convective Model. *Michael Gehmeyr.* 399, 272, 198-E11 (1992)
Evidence for Transonic Flows in the Solar Granulation. *A. Nesis, T. J. Bogdan, F. Cattaneo, A. Hanslmeier, M. Knölker, & A. Malagoli.* 399, L99, 201-D10 (1992)
On the Inclination of Photospheric Solar Magnetic Fields. *Norman Murray.* 401, 386, 225-G5 (1992)
Helioseismological Test of a New Model for Stellar Convection. *L. Paternò, R. Ventura, V. M. Canuto, & I. Mazzitelli.* 402, 733, 11-F3 (1993)
Average Effects of Large-Scale Convection on Helioseismic Line Widths and Frequencies. *Eugene M. Lavely & Michael H. Ritzwoller.* 403, 810, 26-A6 (1993)
Improved Solar Models Constructed with a Formulation of Convection for Stellar Structure and Evolution Calculations without the Mixing-Length Theory Approximations. *Thomas Joseph Lydon, Peter A. Fox, & Sabatino Sofia.* 403, L79, 27-E8 (1993)
Large-Eddy Simulations of Compressible Convection on Massively Parallel Computers. *Xin Xie & Juri Toomre.* 405, 747, 52-D1 (1993)
A Theory of Nonlocal Mixing-Length Convection. I. The Moment Formalism. *Scott A. Grossman, Ramesh Narayan, & David Arnett.* 407, 284, 72-F1 (1993)
On the Generation of Sound by Turbulent Convection. I. A Numerical Experiment. *Thomas J. Bogdan, Fausto Cattaneo, & Andrea Malagoli.* 407, 316, 73-A7 (1993)
Neutron Star Dynamos and the Origins of Pulsar Magnetism. *Christopher Thompson & Robert C. Duncan.* 408, 194, 85-E4 (1993)
Ionization Effects in Three-dimensional Solar Granulation Simulations. *Mark P. Rast, Åke Nordlund, Robert F. Stein, & Juri Toomre.* 408, L53, 89-D11 (1993)
Dynamical Instability as the Cause of the Massive Outbursts in η Carinae and Other Luminous Blue Variables. *Richard B. Stothers & Chao-wen Chin.* 408, L85, 95-C5 (1993)
On Partial Mixing Zones in Horizontal-Branch Stellar Cores. *Ben Dorman & Robert T. Rood.* 409, 387, 101-G3 (1993)
Energy Generation in Convective Shells of Low-Mass, Low-Metallicity Asymptotic Giant Branch Stars. *Grant Bazan & John C. Lattanzio.* 409, 762, 108-E6 (1993)
The Dynamics of Magnetic Flux Rings. *E. E. DeLuca, G. H. Fisher, & B. M. Patten.* 411, 383, 132-B4 (1993)
Using Solar p-Modes to Determine the Convection Zone Depth and Constrain Diffusion-produced Composition Gradients. *Joyce A. Guzik & Arthur N. Cox.* 411, 394, 132-C4 (1993)
Convection and Neutrino Emission in the Late Stages of Massive Star Evolution. *Maurice B. Aufderheide.* 411, 813, 140-A1 (1993)
On the Convective Instability of the Cometary Ionosphere. *A. I. Ershkovich & P. L. Israelevich.* 411, 891, 140-G12 (1993)
On Nonlinear Radial Oscillations in Convective RR Lyrae Stars. III. A Full-Amplitude Investigation of the Red Edge. *Michael Gehmeyr.* 412, 341, 146-D1 (1993)
On the Dynamical Buoyancy of Vortices. *Steve Arendt.* 412, 664, 152-A12 (1993)
A Formulation of Convection for Stellar Structure and Evolution Calculations without the Mixing-Length Theory Approximations. II. Application to α Centauri A and B. *Thomas Joseph Lydon, Peter A. Fox, & Sabatino Sofia.* 413, 390, 161-B6 (1993)
Penetration at the Base of Solar Convection Zone. *H. M. Antia & S. M. Chitre.* 413, 778, 166-B1 (1993)
Convection above the Neutrinosphere in Type II Supernovae. *D. S. Miller, J. R. Wilson, & R. W. Mayle.* 415, 278, 188-D12 (1993)
Turbulent Convection with Overshooting: Reynolds Stress Approach. II. *V. M. Canuto.* 416, 331, 205-B12 (1993)
On the Angular Momentum Transport Associated with Convective Eddies in Accretion Disks. *W. Kley, J. C. B. Papaloizou, & D. N. C. Lin.* 416, 679, 211-G7 (1993)
On the Nonaxisymmetric Convective Instabilities in Accretion Disks. *D. N. C. Lin, J. C. B. Papaloizou, & W. Kley.* 416, 689, 212-A4 (1993)
Simulation of Compressible Convection: A Comparative Study of Boundary Conditions. *Murshed Hossain & D. J. Mullan.* 416, 733, 212-E1 (1993)
Effects of Convection on Pressure Wave Excitation in Common Envelopes. *Noam Soker.* 417, 347, 221-G8 (1993)
Helioseismic Line Shape Estimation Given Stochastic Excitation. *John F. Kelly & Michael H. Ritzwoller.* 418, 476, 237-A1 (1993)
Compressible Convection with Ionization. I. Stability, Flow Asymmetries, and Energy Transport. *Mark P. Rast & Juri Toomre.* 419, 224, 249-A6 (1993)
Compressible Convection with Ionization. II. Thermal Boundary-Layer Instability. *Mark P. Rast & Juri Toomre.* 419, 240, 249-B10 (1993)
A Theory of Nonlocal Mixing-Length Convection. II. Generalized Smoothed Particle Hydrodynamics Simulations. *Scott A. Grossman & Ramesh Narayan.* 89, 361, 54-E1 (1993)
Penetration below a Convection Zone. *Neal E. Hurlburt, Juri Toomre, Josep M. Massaguer, & Jean-Paul Zahn.* 421, 245, 19-A12 (1994)
New Pre–Main-Sequence Tracks for $M \leq 2.5 M\odot$ as Tests of Opacities and Convection Model. *Francesca D'Antona & Italo Mazzitelli.* 90, 467, 8-D14 (1994)
Cosmic-Ray Transport and Acceleration. *Reinhard Schlickeiser.* 90, 929, 15-D1 (1994)
On Sound Generation by Turbulent Convection: A New Look at Old Results. *Z. E. Musielak, R. Rosner, R. F. Stein, & P. Ulmschneider.* 423, 474, 52-A13 (1994)
Excitation of Solar p-Modes. *Peter Goldreich, Norman Murray, & Pawan Kumar.* 424, 466, 67-E12 (1994)
The Effects of Scattering on Solar Oscillations. *Peter Goldreich & Norman Murray.* 424, 480, 67-F14 (1994)
Differential Rotation and Turbulent Convection: A New Reynolds Stress Model and Comparison with Solar Data. *V. M. Canuto, F. O. Minotti, & O. Schilling.* 425, 303, 84-A9 (1994)
The Gap in the Color-Magnitude Diagram of NGC 2420: A Test of Convective Overshoot and Cluster Age. *Pierre Demarque, Ata Sarajedini, & X.-J. Guo.* 426, 165, 98-B12 (1994)
Large Eddy Simulation of Turbulence: A Subgrid Scale Model Including Shear, Vorticity, Rotation, and Buoyancy. *V. M. Canuto.* 428, 729, 139-C13 (1994)
Properties of Acoustic Sources in the Sun. *Pawan Kumar.* 428, 827, 140-E7 (1994)
Downflow Plumes and Entropy Balance in Deep Convection Zones. *Gregory P. Ginet.* 429, 899, 156-G7 (1994)
High-Resolution Simulations of Compressible Convection Using the Piecewise-parabolic Method. *David H. Porter & Paul R. Woodward.* 93, 309, 45-G1 (1994)
Galactic Stars Applied to Tests of the Criterion for Convection and Semiconvection in an Inhomgeneous Star. *Richard B. Stothers & Chao-wen Chin.* 431, 797, 188-E6 (1994)
Axisymmetric Neutrino Radiation and the Mechanism of Supernova Explosions. *Tetsuya Shimizu, Shoichi Yamada, & Katsuhiko Sato.* 432, L119, 207-B1 (1994)
Convection, Nucleosynthesis, and Core Collapse. *Grant Bazan & David Arnett.* 433, L41, 215-B9 (1994)
Prompt Convection in Core Collapse Supernovae. *Stephen W. Bruenn & Anthony Mezzacappa.* 433, L45, 215-C1 (1994)
Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. I. Emerging Bipolar Magnetic Regions. *E. N. Parker.* 433, 867, 222-A1 (1994)
On the Rotation Rate in the Solar Convection Zone. *Jesper Schou & Timothy M. Brown.* 434, 378, 230-F9 (1994)
Ensemble-averaged Thermonuclear Reaction Rates for Turbulent Convection in Stellar Interiors. *Lawrence D. Cloutman.* 437, 384, 288-D9 (1994)
Solar Neutrinos: Sensitivity to Pre–Main-Sequence Evolution and to the Depth of the Convective Zone. *John N. Bahcall & Ami Glasner.* 437, 485, 289-F13 (1994)
Stellar Evolution with Arbitrary Rotation Laws. II. Massive Star Evolution to Core Hydrogen Exhaustion. *Robert G. Deupree.* 439, 357, 26-B1 (1995)
Tests of Two Convection Theories for Red Giant and Red Supergiant Envelopes. *Richard B. Stothers & Chao-wen Chin.* 440, 297, 45-C3 (1995)
Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. II. The Origin of Enhanced Solar Irradiance. *E. N. Parker.* 440, 415, 47-A1 (1995)
Coronal Loop Formation Resulting from Photospheric Convection. *G. Van Hoven, Y. Mok, & Z. Mikić.* 440, L105, 58-D8 (1995)
Emerging Flux Tubes in the Solar Convection Zone. I. Asymmetry, Tilt, and Emergence Latitude. *P. Caligari, F. Moreno-Insertis, & M. Schüssler.* 441, 886, 74-B12 (1995)

Magnetoconvection Dynamics in a Stratified Layer. I. Two-dimensional Simulations and Visualization. *Steven R. Lantz & R. N. Sudan.* 441, 903, 74-D4 (1995)

Magnetoconvection Dynamics in a Stratified Layer. II. A Low-Order Model of the Tilting Instability. *Steven R. Lantz.* 441, 925, 74-F2 (1995)

Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. III. Extended Updrafts. *E. N. Parker.* 442, 405, 82-E8 (1995)

Modeling of Shallow and Inefficient Convection in the Outer Layers of the Sun Using Realistic Physics. *Yong-Cheol Kim, Peter A. Fox, Sabatino Sofia, & Pierre Demarque.* 442, 422, 82-G1 (1995)

Turbulent Convection in Thin Accretion Disks. *Itzhak Goldman & Amri Wandel.* 443, 187, 97-F6 (1995)

Oscillation-Convection Coupling: Cause of Supergranulation? *Charles L. Wolff.* 443, 423, 100-G12 (1995)

On the Nature of "Exploding" Granules and Granule Fragmentation. *Mark Peter Rast.* 443, 863, 109-F12 (1995)

Hydrodynamics of Semiconvection. *William J. Merryfield.* 444, 318, 117-G7 (1995)

Calibration of Stellar Models. *Alessandro Chieffi, Oscar Straniero, & Maurizio Salaris.* 445, L39, 140-G4 (1995)

Numerical Simulations of Stratified Compressible Convection with Internal Heating and Disklike Variable Gravity. *W. Cabot, K. W. Thompson, & J. B. Pollack.* 98, 315, 26-C4 (1995)

Convective Hydrogen Burning during a Nova Outburst. *S. Ami Glasner & E. Livne.* 445, L149, 151-G11 (1995)

Rotation, Diffusion, and Overshoot in the Sun: Effects on the Oscillation Frequencies and the Neutrino Flux. *Brian Chaboyer, P. Demarque, D. B. Guenther, & M. H. Pinsonneault.* 446, 435, 159-C3 (1995)

Destabilization of Compressible Convection by Radiation: Quantitative Evaluation. *Q. Q. Cheng, Murshed Hossain, & D. J. Mullan.* 447, 789, 186-G6 (1995)

On the Generation of Flux-Tube Waves in Stellar Convection Zones. II. Improved Treatment of Longitudinal Tube Wave Generation. *Z. E. Musielak, R. Rosner, H. P. Gail, & P. Ulmschneider.* 448, 865, 206-G7 (1995)

Theoretical Properties of the Ω-Loops in the Convection Zone of the Sun. IV. Stability of Updrafts. *E. N. Parker.* 448, 942, 208-A7 (1995)

The First Second of a Type II Supernova: Convection, Accretion, and Shock Propagation. *H.-Thomas Janka & Ewald Müller.* 448, L109, 209-D9 (1995)

Optical and Ultraviolet Analyses of ZZ Ceti Stars and Study of the Atmospheric Convective Efficiency in DA White Dwarfs. *P. Bergeron, F. Wesemael, R. Lamontagne, G. Fontaine, R. A. Saffer, & N. F. Allard.* 449, 258, 213-F10 (1995)

Effect of Radiative Transport on the Evolution of Jupiter and Saturn. *T. Guillot, G. Chabrier, D. Gautier, & P. Morel.* 450, 463, 234-D4 (1995)

Seismology of the Solar *f*-Mode. I. Basic Signatures of Shearing Velocity Fields. *Pranab Ghosh, H. M. Antia, & S. M. Chitre.* 451, 851, 259-A1 (1995)

"Explosion" and Intensification of Magnetic Flux Tubes. *F. Moreno-Insertis, P. Caligari, & M. Schüssler.* 452, 894, 277-A11 (1995)

On the Interaction of Convection and Rotation in Stars. *Pawan Kumar, Ramesh Narayan, & Abraham Loeb.* 453, 480, 287-F6 (1995)

Type Ia Supernovae: The Flame Is Born. *D. Garcia-Senz & S. E. Woosley.* 454, 895, 314-B7 (1995)

Velocity Fields within the Solar Convection Zone: Evidence from Oscillation Ring Diagram Analysis of Mount Wilson Dopplergrams. *J. Patrón, F. Hill, E. J. Rhodes, Jr., S. G. Korzennik, & A. Cacciani.* 455, 746, 332-B10 (1995)

COSMIC BACKGROUND RADIATION

Cosmic X-Ray Background from Hot Gas. *R. D. Rogers & G. B. Field.* 366, 22, 1-C13 (1991)

Bursts of Gamma Rays from Compton Scattering at Cosmological Distances. *Andrzej A. Zdziarski, Roland Svensson, & Bohdan Paczyński.* 366, 343, 7-B3 (1991)

High-Latitude Galactic Emission and the Search for Anisotropies of the Cosmic Background Radiation. *S. Masi, P. de Bernardis, M. De Petris, M. Epifani, M. Gervasi, & G. Guarini.* 366, L51, 11-B1 (1991)

Coherent Peculiar Velocities and Periodic Redshifts. *Christopher T. Hill, Paul J. Steinhardt, & Michael S. Turner.* 366, L57, 11-B7 (1991)

Olbers's Paradox and the Spectral Intensity of the Extragalactic Background Light. *Paul S. Wesson.* 367, 399, 18-D5 (1991)

Cosmic Backgrounds from Primeval Dust. *J. R. Bond, B. J. Carr, & C. J. Hogan.* 367, 420, 18-F1 (1991)

Microwave Distortions from Collapsing Domain-Wall Bubbles. *Michael S. Turner, Richard Watkins, & Lawrence M. Widrow.* 367, L43, 22-B1 (1991)

Self-Organization of Cosmic Radiation Pressure Instability. *Craig J. Hogan.* 369, 300, 41-D8 (1991)

What *COBE* Might See: The Far-Infrared Cosmological Background. *C. A. Beichman & G. Helou.* 370, L1, 53-B1 (1991)

Will *COBE* Challenge the Inflationary Paradigm? Cosmic Microwave Background Anisotropies versus Large-Scale Streaming Motions Revisited. *Krzysztof M. Górski.* 370, L5, 53-B7 (1991)

A Medium-Scale Measurement of the Cosmic Microwave Background at 3.3 Millimeters. *Peter Meinhold & Philip Lubin.* 370, L11, 53-C1 (1991)

Correlation Function of Gravitational Deflection Angles of Light Paths. *Kazuya Watanabe & Kenji Tomita.* 370, 481, 54-D1 (1991)

Compton Reflection in Active Galactic Nuclei and the Cosmic X-Ray Background. *R. D. Rogers & G. B. Field.* 370, L57, 59-A11 (1991)

Did the Universe Recombine? *James G. Bartlett & Albert Stebbins.* 371, 8, 60-B9 (1991)

Spectral Distortions of the Microwave Background Radiation Resulting from the Damping of Pressure Waves. *R. A. Daly.* 371, 14, 60-C3 (1991)

Preliminary Results from the *COBE* Differential Microwave Radiometers: Large Angular Scale Isotropy of the Cosmic Microwave Background. *G. F. Smoot, C. L. Bennett, A. Kogut, J. Aymon, C. Backus, G. De Amici, K. Galuk, P. D. Jackson, P. Keegstra, L. Rokke, L. Tenorio, S. Torres, S. Gulkis, M. G. Hauser, M. A. Janssen, J. C. Mather, R. Weiss, D. T. Wilkinson, E. L. Wright, N. W. Boggess, E. S. Cheng, T. Kelsall, P. Lubin, S. Meyer, S. H. Moseley, T. L. Murdock, R. A. Shafer, & R. F. Silverberg.* 371, L1, 66-A7 (1991)

A Measurement of the Large-Scale Cosmic Microwave Background Anisotropy at 1.8 Millimeter Wavelength. *Stephan S. Meyer, Edward S. Cheng, & Lyman A. Page.* 371, L7, 66-B3 (1991)

Peculiar Cluster Velocities from Measurements of the Kinematic Sunyaev-Zeldovich Effect. *Yoel Rephaeli & Ofer Lahav.* 372, 21, 74-C7 (1991)

Limits on Cold Dark Matter Cosmologies from New Anisotropy Bounds on the Cosmic Microwave Background. *Nicola Vittorio, Peter Meinhold, Pio Fráncesco Muciaccia, Philip Lubin, & Joseph Silk.* 372, L1, 79-A7 (1991)

Constraints on Open Universe Models from Quadrupole Anisotropy of the Cosmic Microwave Background. *Naoteru Gouda, Naoshi Sugiyama, & Misao Sasaki.* 372, L49, 85-B1 (1991)

Anisotropies of the Cosmic Background Radiation by Domain Wall Networks. *Yasusada Nambu, Hideki Ishihara, Naoteru Gouda, & Naoshi Sugiyama.* 373, L35, 97-A11 (1991)

Unsaturated Comptonization of Isotropic Photon Spectra by Relativistic Electrons. *Abraham Loeb, Christopher F. McKee, & Ofer Lahav.* 374, 44, 98-E5 (1991)

Integrated Far-Infrared Background from Galaxies. *Boqi Wang.* 374, 465, 104-G12 (1991)

Cosmic Rays and Cosmological Microwave Background Fluctuations. *A. J. Banday, M. Giler, B. Szabelska, J. Szabelski, & A. W. Wolfendale.* 375, 432, 118-B5 (1991)

Non-Gaussian Temperature Fluctuations in the Cosmic Microwave Background Sky from a Random Gaussian Density Field. *Roberto Scaramella & Nicola Vittorio.* 375, 439, 118-C1 (1991)

A New Gravitational Interaction of Cosmological Importance. *David F. Crawford.* 377, 1, 138-B1 (1991)

Fluctuations of the Microwave Background Radiation on Large and Intermediate Angular Scales. *F. Atrio-Barandela, A. G. Doroshkevich, & A. A. Klypin.* 378, 1, 151-A11 (1991)

Origin of Cosmic X-Ray Background Radiation. *Nobuo Terasawa.* 378, L11, 157-B8 (1991)

A Compton Reflection Model for the Cosmic X-Ray and Gamma-Ray Backgrounds. *R. D. Rogers & G. B. Field.* 378, L17, 157-C1 (1991)

Cosmological Constraints on the Zero-Point Electromagnetic Field. *Paul S. Wesson.* 378, 466, 158-C1 (1991)

The Brightness Temperature of the South Celestial Pole and the Temperature of the Cosmic Background Radiation Measured at 36.6 and 12 Centimeter Wavelength. *G. Sironi, G. Bonelli, & M. Limon.* 378, 550, 159-C1 (1991)

Do Clusters of Galaxies Affect the Spectrum of the Microwave Background? *M. Markevitch, G. R. Blumenthal, W. Forman, C. Jones, & R. A. Sunyaev.* 378, L33, 162-D1 (1991)

Constraints on the Thermal History of the Universe from the Cosmic Microwave Background Spectrum. *C. Burigana, G. De Zotti, & L. Danese.* 379, 1, 163-B1 (1991)

Search for Starbursts among X-Ray–selected Galaxies: Optical Spectroscopy. *Antonella Fruscione & Richard E. Griffiths.* 380, L13, 181-C1 (1991)

The Temperature of the Cosmic Microwave Background Radiation at 3.8 GHz: Results of a Measurement from the South Pole Site. *Giovanni De Amici, Marco Bersanelli, Al Kogut, Steve Levin, Michele Limon, & George F. Smoot.* 381, 341, 193-C1 (1991)

Anisotropies of the Cosmic Background Radiation in a "Hot" Dark Matter Universe. *Peter Anninos, Richard A. Matzner, Robin Tuluie, & Joan Centrella.* 382, 71, 201-A1 (1991)

Cosmic Microwave Background and Galactic Quadrupoles in the Millimeter Region. *Paolo de Bernardis, Silvia Masi, & Nicola Vittorio.* 382, 515, 208-A1 (1991)

Microwave Background Anisotropies Implied by Large-Scale Galaxy Correlations: The Minimum of $C(0)$ and Cosmological Parameters. *A. Kashlinsky.* 383, L1, 219-A7 (1991)

Relativistic Enhancement of the Compton-reflected Component in Active Galactic Nuclei. *R. D. Rogers.* 383, 550, 221-B4 (1991)

ARGO 1993 Observations of Interstellar Dust Emission. *S. Masi, E. Aquilini, A. Boscaleri, P. de Bernardis, M. De Petris, M. Gervasi, L. Martinis, V. Natale, P. Palumbo, & F. Scaramuzzi.* 452, 253, 265-E9 (1995)

COSMIC RAYS: ABUNDANCES

Energy Spectra and Composition of Primary Cosmic Rays. *Dietrich Müller, Simon P. Swordy, Peter Meyer, Jacques L'Heureux, & John M. Grunsfeld.* 374, 356, 102-E1 (1991)

Ionization States of the Anomalous Cosmic Rays. *R. K. Singh, Banashree Mitra, N. Durgaprasad, S. Biswas, M. N. Vahia, J. S. Yadav, A. Dutta, & J. N. Goswami.* 374, 753, 108-D7 (1991)

The Charge State of the Anomalous Component of Cosmic Rays. *J. H. Adams, Jr., M. Garcia-Munoz, N. L. Grigorov, B. Klecker, M. A. Kondratyeva, G. M. Mason, R. E. McGuire, R. A. Mewaldt, M. I. Panasyuk, Ch. A. Tretyakova, A. J. Tylka, & D. A. Zhuravlev.* 375, L45, 124-B6 (1991)

The Charge State of the Anomalous Component: Results from the Trapped Ions in Space Experiment. *James H. Adams, Jr., Lorraine P. Beahm, & Allan J. Tylka.* 377, 292, 141-E9 (1991)

The ^{54}Mn Clock and Its Implications for Cosmic-Ray Propagation and Fe Isotope Studies. *J. E. Grove, B. T. Hayes, R. A. Mewaldt, & W. R. Webber.* 377, 680, 148-B3 (1991)

A Measurement of the Cosmic-Ray ^{2}H and ^{3}He Spectra and ^{2}H/^{4}He and ^{3}He/^{4}He Ratios in 1989. *W. R. Webber, R. L. Golden, S. J. Stochaj, J. F. Ormes, & R. E. Strittmatter.* 380, 230, 178-G9 (1991)

On the Differences in Element Abundances of Energetic Ions from Corotating Events and from Large Solar Events. *D. V. Reames, I. G. Richardson, & L. M. Barbier.* 382, L43, 205-E7 (1991)

COSMIC RAYS: GENERAL

Heliospheric Effects on Cosmic-Ray Electrons. *H. Moraal, J. R. Jokipii, & R. A. Mewaldt.* 367, 191, 14-D8 (1991)

Cosmic Rays from Primordial Black Holes. *Jane H. MacGibbon & B. J. Carr.* 371, 447, 67-B5 (1991)

Viscosity and Inertia in Cosmic-Ray Transport: Effects of an Average Magnetic Field. *L. L. Williams & J. R. Jokipii.* 371, 639, 69-E3 (1991)

Cosmic-Ray Diurnal Anisotropy, 1936–1988: Implications for Drift and Modulation Theories. *John W. Bieber & Jiasheng Chen.* 372, 301, 77-F4 (1991)

Solar Modulation of Cosmic Electrons: Evidence for Dynamic Regulation. *Evelyn Tuska, Paul Evenson, & Peter Meyer.* 373, L27, 91-D1 (1991)

Observations of Ultra–High-Energy Photons from Cygnus X-3. *Y. Muraki, S. Shibata, T. Aoki, K. Mitsui, A. Okada, Y. Ohashi, K. Kobayakawa, H. Kojima, T. Kitamura, Y. Kato, T. Takahashi, & I. Nakamura.* 373, 657, 96-B4 (1991)

Cosmic-Ray Distribution and the Dynamic Balance in the Large Magellanic Cloud. *Carl E. Fichtel, Mehmet E. Özel, Robert G. Stone, & P. Sreekumar.* 374, 134, 99-F7 (1991)

Energy Spectra and Composition of Primary Cosmic Rays. *Dietrich Müller, Simon P. Swordy, Peter Meyer, Jacques L'Heureux, & John M. Grunsfeld.* 374, 356, 102-E1 (1991)

Ionization States of the Anomalous Cosmic Rays. *R. K. Singh, Banashree Mitra, N. Durgaprasad, S. Biswas, M. N. Vahia, J. S. Yadav, A. Dutta, & J. N. Goswami.* 374, 753, 108-D7 (1991)

Energy Degradation of Fast Electrons in Hydrogen Gas. *Yueming Xu & Richard McCray.* 375, 190, 113-D1 (1991)

Search for Diffuse Cosmic Gamma Rays above 200 TeV. *J. Matthews, D. Ciampa, K. D. Green, J. Kolodziejczak, D. Nitz, D. Sinclair, G. Thornton, J. C. van der Velde, G. L. Cassiday, R. Cooper, S. C. Corbato, B. R. Dawson, J. W. Elbert, B. E. Fick, D. B. Kieda, S. Ko, D. F. Liebing, E. C. Loh, M. H. Salamon, J. D. Smith, P. Sokolsky, S. B. Thomas, & B. Wheeler.* 375, 202, 113-E1 (1991)

Cosmic Rays and Cosmological Microwave Background Fluctuations. *A. J. Banday, M. Giler, B. Szabelska, J. Szabelski, & A. W. Wolfendale.* 375, 432, 118-B5 (1991)

The Charge State of the Anomalous Component of Cosmic Rays. *J. H. Adams, Jr., M. Garcia-Munoz, N. L. Grigorov, B. Klecker, M. A. Kondratyeva, G. M. Mason, R. E. McGuire, R. A. Mewaldt, M. I. Panasyuk, Ch. A. Tretyakova, A. J. Tylka, & D. A. Zhuravlev.* 375, L45, 124-B6 (1991)

Mayflower Mine 1500 GV Detector: Cosmic-Ray Anisotropy and Search for Cygnus X-3. *D. J. Cutler & D. E. Groom.* 376, 322, 128-G12 (1991)

The Charge State of the Anomalous Component: Results from the Trapped Ions in Space Experiment. *James H. Adams, Jr., Lorraine P. Beahm, & Allan J. Tylka.* 377, 292, 141-E9 (1991)

Cosmic-Ray Heating of Cooling Flows: A Critical Analysis. *Michael Loewenstein, Ellen G. Zweibel, & Mitchell C. Begelman.* 377, 392, 144-F4 (1991)

Cosmic-Ray Transport and Gamma-Ray Emission in Supernova Shells. *A. K. Harding, A. Mastichiadis, R. J. Protheroe, & A. P. Szabo.* 378, 163, 153-A9 (1991)

Measurement of Cosmic-Ray Proton and Helium Spectra during the 1987 Solar Minimum. *E. S. Seo, J. F. Ormes, R. E. Streitmatter, S. J. Stochaj, W. V. Jones, S. A. Stephens, & T. Bowen.* 378, 763, 161-G1 (1991)

Desorption of Large Molecules from Grains in Dense Interstellar Clouds. *R. E. Johnson, V. Pirronello, B. Sundqvist, & B. Donn.* 379, L75, 175-D12 (1991)

Statistical Properties of Shock-accelerated Ions in the Outer Heliosphere. *L. J. Lanzerotti, R. E. Gold, D. J. Thomson, R. E. Decker, C. G. Maclennan, & S. M. Krimigis.* 380, L93, 188-F10 (1991)

Outflows Driven by Cosmic-Ray Pressure in Broad Absorption Line QSOs. *Mitchell C. Begelman, Martijn de Kool, & Marek Sikora.* 382, 416, 206-F9 (1991)

Signatures of Cosmic-Ray Interactions on the Solar Surface. *D. Seckel, Todor Stanev, & T. K. Gaisser.* 382, 652, 209-F8 (1991)

Magnetized Supernova Remnants with Cosmic Rays. *Katia M. Ferrière & Ellen G. Zweibel.* 383, 602, 221-F11 (1991)

A Search of the Northern Sky for Ultra–High-Energy Point Sources. *D. E. Alexandreas, D. Berley, S. Biller, R. L. Burman, D. R. Cady, C. Y. Chang, B. L. Dingus, C. L. Dion, G. M. Dion, R. W. Ellsworth, S. J. Freedman, B. K. Fujikawa, J. A. Goodman, T. J. Haines, C. M. Hoffman, D. A. Krakauer, P. W. Kwok, X-Q Lu, D. E. Nagle, M. Potter, V. D. Sandberg, C. Sinnis, M. J. Stark, P. R. Vishwanath, G. B. Yodh, & W. P. Zhang.* 383, L53, 226-C11 (1991)

An Upper Limit to the Infrared Background from Observations of TeV Gamma Rays. *S. D. Biller, C. W. Akerlof, J. Buckley, M. F. Cawley, M. Chantell, D. J. Fegan, S. Fennell, J. A. Gaidos, A. M. Hillas, A. D. Kerrick, R. C. Lamb, D. A. Lewis, D. I. Meyer, G. Mohanty, K. S. O'Flaherty, M. Punch, P. T. Reynolds, H. J. Rose, A. C. Rovero, M. S. Schubnell, G. Sembroski, T. C. Weekes, & C. Wilson.* 445, 227, 135-F1 (1995)

Diffusive Shock Acceleration Simulations: Comparison with Particle Methods and Bow Shock Measurements. *Hyesung Kang & T. W. Jones.* 447, 944, 188-G13 (1995)

A Reconciliation of the Discrepancy on the Cosmic-Ray Interplanetary Diffusion Mean Free Path. *L. Dennis Zhang.* 449, 386, 215-D6 (1995)

Energy Degradation in Cosmic-Ray Nuclear Spallation Reactions: Relaxing the Straight-ahead Approximation. *C. H. Tsao, R. Silberberg, A. F. Barghouty, & L. Sihver.* 451, 275, 249-F8 (1995)

COSMIC STRINGS

String-induced Density Perturbations in Hot Dark Matter. *Dan N. Vollick.* 397, 14, 168-C1 (1992)

The Implications of the *COBE* DMR Results for Cosmic Strings. *David P. Bennett, Albert Stebbins, & François R. Bouchet.* 399, L5, 199-G7 (1992)

Comparison of Three Orthogonally Crossed Wakes with the CfA Large-Scale Structure. *Tetsuya Hara & Shigeru Miyoshi.* 405, 419, 48-C9 (1993)

Clumpy Cold Dark Matter. *Joseph Silk & Albert Stebbins.* 411, 439, 135-B1 (1993)

On the Inhomogeneity of Dark Matter and Luminous Objects Induced by Infinitely Long Cosmic Strings. *Tetsuya Hara, Petri Mähönen, & Shigeru Miyoshi.* 412, 22, 142-C11 (1993)

Effects of Long Cosmic Strings on the Anisotropies of the Cosmic Background Radiation. *Tetsuya Hara, Petri Mähönen, & Shigeru Miyoshi.* 414, 421, 176-D3 (1993)

Large-Scale Peculiar Velocity Field Due to Infinitely Long Cosmic Strings. *Tetsuya Hara, Petri Mähönen, & Shigeru Miyoshi.* 415, 445, 193-D1 (1993)

Peculiar Velocities and Microwave Background Anisotropies from Cosmic Strings. *Leandros Perivolaropoulos & Tanmay Vachaspati.* 423, L77, 60-B1 (1994)

Neutrinos from Superconducting Cosmic String–induced Gamma-Ray Bursts. *R. Plaga.* 424, L9, 69-B8 (1994)

A Cosmic String–specific Signature on the Cosmic Microwave Background. *R. Moessner, L. Perivolaropoulos, & R. Brandenberger.* 425, 365, 86-C1 (1994)

Dark Matter around a Cluster of Galaxies under the Long Cosmic String Scheme. *Tetsuya Hara, Masakazu Matsuura, Hideki Yamamoto, Petri Mähönen, & Shigeru J. Miyoshi.* 428, 51, 128-G7 (1994)

VLBI Data for Compact Radio Sources versus Exotic Forms of Matter in the Universe. *J. Stelmach.* 428, 61, 129-A5 (1994)

Small-Scale Microwave Background Fluctuations from Cosmic Strings. *Mark Hindmarsh.* 431, 534, 185-B13 (1994)

Clusters of Galaxies in the Long Cosmic String Model. *Tetsuya Hara, Hideki Yamamoto, Petri Mähönen, & Shigeru J. Miyoshi.* 432, 31, 193-E9 (1994)

Inhomogeneity of Cold Dark Matter due to Initial Fluctuations in the Long Cosmic String Scheme. I. *Tetsuya Hara, Petri Mähönen, Hideki Yamamoto, & Shigeru J. Miyoshi.* 438, 27, 1-F4 (1995)

In Search of a Source for the 320 EeV Fly's Eye Cosmic Ray. *Jerome W. Elbert & Paul Sommers.* 441, 151, 61-D9 (1995)

Cosmic Strings and Cosmic Variance. *Alejandro Gangui & Leandros Perivolaropoulos.* 447, 1, 172-C1 (1995)

Multifractal Analysis of String-induced Cosmic Microwave Background Radiation Anisotropies. *M. P. Pompilio, F. R. Bouchet, G. Murante, & A. Provenzale.* 449, 1, 210-C1 (1995)

Spectral Analysis of Microwave Background Perturbations Induced by Cosmic Strings. *Leandros Perivolaropoulos.* 451, 429, 253-C1 (1995)

Quasar Constraints on the Cosmic String Models. *P. Mähönen, T. Hara, & S. J. Miyoshi.* 454, L81, 315-D2 (1995)

COSMOLOGY

Bursts of Gamma Rays from Compton Scattering at Cosmological Distances. *Andrzej A. Zdziarski, Roland Svensson, & Bohdan Paczyński.* 366, 343, 7-B3 (1991)

N-Body Simulation of Large-Scale Structures in $\Lambda \neq 0$ Friedmann Models. *Hugo Martel.* 366, 353, 7-C1 (1991)

On the "Mixing" of Self-gravitating Systems in a Cosmological Context. *Henry E. Kandrup.* 366, 384, 7-E7 (1991)

X-Ray Luminosity Functions of Clusters of Galaxies. *A. Cavaliere, R. Burg, & R. Giacconi.* 366, L61, 11-B11 (1991)

A Change in the Cluster Environments of Radio Galaxies with Cosmic Epoch. *G. J. Hill & S. J. Lilly.* 367, 1, 12-A13 (1991)

The Redshift Distribution of Lyα Clouds and the Proximity Effect. *Limin Lu, Arthur M. Wolfe, & David A. Turnshek.* 367, 19, 12-C5 (1991)

Seeded Hot Dark Matter Models for Large-Scale Structure. *Jens V. Villumsen, Robert J. Scherrer, & Edmund Bertschinger.* 367, 37, 12-D11 (1991)

Dynamical Biases in Gravitational Clustering. *R. G. Carlberg.* 367, 385, 18-C1 (1991)

Comparison of Likely Candidate Models for Abell Cluster Structures against the Observed Distribution. *David J. Batuski, Adrian L. Melott, Robert J. Scherrer, & Edmund Bertschinger.* 367, 393, 18-C11 (1991)

Olbers's Paradox and the Spectral Intensity of the Extragalactic Background Light. *Paul S. Wesson.* 367, 399, 18-D5 (1991)

Dark Matter Decay and the Temperature of Lyman-Alpha Clouds. *D. W. Sciama.* 367, L39, 22-A11 (1991)

Microwave Distortions from Collapsing Domain-Wall Bubbles. *Michael S. Turner, Richard Watkins, & Lawrence M. Widrow.* 367, L43, 22-B1 (1991)

The Number Counts and Infrared Backgrounds from Infrared-bright Galaxies. *P. B. Hacking & B. T. Soifer.* 367, L49, 22-B7 (1991)

Neutrino Oscillations and the Leptonic Charge of the Universe. *Martin J. Savage, Robert A. Malaney, & George M. Fuller.* 368, 1, 23-B1 (1991)

Simulated Optical Images of Galaxies at $z \sim 1$ Using Ultraviolet Images of Nearby Galaxies. *Ralph C. Bohlin, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Wayne B. Landsman, Robert W. O'Connell, Susan G. Neff, Andrew M. Smith, & Theodore P. Stecher.* 368, 12, 23-C1 (1991)

Lyman-α Companions to High-z Quasars. *Esther M. Hu, Antoinette Songaila, Lennox L. Cowie, & Alan Stockton.* 368, 28, 23-D9 (1991)

Expansion-cooled Lyman-Alpha Clouds. *Robert C. Duncan, Ethan T. Vishniac, & Jeremiah P. Ostriker.* 368, L1, 28-B1 (1991)

The Angular Correlation Function of Galaxies from POSS-II. *Alain Picard.* 368, L7, 28-B7 (1991)

Zero Point of the Supernova Hubble Diagram. *M. Fukugita & C. J. Hogan.* 368, L11, 28-C1 (1991)

Dissipationless Collapse in an Expanding Universe. *Neal Katz.* 368, 325, 29-B4 (1991)

Numerical Study of a Perturbed Einstein–de Sitter Cosmological Model. *H. V. Fagundes & S. F. Kwok.* 368, 337, 29-C4 (1991)

Mesh-refined P^3M: A Fast Adaptive *N*-Body Algorithm. *H. M. P. Couchman.* 368, L23, 35-A11 (1991)

Application of the Ewald Method to Cosmological *N*-Body Simulations. *Lars Hernquist, François R. Bouchet, & Yasushi Suto.* 75, 231, 4-B1 (1991)

Cluster Infall with Friction. *R. G. Carlberg & John Dubinski.* 369, 13, 36-B11 (1991)

Universe with Oscillating Expansion Rate. *Masahiro Morikawa.* 369, 20, 36-C5 (1991)

Scaling Invariance in the Galaxy Distribution. II. Spatial and Luminosity Effects. *Sophie Maurogordato & Marc Lachièze-Rey.* 369, 30, 36-D1 (1991)

Large-Aperture *BVRJK* Photometry of Rich Abell Clusters: Constraints on Dark Matter. *Juan M. Uson & Stephen P. Boughn.* 369, 38, 36-D11 (1991)

Diffuse Light in Dense Clusters of Galaxies. I. *R*-Band Observations of Abell 2029. *Juan M. Uson, Stephen P. Boughn, & Jeffrey R. Kuhn.* 369, 46, 36-E7 (1991)

Measures of Large-Scale Structure in the CfA Redshift Survey Slices. *Valérie de Lapparent, Margaret J. Geller, & John P. Huchra.* 369, 273, 41-B5 (1991)

Filamentary Superclustering in a Universe Dominated by Cold Dark Matter. *Michael J. West, Jens V. Villumsen, & Avishai Dekel.* 369, 287, 41-C7 (1991)

Self-Organization of Cosmic Radiation Pressure Instability. *Craig J. Hogan.* 369, 300, 41-D8 (1991)

Gravitational Lensing by Clusters of Galaxies: Constraining the Mass Distribution. *Jordi Miralda-Escudé.* 370, 1, 47-B1 (1991)

What *COBE* Might See: The Far-Infrared Cosmological Background. *C. A. Beichman & G. Helou.* 370, L1, 53-B1 (1991)

Will *COBE* Challenge the Inflationary Paradigm? Cosmic Microwave Background Anisotropies versus Large-Scale Streaming Motions Revisited. *Krzysztof M. Górski.* 370, L5, 53-B7 (1991)

A Medium-Scale Measurement of the Cosmic Microwave Background at 3.3 Millimeters. *Peter Meinhold & Philip Lubin.* 370, L11, 53-C1 (1991)

Redshift-Space Correlation Functions in the Cold Dark Matter Scenario. *Yasushi Suto & Tatsushi Suginohara.* 370, L15, 53-C7 (1991)

Cosmological *N*-Body Simulations with a Tree Code: Fluctuations in the Linear and Nonlinear Regimes. *Tatsushi Suginohara, Yasushi Suto, François R. Bouchet, & Lars Hernquist.* 75, 631, 10-B1 (1991)

The Surface Brightness Test for the Expansion of the Universe. III. Reduction of Data for the Several Brightest Galaxies in Clusters to Standard Conditions and a First Indication That the Expansion Is Real. *Allan Sandage & Jean-Marc Perelmuter.* 370, 455, 54-B1 (1991)

Radiation-induced Reversal of Baryonic Perturbations. *W. H. Zurek.* 370, 474, 54-C8 (1991)

Correlation Function of Gravitational Deflection Angles of Light Paths. *Kazuya Watanabe & Kenji Tomita.* 370, 481, 54-D1 (1991)

Second-Order Perturbation Theory in $\Omega \neq 1$ Friedmann Models. *Hugo Martel & Wolfram Freudling.* 371, 1, 60-B1 (1991)

Did the Universe Recombine? *James G. Bartlett & Albert Stebbins.* 371, 8, 60-B9 (1991)

Spectral Distortions of the Microwave Background Radiation Resulting from the Damping of Pressure Waves. *R. A. Daly.* 371, 14, 60-C3 (1991)

High-Resolution Spectroscopy of Q1100−264 Again. *R. F. Carswell, K. M. Lanzetta, H. C. Parnell, & J. K. Webb.* 371, 36, 60-E1 (1991)

Preliminary Results from the *COBE* Differential Microwave Radiometers: Large Angular Scale Isotropy of the Cosmic Microwave Background. *G. F. Smoot, C. L. Bennett, A. Kogut, J. Aymon, C. Backus, G. De Amici, K. Galuk, P. D. Jackson, P. Keegstra, L. Rokke, L. Tenorio, S. Torres, S. Gulkis, M. G. Hauser, M. A. Janssen, J. C. Mather, R. Weiss, D. T. Wilkinson, E. L. Wright, N. W. Boggess, E. S. Cheng, T. Kelsall, P. Lubin, S. Meyer, S. H. Moseley, T. L. Murdock, R. A. Shafer, & R. F. Silverberg.* 371, L1, 66-A7 (1991)

A Measurement of the Large-Scale Cosmic Microwave Background Anisotropy at 1.8 Millimeter Wavelength. *Stephan S. Meyer, Edward S. Cheng, & Lyman A. Page.* 371, L7, 66-B3 (1991)

Primordial ^{4}He as a Test of Big Bang Nucleosynthesis. *G. M. Fuller, R. N. Boyd, & J. D. Kalen.* 371, L11, 66-B7 (1991)

Statistics of Peaks in Cosmological Nonlinear Density Fields. *Tatsushi Suginohara & Yasushi Suto.* 371, 470, 67-D1 (1991)

Bosons: Hot Dark Matter with Small-Scale Power. *Jes Madsen.* 371, L47, 73-A11 (1991)

Discovery of a Normal Galaxy at $z = 1.018$. *D. J. Thompson & S. Djorgovski.* 371, L55, 73-B6 (1991)

Faint Galaxies: Bounds on the Epoch of Galaxy Formation and the Cosmological Deceleration Parameter. *Yuzuru Yoshii & Bruce A. Peterson.* 372, 8, 74-B6 (1991)

Limits on Cold Dark Matter Cosmologies from New Anisotropy Bounds on the Cosmic Microwave Background. *Nicola Vittorio, Peter Meinhold, Pio Fráncesco Muciaccia, Philip Lubin, & Joseph Silk.* 372, L1, 79-A7 (1991)

The Formation of Galaxies and Quasars in a Texture-seeded Cold Dark Matter Cosmogony. *Andrew K. Gooding, David N. Spergel, & Neil Turok.* 372, L5, 79-A13 (1991)

Gravitational Clustering in the Expanding Universe: Controlled High-Resolution Studies in Two Dimensions. *John Francis Beacom, Kurt G. Dominik, Adrian L. Melott, Sam P. Perkins, & Sergei F. Shandarin.* 372, 351, 80-B7 (1991)

New Model for the 0957+561 Gravitational Lens System: Bounds on Masses of a Possible Black Hole and Dark Matter and Prospects for Estimation of H_0. *E. E. Falco, M. V. Gorenstein, & I. I. Shapiro.* 372, 364, 80-D1 (1991)

Constraints on Open Universe Models from Quadrupole Anisotropy of the Cosmic Microwave Background. *Naoteru Gouda, Naoshi Sugiyama, & Misao Sasaki.* 372, L49, 85-B1 (1991)

Large-Scale Structure in a Texture-seeded Cold Dark Matter Cosmogony. *Changbom Park, David N. Spergel, & Neil Turok.* 372, L53, 85-B5 (1991)

The Correlation Function of cD Clusters. *Michael J. West & Sidney van den Bergh.* 373, 1, 86-B1 (1991)

Gaseous Halos of Elliptical Galaxies, the Cosmic Evolution of Their Radio Sizes, and the Phenomenon of Compact Steep-Spectrum Sources. *Gopal-Krishna & Paul J. Wiita.* 373, 325, 92-B1 (1991)

Anisotropies of the Cosmic Background Radiation by Domain Wall Networks. *Yasusada Nambu, Hideki Ishihara, Naoteru Gouda, & Naoshi Sugiyama.* 373, L35, 97-A11 (1991)

Voids in a Neutrino-dominated Universe. *Ning Zeng & Simon D. M. White.* 374, 1, 98-B1 (1991)

The Hydrodynamics of Relict Cosmological H II Regions and the Formation of Objects at High Redshift. *Piero Madau & Avery Meiksin.* 374, 6, 98-B7 (1991)

Reconstructing the Primordial Spectrum of Fluctuations of the Universe from the Observed Nonlinear Clustering of Galaxies. *A. J. S. Hamilton, P. Kumar, Edward Lu, & Alex Matthews.* 374, L1, 103-B7 (1991)

Gravitational Lens Interference. *J. B. Peterson & Toby Falk.* 374, L5, 103-C1 (1991)

Integrated Far-Infrared Background from Galaxies. *Boqi Wang.* 374, 465, 104-G12 (1991)

General Structure of the Gravitational Equations of Motion in Conformal Weyl Gravity. *Demosthenes Kazanas & Philip D. Mannheim.* 76, 431, 31-B1 (1991)

Evolution of High-Redshift Lyman-Limit Absorption Systems. *Kenneth M. Lanzetta.* 375, 1, 111-A11 (1991)

A Limit on the Cosmological Constant. *R. G. Carlberg.* 375, 429, 118-B1 (1991)

Perturbations of the Robertson-Walker Space: Multicomponent Sources and Generalized Gravity. *Jai-chan Hwang.* 375, 443, 118-C7 (1991)

Perturbations in a Singularity-free Cosmological Model. *Mark Israelit & Nathan Rosen.* 375, 463, 118-E1 (1991)

Perturbations in a Singularity-free Cosmological Model. II. The Synchronous Gauge. *Mark Israelit.* 375, 473, 118-F1 (1991)

The Accuracy of Galaxy Masses from the Timing Argument. *T. L. Kroeker & R. G. Carlberg.* 376, 1, 125-B1 (1991)

The Distance to the Coma Cluster Using the *B*-Band Tully-Fisher Relation. *M. Fukugita, S. Okamura, K. Tarusawa, H. J. Rood, & B. A. Williams.* 376, 8, 125-B9 (1991)

The Distribution of Clusters of Galaxies within 300 Mpc h^{-1} and the Crossover to an Isotropic and Homogeneous Universe. *Roberto Scaramella, Giampaolo Vettolani, & Giovanni Zamorani.* 376, L1, 130-A7 (1991)

Gravitational Clustering of Gaussian Density Fluctuations and the Origin of Hierarchy Correlations. *A. Kashlinsky.* 376, L5, 130-B1 (1991)

Formation of Galactic Halos from Seeded Hot Dark Matter. *Anthony van Dalen & Jens Verner Villumsen.* 376, 371, 131-B1 (1991)

The Fragmentation of "Pancakes" in a Dark Matter–dominated Universe. *Wenbo Yuan, Joan M. Centrella, & Michael L. Norman.* 376, L29, 137-A11 (1991)

QSO Absorption Systems and the Origin of the Ionizing Background at High Redshift. *Piero Madau.* 376, L33, 137-B4 (1991)

The Merging Runaway. *A. Cavaliere, S. Colafrancesco, & N. Menci.* 376, L37, 137-B10 (1991)

A New Gravitational Interaction of Cosmological Importance. *David F. Crawford.* 377, 1, 138-B1 (1991)

Linear Perturbation Theory and Spherical Overdensities in $\Lambda \neq 0$ Friedmann Models. *Hugo Martel.* 377, 7, 138-B7 (1991)

The Evolution of Void-filled Cosmological Structures. *Enikő Regős & Margaret J. Geller.* 377, 14, 138-C1 (1991)

The Ultraviolet Absorption Spectrum of 3C 273. *J. N. Bahcall, B. T. Jannuzi, D. P. Schneider, G. F. Hartig, R. Bohlin, & V. Junkkarinen.* 377, L5, 143-B6 (1991)

First Results from the Goddard High-Resolution Spectrograph: The Galactic Halo and the Lyα Forest at Low Redshift in 3C 273. *Simon L. Morris, Ray J. Weymann, Blair D. Savage, & Ronald L. Gilliland.* 377, L21, 143-C11 (1991)

Optical Variability of Quasars: Statistics and Cosmological Properties. *E. Giallongo, D. Trevese, & F. Vagnetti.* 377, 345, 144-B6 (1991)

The Peculiar Velocity Field in the Hercules Region. *Wolfram Freudling, Hugo Martel, & Martha P. Haynes.* 377, 349, 144-B12 (1991)

A Search for Redshifted Neutral Hydrogen from Protoclusters of Galaxies. *Juan M. Uson, Durgadas S. Bagri, & Timothy J. Cornwell.* 377, L65, 150-B1 (1991)

A $\sim$10 Mpc Void in the Lyα Forest at $z = 3.17$. *Adam Dobrzycki & Jill Bechtold.* 377, L69, 150-B10 (1991)

Discovery of a Lyα Galaxy near a Damped Lyα Absorber at $z = 2.3$. *James D. Lowenthal, Craig J. Hogan, Richard F. Green, Adeline Caulet, Bruce E. Woodgate, Larry Brown, & Craig B. Foltz.* 377, L73, 150-C1 (1991)

Fluctuations of the Microwave Background Radiation on Large and Intermediate Angular Scales. *F. Atrio-Barandela, A. G. Doroshkevich, & A. A. Klypin.* 378, 1, 151-A11 (1991)

Confirmation of Dust in Damped Lyman-Alpha Systems. *Yichuan C. Pei, S. Michael Fall, & Jill Bechtold.* 378, 6, 151-B4 (1991)

Scales of Structures and Homogeneity in the Universe. *Peter Schuecker & Heinz-Albert Ott.* 378, L1, 157-A7 (1991)

Gravitational Lensing, Time Delay, and Angular Diameter Distance. *Ramesh Narayan.* 378, L5, 157-B1 (1991)

Origin of Cosmic X-Ray Background Radiation. *Nobuo Terasawa.* 378, L11, 157-B8 (1991)

Dynamical Evolution of Topology of Large-Scale Structure. *Changbom Park & J. Richard Gott III.* 378, 457, 158-B1 (1991)

Models of Voids in the Expanding Universe. II. *W. B. Bonnor & A. Chamorro.* 378, 461, 158-B7 (1991)

Cosmological Constraints on the Zero-Point Electromagnetic Field. *Paul S. Wesson.* 378, 466, 158-C1 (1991)

Attenuation of Lyman-Alpha Emission by Dust in Damped Lyman-Alpha Systems. *Stéphane Charlot & S. Michael Fall.* 378, 471, 158-C7 (1991)

Do Clusters of Galaxies Affect the Spectrum of the Microwave Background? *M. Markevitch, G. R. Blumenthal, W. Forman, C. Jones, & R. A. Sunyaev.* 378, L33, 162-D1 (1991)

Cross-Correlation of the X-Ray Background with Nearby Galaxies. *Keith Jahoda, Ofer Lahav, Richard F. Mushotzky, & Elihu Boldt.* 378, L37, 162-D7 (1991)

Constraints on the Thermal History of the Universe from the Cosmic Microwave Background Spectrum. *C. Burigana, G. De Zotti, & L. Danese.* 379, 1, 163-B1 (1991)

Cosmological Velocity-Density Relation in the Quasi-linear Regime. *Adi Nusser, Avishai Dekel, Edmund Bertschinger, & George R. Blumenthal.* 379, 6, 163-B7 (1991)

Superclustering at High Redshifts. *Michael J. West.* 379, 19, 163-C7 (1991)

Constraints on Models for the High- and Low-Energy X-Ray Backgrounds. *R. A. Daly.* 379, 37, 163-E1 (1991)

A New Spectroscopic Survey for Damped Lyα Absorption Lines from High-Redshift Galaxies. *Kenneth M. Lanzetta, Arthur M. Wolfe, David A. Turnshek, Limin Lu, Richard G. McMahon, & Cyril Hazard.* 77, 1, 43-B1 (1991)

Baryon Isocurvature Scenario in Inflationary Cosmology: A Particle Physics Model and Its Astrophysical Implications. *Jun'ichi Yokoyama & Yasushi Suto.* 379, 427, 170-B1 (1991)

Excursion Set Mass Functions for Hierarchical Gaussian Fluctuations. *J. R. Bond, S. Cole, G. Efstathiou, & N. Kaiser.* 379, 440, 170-C1 (1991)

A Measurement of the Value of the Hubble Constant from the X-Ray Properties and the Sunyaev-Zel'dovich Effect of Abell 665. *M. Birkinshaw, J. P. Hughes, & K. A. Arnaud.* 379, 466, 170-E1 (1991)

Power-Spectrum Analysis of One-dimensional Redshift Surveys. *N. Kaiser & J. A. Peacock.* 379, 482, 170-F5 (1991)

Small-Scale Fluctuations and Angular Correlations of the X-Ray Background in the *HEAO 1* A-2 Energy Band: Constraints on Clustering of X-Ray Sources. *J. M. Martín-Mirones, G. De Zotti, E. A. Boldt, F. E. Marshall, L. Danese, A. Franceschini, & M. Persic.* 379, 507, 171-A4 (1991)

The Correlation Function of Galaxy Ellipticities Produced by Gravitational Lensing. *Jordi Miralda-Escudé.* 380, 1, 176-B1 (1991)

The Mass Distribution of Groups and Clusters of Galaxies. *A. Cavaliere, S. Colafrancesco, & R. Scaramella.* 380, 15, 176-C1 (1991)

The Upper Bound to the Primordial Abundance of Helium and the Consistency of the Hot Big Bang Model. *Keith A. Olive, Gary Steigman, & Terry P. Walker.* 380, L1, 181-B1 (1991)

Constrained Realizations of Gaussian Fields: A Simple Algorithm. *Yehuda Hoffman & Erez Ribak.* 380, L5, 181-B6 (1991)

Large-Scale Evolution of a Perturbed Universe. *Jai-chan Hwang.* 380, 307, 182-B6 (1991)

The Scale Dependence of Galaxy Distribution Functions. *William C. Saslaw & Philippe Crane.* 380, 315, 182-C1 (1991)

Dynamics of Cooling Gas in Galactic Dark Halos. *Julio F. Navarro & Willy Benz.* 380, 320, 182-C7 (1991)

Magnetohydrodynamic Cosmologies. *R. Portugal & I. Damião Soares.* 380, 330, 182-D5 (1991)

The Clustering of Faint Galaxies. *G. Efstathiou, G. Bernstein, N. Katz, J. A. Tyson, & P. Guhathakurta.* 380, L47, 188-B1 (1991)

On the Cosmological Significance of the Apparent Deficit of Small Interplanetary Scintillation Sources. *Chris A. Hajivassiliou.* 381, 3, 189-A13 (1991)

Bounds on Intergalactic Compact Objects from Observations of Compact Radio Sources. *Aggeliki Kassiola, Israel Kovner, & Roger D. Blandford.* 381, 6, 189-B4 (1991)

The Evolution of the Diffuse Cosmic Ultraviolet Background Constrained by *Hubble Space Telescope* Observations of 3C 273. *Satoru Ikeuchi & Edwin L. Turner.* 381, L1, 194-A9 (1991)

Statistics of Primordial Density Perturbations from Discrete Seed Masses. *Robert J. Scherrer & Edmund Bertschinger.* 381, 349, 195-B1 (1991)

Systematic Bias in Cluster Galaxy Data, Affecting Galaxy Distances and Evolutionary History. *Donald H. Gudehus.* 382, 1, 200-A13 (1991)

Large-Scale Peculiar Velocity Fields in Superclusters of Galaxies. *G. Gavazzi, M. Scodeggio, A. Boselli, & G. Trinchieri.* 382, 19, 200-C5 (1991)

A Radio-quiet Galaxy at Redshift $z = 3.409$. *D. A. Turnshek, F. Macchetto, M. V. Bencke, C. Hazard, W. B. Sparks, & R. G. McMahon.* 382, 26, 200-D1 (1991)

The Galaxy Two-Point Correlation Function Down to $V = 26$ Magnitudes on 0.5° Scales. *Lyman W. Neuschaefer, Rogier A. Windhorst, & Alan Dressler.* 382, 32, 200-D12 (1991)

Void Statistics of the CfA Redshift Survey. *Michael S. Vogeley, Margaret J. Geller, & John P. Huchra.* 382, 44, 200-E12 (1991)

Systematic Effects in Lens Inversions: $\aleph_1$ Exact Models for 0957+561. *Christopher S. Kochanek.* 382, 58, 200-G1 (1991)

Are Quasar Redshifts Cosmological? *Arnon Dar.* 382, L1, 205-A7 (1991)

Scale-invariant Clustering in the Large-Scale Distribution of Galaxies. *Luigi Guzzo, Angela Iovino, Guido Chincarini, Riccardo Giovanelli, & Martha P. Haynes.* 382, L5, 205-B1 (1991)

Gauge-invariant Joining Conditions for Cosmological Perturbations. *Jai-chan Hwang & Ethan T. Vishniac.* 382, 363, 206-B1 (1991)

Physically Permitted Cosmological Models with Nonzero Cosmological Constant. *M. Moles.* 382, 369, 206-B9 (1991)

Precollapse Scale Invariance in Gravitational Instability. *F. Moutarde, J.-M. Alimi, F. R. Bouchet, R. Pellat, & A. Ramani.* 382, 377, 206-C5 (1991)

Constraints on Cosmological Models from the *IRAS* QDOT Survey Results. *Changbom Park.* 382, L59, 211-B1 (1991)

A Hydrodynamic Approach to Cosmology: Texture-seeded Cold Dark Matter and Hot Dark Matter Cosmogonies. *R. Y. Cen, J. P. Ostriker, D. N. Spergel, & N. Turok.* 383, 1, 212-B1 (1991)

Nonlinear Matter Clustering Properties of a Cold Dark Matter Universe. *François R. Bouchet, Richard Schaeffer, & Marc Davis.* 383, 19, 212-C7 (1991)

Deep Galactic Surveys and the Structure of the Universe. *Olga E. Buryak, Marek Demiański, & Andrej G. Doroshkevich.* 383, 41, 212-E1 (1991)

Models of Voids in Elliptic Universes. *A. Chamorro.* 383, 51, 212-F1 (1991)

The Confinement and Cosmological Evolution of Extragalactic Radio Source Components. *A. A. Ubachukwu, S. E. Okoye, & L. I. Onuora.* 383, 56, 212-F7 (1991)

Hubble Spheres and Particle Horizons. *Edward Harrison.* 383, 60, 212-G1 (1991)

Microwave Background Anisotropies Implied by Large-Scale Galaxy Correlations: The Minimum of $C(0)$ and Cosmological Parameters. *A. Kashlinsky.* 383, L1, 219-A7 (1991)

The Velocity Field of Clusters of Galaxies within 100 Megaparsecs. I. Southern Clusters. *J. R. Mould, L. Staveley-Smith, R. A. Schommer, G. D. Bothun, P. J. Hall, Ming Sheng Han, J. P. Huchra, J. Roth, W. Walsh, & A. E. Wright.* 383, 467, 220-B7 (1991)

Phase Shifts in Gravitationally Evolving Density Fields. *Barbara S. Ryden & Mirt Gramann.* 383, L33, 226-B1 (1991)

COSMOLOGY: COSMIC MICROWAVE BACKGROUND

On the Origin of the Dipole Anisotropy as Determined by Quadrupole Measurements. *S. Bottani, P. de Bernardis, & F. Melchiorri.* 384, L1, 6-A9 (1992)

Anisotropies of the Cosmic Microwave Background in Nonstandard Cold Dark Matter Models. *Nicola Vittorio & Joseph Silk.* 385, L9, 17-B6 (1992)

Constraints on the Power Spectrum of the Primordial Density Field from Large-Scale Data: Microwave Background and Predictions of Inflation. *A. Kashlinsky.* 387, L1, 43-A8 (1992)

Constraints on Cosmological Models with the Decaying Cosmological Constant from Cosmic Background Radiation Anisotropies. *Naoshi Sugiyama & Katsuhiko Sato.* 387, 439, 44-B10 (1992)

Cosmic Background Radiation Anisotropies from Cosmic Structures: Models Based on the Tolman Solution. *Mirosław Panek.* 388, 225, 53-B4 (1992)

The Largest Possible Voids. *G. R. Blumenthal, L. Nicolaci da Costa, D. S. Goldwirth, M. Lecar, & T. Piran.* 388, 234, 53-C1 (1992)

A Bolometric Millimeter-Wave System for Observations of Anisotropy in the Cosmic Microwave Background Radiation on Medium Angular Scales. *M. L. Fischer, D. C. Alsop, E. S. Cheng, A. C. Clapp, D. A. Cottingham, J. O. Gundersen, T. C. Koch, E. Kreysa, P. R. Meinhold, A. E. Lange, P. M. Lubin, P. L. Richards, & G. F. Smoot.* 388, 242, 53-C11 (1992)

COBE Limits on Explosive Structure Formation Scenarios. *Janna J. Levin, Katherine Freese, & David N. Spergel.* 389, 464, 67-C5 (1992)

The Great Wall in the CfA Survey: Its Origin and Imprint on the Microwave Background Radiation. *F. Atrio-Barandela & A. Kashlinsky.* 390, 322, 79-C1 (1992)

Mass Fluctuations on 600 h^{-1} Mpc: A Result from Clusters of Galaxies. *Roberto Scaramella.* 390, L57, 84-E7 (1992)

COBE Differential Microwave Radiometers: Calibration Techniques. *C. L. Bennett, G. F. Smoot, M. Janssen, S. Gulkis, A. Kogut, G. Hinshaw, C. Backus, M. G. Hauser, J. C. Mather, L. Rokke, L. Tenorio, R. Weiss, D. T. Wilkinson, E. L. Wright, G. De Amici, N. W. Boggess, E. S. Cheng, P. D. Jackson, P. Keegstra, T. Kelsall, R. Kummerer, C. Lineweaver, S. H. Moseley, T. L. Murdock, J. Santana, R. A. Shafer, & R. F. Silverberg.* 391, 466, 93-F7 (1992)

Limits on Gaussian Fluctuations in the Cosmic Microwave Background at 19.2 GHz. *S. P. Boughn, E. S. Cheng, D. A. Cottingham, & D. J. Fixsen.* 391, L49, 99-C1 (1992)

A Model of the Galactic Dark Halo. *E. R. Wollman.* 392, 80, 102-A8 (1992)

The Formation of Cosmic Structure in a Texture-seeded Cold Dark Matter Cosmogony. *Andrew K. Gooding, Changbom Park, David N. Spergel, Neil Turok, & J. Richard Gott III.* 393, 42, 114-E9 (1992)

A Search for Anisotropy in the Cosmic Microwave Background on Intermediate Angular Scales. *D. C. Alsop, E. S. Cheng, A. C. Clapp, D. A. Cottingham, M. L. Fischer, J. O. Gundersen, E. Kreysa, A. E. Lange, P. M. Lubin, P. R. Meinhold, P. L. Richards, & G. F. Smoot.* 395, 317, 146-B5 (1992)

Arcminute Fluctuations in the Microwave Background from Clusters of Galaxies. *M. Markevitch, G. R. Blumenthal, W. Forman, C. Jones, & R. A. Sunyaev.* 395, 326, 146-C1 (1992)

Large-Scale Microwave Anisotropy from Gravitating Seeds. *Shoba Veeraraghavan & Albert Stebbins.* 395, L55, 153-E1 (1992)

Surviving Cosmological Models after the Discovery of Large-Angle Anisotropies of the Cosmic Microwave Background. *Naoteru Gouda & Naoshi Sugiyama.* 395, L59, 153-E7 (1992)

A Measurement of the Cosmic Microwave Background Temperature at 7.5 GHz. *S. Levin, M. Bensadoun, M. Bersanelli, G. De Amici, A. Kogut, M. Limon, & G. Smoot.* 396, 3, 155-B5 (1992)

Structure in the *COBE* Differential Microwave Radiometer First-Year Maps. *G. F. Smoot, C. L. Bennett, A. Kogut, E. L. Wright, J. Aymon, N. W. Boggess, E. S. Cheng, G. De Amici, S. Gulkis, M. G. Hauser, G. Hinshaw, P. D. Jackson, M. Janssen, E. Kaita, T. Kelsall, P. Keegstra, C. Lineweaver, K. Loewenstein, P. Lubin, J. Mather, S. S. Meyer, S. H. Moseley, T. Murdock, L. Rokke, R. F. Silverberg, L. Tenorio, R. Weiss, & D. T. Wilkinson.* 396, L1, 160-B1 (1992)

Preliminary Separation of Galactic and Cosmic Microwave Emission for the *COBE* Differential Microwave Radiometers. *C. L. Bennett, G. F. Smoot, G. Hinshaw, E. L. Wright, A. Kogut, G. De Amici, S. S. Meyer, R. Weiss, D. T. Wilkinson, S. Gulkis, M. Janssen, N. W. Boggess, E. S. Cheng, M. G. Hauser, T. Kelsall, J. C. Mather, S. H. Moseley, Jr., T. L. Murdock, & R. F. Silverberg.* 396, L7, 160-C1 (1992)

Interpretation of the Cosmic Microwave Background Radiation Anisotropy Detected by the *COBE* Differential Microwave Radiometer. *E. L. Wright, S. S. Meyer, C. L. Bennett, N. W. Boggess, E. S. Cheng, M. G. Hauser, A. Kogut, C. Lineweaver, J. C. Mather, G. F. Smoot, R. Weiss, S. Gulkis, G. Hinshaw, M. Janssen, T. Kelsall, P. M. Lubin, S. H. Moseley, Jr., T. L. Murdock, R. A. Shafer, R. F. Silverberg, & D. T. Wilkinson.* 396, L13, 160-D1 (1992)

Testing the Isotropy of the Cosmic Microwave Background: The ULISSE Experiment. *P. de Bernardis, S. Masi, F. Melchiorri, B. Melchiorri, & N. Vittorio.* 396, L57, 166-G1 (1992)

The *COBE* Mission: Its Design and Performance Two Years after Launch. *N. W. Boggess, J. C. Mather, R. Weiss, C. L. Bennett, E. S. Cheng, E. Dwek, S. Gulkis, M. G. Hauser, M. A. Janssen, T. Kelsall, S. S. Meyer, S. H. Moseley, T. L. Murdock, R. A. Shafer, R. F. Silverberg, G. F. Smoot, D. T. Wilkinson, & E. L. Wright.* 397, 420, 175-G11 (1992)

CN Rotational Excitation. *E. Palazzi, N. Mandolesi, & Philippe Crane.* 398, 53, 182-F5 (1992)

A Degree-Scale Measurement of Anisotropy of the Cosmic Background Radiation. *Todd Gaier, Jeffrey Schuster, Joshua Gundersen, Timothy Koch, Michael Seiffert, Peter Meinhold, & Philip Lubin.* 398, L1, 187-A7 (1992)

$\delta T/T$ Limits from the UCSB South Pole Degree-Scale Experiment and Constraints on the Large-Scale Deviations from the Hubble Flow. *Krzysztof M. Górski.* 398, L5, 187-B1 (1992)

COBE Anisotropy from Supercluster Gas. *Craig J. Hogan.* 398, L77, 194-B1 (1992)

Latest *COBE* Results, Large-Scale Data, and Predictions of Inflation. *A. Kashlinsky.* 399, L1, 199-G1 (1992)

Possible Explanations of the Large Angle Fluctuations of the Microwave Background. *F. Hoyle & G. Burbidge.* 399, L9, 200-A1 (1992)

COBE Differential Microwave Radiometers: Preliminary Systematic Error Analysis. *A. Kogut, G. F. Smoot, C. L. Bennett, E. L. Wright, J. Aymon, G. De Amici, G. Hinshaw, P. D. Jackson, E. Kaita, P. Keegstra, C. Lineweaver, K. Loewenstein, L. Rokke, L. Tenorio, N. W. Boggess, E. S. Cheng, S. Gulkis, M. G. Hauser, M. A. Janssen, T. Kelsall, J. C. Mather, S. Meyer, S. H. Moseley, T. L. Murdock, R. A. Shafer, R. F. Silverberg, R. Weiss, & D. T. Wilkinson.* 401, 1, 221-B1 (1992)

The Gravitational Wave Contribution to Cosmic Microwave Background Anisotropies and the Amplitude of Mass Fluctuations from *COBE* Results. *Francesco Lucchin, Sabino Matarrese, & Silvia Mollerach.* 401, L49, 232-E4 (1992)

Observational Constraints on Reheating. *M. Fukugita & M. Kawasaki.* 402, 58, 1-F13 (1993)

On the Microwave Background Anisotropies Produced by Nonlinear Voids. *J. V. Arnau, M. J. Fullana, L. Monreal, & D. Sáez.* 402, 359, 7-B1 (1993)

Small-Scale Microwave Background Anisotropies Implied by Large-Scale Data. *A. Kashlinsky.* 402, 369, 7-C1 (1993)

The Cosmic Doppler Instability. *Craig J. Hogan.* 403, 445, 21-B1 (1993)

Gravitational Lensing and the Cosmic Microwave Background. *Laura Cayón, Enrique Martínez-González, & Jose Luis Sanz.* 403, 471, 21-D9 (1993)

An Estimate of the *COBE* Quadrupole. *Andrew Gould.* 403, L51, 27-B1 (1993)

Constraints on Vacuum Decay from the Microwave Background. *J. M. Overduin, P. S. Wesson, & S. Bowyer.* 404, 1, 28-B1 (1993)

Limits to Cosmic Background Radiation Fluctuations at 8.44 GHz between Angular Scales $10'$ and $200'$. *Edward B. Fomalont, R. Bruce Partridge, James D. Lowenthal, & Rogier A. Windhorst.* 404, 8, 28-B9 (1993)

Isotropy of the Cosmic Background Radiation at 3.4 Millimeters with $10'$ Resolution. *Simon J. E. Radford.* 404, L33, 40-B1 (1993)

Anisotropies in the Microwave Background Due to the Sunyaev-Zel'dovich Effect from Virialized Objects at High Redshifts. *Nobuyoshi Makino & Yasushi Suto.* 405, 1, 41-B1 (1993)

Limits on the Anisotropy of the Microwave Background Radiation on Arcminute Scales. II. The Ring Experiment. *S. T. Myers, A. C. S. Readhead, & C. R. Lawrence.* 405, 8, 41-B11 (1993)

Microjansky Source Counts and Spectral Indices at 8.44 GHz. *Rogier A. Windhorst, Edward B. Fomalont, R. Bruce Partridge, & James D. Lowenthal.* 405, 498, 49-C5 (1993)

The Advanced Cosmic Microwave Explorer: A Millimeter-Wave Telescope and Stabilized Platform. *P. R. Meinhold, A. O. Chingcuanco, J. O. Gundersen, J. A. Schuster, M. D. Seiffert, P. M. Lubin, D. Morris, & T. Villela.* 406, 12, 55-C1 (1993)

COBE's Constraints on the Global Monopole and Texture Theories of Cosmic Structure Formation. *David P. Bennett & Sun Hong Rhie.* 406, L7, 60-E8 (1993)

Transition Scale to a Homogeneous Universe. *Jaan Einasto & Mirt Gramann.* 407, 443, 76-B6 (1993)

Galaxy Clusters and the *COBE* Result. *James G. Bartlett & Joseph Silk.* 407, L45, 82-B6 (1993)

Anisotropy of Cosmic Background Radiation from a Spherical Clustering on Large Scales. *Li-Zhi Fang & Xiang-Ping Wu.* 408, 25, 83-D3 (1993)

Uncertainty of the *Cosmic Background Explorer* Quadrupole Detection. *Philip B. Stark.* 408, L73, 95-B1 (1993)

Measurements of the Cosmic Microwave Background Temperature at 1.47 GHz. *M. Bensadoun, M. Bersanelli, G. De Amici, A. Kogut, S. M. Levin, M. Limon, G. F. Smoot, & C. Witebsky.* 409, 1, 97-B1 (1993)

Measurements of the Anisotropy of the Cosmic Background Radiation at $0.^\circ5$ Scale near the Star μ Pegasi. *P. Meinhold, A. Clapp, M. Devlin, M. Fischer, J. Gundersen, W. Holmes, A. Lange, P. Lubin, P. Richards, & G. Smoot.* 409, L1, 104-A8 (1993)

Cold Dark Matter and Degree-Scale Cosmic Microwave Background Anisotropy Statistics after *COBE*. *Krzysztof M. Górski, Radosław Stompor, & Roman Juszkiewicz.* 410, L1, 117-F1 (1993)

A Quasi–Steady State Cosmological Model with Creation of Matter. *F. Hoyle, G. Burbidge, & J. V. Narlikar.* 410, 437, 119-B7 (1993)

Cross-Correlation between the 170 GHz Survey Map and the *COBE* Differential Microwave Radiometer First-Year Maps. *Ken Ganga, Ed Cheng, Stephan Meyer, & Lyman Page.* 410, L57, 125-E1 (1993)

Tilted Cold Dark Matter Models Confront the Cosmic Microwave Background and the Galaxy Peculiar Velocity Field. *Pio Francesco Muciaccia, Simona Mei, Giancarlo de Gasperis, & Nicola Vittorio.* 410, L61, 125-E7 (1993)

Experiment-specific Cosmic Microwave Background Calculations Made Easier: Approximation Formula for Smoothed $\delta T/T$ Windows. *Krzysztof M. Górski.* 410, L65, 125-E13 (1993)

Cosmic Microwave Background Fluctuations as Observed by *COBE*: Theoretical and Experimental Uncertainties. *Roberto Scaramella & Nicola Vittorio.* 411, 1, 127-B1 (1993)

Measurements of Cosmic Background Radiation Anisotropy at Intermediate Angular Scale. *Lucio Piccirillo & Paolo Calisse.* 411, 529, 136-C1 (1993)

Data Analysis of the Cosmic Background Radiation Anisotropy Experiments. *Juan Betancort-Rijo.* 411, 534, 136-C8 (1993)

A Comparison of the Cosmic Microwave and Cosmic X-Ray Backgrounds: Constraints on Local Sources of the Fluctuations Observed by *COBE*. *S. P. Boughn & K. Jahoda.* 412, L1, 148-A9 (1993)

Self-ordering Physics in an Open Universe. *David N. Spergel.* 412, L5, 148-B1 (1993)

Cosmic Background Radiation Anisotropy at Degree Angular Scales: Further Results from the South Pole. *Jeffrey Schuster, Todd Gaier, Joshua Gunderson, Peter Meinhold, Timothy Koch, Michael Seiffert, Carlos Alexandre Wuensche, & Philip Lubin.* 412, L47, 155-B3 (1993)

Streaming Motions in the Local Universe: Evidence for Large-Scale, Low-Amplitude Density Fluctuations. *Stéphane Courteau, S. M. Faber, Alan Dressler, & Jeffrey A. Willick.* 412, L51, 155-B10 (1993)

Cosmological Constant, *COBE* Cosmic Microwave Background Anisotropy, and Large-Scale Clustering. *Lev A. Kofman, Nickolay Y. Gnedin, & Neta A. Bahcall.* 413, 1, 156-B1 (1993)

Does a Cosmological Constant Increasc the Effect of Gravitational Lensing on the Cosmic Microwave Background? *Laura Cayón, Enrique Martínez-González, & Jose Luis Sanz.* 413, 10, 156-B13 (1993)

Microwave Background Anisotropy on Scales $10'$–$2°$ as an Indicator of the Cosmological Model. *P. Naselsky & I. Novikov.* 413, 14, 156-C5 (1993)

A Degree Scale Anisotropy Measurement of the Cosmic Microwave Background near the Star Gamma Ursae Minoris. *J. O. Gundersen, A. C. Clapp, M. Devlin, W. Holmes, M. L. Fischer, P. R. Meinhold, A. E. Lange, P. M. Lubin, P. L. Richards, & G. F. Smoot.* 413, L1, 162-B1 (1993)

Interstellar Cyanogen and the Temperature of the Cosmic Microwave Background Radiation. *Katherine C. Roth, David M. Meyer, & Isabel Hawkins.* 413, L67, 168-C5 (1993)

A Hydrodynamic Treatment of the Tilted Cold Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah P. Ostriker.* 414, 407, 176-C1 (1993)

Effects of Long Cosmic Strings on the Anisotropies of the Cosmic Background Radiation. *Tetsuya Hara, Petri Mähönen, & Shigeru Miyoshi.* 414, 421, 176-D3 (1993)

Noncosmological Signal Contributions to the *COBE* DMR Anisotropy Maps. *C. L. Bennett, G. Hinshaw, A. Banday, A. Kogut, E. L. Wright, K. Loewenstein, & E. S. Cheng.* 414, L76, 185-D13 (1993)

Null Geodesics in Perturbed Spacetimes. *Ted Pyne & Mark Birkinshaw.* 415, 459, 193-E7 (1993)

Cosmic Variance of the Three-Point Correlation Function of the Cosmic Microwave Background. *Mark Srednicki.* 416, L1, 207-B1 (1993)

A Hydrodynamic Approach to Cosmology: Nonlinear Effects on Cosmic Backgrounds in the Cold Dark Matter Model. *Roberto Scaramella, Renyue Cen, & Jeremiah P. Ostriker.* 416, 399, 208-B9 (1993)

Maximum-Likelihood Analysis of the *COBE* Angular Correlation Function. *Uroš Seljak & Edmund Bertschinger.* 417, L9, 222-F13 (1993)

Polarization of the Microwave Background Due to Primordial Gravitational Waves. *Robert Crittenden, Richard L. Davis, & Paul J. Steinhardt.* 417, L13, 222-G5 (1993)

Comptonization of the Cosmic Microwave Background by Gas in Superclusters of Galaxies. *Yoel Rephaeli.* 418, 1, 231-B1 (1993)

Cosmic Variance in Cosmic Microwave Background Anisotropies: From 1° to *COBE*. *Martin White, Lawrence M. Krauss, & Joseph Silk.* 418, 535, 239-B3 (1993)

Dipole Anisotropy in the *COBE* Differential Microwave Radiometers First-Year Sky Maps. *A. Kogut, C. Lineweaver, G. F. Smoot, C. L. Bennett, A. Banday, N. W. Boggess, E. S. Cheng, G. De Amici, D. J. Fixsen, G. Hinshaw, P. D. Jackson, M. Janssen, P. Keegstra, K. Loewenstein, P. Lubin, J. C. Mather, L. Tenorio, R. Weiss, D. T. Wilkinson, & E. L. Wright.* 419, 1, 246-B1 (1993)

Reionization and Cosmic Microwave Anisotropies. *Naoshi Sugiyama, Joseph Silk, & Nicola Vittorio.* 419, L1, 252-B1 (1993)

Tenerife and *COBE* Constraints on the Primordial Power Spectrum. *R. A. Watson & C. M. Gutiérrez de la Cruz.* 419, L5, 252-B7 (1993)

Confusion Limits to the Measurement of the Sunyaev-Zel'dovich Effects in Clusters of Galaxies at Millimeter Wavelengths. *Marc L. Fischer & Andrew E. Lange.* 419, 433, 253-B8 (1993)

A Search for Small-Scale Anisotropy in the Cosmic Microwave Background. *G. S. Tucker, G. S. Griffin, H. T. Nguyen, & J. B. Peterson.* 419, L45, 259-B1 (1993)

A Measurement of the Anisotropy in the Cosmic Microwave Background Radiation at Degree Angular Scales. *E. J. Wollack, N. C. Jarosik, C. B. Netterfield, L. A. Page, & D. Wilkinson.* 419, L49, 259-B6 (1993)

Comments on the Statistical Analysis of Excess Variance in the *COBE* Differential Microwave Radiometer Maps. *E. L. Wright, G. F. Smoot, A. Kogut, G. Hinshaw, L. Tenorio, C. Lineweaver, C. L. Bennett, & P. M. Lubin.* 420, 1, 1-B1 (1994)

Minimal Microwave Anisotropy from Perturbations Induced at Late Times. *Andrew H. Jaffe, Albert Stebbins, & Joshua A. Frieman.* 420, 9, 1-B11 (1994)

Secondary Ionization in a Flat Universe. *F. Atrio-Barandela & A. G. Doroshkevich.* 420, 26, 1-D1 (1994)

A Measurement of the Hubble Constant from the X-Ray Properties and the Sunyaev-Zel'dovich Effect of Abell 2218. *M. Birkinshaw & J. P. Hughes.* 420, 33, 1-D9 (1994)

Measurement of the Cosmic Microwave Background Spectrum by the *COBE* FIRAS Instrument. *J. C. Mather, E. S. Cheng, D. A. Cottingham, R. E. Eplee, Jr., D. J. Fixen, T. Hewagama, R. B. Isaacman, K. A. Jensen, S. S. Meyer, P. D. Noerdlinger, S. M. Read, L. P. Rosen, R. A. Shafer, E. L. Wright, C. L. Bennett, N. W. Boggess, M. G. Hauser, T. Kelsall, S. H. Moseley, Jr., R. F. Silverberg, G. F. Smoot, R. Weiss, & D. T. Wilkinson.* 420, 439, 8-B1 (1994)

Cosmic Microwave Background Dipole Spectrum Measured by the *COBE* FIRAS Instrument. *D. J. Fixsen, E. S. Cheng, D. A. Cottingham, R. E. Eplee, Jr., R. B. Isaacman, J. C. Mather, S. S. Meyer, P. D. Noerdlinger, R. A. Shafer, R. Weiss, E. L. Wright, C. L. Bennett, N. W. Boggess, T. Kelsall, S. H. Moseley, R. F. Silverberg, G. F. Smoot, & D. T. Wilkinson.* 420, 445, 8-B9 (1994)

Interpretation of the *COBE* FIRAS CMBR Spectrum. *E. L. Wright, J. C. Mather, D. J. Fixsen, A. Kogut, R. A. Shafer, C. L. Bennett, N. W. Boggess, E. S. Cheng, R. F. Silverberg, G. F. Smoot, & R. Weiss.* 420, 450, 8-C2 (1994)

Calibration of the *COBE* FIRAS Instrument. *D. J. Fixsen, E. S. Cheng, D. A. Cottingham, R. E. Eplee, Jr., T. Hewagama, R. B. Isaacman, K. A. Jensen, J. C. Mather, D. L. Massa, S. S. Meyer, P. D. Noerdlinger, S. M. Read, L. P. Rosen, R. A. Shafer, A. R. Trenholme, R. Weiss, C. L. Bennett, N. W. Boggess, D. T. Wilkinson, & E. L. Wright.* 420, 457, 8-C11 (1994)

Microwave Background Fluctuations Due to the Sunyaev-Zel'dovich Effect in Pancakes. *M. U. SubbaRao, A. S. Szalay, R. K. Schaefer, S. Gulkis, & P. von Gronefeld.* 420, 474, 8-E2 (1994)

On the Inevitability of Reionization: Implications for Cosmic Microwave Background Fluctuations. *Max Tegmark, Joseph Silk, & Alain Blanchard.* 420, 484, 8-F1 (1994)

"Sample Variance" in Small-Scale Cosmic Microwave Background Anisotropy Experiments. *Douglas Scott, Mark Srednicki, & Martin White.* 421, L5, 21-D1 (1994)

The Phenomenological Status of Late Time Phase Transition Models after Cosmic Background Radiation Anisotropy Measurements. *Xiaochun Luo & David N. Schramm.* 421, 393, 23-B1 (1994)

X-Ray Clusters and Gravitational Instability Theories. *S. Colafrancesco & N. Vittorio.* 422, 443, 37-D5 (1994)

Degree-Scale Observations of Cosmic Microwave Background Anisotropies. *P. de Bernardis, E. Aquilini, A. Boscaleri, M. De Petris, G. D'Andreta, M. Gervasi, E. Kreysa, L. Martinis, S. Masi, P. Palumbo, & F. Scaramuzzi.* 422, L33, 44-E1 (1994)

A Measurement of the Medium-Scale Anisotropy in the Cosmic Microwave Background Radiation. *E. S. Cheng, D. A. Cottingham, D. J. Fixsen, C. A. Inman, M. S. Kowitt, S. S. Meyer, L. A. Page, J. L. Puchalla, & R. F. Silverberg.* 422, L37, 44-E8 (1994)

Cosmic Microwave Background Anisotropies in Cold Dark Matter Models with Cosmological Constant: The Intermediate versus Large Angular Scales. *Radosław Stompor & Krzysztof M. Górski.* 422, L41, 44-E13 (1994)

The Sunyaev-Zel'dovich Effect and Cluster Evolution. *James G. Bartlett & Joseph Silk.* 423, 12, 46-C1 (1994)

On the Anisotropy of the Cosmic Microwave Background. *A. Mészáros.* 423, 19, 46-C10 (1994)

Topological Analysis of *COBE*-DMR Cosmic Microwave Background Maps. *Sergio Torres.* 423, L9, 53-B13 (1994)

Did the Universe Recombine? New Spectral Constraints on Reheating. *Max Tegmark & Joseph Silk.* 423, 529, 55-B1 (1994)

Peculiar Velocities and Microwave Background Anisotropies from Cosmic Strings. *Leandros Perivolaropoulos & Tanmay Vachaspati.* 423, L77, 60-B1 (1994)

Separation of Foreground Radiation from Cosmic Microwave Background Anisotropy Using Multifrequency Measurements. *W. N. Brandt, C. R.*

Lawrence, A. C. S. Readhead, J. N. Pakianathan, & T. M. Fiola. 424, 1, 62-A12 (1994)

Absolute Measurement of the Cosmic Microwave Background at 2 GHz. *M. Bersanelli, M. Bensadoun, G. De Amici, S. Levin, M. Limon, G. F. Smoot, & W. Vinje.* 424, 517, 71-B5 (1994)

Anisotropies of Cosmic Background Radiation from a Local Collapse. *Xiang-Ping Wu & Li-Zhi Fang.* 424, 530, 71-C7 (1994)

The Effects of Incomplete Sky Coverage on the Analysis of Large Angular Scale Microwave Background Anisotropy. *Emory Bunn, Yehuda Hoffman, & Joseph Silk.* 425, 359, 86-B8 (1994)

A Cosmic String–specific Signature on the Cosmic Microwave Background. *R. Moessner, L. Perivolaropoulos, & R. Brandenberger.* 425, 365, 86-C1 (1994)

Molecules in the Postrecombination Universe and Microwave Background Anisotropies. *Roberto Maoli, Francesco Melchiorri, & Danilo Tosti.* 425, 372, 86-C12 (1994)

Cluster Evolution and Microwave Source Counts. *M. Markevitch, G. R. Blumenthal, W. Forman, C. Jones, & R. A. Sunyaev.* 426, 1, 96-B1 (1994)

Small-Scale Cosmic Microwave Background Anisotropies as a Probe of the Geometry of the Universe. *Marc Kamionkowski, David N. Spergel, & Naoshi Sugiyama.* 426, L57, 109-B1 (1994)

Amplitude of Primeval Fluctuations from Cosmological Mass Density Reconstructions. *Uroš Seljak & Edmund Bertschinger.* 427, 523, 119-C1 (1994)

Anisotropy in the Microwave Sky at Intermediate Angular Scales. *M. Dragovan, J. E. Ruhl, G. Novak, S. R. Platt, B. Crone, R. Pernic, & J. B. Peterson.* 427, L67, 126-F1 (1994)

The Angular Bispectrum of the Cosmic Microwave Background. *Xiaochun Luo.* 427, L71, 126-F7 (1994)

Measurement of the Sunyaev-Zel'dovich Effect toward Abell 2163 at a Wavelength of 2.2 Millimeters. *T. M. Wilbanks, P. A. R. Ade, M. L. Fischer, W. L. Holzapfel, & A. E. Lange.* 427, L75, 126-F13 (1994)

Arcminute Sky Fluctuations at 1.25 Millimeters. *Paola Andreani.* 428, 447, 135-F11 (1994)

Are SP 91 and *COBE* Inconsistent with Cold Dark Matter? *Emory Bunn, Martin White, Mark Srednicki, & Douglas Scott.* 429, 1, 144-C1 (1994)

Microwave Background Anisotropies in Primeval Isocurvature Baryon Models: Constraints on the Cosmological Parameters. *Takashi Chiba, Naoshi Sugiyama, & Yasushi Suto.* 429, 427, 151-B1 (1994)

Measurements of Anisotropy in the Cosmic Microwave Background Radiation at 0.5° Angular Scales near the Star Gamma Ursae Minoris. *M. J. Devlin, A. C. Clapp, J. O. Gundersen, C. A. Hagmann, V. V. Hristov, A. E. Lange, M. A. Lim, P. M. Lubin, P. D. Mauskopf, P. R. Meinhold, P. L. Richards, G. F. Smoot, S. T. Tanaka, P. T. Timbie, & C. A. Wuensche.* 430, L1, 165-B1 (1994)

Power Spectrum Constraints from Spectral Distortions in the Cosmic Microwave Background. *Wayne Hu, Douglas Scott, & Joseph Silk.* 430, L5, 165-B7 (1994)

The Three-Point Correlation Function of the Cosmic Microwave Background in Inflationary Models. *Alejandro Gangui, Francesco Lucchin, Sabino Matarrese, & Silvia Mollerach.* 430, 447, 167-C4 (1994)

On Determining the Spectrum of Primordial Inhomogeneity from the *COBE* DMR Sky Maps: Method. *Krzysztof M. Górski.* 430, L85, 174-D1 (1994)

On Determining the Spectrum of Primordial Inhomogeneity from the *COBE* DMR Sky Maps: Results of Two-Year Data Analysis. *K. M. Górski, G. Hinshaw, A. J. Banday, C. L. Bennett, E. L. Wright, A. Kogut, G. F. Smoot, & P. Lubin.* 430, L89, 174-D7 (1994)

Limits on Three-Point Correlations in the *COBE* DMR First-Year Anisotropy Maps. *G. Hinshaw, A. Kogut, K. M. Górski, A. J. Banday, C. L. Bennett, C. Lineweaver, P. Lubin, G. F. Smoot, & E. L. Wright.* 431, 1, 176-C1 (1994)

Small-Scale Microwave Background Fluctuations from Cosmic Strings. *Mark Hindmarsh.* 431, 534, 185-B13 (1994)

How Cosmic Microwave Background Correlations at Large Angles Relate to Mass Autocorrelations in Space. *George R. Blumenthal & Kathryn V. Johnston.* 432, 1, 193-C1 (1994)

Large-Angle Cosmic Microwave Background Anisotropies in an Open Universe. *Marc Kamionkowski & David N. Spergel.* 432, 7, 193-C9 (1994)

Cold Dark Matter Cosmogony in an Open Universe. *Bharat Ratra & P. J. E. Peebles.* 432, L5, 199-B7 (1994)

The Amplitude and Spectral Index of the Large Angular Scale Anisotropy in the Cosmic Microwave Background Radiation. *Ken Ganga, Lyman Page, Edward Cheng, & Stephan Meyer.* 432, L15, 199-C7 (1994)

Compton Scattering of the Microwave Background by Quasar-blown Bubbles. *G. Mark Voit.* 432, L19, 199-C13 (1994)

Wiener Filtering of the *COBE* Differential Microwave Radiometer Data. *Emory F. Bunn, Karl B. Fisher, Yehuda Hoffman, Ofer Lahav, Joseph Silk, & Saleem Zaroubi.* 432, L75, 206-D1 (1994)

Detection of Cosmic Microwave Background Anisotropy at 1.8°: Theoretical Implications on Inflationary Models. *Paolo de Bernardis, Giancarlo de Gasperis, Silvia Masi, & Nicola Vittorio.* 433, L1, 214-D1 (1994)

On the Microwave Background Anisotropy Produced by Great Attractor–like Structures. *M. J. Fullana, D. Sáez, & J. V. Arnau.* 94, 1, 52-B1 (1994)

Search for Unresolved Sources in the *COBE*-DMR Two-Year Sky Maps. *A. Kogut, A. J. Banday, C. L. Bennett, G. Hinshaw, K. Loewenstein, P. Lubin, G. F. Smoot, & E. L. Wright.* 433, 435, 216-D1 (1994)

Analysis of Small-Scale Microwave Background Radiation Anisotropy in the Presence of Foreground Contamination. *Scott Dodelson & Albert Stebbins.* 433, 440, 216-D8 (1994)

Cosmic Microwave Background Anisotropy Induced by Gas in Clusters of Galaxies. *S. Colafrancesco, P. Mazzotta, Y. Rephaeli, & N. Vittorio.* 433, 454, 216-E10 (1994)

Measurements of Anisotropy in the Cosmic Microwave Background Radiation at Degree Angular Scales near the Stars Sigma Herculis and Iota Draconis. *A. C. Clapp, M. J. Devlin, J. O. Gundersen, C. A. Hagmann, V. V. Hristov, A. E. Lange, M. Lim, P. M. Lubin, P. D. Mauskopf, P. R. Meinhold, P. L. Richards, G. F. Smoot, S. T. Tanaka, P. T. Timbie, & C. A. Wuensche.* 433, L57, 223-D9 (1994)

Power-Spectrum–independent Constraints on Cosmological Models. *Max Tegmark, Emory F. Bunn, & Wayne Hu.* 434, 1, 225-C1 (1994)

Cosmic Background Radiation Anisotropy in an Open Inflation, Cold Dark Matter Cosmogony. *Marc Kamionkowski, Bharat Ratra, David N. Spergel, & Naoshi Sugiyama.* 434, L1, 232-B1 (1994)

Skewness of Cosmic Microwave Background Anisotropies in an Inflationary Isocurvature Baryon Model. *Kazuhiro Yamamoto & Misao Sasaki.* 435, L83, 259-C8 (1994)

A Two-Fluid Approximation for Calculating the Cosmic Microwave Background Anisotropies. *Uroš Seljak.* 435, L87, 259-D1 (1994)

Imprints of Galaxy Clustering Evolution on $\Delta T/T$. *Enrique Martínez-González, Jose L. Sanz, & Joseph Silk.* 436, 1, 261-C1 (1994)

Cosmic Temperature Fluctuations from Two Years of *COBE* Differential Microwave Radiometers Observations. *C. L. Bennett, A. Kogut, G. Hinshaw, A. J. Banday, E. L. Wright, K. M. Górski, D. T. Wilkinson, R. Weiss, G. F. Smoot, S. S. Meyer, J. C. Mather, P. Lubin, K. Loewenstein, C. Lineweaver, P. Keegstra, E. Kaita, P. D. Jackson, & E. S. Cheng.* 436, 423, 271-D1 (1994)

Angular Power Spectrum of the Microwave Background Anisotropy Seen by the *COBE* Differential Microwave Radiometer. *E. L. Wright, G. F. Smoot, C. L. Bennett, & P. M. Lubin.* 436, 443, 271-E13 (1994)

Correlated Noise in the *COBE* DMR Sky Maps. *C. H. Lineweaver, G. F. Smoot, C. L. Bennett, E. L. Wright, L. Tenorio, A. Kogut, P. B. Keegstra, G. Hinshaw, & A. J. Banday.* 436, 452, 271-F11 (1994)

Thermal History Constraints on the Isocurvature Baryon Model. *Wayne Hu & Naoshi Sugiyama.* 436, 456, 271-G4 (1994)

Cold Dark Matter. II. Spatial and Velocity Statistics. *James M. Gelb & Edmund Bertschinger.* 436, 491, 272-C5 (1994)

On the RMS Anisotropy at 7° and 10° in the *COBE*-DMR Two-Year Sky Maps. *A. J. Banday, K. M. Górski, L. Tenorio, E. L. Wright, G. F. Smoot, C. H. Lineweaver, A. Kogut, G. Hinshaw, & C. L. Bennett.* 436, L99, 280-D1 (1994)

The Effect of Gravitational Scattering on the Anisotropy of the Cosmic Background Radiation. *Toshiyuki Fukushige, Junichiro Makino, & Toshikazu Ebisuzaki.* 436, L107, 280-E4 (1994)

Statistics and Topology of the *COBE* Differential Microwave Radiometer First-Year Sky Maps. *G. F. Smoot, L. Tenorio, A. J. Banday, A. Kogut, E. L. Wright, G. Hinshaw, & C. L. Bennett.* 437, 1, 283-C1 (1994)

Tilted Hybrid Dark Matter Models and Cosmic Microwave Background Anistropies. *Giancarlo De Gasperis, Pio Francesco Muciaccia, & Nicola Vittorio.* 439, 1, 21-C1 (1995)

Reionization and Its Imprint on the Cosmic Microwave Background. *Scott Dodelson & Jay M. Jubas.* 439, 503, 31-C3 (1995)

Sample Variance of Non-Gaussian Sky Distributions. *Xiaochun Luo.* 439, 517, 31-D7 (1995)

Gaussian Statistics of the Cosmic Microwave Background: Correlation of Temperature Extrema in the *COBE* DMR Two-Year Sky Maps. *A. Kogut, A. J. Banday, C. L. Bennett, G. Hinshaw, P. M. Lubin, & G. F. Smoot.* 439, L29, 40-B1 (1995)

An Arcminute-Resolution Search at 4.7 Inverse Centimeters for Point Source Confusion to Measurements of CMB Anisotropy. *S. E. Church, P. D. Mauskopf, P. A. R. Ade, M. J. Devlin, W. L. Holzapfel, T. M. Wilbanks, & A. E. Lange.* 440, L33, 57-B1 (1995)

Noise Correlations in Cosmic Microwave Background Experiments. *Scott Dodelson, Arthur Kosowsky, & Steven T. Myers.* 440, L37, 57-B8 (1995)

Reionization and the Cosmic Microwave Background in an Open Universe. *Fred M. Persi.* 441, 1, 59-C1 (1995)

Cyanogen Excitation in Diffuse Interstellar Clouds. *Katherine C. Roth & David M. Meyer.* 441, 129, 61-B7 (1995)

Detection of a Cosmic Ray with Measured Energy Well beyond the Expected Spectral Cutoff due to Cosmic Microwave Radiation. *D. J. Bird, S. C. Corbató, H. Y. Dai, J. W. Elbert, K. D. Green, M. A. Huang, D. B. Kieda, S. Ko, C. G. Larsen, E. C. Loh, M. Z. Luo, M. H. Salamon, J. D. Smith, P. Sokolsky, P. Sommers, J. K. K. Tang, & S. B. Thomas.* 441, 144, 61-C12 (1995)

Simulated Cosmic Microwave Background Maps at 0.5° Resolution: Basic Results. *G. Hinshaw, C. L. Bennett, & A. Kogut.* 441, L1, 66-C1 (1995)

Simulated Cosmic Microwave Background Maps at 0.5° Resolution: Unresolved Features. *A. Kogut, G. Hinshaw, & C. L. Bennett.* 441, L5, 66-C10 (1995)

The *COBE* Normalization for Standard Cold Dark Matter. *Emory F. Bunn, Douglas Scott, & Martin White.* 441, L9, 66-D4 (1995)

Hot Gas in Superclusters and Microwave Background Distortions. *Fred M. Persi, David N. Spergel, Renyue Cen, & J. P. Ostriker.* 442, 1, 77-C1 (1995)

Dual-Frequency Mapping with the Tenerife Cosmic Microwave Background Experiments. *C. M. Gutiérrez de la Cruz, R. D. Davies, R. Rebolo, R. A. Watson, S. Hancock, & A. N. Lasenby.* 442, 10, 77-C13 (1995)

Influence of Galactic Dust on the Accuracy of Cosmic Microwave Anisotropy Measurements. *Gianfranco Guarini, Bianca Melchiorri, & Francesco Melchiorri.* 442, 23, 77-E1 (1995)

Evidence for a Very Large Scale Fractal Structure in the Universe from *COBE* Measurements. *Elisabete M. de Gouveia Dal Pino, Annibal Hetem, Jorge E. Horvath, Carlos A. W. de Souza, Thyrso Villela, & J. C. N. de Araujo.* 442, L45, 94-C1 (1995)

Proving Almost-Homogeneity of the Universe: An Almost Ehlers-Geren-Sachs Theorem. *W. R. Stoeger, R. Maartens, & G. F. R. Ellis.* 443, 1, 95-C1 (1995)

Window Functions for Cosmic Microwave Background Experiments. *Martin White & Mark Srednicki.* 443, 6, 95-C9 (1995)

A First Map of the Cosmic Microwave Background at 0.5° Resolution. *Martin White & Emory F. Bunn.* 443, L53, 111-D1 (1995)

Degree-Scale Anisotropy in the Cosmic Microwave Background: SP94 Results. *J. O. Gundersen, M. Lim, J. Staren, C. A. Wuensche, N. Figueiredo, T. C. Gaier, T. Koch, P. R. Meinhold, M. D. Seiffert, G. Cook, A. Segale, & P. M. Lubin.* 443, L57, 111-D10 (1995)

Percolation and Cluster Analysis for $\Delta T/T$ Maps. *P. D. Naselsky & D. I. Novikov.* 444, L1, 121-B1 (1995)

Anisotropies in the Cosmic Microwave Background: An Analytic Approach. *Wayne Hu & Naoshi Sugiyama.* 444, 489, 123-C1 (1995)

COBE DMR–normalized Open Inflation, Cold Dark Matter Cosmology. *Krzysztof M. Górski, Bharat Ratra, Naoshi Sugiyama, & Anthony J. Banday.* 444, L65, 130-B8 (1995)

Gauge Invariance and the Cosmic Microwave Background Radiation Temperature. *W. R. Stoeger, C.-M. Xu, G. F. R. Ellis, & M. Katz.* 445, 17, 132-E9 (1995)

Cosmic Microwave Background Comptonization by Hot Intracluster Gas. *Yoel Rephaeli.* 445, 33, 132-G1 (1995)

Gravity Wave–induced Polarization of the Cosmic Microwave Background Radiation. *Ka Lok Ng & Kin-Wang Ng.* 445, 521, 142-C1 (1995)

The Anisotropy in the Cosmic Microwave Background at Degree Angular Scales. *C. B. Netterfield, N. Jarosik, L. Page, D. Wilkinson, & E. Wollack.* 445, L69, 150-C1 (1995)

The Imprint of Proper Motion of Nonlinear Structures on the Cosmic Microwave Background. *Robin Tuluie & Pablo Laguna.* 445, L73, 150-C9 (1995)

When Can Non-Gaussian Density Fields Produce a Gaussian Sachs-Wolfe Effect? *Robert J. Scherrer & Robert K. Schaefer.* 446, 44, 153-F12 (1995)

Cosmological Constant Cold Dark Matter Models and the *COBE* Two-Year Sky Maps. *Emory F. Bunn & Naoshi Sugiyama.* 446, 49, 153-G6 (1995)

Anisotropies of the Cosmic Background Radiation in a Reionized Universe. *Robin Tuluie, Richard A. Matzner, & Peter Anninos.* 446, 447, 162-C1 (1995)

Three-Point Correlations in the *COBE* DMR 2 Year Anisotropy Maps. *G. Hinshaw, A. J. Banday, C. L. Bennett, K. M. Górski, & A. Kogut.* 446, L67, 170-F3 (1995)

Cosmic Strings and Cosmic Variance. *Alejandro Gangui & Leandros Perivolaropoulos.* 447, 1, 172-C1 (1995)

COBE Constraints on Baryon Isocurvature Models. *Wayne Hu, Emory F. Bunn, & Naoshi Sugiyama.* 447, L59, 190-B1 (1995)

Effects of Atmospheric Emission on Ground-based Microwave Background Measurements. *M. Bersanelli, M. Bensadoun, L. Danese, G. De Amici, A. Kogut, S. Levin, M. Limon, D. Maino, G. F. Smoot, & C. Witebsky.* 448, 8, 192-C11 (1995)

Constraints on the Topology of the Universe from the 2 Year *COBE* Data. *Angélica de Oliveira-Costa & George F. Smoot.* 448, 477, 201-C1 (1995)

Comparison of the *COBE* DMR and Tenerife Data. *C. H. Lineweaver, S. Hancock, G. F. Smoot, A. N. Lasenby, R. D. Davies, A. J. Banday, C. M. Gutiérrez de la Cruz, R. A. Watson, & R. Rebolo.* 448, 482, 201-C10 (1995)

The Cosmic Microwave Background Dipole Cannot Be the Result of the Cosmological Entropy Gradient. *M. Jaroszyński & B. Paczyński.* 448, 488, 201-D5 (1995)

Multifractal Analysis of String-induced Cosmic Microwave Background Radiation Anisotropies. *M. P. Pompilio, F. R. Bouchet, G. Murante, & A. Provenzale.* 449, 1, 210-C1 (1995)

A Measurement of the Sunyaev-Zel'dovich Effect in the Coma Cluster of Galaxies. *T. Herbig, C. R. Lawrence, A. C. S. Readhead, & S. Gulkis.* 449, L5, 216-A9 (1995)

A Simple Test for Non-Gaussianity in Cosmic Microwave Background Radiation Measurements. *Paul Graham, Neil Turok, P. M. Lubin, & J. A. Schuster.* 449, 404, 218-C9 (1995)

The *COBE* Normalization of CMB Anisotropies. *Martin White & Emory F. Bunn.* 450, 477, 237-C1 (1995)

Spectral Analysis of Microwave Background Perturbations Induced by Cosmic Strings. *Leandros Perivolaropoulos.* 451, 429, 253-C1 (1995)

Hot and Cold Spots in the First Plus Second Year *COBE*/DMR Maps. *L. Cayón & G. Smoot.* 452, 487, 271-D1 (1995)

Cosmic Background Anisotropies in Cold Dark Matter Cosmology. *Naoshi Sugiyama.* 100, 281, 50-B1 (1995)

Contribution to the Three-Point Function of the Cosmic Microwave Background from the Rees-Sciama Effect. *Silvia Mollerach, Alejandro Gangui, Francesco Lucchin, & Sabino Matarrese.* 453, 1, 281-C1 (1995)

Anisotropy in the Microwave Sky at 90 GHz: Results from Python II. *J. E. Ruhl, M. Dragovan, S. R. Platt, J. Kovac, & G. Novak.* 453, L1, 289-B5 (1995)

Skewness of Cosmic Microwave Background Temperature Fluctuations Due to Nonlinear Gravitational Instability. *Dipak Munshi, Tarun Souradeep, & Alexei A. Starobinsky.* 454, 552, 309-B5 (1995)

A Brute Force Analysis of the *COBE* DMR Data. *Max Tegmark & Emory F. Bunn.* 455, 1, 318-C1 (1995)

Cosmological Perturbation Theory in the Synchronous and Conformal Newtonian Gauges. *Chung-Pei Ma & Edmund Bertschinger.* 455, 7, 318-C10 (1995)

Likelihood Analysis of Large-Scale Flows. *Andrew H. Jaffe & Nick Kaiser.* 455, 26, 318-E4 (1995)

Large-Angle Cosmic Microwave Background Anisotropy in an Open Universe in the One-Bubble Inflationary Scenario. *Kazuhiro Yamamoto, Misao Sasaki, & Takahiro Tanaka.* 455, 412, 327-E3 (1995)

Calculation of the Kinetic Sunyaev-Zeldovich Effect from the Boltzmann Equation. *Peter R. Phillips.* 455, 419, 327-E13 (1995)

COSMOLOGY: DARK MATTER

Cosmological Explosions from Cold Dark Matter Perturbations. *Robert J. Scherrer.* 384, 391, 7-B1 (1992)

Elliptical Galaxies with Dark Matter. I. Self-consistent Models. *G. Bertin, R. P. Saglia, & M. Stiavelli.* 384, 423, 7-D9 (1992)

Elliptical Galaxies with Dark Matter. II. Optimal Luminous–Dark Matter Decomposition for a Sample of Bright Objects. *R. P. Saglia, G. Bertin, & M. Stiavelli.* 384, 433, 7-E7 (1992)

Dark Matter in NGC 4472. *Michael Loewenstein.* 384, 474, 8-A9 (1992)

Anisotropies of the Cosmic Microwave Background in Nonstandard Cold Dark Matter Models. *Nicola Vittorio & Joseph Silk.* 385, L9, 17-B6 (1992)

Thermal Evolution of Phases during the Cosmological Quark-Hadron Transition. *Michele Mariani & Silvio A. Bonometto.* 385, 393, 18-B5 (1992)

Two-Component Gravitating Systems and Red Giant–like Structure. *Masayuki Y. Fujimoto & Kohji Tomisaka.* 385, 445, 18-F10 (1992)

Velocity Dipoles in Cold Dark Matter Cosmologies. *Giuseppe Tormen, Francesco Lucchin, & Sabino Matarrese.* 386, 1, 24-B1 (1992)

Femtolensing of Gamma-Ray Bursters. *Andrew Gould.* 386, L5, 29-B5 (1992)

A Hydrodynamic Approach to Cosmology: Methodology. *Renyue Cen.* 78, 341, 7-B1 (1992)

The Topology of Large-Scale Structure. VI. Slices of the Universe. *Changbom Park, J. Richard Gott III, Adrian L. Melott, & I. D. Karachentsev.* 387, 1, 37-A11 (1992)

Constraints on Cosmological Models with the Decaying Cosmological Constant from Cosmic Background Radiation Anisotropies. *Naoshi Sugiyama & Katsuhiko Sato.* 387, 439, 44-B10 (1992)

Topology of Large-Scale Structure in Seeded Hot Dark Matter Models. *Matthew M. Beaky, Robert J. Scherrer, & Jens V. Villumsen.* 387, 443, 44-C1 (1992)

Cosmological Density of WIMPs from Solar and Terrestrial Annihilations. *Andrew Gould.* 388, 338, 54-E5 (1992)

Constraints on Baryonic Dark Matter in the Galactic Halo and Local Group. *D. Richstone, A. Gould, P. Guhathakurta, & C. Flynn.* 388, 354, 54-F12 (1992)

Local Dark Matter from a Carefully Selected Sample. *John N. Bahcall, Chris Flynn, & Andrew Gould.* 389, 234, 62-G9 (1992)

Dwarf Spheroidal Galaxies and the Mass of the Neutrino. *Ortwin E. Gerhard & David N. Spergel.* 389, L9, 66-B11 (1992)

Large-Scale Structure in a Low-Bias Universe. *H. M. P. Couchman & R. G. Carlberg.* 389, 453, 67-B6 (1992)

The Efficiency of Galaxy Formation in Clusters. *Laurence P. David & George R. Blumenthal.* 389, 510, 67-G1 (1992)

Linear Velocity Fields in Non-Gaussian Models for Large-Scale Structure. *Robert J. Scherrer.* 390, 330, 79-C10 (1992)

A2163: An Exceptionally Hot Cluster of Galaxies. *M. Arnaud, J. P. Hughes, W. Forman, C. Jones, M. Lachièze-Rey, K. Yamashita, & I. Hatsukade.* 390, 345, 79-E1 (1992)

Dark Matter and Brown Dwarfs: Prospects for the Direct Detection of a Brown Dwarf Halo. *Ruth A. Daly & Gail C. McLaughlin.* 390, 423, 80-F1 (1992)

Using Arcs in Clusters of Galaxies as Probes to Cluster Potentials and the Faint Blue Galaxies. *Jordi Miralda-Escudé.* 390, L65, 84-F7 (1992)

The Contribution of Galaxy Clusters to the Soft X-Ray Background. *A. Blanchard, K. Wachter, A. E. Evrard, & Joseph Silk.* 391, 1, 86-B1 (1992)

Tracing Large-Scale Fluctuations Back in Time. *Adi Nusser & Avishai Dekel.* 391, 443, 93-D4 (1992)

Using Gamma-Ray Bursts to Detect a Cosmological Density of Compact Objects. *O. M. Blaes & R. L. Webster.* 391, L63, 99-D7 (1992)

He I Absorption by Lyman-Alpha Clouds and Low-Redshift Lyman-Alpha Clouds. *Jordi Miralda-Escudé & Jeremiah P. Ostriker.* 392, 15, 101-C1 (1992)

A Model of the Galactic Dark Halo. *E. R. Wollman.* 392, 80, 102-A8 (1992)

A Hydrodynamic Treatment of the Cold Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah Ostriker.* 393, 22, 114-C12 (1992)

The Formation of Cosmic Structure in a Texture-seeded Cold Dark Matter Cosmogony. *Andrew K. Gooding, Changbom Park, David N. Spergel, Neil Turok, & J. Richard Gott III.* 393, 42, 114-E9 (1992)

Coherent Structures in the Universe and the Adhesion Model. *Lev Kofman, Dmitri Pogosyan, Sergei F. Shandarin, & Adrian L. Melott.* 393, 437, 121-D1 (1992)

Gauge-invariant Cosmological Perturbations in Two Gravitationally Coupled Perfect Fluids. *W. Zimdahl.* 393, 471, 121-F9 (1992)

Can Neutrino Decay–driven Mock Gravity Save Hot Dark Matter? *Randall J. Splinter & Adrian L. Melott.* 394, 7, 128-B8 (1992)

The Mass Function of Galaxy Halos in a Cold Dark Matter Universe. *T. G. Brainerd & J. V. Villumsen.* 394, 409, 134-D5 (1992)

Multifractal Properties of Cosmological *N*-Body Simulations. *Riccardo Valdarnini, Stefano Borgani, & Antonello Provenzale.* 394, 422, 134-E7 (1992)

Statistics of the Cosmic Mach Number from Numerical Simulations of a Cold Dark Matter Universe. *Yasushi Suto, Renyue Cen, & Jeremiah P. Ostriker.* 395, 1, 140-B1 (1992)

QSO Absorbers: Evidence for a Primeval Galaxy Population. *Arati Chokshi.* 395, 21, 140-D5 (1992)

Surviving Cosmological Models after the Discovery of Large-Angle Anisotropies of the Cosmic Microwave Background. *Naoteru Gouda & Naoshi Sugiyama.* 395, L59, 153-E7 (1992)

On the Straight Arc in Abell 2390. *Aggeliki Kassiola, Israel Kovner, & Roger D. Blandford.* 396, 10, 155-C1 (1992)

Properties of Galactic Halos in Spatially Flat Universes Dominated by Cold Dark Matter: Effects of Nonvanishing Cosmological Constant. *Tatsushi Suginohara & Yasushi Suto.* 396, 395, 162-C11 (1992)

String-induced Density Perturbations in Hot Dark Matter. *Dan N. Vollick.* 397, 14, 168-C1 (1992)

Cold Dark Matter versus Baryon-dominated Universes: Comparison with Peculiar Velocity and Acceleration Measurements. *Paola Del Grande & Nicola Vittorio.* 397, 26, 168-D1 (1992)

The Influence of Dark Matter on the Chemical Evolution of Elliptical Galaxies. *Francesca Matteucci.* 397, 32, 168-D9 (1992)

Dwarf Spheroidal Galaxies and Non-Newtonian Gravity. *Ortwin E. Gerhard & David N. Spergel.* 397, 38, 168-E1 (1992)

A Direct Gravitational Lensing Test for 10^6 $M_\odot$ Black Holes in Halos of Galaxies. *Joachim Wambsganss & Bohdan Paczyński.* 397, L1, 173-A8 (1992)

Generalized Newtonian Force Law and Hidden Mass. *Richard L. Liboff.* 397, L71, 180-G1 (1992)

Structure Formation in a Universe with Cold Plus Hot Dark Matter. *Anthony van Dalen & Robert K. Schaefer.* 398, 33, 182-D9 (1992)

Self-interacting Dark Matter. *Eric D. Carlson, Marie E. Machacek, & Lawrence J. Hall.* 398, 43, 182-E7 (1992)

Dark Matter, Long-Range Forces, and Large-Scale Structure. *Ben-Ami Gradwohl & Joshua A. Frieman.* 398, 407, 189-B8 (1992)

Galaxy Clusters and Cold Dark Matter: A Low-Density Unbiased Universe? *Neta A. Bahcall & Renyue Cen.* 398, L81, 194-B6 (1992)

Low-Redshift Lyman-Alpha Absorption Lines and the Dark Matter Halos of Disk Galaxies. *Philip Maloney.* 398, L89, 194-C1 (1992)

A Tilted Cold Dark Matter Cosmological Scenario. *Renyue Cen, Nickolay Y. Gnedin, Lev A. Kofman, & Jeremiah P. Ostriker.* 399, L11, 200-A5 (1992)

A Three-dimensional Hydrodynamic Treatment of the Hot Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah P. Ostriker.* 399, 331, 202-B1 (1992)

Determination of Lens Parameters from Gravitationally Lensed Gamma-Ray Bursts. *Ramesh Narayan & Sylvanie Wallington.* 399, 368, 202-E1 (1992)

Galaxies and Gas in a Cold Dark Matter Universe. *Neal Katz, Lars Hernquist, & David H. Weinberg.* 399, L109, 207-F1 (1992)

Gravity and Count Probabilities in an Expanding Universe. *François R. Bouchet & Lars Hernquist.* 400, 25, 209-C13 (1992)

X-Ray Constraints on the Shape of the Dark Matter in Five Abell Clusters. *David A. Buote & Claude R. Canizares.* 400, 385, 215-B3 (1992)

The Spatial Correlation Properties of Galaxy Halos in a Cold Dark Matter Universe. *T. G. Brainerd & J. V. Villumsen.* 400, 398, 215-C5 (1992)

The Scaling Analysis as a Tool to Compare *N*-Body Simulations with Observations: Application to a Low-Bias Cold Dark Matter Model. *G. Yepes, R. Domínguez-Tenreiro, & H. M. P. Couchman.* 401, 40, 221-E3 (1992)

Cosmological Tidal Shear. *John Dubinski.* 401, 441, 228-B12 (1992)

Tidally Triggered Galaxy Formation. II. Galaxy Number Counts. *Cedric Lacey, Bruno Guiderdoni, Brigitte Rocca-Volmerange, & Joseph Silk.* 402, 15, 1-C6 (1993)

The Power Spectrum of *IRAS* Galaxies. *Karl B. Fisher, Marc Davis, Michael A. Strauss, Amos Yahil, & John P. Huchra.* 402, 42, 1-E8 (1993)

Non-Gaussian Signatures from Gaussian Initial Fluctuations: Evolution of Skewness and Kurtosis from Cosmological Simulations in the Highly Nonlinear Regime. *Ofer Lahav, Makoto Itoh, Shogo Inagaki, & Yasushi Suto.* 402, 387, 7-D7 (1993)

Textures and Clusters. *James G. Bartlett, Andrew K. Gooding, & David N. Spergel.* 403, 1, 14-B1 (1993)

Large- and Small-Scale Constraints on Power Spectra in $\Omega = 1$ Universes. *James M. Gelb, Ben-Ami Gradwohl, & Joshua A. Frieman.* 403, L5, 20-A11 (1993)

Constraints on Vacuum Decay from the Microwave Background. *J. M. Overduin, P. S. Wesson, & S. Bowyer.* 404, 1, 28-B1 (1993)

Dark Matter and Dynamics in the Hercules Cluster (A2151). *Christina M. Bird, John M. Dickey, & E. E. Salpeter.* 404, 81, 29-A11 (1993)

Diffuse X-Ray Emission from the NGC 2300 Group of Galaxies: Implications for Dark Matter and Galaxy Evolution in Small Groups. *John S. Mulchaey, David S. Davis, Richard F. Mushotzky, & David Burstein.* 404, L9, 33-D7 (1993)

Mapping the Dark Matter with Weak Gravitational Lensing. *Nick Kaiser & Gordon Squires.* 404, 441, 34-D8 (1993)

Probing the Large Magellanic Cloud Halo for MACHOS. *Andrew Gould.* 404, 451, 34-E9 (1993)

Constraints on Decaying Neutrinos from the Far-Ultraviolet Extragalactic Background Light. *J. M. Overduin, P. S. Wesson, & S. Bowyer.* 404, 460, 34-F7 (1993)

Protogalactic Mergers and Cosmochronology. *G. J. Mathews & D. N. Schramm.* 404, 468, 34-G1 (1993)

Seeded Hot Dark Matter Models with Inflation. *John Gratsias, Robert J. Sherrer, Gary Steigman, & Jens V. Villumsen.* 405, 30, 41-D8 (1993)

Cooperative Galaxy Formation and Large-Scale Structure. *Richard G. Bower, Peter Coles, Carlos S. Frenk, & Simon D. M. White.* 405, 403, 48-B1 (1993)

Cluster Correlations for Cold + Hot Dark Matter and Other Models. *Jon A. Holtzman & Joel R. Primack.* 405, 428, 48-D5 (1993)

Lyman-Alpha Absorption Spectrum of the Primordial Intergalactic Medium. *Hongguang Bi.* 405, 479, 49-A11 (1993)

Trajectories of Nonzero–Rest-Mass Particles in Curved Spacetime. *P. S. Negi, A. K. Pande, & M. C. Durgapal.* 406, 1, 55-B1 (1993)

A Method to Distinguish Two Gamma-Ray Bursts with Similar Time Profiles. *Joachim Wambsganss.* 406, 29, 55-D6 (1993)

The Mass Function of Clusters of Galaxies. *Neta A. Bahcall & Renyue Cen.* 407, L49, 82-B10 (1993)

Significant Cluster Correlations at 30 h^{-1} Mpc: Can Standard Models Be Ruled Out? *Scot S. Olivier, Joel R. Primack, George R. Blumenthal, & Avishai Dekel.* 408, 17, 83-C7 (1993)

On the Origin of H I Absorption Systems of Quasars. *Izumi Murakami & Satoru Ikeuchi.* 409, 42, 97-E1 (1993)

The Hyades Cluster-Supercluster Connection: Evidence for a Local Concentration of Dark Matter. *Stefano Casertano, Icko Iben, Jr., & Aaron Shiels.* 410, 90, 113-C5 (1993)

Controlled Experiments in Cosmological Gravitational Clustering. *Adrian L. Melott & Sergei F. Shandarin.* 410, 469, 119-E1 (1993)

Tilted Cold Dark Matter Models Confront the Cosmic Microwave Background and the Galaxy Peculiar Velocity Field. *Pio Francesco Muciaccia, Simona Mei, Giancarlo de Gasperis, & Nicola Vittorio.* 410, L61, 125-E7 (1993)

Cosmic Microwave Background Fluctuations as Observed by *COBE*: Theoretical and Experimental Uncertainties. *Roberto Scaramella & Nicola Vittorio.* 411, 1, 127-B1 (1993)

The Galaxy Velocity Field and Cold Dark Matter Models. *Giuseppe Tormen, Lauro Moscardini, Francesco Lucchin, & Sabino Matarrese.* 411, 16, 127-C8 (1993)

Abundance and Evolution of Quasars in Cold Dark Matter Models. *Adi Nusser & Joseph Silk.* 411, L1, 133-D1 (1993)

Clumpy Cold Dark Matter. *Joseph Silk & Albert Stebbins.* 411, 439, 135-B1 (1993)

The Cluster-Cluster Correlation in Hybrid Models. *Y. P. Jing, H. J. Mo, G. Börner, & L. Z. Fang.* 411, 450, 135-C1 (1993)

Peculiar Velocities of Rich Clusters in Hot and Cold Dark Matter Models. *George Rhee.* 411, 455, 135-C8 (1993)

IRAS Galaxies versus POTENT Mass: Density Fields, Biasing, and Ω. *Avishai Dekel, Edmund Bertschinger, Amos Yahil, Michael A. Strauss, Marc Davis, & John P. Huchra.* 412, 1, 142-B1 (1993)

On the Inhomogeneity of Dark Matter and Luminous Objects Induced by Infinitely Long Cosmic Strings. *Tetsuya Hara, Petri Mähönen, & Shigeru Miyoshi.* 412, 22, 142-C11 (1993)

Rotation Curves from Baryonic Infall: Dependence on Disk-to-Halo Ratio, Initial Angular Momentum, and Core Radius, and Comparison with Data. *Ricardo Flores, Joel R. Primack, George R. Blumenthal, & S. M. Faber.* 412, 443, 149-B1 (1993)

Hierarchical Galaxy Formation: Overmerging and the Formation of an X-Ray Cluster. *Neal Katz & Simon D. M. White.* 412, 455, 149-C1 (1993)

Does a Cosmological Constant Increase the Effect of Gravitational Lensing on the Cosmic Microwave Background? *Laura Cayón, Enrique Martínez-González, & Jose Luis Sanz.* 413, 10, 156-B13 (1993)

Microwave Background Anisotropy on Scales $10'$–2° as an Indicator of the Cosmological Model. *P. Naselsky & I. Novikov.* 413, 14, 156-C5 (1993)

Percolation Technique for Galaxy Clustering. *Anatoly Klypin & Sergei F. Shandarin.* 413, 48, 156-F3 (1993)

Velocity Functions of Galaxies and Clusters of Galaxies. *Kazuhiro Shimasaku.* 413, 59, 156-G3 (1993)

Features in the Spectra of Gamma-Ray Bursts. *Krzysztof Z. Stanek, Bohdan Paczyński, & Jeremy Goodman.* 413, L7, 162-B9 (1993)

Linear Evolution of Cosmic Baryonic Medium on Large Scales. *Li-Zhi Fang, Hongguang Bi, Shouping Xiang, & Gerhard Börner.* 413, 477, 162-D13 (1993)

Broad-Band X-Ray Telescope Observations of the Hot Interstellar Media in NGC 1399 and NGC 4472. *P. J. Serlemitsos, M. Loewenstein, R. F. Mushotzky, F. E. Marshall, & R. Petre.* 413, 518, 163-A1 (1993)

Large-Scale Angular Correlations in Cold Dark Matter Models. *Lauro Moscardini, Stefano Borgani, Peter Coles, Francesco Lucchin, Sabino Matarrese, Antonio Messina, & Manolis Plionis.* 413, L55, 168-B1 (1993)

The Dark Matter Distribution of M87 and NGC 1399. *John C. Tsai.* 413, L59, 168-B7 (1993)

An Upper Limit to the Mass of Black Holes in the Halo of the Galaxy. *Ben Moore.* 413, L93, 168-F1 (1993)

Large-Scale Structure in Biased Cold Dark Matter Cosmologies. *D. G. Lambas, M. G. Abadi, M. A. Nicotra, & P. B. Tissera.* 414, 30, 170-D6 (1993)

Searching Gamma-Ray Bursts for Gravitational Lensing Echoes: Implications for Compact Dark Matter. *R. J. Nemiroff, J. P. Norris, W. A. D. T. Wickramasinghe, J. M. Horack, C. Kouveliotou, G. J. Fishman, C. A. Meegan, R. B. Wilson, & W. S. Paciesas.* 414, 36, 170-E1 (1993)

Sharp Edges to Neutral Hydrogen Disks in Galaxies and the Extragalactic Radiation Field. *Philip Maloney.* 414, 41, 170-E8 (1993)

A Hydrodynamic Treatment of the Tilted Cold Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah P. Ostriker.* 414, 407, 176-C1 (1993)

Constraints on Axions from the Extragalactic Background Light. *J. M. Overduin & P. S. Wesson.* 414, 449, 176-F10 (1993)

The Radial Velocities of Planetary Nebulae in NGC 3379. *Robin Ciardullo, George H. Jacoby, & Herwig B. Dejonghe.* 414, 454, 176-G3 (1993)

Improving the Reconstruction of the Velocity Potential and Primordial Density Fluctuations by Choice of Smoothing Windows. *Adrian L. Melott.* 414, L73, 185-D8 (1993)

The Relation between Velocity Dispersion and Temperature in Clusters: Limiting the Velocity Bias. *Lori M. Lubin & Neta A. Bahcall.* 415, L17, 191-G5 (1993)

A Hydrodynamic Approach to Cosmology: The Primeval Baryon Isocurvature Model. *Renyue Cen, Jeremiah P. Ostriker, & P. J. E. Peebles.* 415, 423, 193-B5 (1993)

Large-Scale Peculiar Velocity Field Due to Infinitely Long Cosmic Strings. *Tetsuya Hara, Petri Mähönen, & Shigeru Miyoshi.* 415, 445, 193-D1 (1993)

Structure Formation with Cold plus Hot Dark Matter. *Anatoly Klypin, Jon Holtzman, Joel Primack, & Enikő Regős.* 416, 1, 201-B1 (1993)

A Hydrodynamic Approach to Cosmology: Nonlinear Effects on Cosmic Backgrounds in the Cold Dark Matter Model. *Roberto Scaramella, Renyue Cen, & Jeremiah P. Ostriker.* 416, 399, 208-B9 (1993)

Early-Type Galaxies, Dark Halos, and Gravitational Lensing Statistics. *Dan Maoz & Hans-Walter Rix.* 416, 425, 208-F1 (1993)

The Complex, Gravitationally Lensed Arc System in the X-Ray–selected Cluster of Galaxies MS 0440+0204. *G. A. Luppino, I. M. Gioia, J. Annis, O. Le Fèvre, & F. Hammer.* 416, 444, 208-G8 (1993)

Dark Matter Halos in Elliptical Galaxies. *Francesco Bertola, Alessandro Pizzella, Massimo Persic, & Paolo Salucci.* 416, L45, 216-B1 (1993)

Transverse Dissections of the Fundamental Planes of Elliptical Galaxies and Clusters of Galaxies. *Alvio Renzini & Luca Ciotti.* 416, L49, 216-B6 (1993)

Using the Schrödinger Equation to Simulate Collisionless Matter. *Lawrence M. Widrow & Nick Kaiser.* 416, L71, 216-D6 (1993)

Can the Dark Matter be 10^6 Solar Mass Objects? *Hans-Walter Rix & George Lake.* 417, L1, 222-F1 (1993)

Radio Dispersion as a Diagnostic of Gamma-Ray Burst Distances. *David M. Palmer.* 417, L25, 223-A9 (1993)

Cold Dark Matter Cosmogony with Hydrodynamics and Galaxy Formation: Galaxy Properties at Redshift Zero. *Renyue Cen & Jeremiah P. Ostriker.* 417, 415, 224-E1 (1993)

Reionization and Cosmic Microwave Anisotropies. *Naoshi Sugiyama, Joseph Silk, & Nicola Vittorio.* 419, L1, 252-B1 (1993)

Dynamical Instabilities in Hollow Halo Models. *Joshua E. Barnes.* 419, L17, 252-C11 (1993)

MACHOs in a Flattened Halo. *Penny D. Sackett & Andrew Gould.* 419, 648, 255-F12 (1993)

Secondary Ionization in a Flat Universe. *F. Atrio-Barandela & A. G. Doroshkevich.* 420, 26, 1-D1 (1994)

Evolution of One-Point Distributions from Gaussian Initial Fluctuations. *Lev Kofman, Edmund Bertschinger, James M. Gelb, Adi Nusser, & Avishai Dekel.* 420, 44, 1-E8 (1994)

Scale Dependence of Three-Point Correlation Functions: Model Predictions and Redshift-Space Contamination. *Takahiko Matsubara & Yasushi Suto.* 420, 497, 8-G2 (1994)

A New Dark Matter Candidate: Kaluza-Klein Solitons. *Paul S. Wesson.* 420, L49, 15-B4 (1994)

Decaying Neutrinos in Galaxy Clusters. *Adrian L. Melott, Randall J. Splinter, Massimo Persic, & Paolo Salucci.* 421, 16, 16-C5 (1994)

The Baryonic Fraction in Groups of Galaxies from X-Ray Measurements. *Mark J. Henriksen & Gary A. Mamon.* 421, L63, 29-C9 (1994)

Proper Motions of MACHOs. *Andrew Gould.* 421, L71, 29-D7 (1994)

MACHO Velocities from Satellite-based Parallaxes. *Andrew Gould.* 421, L75, 29-D13 (1994)

Evolution of Lyman-Alpha Clouds at Low Redshifts. *Izumi Murakami & Satoru Ikeuchi.* 421, L79, 29-E5 (1994)

Ω from Velocities in Voids. *Avishai Dekel & Martin J. Rees.* 422, L1, 36-B1 (1994)

Imaging of 16 Distant EMSS Clusters with $z \geq 0.2$ and $L_{X,44} \geq 4$: New Arcs and First Consequences. *O. Le Fèvre, F. Hammer, M. C. Angonin, I. M. Gioia, & G. A. Luppino.* 422, L5, 36-B7 (1994)

X-Ray Clusters and Gravitational Instability Theories. *S. Colafrancesco & N. Vittorio.* 422, 443, 37-D5 (1994)

Galaxy Groups in Cold + Hot Dark Matter and Cold Dark Matter Universes: Comparison with CfA Data. *Richard Nolthenius, Anatoly Klypin, & Joel R. Primack.* 422, L45, 44-F5 (1994)

Strong Gravitational Lensing Statistics as a Test of Cosmogonic Scenarios. *Renyue Cen, J. Richard Gott III, Jeremiah P. Ostriker, & Edwin L. Turner.* 423, 1, 46-B1 (1994)

Did the Universe Recombine? New Spectral Constraints on Reheating. *Max Tegmark & Joseph Silk.* 423, 529, 55-B1 (1994)

Microlensing Events: Thin Disk, Thick Disk, or Halo? *Andrew Gould, Jordi Miralda-Escudé, & John N. Bahcall.* 423, L105, 60-E13 (1994)

Finite Source Sizes and the Information Content of Macho-Type Lens Search Light Curves. *Robert J. Nemiroff & W. A. D. T. Wickramasinghe.* 424, L21, 69-G8 (1994)

Black Hole Models for the Dark Matter in Draco and Ursa Minor. *Nicolas V. Strobel & George Lake.* 424, L83, 78-G3 (1994)

Dark Matter in Hierarchical Cluster Evolution. *Mark J. Henriksen.* 425, 35, 80-E8 (1994)

The Power Spectra of Dark Halos in a Cold Dark Matter Universe. *Tereasa G. Brainerd & Jens V. Villumsen.* 425, 403, 86-F7 (1994)

A Spectroscopic Method to Measure MACHO Proper Motions. *Dan Maoz & Andrew Gould.* 425, L67, 94-C1 (1994)

Is the Universe Gravitationally Dominated by Nonbaryonic Dark Matter? *Makoto Hattori.* 426, 19, 96-C9 (1994)

Comparison of Dynamical Approximation Schemes for Nonlinear Gravitational Clustering. *Adrian L. Melott.* 426, L19, 103-C5 (1994)

The Optical Gravitational Lensing Experiment: The Discovery of Three Further Microlensing Events in the Direction of the Galactic Bulge. *A. Udalski, M. Szymański, J. Kałużny, M. Kubiak, M. Mateo, & W. Krzemiński.* 426, L69, 109-C5 (1994)

Reionization in a Cold Dark Matter Universe: The Feedback of Galaxy Formation on the Intergalactic Medium. *Paul R. Shapiro, Mark L. Giroux, & Arif Babul.* 427, 25, 110-D1 (1994)

Geometrical Evidence for Dark Matter: X-Ray Constraints on the Mass of the Elliptical Galaxy NGC 720. *David A. Buote & Claude R. Canizares.* 427, 86, 111-A12 (1994)

Observational and Theoretical Constraints on Singular Dark Matter Halos. *Ricardo A. Flores & Joel R. Primack.* 427, L1, 117-A8 (1994)

How Unusual is the Locally Quiet Hubble Flow? *David Schlegel, Marc Davis, Frank Summers, & Jon A. Holtzman.* 427, 527, 119-C7 (1994)

Subclustering and Luminous-Dark Matter Segregation in Galaxy Clusters. *A. Serna, J.-M. Alimi, & H. Scholl.* 427, 574, 119-G11 (1994)

Dark Matter around a Cluster of Galaxies under the Long Cosmic String Scheme. *Tetsuya Hara, Masakazu Matsuura, Hideki Yamamoto, Petri Mähönen, & Shigeru J. Miyoshi.* 428, 51, 128-G7 (1994)

Gravitational Microlensing by Dark Clusters in the Galactic Halo. *Eyal Maoz.* 428, L5, 134-B6 (1994)

X-Ray Clusters from a High-Resolution Hydrodynamic PPM Simulation of the Cold Dark Matter Universe. *Greg L. Bryan, Renyue Cen, Michael L. Norman, Jeremiah P. Ostriker, & James M. Stone.* 428, 405, 135-C1 (1994)

Mapping the Dark Matter in the NGC 5044 Group with *ROSAT*: Evidence for a Nearly Homogeneous Cooling Flow with a Cooling Wake. *Laurence P. David, Christine Jones, William Forman, & Stuart Daines.* 428, 544, 137-A11 (1994)

INTEGRAL, SNOBs, and Baryonic Dark Matter. *Gerard Gilmore.* 92, 539, 39-A8 (1994)

Are SP 91 and *COBE* Inconsistent with Cold Dark Matter? *Emory Bunn, Martin White, Mark Srednicki, & Douglas Scott.* 429, 1, 144-C1 (1994)

X-Ray Clusters in a Cold Dark Matter + Λ Universe: A Direct, Large-Scale, High-Resolution, Hydrodynamic Simulation. *Renyue Cen & Jeremiah P. Ostriker.* 429, 4, 144-C6 (1994)

A Calculation of the Full Neutrino Phase Space in Cold + Hot Dark Matter Models. *Chung-Pei Ma & Edmund Bertschinger.* 429, 22, 144-D12 (1994)

Evolution of Systems of Galaxies in Cold Dark Matter Models. *Patricia B. Tissera, Diego G. Lambas, & Mario G. Abadi.* 429, 29, 144-E7 (1994)

Competition between Pressure and Gravity Confinement in Lyα Forest Observations. *Jane C. Charlton, Edwin E. Salpeter, & Suzanne M. Linder.* 430, L29, 165-D13 (1994)

Lensing in Alternative Gravity. *Mark A. Walker.* 430, 463, 167-D10 (1994)

Gravitational Microlensing of the Galactic Bulge Stars. *Marcin Kiraga & Bohdan Paczyński.* 430, L101, 174-E11 (1994)

Growth of Adiabatic Perturbations in Self-interacting Dark Matter. *Marie E. Machacek.* 431, 41, 176-F6 (1994)

Implications for Gravitational Lensing and the Dark Matter Content in Clusters of Galaxies from Spatially Resolved X-Ray Spectra. *M. Loewenstein.* 431, 91, 177-C9 (1994)

Can MACHOs Probe the Shape of the Galaxy Halo? *Joshua Frieman & Román Scoccimarro.* 431, L23, 182-E7 (1994)

On the Evolution of Clustering and the Biased Galaxy Formation Scenario. *Tereasa G. Brainerd & Jens V. Villumsen.* 431, 477, 184-E1 (1994)

Gravitational Instability of Cold Matter. *Edmund Bertschinger & Bhuvnesh Jain.* 431, 486, 184-E12 (1994)

Large-Scale Structure after *COBE*: Peculiar Velocities and Correlations of Cold Dark Matter Halos. *Wojciech H. Zurek, Peter J. Quinn, John K. Salmon, & Michael S. Warren.* 431, 559, 185-E1 (1994)

Detection of Lens Candidates for the Double Quasar Q2345+007. *Philippe Fischer, J. Anthony Tyson, Gary M. Bernstein, & Puragra Guhathakurta.* 431, L71, 191-C1 (1994)

The Angular Correlation Function of Galaxies in Cold Dark Matter and Cold Plus Hot Dark Matter Models. *G. Yepes, A. A. Klypin, A. Campos, & R. Fong.* 432, L11, 199-C1 (1994)

On the Mass of the Dark Compact Objects in the Galactic Disk. *Ph. Jetzer.* 432, L43, 199-F10 (1994)

Abundance of Moderate-Redshift Clusters in the Cold Plus Hot Dark Matter Model. *Yi-Peng Jing & Li-Zhi Fang.* 432, 438, 201-D1 (1994)

Detection of Cosmic Microwave Background Anisotropy at 1.8°: Theoretical Implications on Inflationary Models. *Paolo de Bernardis, Giancarlo de Gasperis, Silvia Masi, & Nicola Vittorio.* 433, L1, 214-D1 (1994)

A Potential New Test for Unseen Matter in the Outer Solar System. *Timothy P. Krisher.* 433, 666, 219-C13 (1994)

Baryonic Dark Clusters in Galactic Halos and Their Observable Consequences. *Ira Wasserman & Edwin E. Salpeter.* 433, 670, 219-D5 (1994)

Power-Spectrum–independent Constraints on Cosmological Models. *Max Tegmark, Emory F. Bunn, & Wayne Hu.* 434, 1, 225-C1 (1994)

Mixed Dark Matter from Neutrino Lasing. *G. D. Starkman, N. Kaiser, & R. A. Malaney.* 434, 12, 225-D1 (1994)

Do Galactic Systems Form too Late in Cold + Hot Dark Matter Models? *Chung-Pei Ma & Edmund Bertschinger.* 434, L5, 232-B7 (1994)

Velocity Bias in MS 1224+20. *R. G. Carlberg.* 434, L51, 241-D8 (1994)

M Dwarfs, Microlensing, and the Mass Budget of the Galaxy. *John N. Bahcall, Chris Flynn, Andrew Gould, & Sofia Kirhakos.* 435, L51, 252-C11 (1994)

Microlensing by Stars in the Disk of M31. *Andrew Gould.* 435, 573, 254-A9 (1994)

Evidence from Gravitational Lensing for a Nonthermal Pressure Support in the Cluster of Galaxies Abell 2218. *Abraham Loeb & Shude Mao.* 435, L109, 259-F10 (1994)

Are the OGLE Microlenses in the Galactic Bar? *B. Paczyński, K. Z. Stanek, A. Udalski, M. Szymański, J. Kałużny, M. Kubiak, M. Mateo, & W. Krzemiński.* 435, L113, 259-G3 (1994)

The Detectability of Planetary Companions of Compact Galactic Objects from Their Effects on Microlensed Light Curves of Distant Stars. *Alberto D. Bolatto & Emilio E. Falco.* 436, 112, 262-G1 (1994)

Discovery and Implications of Very Low Metal Abundances in NGC 1404 and NGC 4374. *M. Loewenstein, R. F. Mushotzky, T. Tamura, Y. Ikebe, K. Makishima, K. Matsushita, H. Awaki, & P. J. Serlemitsos.* 436, L75, 269-F1 (1994)

ASCA Observation of NGC 4636: Dark Matter and Metallicity Gradient. *R. F. Mushotzky, M. Loewenstein, H. Awaki, K. Makishima, K. Matsushita, & H. Matsumoto.* 436, L79, 269-F9 (1994)

Cold Dark Matter. I. The Formation of Dark Halos. *James M. Gelb & Edmund Bertschinger.* 436, 467, 272-A5 (1994)

Cold Dark Matter. II. Spatial and Velocity Statistics. *James M. Gelb & Edmund Bertschinger.* 436, 491, 272-C5 (1994)

On the Peculiar Velocity Field of a CDM Universe. *Tereasa G. Brainerd & Jens V. Villumsen.* 436, 528, 272-F11 (1994)

The Flattened Dark Halo of Polar Ring Galaxy NGC 4650A: A Conspiracy of Shapes? *Penny D. Sackett, Hans-Walter Rix, Brian J. Jarvis, & Kenneth C. Freeman.* 436, 629, 274-C1 (1994)

The Optical Gravitational Lensing Experiment: OGLE No. 7: Binary Microlens or a New Unusual Variable? *A. Udalski, M. Szymański, S. Mao, R. Di Stefano, J. Kałużny, M. Kubiak, M. Mateo, & W. Krzemiński.* 436, L103, 280-D9 (1994)

Determining Gravitational Masses of Galaxy Clusters with Virial Equilibrium and Arclike Images. *Xiang-Ping Wu.* 436, L115, 280-F7 (1994)

Internal Velocity and Mass Distributions in Simulated Clusters of Galaxies for a Variety of Cosmogonic Models. *Renyue Cen.* 437, 12, 283-D2 (1994)

Dark Matter in MS 1224 from Distortion of Background Galaxies. *Greg Fahlman, Nick Kaiser, Gordon Squires, & David Woods.* 437, 56, 283-G13 (1994)

Dynamics of Massive Black Holes as a Possible Candidate of Galactic Dark Matter. *Guohong Xu & Jeremiah P. Ostriker.* 437, 184, 285-F9 (1994)

Cosmic Acceleration of Earth and the Moon by Dark Matter. *Kenneth L. Nordtvedt.* 437, 529, 290-D2 (1994)

Microlensing Maps for the Galactic Bulge. *N. W. Evans.* 437, L31, 291-E14 (1994)

On the Correlation of Solar Surface Magnetic Flux with Solar Neutrino Capture Rate. *David S. Oakley, Herschel B. Snodgrass, Roger K. Ulrich, & Toni L. VanDeKop.* 437, L63, 292-C7 (1994)

Sizes of Voids as a Test for Dark Matter Models. *Sebastiano Ghigna, Stefano Borgani, Silvio A. Bonometto, Luigi Guzzo, Anatoly Klypin, Joel R. Primack, Riccardo Giovanelli, & Martha P. Haynes.* 437, L71, 298-E1 (1994)

Inhomogeneity of Cold Dark Matter due to Initial Fluctuations in the Long Cosmic String Scheme. I. *Tetsuya Hara, Petri Mähönen, Hideki Yamamoto, & Shigeru J. Miyoshi.* 438, 27, 1-F4 (1995)

Dark Matter in X-Ray–emitting Elliptical Galaxies. *F. De Paolis, G. Ingrosso, & F. Strafella.* 438, 83, 2-D11 (1995)

On the Mass of the Dark Compact Objects in the Galactic Disk: Erratum. *Ph. Jetzer.* 438, L49, 10-E1 (1995) (Orig. paper in 432, L43, 199-F10 (1994))

Tilted Hybrid Dark Matter Models and Cosmic Microwave Background Anistropies. *Giancarlo De Gasperis, Pio Francesco Muciaccia, & Nicola Vittorio.* 439, 1, 21-C1 (1995)

Nonlinear Cluster Lens Reconstruction. *Nick Kaiser.* 439, L1, 29-E1 (1995)

Microlensing by the Galactic Bar. *HongSheng Zhao, David N. Spergel, & R. Michael Rich.* 440, L13, 48-C8 (1995)

A Supernova at $z = 0.458$ and Implications for Measuring the Cosmological Deceleration. *S. Perlmutter, C. R. Pennypacker, G. Goldhaber, A. Goobar, R. A. Muller, H. J. M. Newberg, J. Desai, A. G. Kim, M. Y. Kim, I. A. Small, B. J. Boyle, C. S. Crawford, R. G. McMahon, P. S. Bunclark, D. Carter, M. J. Irwin, R. J. Terlevich, R. S. Ellis, K. Glazebrook, W. J. Couch, J. R. Mould, T. A. Small, & R. G. Abraham.* 440, L41, 57-C1 (1995)

Scale Invariance and Self-Similar Behavior of Dark Matter Halos. *F. Moutarde, J.-M. Alimi, F. R. Bouchet, & R. Pellat.* 441, 10, 59-D1 (1995)

Hydrogen Clouds and the MACHO/EROS Events. *Richard N. Henriksen & Lawrence M. Widrow.* 441, 70, 60-C8 (1995)

Self-Lensing by a Stellar Disk. *Andrew Gould.* 441, 77, 60-D5 (1995)

MACHO Parallaxes from a Single Satellite. *Andrew Gould.* 441, L21, 66-F1 (1995)

Dark Matter in Elliptical Galaxies. *C. M. Carollo, P. T. de Zeeuw, R. P. van der Marel, I. J. Danziger, & E. E. Qian.* 441, L25, 66-F9 (1995)

Reionization in an Open Cold Dark Matter Universe: Implications for Cosmic Microwave Background Fluctuations. *Max Tegmark & Joseph Silk.* 441, 458, 68-C13 (1995)

Absence of a Lower Limit on Ω_b in Inhomogeneous Primordial Nucleosynthesis. *Karsten Jedamzik, Grant J. Mathews, & George M. Fuller.* 441, 465, 68-D9 (1995)

Femtolensing: Beyond the Semiclassical Approximation. *Andrew Ulmer & Jeremy Goodman.* 442, 67, 78-B4 (1995)

On Observational Constraints on the Shapes of the Dark Matter Density and Temperature Distributions in the Model of Dark Matter–confined Lyα Clouds. *Valery K. Khersonsky & David A. Turnshek.* 442, 76, 78-C2 (1995)

Dynamical and Observable Constraints on RAMBOs: Robust Associations of Massive Baryonic Objects. *Ben Moore & Joseph Silk.* 442, L5, 84-D10 (1995)

Testing the Velocity Field in Non–Scale-invariant Cold Dark Matter Models. *Lauro Moscardini, Giuseppe Tormen, Sabino Matarrese, & Francesco Lucchin.* 442, 469, 86-D3 (1995)

The Least-Action Method, Cold Dark Matter, and Ω. *A. M. Dunn & R. Laflamme.* 443, L1, 102-B1 (1995)

Planetary Nebulae as Probes of Dark Matter in NGC 3384. *Benoit Tremblay, David Merritt, & T. B. Williams.* 443, L5, 102-B8 (1995)

Properties of the Cosmological Density Distribution Function. *Francis Bernardeau & Lev Kofman.* 443, 479, 104-F1 (1995)

Damped Lyman-Alpha Systems versus Cold + Hot Dark Matter. *Anatoly Klypin, Stefano Borgani, Jon Holtzman, & Joel Primack.* 444, 1, 113-C1 (1995)

On Population III Stars as Gravitational Microlensing Objects in the Galactic Halo. *Masayuki Y. Fujimoto, Kiyoshi Sugiyama, Icko Iben, Jr., & David Hollowell.* 444, 175, 115-F13 (1995)

Gravitational Microlensing Is Not Required to Explain Quasar Variability. *Frederick K. Baganoff & Matthew A. Malkan.* 444, L13, 121-C8 (1995)

Signatures of White Dwarf Galaxy Halos. *Stéphane Charlot & Joseph Silk.* 445, 124, 134-A12 (1995)

Probable Gravitational Microlensing toward the Galactic Bulge. *C. Alcock, R. A. Allsman, T. S. Axelrod, D. P. Bennett, K. H. Cook, K. C. Freeman, K. Griest, S. L. Marshall, S. Perlmutter, B. A. Peterson, M. R. Pratt, P. J. Quinn, A. W. Rodgers, C. W. Stubbs, & W. Sutherland (The MACHO Collaboration).* 445, 133, 134-B10 (1995)

Nonlinear Structure Formation in Flat Cosmological Models. *Hugo Martel.* 445, 537, 142-D11 (1995)

Are the OGLE/MACHO Microlenses in a Heavy Spheroid? *N. W. Evans.* 445, L105, 151-A1 (1995)

Mass Segregation in Dark Matter Models. *A. Campos, G. Yepes, A. Klypin, G. Murante, A. Provenzale, & S. Borgani.* 446, 54, 154-A1 (1995)

Anisotropies of the Cosmic Background Radiation in a Reionized Universe. *Robin Tuluie, Richard A. Matzner, & Peter Anninos.* 446, 447, 162-C1 (1995)

Measurement of the Mass Profile of Abell 1689. *J. Anthony Tyson & Philippe Fischer.* 446, L55, 170-D1 (1995)

K-Band Microlensing of the Inner Galaxy. *Andrew Gould.* 446, L71, 170-F11 (1995)

Luminosity Attenuation and Distances of Red Giant Stars. *L. Celis S.* 98, 701, 33-A1 (1995)

The Structure of Dark Matter Halos in Dwarf Galaxies. *A. Burkert.* 447, L25, 180-G1 (1995)

Mixed Cold-Hot Dark Matter Model with Falling and Quasi-flat Initial Perturbation Spectra. *Dmitri Yu. Pogosyan & Alexei A. Starobinsky.* 447, 465, 182-C1 (1995)

Where is the Dark Matter? *Neta A. Bahcall, Lori M. Lubin, & Victoria Dorman.* 447, L81, 190-D8 (1995)

On the Minimum Magnification between Caustic Crossings for Microlensing by Binary and Multiple Stars. *Hans J. Witt & Shude Mao.* 447, L105, 191-A1 (1995)

Variation of Gravitational Delay in Pulsar Timing Observations due to Proper Motion of Foreground Stars and Measurement of Stellar Mass. *Kouji Ohnishi, Mizuhiko Hosokawa, Toshio Fukushima, & Mine Takeuti.* 448, 271, 196-A1 (1995)

Blending of Light in Gravitational Microlensing Events. *R. Di Stefano & A. A. Esin.* 448, L1, 199-B1 (1995)

Decaying Neutrinos, the Metagalactic Radiation Field, and the Ionization of Nitrogen in the Interstellar Medium. *D. W. Sciama.* 448, 667, 204-A4 (1995)

Improved Bounds on Nonluminous Matter in Solar Orbit. *John D. Anderson, Eunice L. Lau, Timothy P. Krisher, Duane A. Dicus, Doris C. Rosenbaum, & Vigdor L. Teplitz.* 448, 885, 207-B7 (1995)

Theory of Exploring the Dark Halo with Microlensing. I. Power-Law Models. *C. Alcock, R. A. Allsman, T. S. Axelrod, D. P. Bennett, K. H. Cook, N. W. Evans, K. C. Freeman, K. Griest, J. Jijina, M. Lehner, S. L. Marshall, S. Perlmutter, B. A. Peterson, M. R. Pratt, P. J. Quinn, A. W. Rodgers, C. W. Stubbs, & W. Sutherland (The MACHO Collaboration).* 449, 28, 210-E10 (1995)

Removing Degeneracy of Microlensing Light Curves through Narrowband Photometry of Giants. *Abraham Loeb & Dimitar Sasselov.* 449, L33, 216-E3 (1995)

A Method for Weak Lensing Observations. *Nick Kaiser, Gordon Squires, & Tom Broadhurst.* 449, 460, 219-B10 (1995)

Comparison of N-Body Simulations to Statistical Observations of Galaxy Pairs. *Roger E. Bartlett & Jane C. Charlton.* 449, 497, 219-F4 (1995)

Baryonic Dark Matter and Big Bang Nucleosynthesis. *Arnon Dar.* 449, 550, 220-D1 (1995)

The Local Halo Density. *Evalyn I. Gates, Geza Gyuk, & Michael S. Turner.* 449, L123, 227-B1 (1995)

A Century of Galaxy Spectroscopy. *Vera C. Rubin.* 451, 419, 253-B1 (1995)

Background X-Ray Emission from Hot Gas in CDM and CDM+Λ Universes: Spectral Signatures. *Renyue Cen, Hyesung Kang, Jeremiah P. Ostriker, & Dongsu Ryu.* 451, 436, 253-C11 (1995)

Naked-Eye Observable Microlensing Events. *Wesley N. Colley & J. Richard Gott III.* 452, 82, 263-C4 (1995)

A Simulation of Lyα Absorption Forests in Linear Approximation of Cold Dark Matter and Cold Plus Hot Dark Matter Models. *Hongguang Bi, Jian Ge, & Li-Zhi Fang.* 452, 90, 263-D1 (1995)

Constraints on Self-interacting Dark Matter. *Andrew A. de Laix, Robert J. Scherrer, & Robert K. Schaefer.* 452, 495, 271-D13 (1995)

Probing for MACHOs of Mass 10^{-15} $M_\odot$ to 10^{-7} $M_\odot$ with Gamma-Ray Burst Parallax Spacecraft. *Robert J. Nemiroff & Andrew Gould.* 452, L111, 280-A5 (1995)

Cosmic Background Anisotropies in Cold Dark Matter Cosmology. *Naoshi Sugiyama.* 100, 281, 50-B1 (1995)

Microlensed Image Motions. *Mark A. Walker.* 453, 37, 281-F7 (1995)

Gravitational Lensing Limits on Cold Dark Matter and Its Variants. *Christopher S. Kochanek.* 453, 545, 291-D6 (1995)

Action Principle Solutions for Galaxy Motions within 3000 Kilometers per Second. *Edward J. Shaya, P. J. E. Peebles, & R. Brent Tully.* 454, 15, 299-D4 (1995)

First Observation of Parallax in a Gravitational Microlensing Event. *C. Alcock, R. A. Allsman, D. Alves, T. S. Axelrod, D. P. Bennett, K. H. Cook, K. C. Freeman, K. Griest, J. Guern, M. J. Lehner, S. L. Marshall, B. A. Peterson, M. R. Pratt, P. J. Quinn, A. W. Rodgers, C. W. Stubbs, & W. Sutherland (The MACHO Collaboration).* 454, L125, 316-C1 (1995)

Cosmological Perturbation Theory in the Synchronous and Conformal Newtonian Gauges. *Chung-Pei Ma & Edmund Bertschinger.* 455, 7, 318-C10 (1995)

Search for Intracluster MACHOs by Pixel Lensing of M87. *Andrew Gould.* 455, 44, 318-G3 (1995)

MOND and the Seven Dwarfs. *Mordehai Milgrom.* 455, 439, 328-A1 (1995)

Diffraction Effects in Microlensing of Q2237+0305. *M. Jaroszyński & B. Paczyński.* 455, 443, 328-A8 (1995)

COSMOLOGY: DIFFUSE RADIATION

The Faint Galaxy Contribution to the Diffuse Extragalactic Background Light. *Shaun Cole, Marie-Agnes Treyer, & Joseph Silk.* 385, 9, 12-B10 (1992)

The Contribution of Galaxy Clusters to the Soft X-Ray Background. *A. Blanchard, K. Wachter, A. E. Evrard, & Joseph Silk.* 391, 1, 86-B1 (1992)

An Upper Limit on the Cosmic Ultraviolet Background. *Edward L. Wright.* 391, 34, 86-D11 (1992)

Rocket Observation of the Near-Infrared Spectrum of the Sky. *M. Noda, V. V. Christov, H. Matsuhara, T. Matsumoto, S. Matsuura, K. Noguchi, S. Sato, & H. Murakami.* 391, 456, 93-E9 (1992)

A Deep Image of the Diffuse Soft X-Ray Background at the Galactic Plane. *Qingde Wang.* 392, 509, 108-E11 (1992)

The Diffuse Gamma-Ray Background, Light Element Abundances, and Signatures of Early Massive Star Formation. *Joseph Silk & David N. Schramm.* 393, L9, 120-B7 (1992)

The Particle Background of the *ROSAT* PSPC. *S. L. Snowden, P. P. Plucinsky, U. Briel, G. Hasinger, & E. Pfeffermann.* 393, 819, 126-B1 (1992)

ROSAT Wide Field Camera Minisurvey of the Diffuse Sky Background in 90–188 eV Soft X-Rays. *R. Lieu, J. J. Quenby, S. D. Sidher, T. J. Sumner, R. Willingale, R. G. West, A. W. Harris, S. L. Snowden, & K. Bickert.* 397, 158, 170-A1 (1992)

The Implications of the *COBE* DMR Results for Cosmic Strings. *David P. Bennett, Albert Stebbins, & François R. Bouchet.* 399, L5, 199-G7 (1992)

The Soft X-Ray Diffuse Background Observed with the *HEAO 1* Low-Energy Detectors. *G. P. Garmire, J. A. Nousek, K. M. V. Apparao, D. N. Burrows, R. L. Fink, & R. P. Kraft.* 399, 694, 206-E1 (1992)

The Cosmic Gamma-Ray Background from Type Ia Supernovae. *Lih-Sin The, Mark D. Leising, & Donald D. Clayton.* 403, 32, 14-D12 (1993)

The Scattered Solar X-Ray Background of the *ROSAT* PSPC. *S. L. Snowden & M. J. Freyberg.* 404, 403, 32-G3 (1993)

Constraints on Decaying Neutrinos from the Far-Ultraviolet Extragalactic Background Light. *J. M. Overduin, P. S. Wesson, & S. Bowyer.* 404, 460, 34-F7 (1993)

The 6.7 keV Iron Line Distribution in the Galaxy. *Shigeo Yamauchi & Katsuji Koyama.* 404, 620, 36-F5 (1993)

On Compton Reflection in the Sources of the Cosmic X-Ray Background. *Andrzej A. Zdziarski, Piotr T. Życki, Roland Svensson, & Elihu Boldt.* 405, 125, 42-E8 (1993)

Deep Galaxy Count Predictions in the Radio, Infrared, and X-Ray Spectral Bands. *Marie-Agnes Treyer & Joseph Silk.* 408, L1, 88-E1 (1993)

On the Origin of the Soft X-Ray Background. *Q. Daniel Wang & Richard McCray.* 409, L37, 111-B8 (1993)

Self-absorbed Active Galactic Nuclei and the Cosmic X-Ray Background. *Piero Madau, Gabriele Ghisellini, & A. C. Fabian.* 410, L7, 117-F8 (1993)

On the Source Function of the Soft X-Ray Diffuse Background. *David N. Burrows & Ralph P. Kraft.* 411, 685, 138-C1 (1993)

The Proximity Effect and the Mean Intensity of Ionizing Radiation at Low Redshifts. *Varsha P. Kulkarni & S. Michael Fall.* 413, L63, 168-B13 (1993)

Sharp Edges to Neutral Hydrogen Disks in Galaxies and the Extragalactic Radiation Field. *Philip Maloney.* 414, 41, 170-E8 (1993)

Constraints on Axions from the Extragalactic Background Light. *J. M. Overduin & P. S. Wesson.* 414, 449, 176-F10 (1993)

Noncosmological Signal Contributions to the *COBE* DMR Anisotropy Maps. *C. L. Bennett, G. Hinshaw, A. Banday, A. Kogut, E. L. Wright, K. Loewenstein, & E. S. Cheng.* 414, L76, 185-D13 (1993)

Active Galactic Nuclei Make the Cosmic X-Ray Background. *Andrzej A. Zdziarski, Piotr T. Życki, & Julian H. Krolik.* 414, L81, 185-E8 (1993)

A Hydrodynamic Approach to Cosmology: Nonlinear Effects on Cosmic Backgrounds in the Cold Dark Matter Model. *Roberto Scaramella, Renyue Cen, & Jeremiah P. Ostriker.* 416, 399, 208-B9 (1993)

Diffuse Gamma-Ray Emission in the Galactic Plane from Cosmic-Ray, Matter, and Photon Interactions. *D. L. Bertsch, T. M. Dame, C. E. Fichtel, S. D. Hunter, P. Sreekumar, J. G. Stacy, & P. Thaddeus.* 416, 587, 210-F6 (1993)

EUVE First Light Observation of the Diffuse Sky Background. *Richard Lieu, Stuart Bowyer, Michael Lampton, Patrick Jelinsky, & Jerry Edelstein.* 417, L41, 223-C8 (1993)

Cold Dark Matter Cosmology with Hydrodynamics and Galaxy Formation: The Evolution of the Intergalactic Medium and Background Radiation Fields. *Renyue Cen & Jeremiah P. Ostriker.* 417, 404, 224-C10 (1993)

The Diffuse Ionized Interstellar Medium: Structures Resulting from Ionization by O Stars. *Walter Warren Miller III & Donald P. Cox.* 417, 579, 226-E7 (1993)

Contributions of Starburst Galaxies and Reflection-dominated Active Galactic Nuclei to the Cosmic X-Ray Background. *Paul M. Ricker & P. Mészáros.* 418, 49, 231-F8 (1993)

Voyager Observations of Diffuse Far-Ultraviolet Continuum and Line Emission in Eridanus. *Jayant Murthy, M. Im, R. C. Henry, & J. B. Holberg.* 419, 739, 256-G7 (1993)

A New Dark Matter Candidate: Kaluza-Klein Solitons. *Paul S. Wesson.* 420, L49, 15-B4 (1994)

X-Ray Bumps, Iron Kα Lines, and X-Ray Suppression by Obscuring Tori in Seyfert Galaxies. *Julian H. Krolik, Piero Madau, & Piotr T. Życki.* 420, L57, 15-B13 (1994)

Very High Energy Gamma Rays from Active Galactic Nuclei: Cascading on the Cosmic Background Radiation Fields and the Formation of Pair Halos. *F. A. Aharonian, P. S. Coppi, & H. J. Völk.* 423, L5, 53-B7 (1994)

Diffuse Light in A2670: Smoothly Distributed? *Xania Scheick & Jeffrey R. Kuhn.* 423, 566, 55-E5 (1994)

Gamma-Ray Limits on Galactic ^{60}Fe and ^{44}Ti Nucleosynthesis. *Mark D. Leising & Gerald H. Share.* 424, 200, 64-D7 (1994)

Analysis Procedures for *ROSAT* XRT/PSPC Observations of Extended Objects and the Diffuse Background. *S. L. Snowden, D. McCammon, D. N. Burrows, & J. A. Mendenhall.* 424, 714, 73-F7 (1994)

The Galactic Far-Ultraviolet Sky as Seen by FAUST: Modeling and Observations. *Martin Cohen, Timothy P. Sasseen, & Stuart Bowyer.* 427, 848, 123-B9 (1994)

Arcminute Sky Fluctuations at 1.25 Millimeters. *Paola Andreani.* 428, 447, 135-F11 (1994)

Review of *GRANAT*/SIGMA Observations of the Galactic Center Region. *E. Churazov, M. Gilfanov, R. Sunyaev, N. Khavenson, B. Novikov, A. Dyachkov, R. Kremnev, K. Sukhanov, B. Cordier, J. Paul, P. Laurent, A. Claret, L. Bouchet, J. P. Roques, P. Mandrou, & G. Vedrenne.* 92, 381, 36-G12 (1994)

COMPTEL Imaging of the Galactic Disk and the Separation of Diffuse Emission and Point Sources. *H. Bloemen, W. Hermsen, B. N. Swanenburg, C. P. de Vries, R. Diehl, V. Schönfelder, H. Steinle, A. W. Strong, A. Connors, M. McConnell, D. Morris, G. Stacy, K. Bennett, & C. Winkler.* 92, 419, 37-D2 (1994)

Diffuse Galactic Continuum Emission Measured by COMPTEL and the Cosmic-Ray Electron Spectrum. *A. W. Strong, R. Diehl, V. Schönfelder, M. Varendorff, G. Youssefi, H. Bloemen, W. Hermsen, C. de Vries, D. Morris, J. G. Stacy, & K. Bennett.* 92, 425, 37-D9 (1994)

The Gamma-Ray Background. *G. Setti & L. Woltjer.* 92, 629, 40-C5 (1994)

Do Active Galactic Nuclei Produce the Cosmic X-Ray Background? *Amri Wandel.* 92, 633, 40-C10 (1994)

The He II Lyman-Alpha Opacity of the Universe. *Piero Madau & Avery Meiksin.* 433, L53, 223-D1 (1994)

Gamma-Ray Observations in the Galactic Center Region with an Imaging Detector. *Jalal Samimi & Robert L. Kinzer.* 434, 136, 227-A8 (1994)

Millimetric Observations of Diffuse Galactic Emission: Further Ideas on the Interstellar Dust. *P. Merluzzi, E. Bussoletti, G. Dall'Oglio, & L. Piccirillo.* 436, 286, 265-C1 (1994)

An *ASCA* GIS Spectrum of S5 0014+813 at $z = 3.384$. *Martin Elvis, M. Matsuoka, A. Siemiginowska, F. Fiore, T. Mihara, & W. Brinkmann.* 436, L55, 269-C3 (1994)

Effects of Photoionization on Galaxy Formation. *Masashi Chiba & Biman B. Nath.* 436, 618, 274-B1 (1994)

On the Determination of the Cosmic Infrared Background Radiation from the High-Energy Spectrum of Extragalactic Gamma-Ray Sources. *Eli Dwek & Jonathan Slavin.* 436, 696, 275-B1 (1994)

On the Origin of the Diffuse C^+ 158 Micron Line Emission. *Carl Heiles.* 436, 720, 275-D3 (1994)

The Average X-Ray/Gamma-Ray Spectra of Seyfert Galaxies from *Ginga* and OSSE and the Origin of the Cosmic X-Ray Background. *Andrzej A. Zdziarski, W. Neil Johnson, Chris Done, David Smith, & Kellie McNaron-Brown.* 438, L63, 19-C11 (1995)

ROSAT Observations of the Eridanus Soft X-Ray Enhancement. *S. L. Snowden, D. N. Burrows, W. T. Sanders, B. Aschenbach, & E. Pfeffermann.* 439, 399, 26-E11 (1995)

The Proximity Profile of Intergalactic He II Resonance Absorption toward High-Redshift QSOs. *Wei Zheng & Arthur Davidsen.* 440, L53, 57-D11 (1995)

New Upper Limits on the Local Metagalactic Ionizing Radiation Density. *Stuart N. Vogel, Ray Weymann, Michael Rauch, & Tom Hamilton.* 441, 162, 61-E10 (1995)

First Spectral Observations of the Diffuse Background with the *Extreme Ultraviolet Explorer*. *P. Jelinsky, J. V. Vallerga, & J. Edelstein.* 442, 653, 89-A8 (1995)

ROSAT Observations of Compact Groups of Galaxies. *Rachel A. Pildis, Joel N. Bregman, & August E. Evrard.* 443, 514, 105-A1 (1995)

An Extended Galactic Population of Low-Luminosity X-Ray Sources (CVs?) and the Diffuse X-Ray Background. *Eyal Maoz & Jonathan E. Grindlay.* 444, 183, 115-G11 (1995)

An Upper Limit to the Infrared Background from Observations of TeV Gamma Rays. *S. D. Biller, C. W. Akerlof, J. Buckley, M. F. Cawley, M. Chantell, D. J. Fegan, S. Fennell, J. A. Gaidos, A. M. Hillas, A. D. Kerrick, R. C. Lamb, D. A. Lewis, D. I. Meyer, G. Mohanty, K. S. O'Flaherty, M. Punch, P. T. Reynolds, H. J. Rose, A. C. Rovero, M. S. Schubnell, G. Sembroski, T. C. Weekes, & C. Wilson.* 445, 227, 135-F1 (1995)

Observations of the Galactic and Extragalactic Background with the Far-Ultraviolet Space Telescope (FAUST). *T. P. Sasseen, M. Lampton, S. Bowyer, & X. Wu.* 447, 630, 184-G3 (1995)

Comparison of the *COBE* DMR and Tenerife Data. *C. H. Lineweaver, S. Hancock, G. F. Smoot, A. N. Lasenby, R. D. Davies, A. J. Banday, C. M. Gutiérrez de la Cruz, R. A. Watson, & R. Rebolo.* 448, 482, 201-C10 (1995)

Decaying Neutrinos, the Metagalactic Radiation Field, and the Ionization of Nitrogen in the Interstellar Medium. *D. W. Sciama.* 448, 667, 204-A4 (1995)

A Model of the Diffuse Ultraviolet Radiation Field. *Jayant Murthy & R. C. Henry.* 448, 848, 206-E7 (1995)

Far-Infrared Spectral Observations of the Galaxy by *COBE*. *W. T. Reach, E. Dwek, D. J. Fixsen, T. Hewagama, J. C. Mather, R. A. Shafer, A. J. Banday, C. L. Bennett, E. S. Cheng, R. E. Eplee, Jr., D. Leisawitz, P. M. Lubin, S. M. Read, L. P. Rosen, F. G. D. Shuman, G. F. Smoot, T. J. Sodroski, & E. L. Wright.* 451, 188, 248-E10 (1995)

Discovery of Diffuse X-Ray Emission in 47 Tucanae. *Martin Krockenberger & Jonathan E. Grindlay.* 451, 200, 248-F11 (1995)

Background X-Ray Emission from Hot Gas in CDM and CDM+Λ Universes: Spectral Signatures. *Renyue Cen, Hyesung Kang, Jeremiah P. Ostriker, & Dongsu Ryu.* 451, 436, 253-C11 (1995)

Old Isolated Accreting Neutron Stars: Contribution to the Soft X-Ray Background in the 0.5–2 keV Band. *Silvia Zane, Roberto Turolla, Luca Zampieri, Monica Colpi, & Aldo Treves.* 451, 739, 257-D2 (1995)

The Gamma-Ray Galactic Diffuse Radiation and Cerenkov Telescopes. *P. Chardonnet, P. Salati, J. Silk, I. Grenier, & G. Smoot.* 454, 774, 312-D5 (1995)

Hard X-Ray Emission from Extragalactic *IRAS* 12 Micron Sources: Constraints on the Unified Active Galactic Nucleus Model and the Synthesis of the X-Ray Background. *Xavier Barcons, Alberto Franceschini, Gianfranco De Zotti, Luigi Danese, & Takamitsu Miyaji.* 455, 480, 328-E7 (1995)

The Hard X-Ray Emission of NGC 3628 and the Contribution of Low-Luminosity Spiral Galaxies to the Cosmic X-Ray Background. *Tahir Yaqoob, Peter J. Serlemitsos, Andy Ptak, Richard Mushotzky, Hideyo Kunieda, & Yuichi Terashima.* 455, 508, 329-A4 (1995)

IRAS Measurements of Diffuse Solar System Radiation: Annual Sky Brightness Variation and Geometry of the Interplanetary Dust Cloud. *J. M. Vrtilek & M. G. Hauser.* 455, 677, 331-C6 (1995)

The Second EGRET Catalog of High-Energy Gamma-Ray Sources. *D. J. Thompson, D. L. Bertsch, B. L. Dingus, J. A. Esposito, A. Etienne, C. E. Fichtel, D. P. Friedlander, R. C. Hartman, S. D. Hunter, D. J. Kendig, J. R. Mattox, L. M. McDonald, C. von Montigny, R. Mukherjee, P. V. Ramanamurthy, P. Sreekumar, J. M. Fierro, Y. C. Lin, P. F. Michelson, P. L. Nolan, S. K. Shriver, T. D. Willis, G. Kanbach, H. A. Mayer-Hasselwander, M. Merck, H.-D. Radecke, D. A. Kniffen, & E. J. Schneid.* 101, 259, 57-B11 (1995)

COSMOLOGY: DISTANCE SCALE

A Theoretical Calibration of the Planetary Nebular Cosmic Distance Scale. *Michael A. Dopita, George H. Jacoby, & E. Vassiliadis.* 389, 27, 60-D1 (1992)

Spatial Correlations in a Redshift Survey of APM Galaxy Clusters. *G. B. Dalton, G. Efstathiou, S. J. Maddox, & W. J. Sutherland.* 390, L1, 78-A8 (1992)

The Hubble Constant from Nickel Radioactivity in Type Ia Supernovae. *David Branch.* 392, 35, 101-D9 (1992)

Classical Novae and the Extragalactic Distance Scale. *Mario Livio.* 393, 516, 122-C1 (1992)

Hubble Flows in the Pisces-Perseus Region from the Giovanelli-Haynes Galaxy Sample. *T. Ichikawa & M. Fukugita.* 394, 61, 128-G5 (1992)

Expanding Photospheres of Type II Supernovae and the Extragalactic Distance Scale. *Brian P. Schmidt, Robert P. Kirshner, & Ronald G. Eastman.* 395, 366, 146-G7 (1992)

Some Remarks on Luminosity Distance and Nucleosynthesis in Higher Dimensional Cosmology. *S. Chatterjee.* 397, 1, 168-B1 (1992)

Linear Regression in Astronomy. II. *Eric D. Feigelson & Gutti Jogesh Babu.* 397, 55, 168-F9 (1992)

Large-Scale Structure in the Universe: Results from the Stromlo-APM Redshift Survey. *J. Loveday, G. Efstathiou, B. A. Peterson, & S. J. Maddox.* 400, L43, 220-B1 (1992)

The Hubble Flow from Brightest Cluster Galaxies. *Tod R. Lauer & Marc Postman.* 400, L47, 220-B8 (1992)

A Distance-independent Calibration of the Luminosity of Type Ia Supernovae and the Hubble Constant. *Bruno Leibundgut & Philip A. Pinto.* 401, 49, 221-F1 (1992)

The Cepheid Distance to IC 4182: Calibration of M_V(max) for SN Ia 1937C and the Value of H_0. *Allan Sandage, A. Saha, G. A. Tammann, Nino Panagia, & D. Macchetto.* 401, L7, 227-B1 (1992)

$H_0 = 43 \pm 11$ km s^{-1} Mpc^{-1} Based on Angular Diameters of High-Luminosity Field Spiral Galaxies. *Allan Sandage.* 402, 3, 1-B5 (1993)

H_0 Found by Comparing Linear Diameters of M31 with Similar Field Galaxies. *Allan Sandage.* 404, 419, 34-B6 (1993)

A Low-h High-Ω_0 Universe. *Edward Harrison.* 405, L1, 47-B1 (1993)

Type Ia Supernovae as Standard Candles. *David Branch & Douglas L. Miller.* 405, L5, 47-B8 (1993)

The Distance to Nearby Galaxy NGC 3109 Based on the Tip of the Red Giant Branch. *Myung Gyoon Lee.* 408, 409, 90-C8 (1993)

The Dependence of the Brightness Fluctuation Distance Indicator on Stellar Population Age and Metallicity. *Guy Worthey.* 409, 530, 105-E3 (1993)

Galaxy Colors in Distant Clusters as a Test for the World Model. *Alberto Buzzoni, Guido Chincarini, & Emilio Molinari.* 410, 499, 119-G9 (1993)

Gravitational Radiation, Inspiraling Binaries, and Cosmology. *David F. Chernoff & Lee Samuel Finn.* 411, L5, 133-D8 (1993)

Spatial Distribution of Spiral Galaxies in the Virgo Cluster from the Tully-Fisher Relation. *M. Fukugita, S. Okamura, & N. Yasuda.* 412, L13, 148-B11 (1993)

Selection, Covariance, and Malmquist Bias. *Andrew Gould.* 412, L55, 155-C3 (1993)

Was Tycho's Supernova a Subluminous Supernova of Type Ia? *Sidney van den Bergh.* 413, 67, 157-A1 (1993)

The Absolute Magnitudes of Type Ia Supernovae. *M. M. Phillips.* 413, L105, 168-G7 (1993)

The Planetary Nebula System and Dynamics of NGC 5128. I. Planetary Nebulae as Standard Candles. *Xiaohui Hui, Holland C. Ford, Robin Ciardullo, & George H. Jacoby.* 414, 463, 177-A1 (1993)

The Hubble Diagram in V for Supernovae of Type Ia and the Value of H_0 Therefrom. *Allan Sandage & G. A. Tammann.* 415, 1, 185-B1 (1993)

The Extragalactic Distance Scale. VIII. A Comparison of Distance Scales. *G. de Vaucouleurs.* 415, 10, 185-B12 (1993)

Specific Frequencies of Globular Clusters in Elliptical Galaxies: A New Test of the Extragalactic Distance Scale. *G. de Vaucouleurs.* 415, 33, 185-D9 (1993)

Trace of Planetary Nebula Evolution by Distance-independent Parameters. *C. Y. Zhang & S. Kwok.* 88, 137, 42-B9 (1993)

Planetary Nebulae as Standard Candles. IX. The Distance to the Fornax Cluster. *Russet McMillan, Robin Ciardullo, & George H. Jacoby.* 416, 62, 201-G7 (1993)

The Cepheid Period-Luminosity Relation from Independent Distances of 100 Galactic Variables. *Wolfgang P. Gieren, Thomas G. Barnes III, & Thomas J. Moffett.* 418, 135, 232-F10 (1993)

Are the Cepheids in IC 4182 Different from Population I Cepheids in the Galaxy? *Norman R. Simon & Christine M. Clement.* 419, L21, 252-D3 (1993)

A Comparison of the Planetary Nebula Luminosity Function and Surface Brightness Fluctuation Distance Scales. *Robin Ciardullo, George H. Jacoby, & John L. Tonry.* 419, 479, 253-F9 (1993)

A Measurement of the Hubble Constant from the X-Ray Properties and the Sunyaev-Zel'dovich Effect of Abell 2218. *M. Birkinshaw & J. P. Hughes.* 420, 33, 1-D9 (1994)

The Distance to the Type Ia Supernova 1972E and Its Parent Galaxy NGC 5253: A Prediction. *David Branch, Adam Fisher, Tibor J. Herczeg, Douglas L. Miller, & Peter Nugent.* 421, L87, 29-F3 (1994)

A New Method for Determining the Hubble Constant from Sub-TeV Gamma-Ray Observations. *M. H. Salamon, F. W. Stecker, & O. C. de Jager.* 423, L1, 53-B1 (1994)

The Cepheid Distance to NGC 5253: Calibration of M(max) for the Type I Supernovae SN 1972E and SN 1895B. *Allan Sandage, A. Saha, G. A. Tammann, Lukas Labhardt, Hans Schwengler, N. Panagia, & F. D. Macchetto.* 423, L13, 53-C5 (1994)

SN 1992bc and SN 1992bo: Evidence for Intrinsic Differences in Type Ia Supernova Luminosities. *José Maza, Mario Hamuy, M. M. Phillips, N. B. Suntzeff, & R. Avilés.* 424, L107, 79-C2 (1994)

Discovery of Cepheids in IC 4182: Absolute Peak Brightness of SN Ia 1937C and the Value of H_0. *A. Saha, Lukas Labhardt, Hans Schwengeler, F. D. Macchetto, N. Panagia, Allan Sandage, & G. A. Tammann.* 425, 14, 80-C6 (1994)

Measuring the Hubble Constant and Our Virgo-Infall Velocity Independently. *Nanyao Y. Lu, E. E. Salpeter, & G. Lyle Hoffman.* 426, 473, 104-C4 (1994)

Toward Estimation of H_0 from VLBI Observations of the Gravitational Lens System 0957+561. *R. M. Campbell, B. E. Corey, E. E. Falco, I. I. Shapiro, M. V. Gorenstein, P. Elósegui, J. M. Marcaide, & K. Alvi.* 426, 486, 104-D5 (1994)

The Peak Brightness of SN 1937C in IC 4182 and the Hubble Constant. *Bradley E. Schaefer.* 426, 493, 104-E1 (1994)

The Metallicity Dependence of Inferred Cepheid Distances. *Andrew Gould.* 426, 542, 105-B7 (1994)

Statistical Bias in Distance and Peculiar Velocity Estimation. I. The "Calibration" Problem. *Jeffrey A. Willick.* 92, 1, 31-B1 (1994)

The *Hubble Space Telescope* Extragalactic Distance Scale Key Project. I. The Discovery of Cepheids and a New Distance to M81. *Wendy L. Freedman, Shaun M. Hughes, Barry F. Madore, Jeremy R. Mould, Myung Gyoon Lee, Peter Stetson, Robert C. Kennicutt, Anne Turner, Laura Ferrarese, Holland Ford, John A. Graham, Robert Hill, John G. Hoessel, John Huchra, & Garth D. Illingworth.* 427, 628, 120-E4 (1994)

Surface Brightness Fluctuations in Globular Clusters and Stellar Populations in Galaxies. *Edward A. Ajhar & John L. Tonry.* 429, 557, 152-F2 (1994)

Bias Properties of Extragalactic Distance Indicators. I. The Hubble Constant Does Not Increase Outward. *Allan Sandage.* 430, 1, 159-B1 (1994)

Bias Properties of Extragalactic Distance Indicators. II. Bias Corrections to Tully-Fisher Distances for Field Galaxies. *Allan Sandage.* 430, 13, 159-C1 (1994)

Bias Properties of Extragalactic Distance Indicators. III. Analysis of Tully-Fisher Distances for the Mathewson-Ford-Buchhorn Sample of 1355 Galaxies. *Martin Federspiel, Allan Sandage, & G. A. Tammann.* 430, 29, 159-D5 (1994)

Luminosity–Line-Width Relations and the Extragalactic Distance Scale. II. A Comparison with Types Ia and II Supernovae. *Michael J. Pierce.* 430, 53, 159-F3 (1994)

Statistically Efficient Parallel Testing of the Hubble and Lundmark Laws in the Preevolutionary X-Ray Band. *I. E. Segal, J. F. Nicoll, & P. Wu.* 431, 52, 176-G5 (1994)

The Distance of Five Type II Supernovae Using the Expanding Photosphere Method and the Value of H_0. *Brian P. Schmidt, Robert P. Kirshner, Ronald G. Eastman, Mark M. Phillips, Nicholas B. Suntzeff, Mario Hamuy, José Maza, & Roberto Avilés.* 432, 42, 193-F8 (1994)

Optimal Galaxy Distance Estimators. *M. A. Hendry & J. F. L. Simmons.* 435, 515, 253-C1 (1994)

Deep Imaging of the Double Quasar QSO 0957+561: New Constraints on H_0. *H. Dahle, S. J. Maddox, & Per B. Lilje.* 435, L79, 259-C1 (1994)

The Distance to the Pegasus Dwarf Irregular Galaxy: An Open Question. *A. Aparicio.* 437, L27, 291-E6 (1994)

Discovery of Cepheids in NGC 5253: Absolute Peak Brightness of SN Ia 1895B and SN Ia 1972E and the Value of H_0. *A. Saha, Allan Sandage, Lukas Labhardt, Hans Schwengeler, G. A. Tammann, N. Panagia, & F. D. Macchetto.* 438, 8, 1-C12 (1995)

Using Type Ia Supernova Light Curve Shapes to Measure the Hubble Constant. *Adam G. Riess, William H. Press, & Robert P. Kirshner.* 438, L17, 9-G8 (1995)

Late-Time Spectra and Type Ia Supernova Models: New Clues from the *Hubble Space Telescope*. *P. Ruiz-Lapuente, R. P. Kirshner, M. M. Phillips,*

P. M. Challis, B. P. Schmidt, A. V. Filippenko, & J. C. Wheeler. 439, 60, 22-A9 (1995)

The Blue and Visual Absolute Magnitude Distributions of Type Ia Supernovae. *Thomas E. Vaughan, David Branch, Douglas L. Miller, & Saul Perlmutter.* 439, 558, 32-A11 (1995)

A Supernova at $z = 0.458$ and Implications for Measuring the Cosmological Deceleration. *S. Perlmutter, C. R. Pennypacker, G. Goldhaber, A. Goobar, R. A. Muller, H. J. M. Newberg, J. Desai, A. G. Kim, M. Y. Kim, I. A. Small, B. J. Boyle, C. S. Crawford, R. G. McMahon, P. S. Bunclark, D. Carter, M. J. Irwin, R. J. Terlevich, R. S. Ellis, K. Glazebrook, W. J. Couch, J. R. Mould, T. A. Small, & R. G. Abraham.* 440, L41, 57-C1 (1995)

Spectrum Synthesis of the Type Ia Supernovae SN 1992A and SN 1981B. *Peter Nugent, E. Baron, Peter H. Hauschildt, & David Branch.* 441, L33, 67-A1 (1995)

A Technique for Determining the Extragalactic Distance Scale. *Masashi Chiba & Yuzuru Yoshii.* 442, 82, 78-C11 (1995)

Absolute Ages of Globular Clusters and the Age of the Universe. *Brian Chaboyer.* 444, L9, 121-C1 (1995)

Steps toward the Hubble Constant. X. The Distance of the Virgo Cluster Core Using Globular Clusters. *Allan Sandage & G. A. Tammann.* 446, 1, 153-C1 (1995)

On the Discrepancy between the Cepheid and RR Lyrae Distance Scales. *Sidney van den Bergh.* 446, 39, 153-F3 (1995)

A Statistical Distance Scale for Galactic Planetary Nebulae. *C. Y. Zhang.* 98, 659, 32-D9 (1995)

The Peak Brightness of SN 1895B in NGC 5253 and the Hubble Constant. *Bradley E. Schaefer.* 447, L13, 180-E3 (1995)

Type Ia Supernova Scenarios and the Hubble Sequence. *P. Ruiz-Lapuente, A. Burkert, & R. Canal.* 447, L69, 190-C1 (1995)

The Minimum Ejection Velocity of Calcium in Type Ia Supernovae and the Value of the Hubble Constant. *Adam Fisher, David Branch, Peter Höflich, & Alexei Khokhlov.* 447, L73, 190-C7 (1995)

On the Measurement of the Hubble Constant in a Local Low-Density Universe. *Xiang-Ping Wu, Zugan Deng, Zhenlong Zou, Li-Zhi Fang, & Bo Qin.* 448, L65, 208-F1 (1995)

A Measurement of the Sunyaev-Zel'dovich Effect in the Coma Cluster of Galaxies. *T. Herbig, C. R. Lawrence, A. C. S. Readhead, & S. Gulkis.* 449, L5, 216-A9 (1995)

The Peak Brightness of SN 1981B in NGC 4536 and the Hubble Constant. *Bradley E. Schaefer.* 449, L9, 216-B2 (1995)

Limits on the Hubble Constant from the *HST* Distance of M100. *Jeremy Mould, John P. Huchra, Fabio Bresolin, Laura Ferrarese, Holland C. Ford, Wendy L. Freedman, John Graham, Paul Harding, Robert Hill, John G. Hoessel, Shaun M. Hughes, Garth D. Illingworth, Daniel Kelson, Robert C. Kennicutt, Jr., Barry F. Madore, Randy Phelps, Peter B. Stetson, & Anne Turner.* 449, 413, 218-D8 (1995)

Feasibility of Measuring the Cosmological Constant Λ and Mass Density Ω Using Type Ia Supernovae. *Ariel Goobar & Saul Perlmutter.* 450, 14, 228-C3 (1995)

The Peak Brightness of Supernovae in the *U* Band and the Hubble Constant. *Bradley E. Schaefer.* 450, L5, 235-D8 (1995)

Bias Properties of Extragalactic Distance Indicators. IV. Demonstration of the Population Incompleteness Bias Inherent in the Tully-Fisher Method Applied to Clusters. *Allan Sandage, G. A. Tammann, & Martin Federspiel.* 452, 1, 262-C2 (1995)

The Hubble Diagram for Supernovae of Type Ia. II. The Effect on the Hubble Constant of a Correlation between Absolute Magnitude and Light Decay Rate. *G. A. Tammann & Allan Sandage.* 452, 16, 262-D6 (1995)

Explosions of Sub–Chandrasekhar Mass White Dwarfs in Two Dimensions. *Eli Livne & David Arnett.* 452, 62, 263-A6 (1995)

Evolutionary Tests of the Planetary Nebula Luminosity Function. *Letizia Stanghellini.* 452, 515, 271-G1 (1995)

Maxwell's Equations in the Einstein Universe and Chronometric Cosmology. *I. E. Segal & Z. Zhou.* 100, 307, 50-D1 (1995)

Cosmological Observations in a Local Void. *J. W. Moffat & D. C. Tatarski.* 453, 17, 281-D9 (1995)

The Hubble Parameter in a Void Universe: Effect of the Peculiar Velocity. *Ken-ichi Nakao, Naoteru Gouda, Takeshi Chiba, Satoru Ikeuchi, Takashi Nakamura, & Masaru Shibata.* 453, 541, 291-C13 (1995)

A New Method for the Determination of the Hubble Parameter. *Sidney van den Bergh.* 453, L55, 298-A1 (1995)

Interpreting New Data on Large-Scale Bulk Flows. *Richard Watkins & Hume A. Feldman.* 453, L73, 298-C8 (1995)

Hubble Space Telescope Observations of Globular Clusters in M87 and an Estimate of H_0. *Bradley C. Whitmore, William B. Sparks, Ray A. Lucas, F. Duccio Macchetto, & John A. Biretta.* 454, L73, 315-C1 (1995)

An Event in the Light Curve of 0957+561A and Prediction of the 1996 Image B Light Curve. *Tomislav Kundić, Wesley N. Colley, J. Richard Gott III, Sangeeta Malhotra, Ue-Li Pen, James E. Rhoads, Krzysztof Z. Stanek, Edwin L. Turner, & Joachim Wambsganss.* 455, L5, 324-C8 (1995)

COSMOLOGY: EARLY UNIVERSE

On the Origin of the Dipole Anisotropy as Determined by Quadrupole Measurements. *S. Bottani, P. de Bernardis, & F. Melchiorri.* 384, L1, 6-A9 (1992)

Thermal Evolution of Phases during the Cosmological Quark-Hadron Transition. *Michele Mariani & Silvio A. Bonometto.* 385, 393, 18-B5 (1992)

On the Origin of Cosmological Magnetic Fields. *T. Tajima, S. Cable, K. Shibata, & R. M. Kulsrud.* 390, 309, 79-B1 (1992)

Cosmological "Seed" Magnetic Field from Inflation. *Bharat Ratra.* 391, L1, 91-F8 (1992)

Large-Scale Rotational Perturbations of a Friedmann Universe with Collisionless Matter and Primordial Magnetic Fields. *Anton Rebhan.* 392, 385, 107-B6 (1992)

The Diffuse Gamma-Ray Background, Light Element Abundances, and Signatures of Early Massive Star Formation. *Joseph Silk & David N. Schramm.* 393, L9, 120-B7 (1992)

[C I] Emission at $z = 2.286$ in the Protogalaxy IRAS F10214+4724. *Robert L. Brown & Paul A. Vanden Bout.* 397, L11, 173-B10 (1992)

IRAS F10214+4724: An Extended CO Emission Source at $z = 2.2867$. *Robert L. Brown & Paul A. Vanden Bout.* 397, L19, 173-C6 (1992)

Self-interacting Dark Matter. *Eric D. Carlson, Marie E. Machacek, & Lawrence J. Hall.* 398, 43, 182-E7 (1992)

The Neutrino Process and ^{9}Be in the Early Universe. *R. A. Malaney.* 398, L45, 187-G1 (1992)

Dark Matter, Long-Range Forces, and Large-Scale Structure. *Ben-Ami Gradwohl & Joshua A. Frieman.* 398, 407, 189-B8 (1992)

The Implications of the *COBE* DMR Results for Cosmic Strings. *David P. Bennett, Albert Stebbins, & François R. Bouchet.* 399, L5, 199-G7 (1992)

A Tilted Cold Dark Matter Cosmological Scenario. *Renyue Cen, Nickolay Y. Gnedin, Lev A. Kofman, & Jeremiah P. Ostriker.* 399, L11, 200-A5 (1992)

Two New Lithium-deficient Population II Dwarfs. *J. A. Thorburn.* 399, L83, 201-B13 (1992)

Light Element Nucleosynthesis: A False Clue? *N. Yu. Gnedin & J. P. Ostriker.* 400, 1, 209-A13 (1992)

The Gravitational Wave Contribution to Cosmic Microwave Background Anisotropies and the Amplitude of Mass Fluctuations from *COBE* Results. *Francesco Lucchin, Sabino Matarrese, & Silvia Mollerach.* 401, L49, 232-E4 (1992)

Hubble Space Telescope Imaging of Distant Galaxies: 4C 41.17 at $z = 3.8$. *G. K. Miley, K. C. Chambers, W. J. M. van Breugel, & F. Macchetto.* 401, L69, 232-G10 (1992)

Observational Constraints on Reheating. *M. Fukugita & M. Kawasaki.* 402, 58, 1-F13 (1993)

On ^{9}Be Production in the Nonuniform Density Model of Big Bang Nucleosynthesis. *A. Coc, P. Delbourgo-Salvador, F. de Oliveira, P. Aguer, S. Barhoumi, G. Bogaert, J. Kiener, A. Lefebvre, & J. P. Thibaud.* 402, 62, 1-G6 (1993)

Formation of Voids from Negative Density Perturbations. II. The Role of Rotation and Nonspherical Perturbations. *J. C. N. de Araujo & R. Opher.* 403, 26, 14-D3 (1993)

New Lithium Observations of Two [Fe/H] $\leq$ -3.5 Dwarfs. *J. A. Thorburn & Timothy C. Beers.* 404, L13, 33-E1 (1993)

Limits to the Primordial Helium Abundance in the Baryon-inhomogeneous Big Bang. *G. J. Mathews, D. N. Schramm, & B. S. Meyer.* 404, 476, 34-G11 (1993)

The ^{8}Li$(n,\gamma)^9$Li and ^{8}B$(p,\gamma)^9$C Mirror Reactions in a Microscopic Cluster Model. *P. Descouvemont.* 405, 518, 49-E1 (1993)

COBE's Constraints on the Global Monopole and Texture Theories of Cosmic Structure Formation. *David P. Bennett & Sun Hong Rhie.* 406, L7, 60-E8 (1993)

The Horizonless Universe. *Edward Harrison.* 406, 383, 62-D4 (1993)

CO Emission from the $z = 2.14$ Damped Lyman-Alpha System toward 0528−250. *Robert L. Brown & P. A. Vanden Bout.* 412, L21, 148-C6 (1993)

Large-Scale Angular Correlations in Cold Dark Matter Models. *Lauro Moscardini, Stefano Borgani, Peter Coles, Francesco Lucchin, Sabino Matarrese, Antonio Messina, & Manolis Plionis.* 413, L55, 168-B1 (1993)

Aspects of Zel'dovich Approximation. *T. Padmanabhan & K. Subramanian.* 417, 3, 217-B4 (1993)

Neutron-Photon Scattering in the Early Universe. *Robert J. Gould.* 417, 12, 217-C1 (1993)

Cosmic Variance in Cosmic Microwave Background Anisotropies: From 1° to *COBE*. *Martin White, Lawrence M. Krauss, & Joseph Silk.* 418, 535, 239-B3 (1993)

Early Cosmic Formation of Massive Black Holes. *Masayuki Umemura, Abraham Loeb, & Edwin L. Turner.* 419, 459, 253-D13 (1993)

Infrared Observations of the $z = 3.8$ Radio Galaxy 4C 41.17, with the W. M. Keck Telescope. *James R. Graham, K. Matthews, B. T. Soifer, J. E. Nelson, W. Harrison, J. G. Jernigan, S. Lin, G. Neugebauer, G. Smith, & C. Ziomkowski.* 420, L5, 7-B1 (1994)

Measurement of the Cosmic Microwave Background Spectrum by the *COBE* FIRAS Instrument. *J. C. Mather, E. S. Cheng, D. A. Cottingham, R. E. Eplee, Jr., D. J. Fixen, T. Hewagama, R. B. Isaacman, K. A. Jensen, S. S. Meyer, P. D. Noerdlinger, S. M. Read, L. P. Rosen, R. A. Shafer, E. L. Wright, C. L. Bennett, N. W. Boggess, M. G. Hauser, T. Kelsall, S. H. Moseley, Jr., R. F. Silverberg, G. F. Smoot, R. Weiss, & D. T. Wilkinson.* 420, 439, 8-B1 (1994)

Cosmic Microwave Background Dipole Spectrum Measured by the *COBE* FIRAS Instrument. *D. J. Fixsen, E. S. Cheng, D. A. Cottingham, R. E. Eplee, Jr., R. B. Isaacman, J. C. Mather, S. S. Meyer, P. D. Noerdlinger, R. A. Shafer, R. Weiss, E. L. Wright, C. L. Bennett, N. W. Boggess, T. Kelsall, S. H. Moseley, R. F. Silverberg, G. F. Smoot, & D. T. Wilkinson.* 420, 445, 8-B9 (1994)

Interpretation of the *COBE* FIRAS CMBR Spectrum. *E. L. Wright, J. C. Mather, D. J. Fixsen, A. Kogut, R. A. Shafer, C. L. Bennett, N. W. Boggess, E. S. Cheng, R. F. Silverberg, G. F. Smoot, & R. Weiss.* 420, 450, 8-C2 (1994)

Enhanced Heavy-Element Formation in Baryon-inhomogeneous Big Bang Models. *K. Jedamzik, G. M. Fuller, G. J. Mathews, & T. Kajino.* 422, 423, 37-B9 (1994)

The Evolution of Nonlinear Subhorizon-Scale Entropy Fluctuations in the Early Universe. *Karsten Jedamzik & George M. Fuller.* 423, 33, 46-E2 (1994)

Inhomogeneous Primordial Nucleosynthesis: Coupled Nuclear Reactions and Hydrodynamic Dissipation Processes. *Karsten Jedamzik, George M. Fuller, & Grant J. Mathews.* 423, 50, 46-F9 (1994)

The Production of Beryllium in the Early Galaxy. *Sofia Feltzing & Bengt Gustafsson.* 423, 68, 47-A6 (1994)

Did the Universe Recombine? New Spectral Constraints on Reheating. *Max Tegmark & Joseph Silk.* 423, 529, 55-B1 (1994)

Detection of Lithium in the Cool Halo Dwarfs Groombridge 1830 and HD 134439: Implications for Internal Stellar Mixing and Cosmology. *Constantine P. Deliyannis, Sean G. Ryan, Timothy C. Beers, & Julie A. Thorburn.* 425, L21, 85-D3 (1994)

Molecules in the Postrecombination Universe and Microwave Background Anisotropies. *Roberto Maoli, Francesco Melchiorri, & Danilo Tosti.* 425, 372, 86-C12 (1994)

Evolution of Scalar Field Cosmological Perturbations. *Jai-chan Hwang.* 427, 542, 119-D13 (1994)

Can Conformal Weyl Gravity Be Considered a Viable Cosmological Theory? *D. Elizondo & G. Yepes.* 428, 17, 128-D5 (1994)

Lithium Isotope Ratios in Six Halo Stars. *L. M. Hobbs & J. A. Thorburn.* 428, L25, 134-D8 (1994)

A Singularity-free Cosmological Model with a Conformally Coupled Scalar Field. *S. Ş. Bayin, F. I. Cooperstock, & V. Faraoni.* 428, 439, 135-F1 (1994)

Production of Heavy Elements in Inhomogeneous Cosmologies. *Thomas Rauscher, James H. Applegate, John J. Cowan, Friedrich-Karl Thielemann, & Michael Wiescher.* 429, 499, 152-A1 (1994)

Power Spectrum Constraints from Spectral Distortions in the Cosmic Microwave Background. *Wayne Hu, Douglas Scott, & Joseph Silk.* 430, L5, 165-B7 (1994)

The Primordial Abundance of ^{6}Li and ^{9}Be. *Brian Chaboyer.* 432, L47, 199-G1 (1994)

Widespread Water Vapor Emission in Orion. *J. Cernicharo, E. González-Alfonso, J. Alcolea, R. Bachiller, & D. John.* 432, L59, 200-A5 (1994)

Recent Deuterium Observations and Big Bang Nucleosynthesis Constraints. *Lawrence M. Krauss & Peter J. Kernan.* 432, L79, 206-D10 (1994)

CO Emission from the $z = 3.137$ Damped Lyα System toward PC 1643+4631A. *David T. Frayer, Robert L. Brown, & P. A. Vanden Bout.* 433, L5, 214-D9 (1994)

^{7}Li Abundances in Halo Stars: Testing Stellar Evolution Models and the Primordial ^{7}Li Abundance. *Brian Chaboyer & P. Demarque.* 433, 510, 217-C11 (1994)

Lithium in a Short-Period Tidally Locked Binary of M67: Implications for Stellar Evolution, Galactic Lithium Evolution, and Cosmology. *Constantine P. Deliyannis, Jeremy R. King, Ann M. Boesgaard, & Sean G. Ryan.* 434, L71, 241-G1 (1994)

Cosmological Perturbations in the Early Prematter Universe. *Mark Israelit.* 435, 8, 243-C12 (1994)

Gravitational Collapse of Small-Scale Structure as the Origin of the Lyman-Alpha Forest. *Renyue Cen, Jordi Miralda-Escudé, Jeremiah P. Ostriker, & Michael Rauch.* 437, L9, 291-C1 (1994)

Formation of Galaxies in the Early Universe. *J. C. N. de Araujo & R. Opher.* 437, 556, 293-D8 (1994)

Sizes of Voids as a Test for Dark Matter Models. *Sebastiano Ghigna, Stefano Borgani, Silvio A. Bonometto, Luigi Guzzo, Anatoly Klypin, Joel R. Primack, Riccardo Giovanelli, & Martha P. Haynes.* 437, L71, 298-E1 (1994)

Keck Observations of the Most Distant Galaxy: 8C 1435+63 at $z = 4.25$. *Hyron Spinrad, Arjun Dey, & James R. Graham.* 438, L51, 19-B1 (1995)

Lithium in Halo Dwarfs: The Undoing of Diffusion by Mass Loss. *Fritz J. Swenson.* 438, L87, 19-G8 (1995)

Reionization and Its Imprint on the Cosmic Microwave Background. *Scott Dodelson & Jay M. Jubas.* 439, 503, 31-C3 (1995)

Fully Covariant Cosmology and Its Astrophysical Implications. *Paul S. Wesson & Hongya Liu.* 440, 1, 41-C1 (1995)

Discovery of a $z = 2.76$ Dusty Radio Galaxy? *Arjun Dey, Hyron Spinrad, & Mark Dickinson.* 440, 515, 50-D5 (1995)

Absence of a Lower Limit on Ω_b in Inhomogeneous Primordial Nucleosynthesis. *Karsten Jedamzik, Grant J. Mathews, & George M. Fuller.* 441, 465, 68-D9 (1995)

Evidence for a Very Large Scale Fractal Structure in the Universe from *COBE* Measurements. *Elisabete M. de Gouveia Dal Pino, Annibal Hetem, Jorge E. Horvath, Carlos A. W. de Souza, Thyrso Villela, & J. C. N. de Araujo.* 442, L45, 94-C1 (1995)

Absolute Ages of Globular Clusters and the Age of the Universe. *Brian Chaboyer.* 444, L9, 121-C1 (1995)

Deep Circulation in Red Giant Stars: A Solution to the Carbon and Oxygen Isotope Puzzles? *G. J. Wasserburg, Arnold I. Boothroyd, & I.-Juliana Sackmann.* 447, L37, 181-A11 (1995)

Effects of Neutrino Degeneracy on the Primordial Abundances of ^{9}Be and ^{11}B. *Jong Bock Kim & Hyun Kyu Lee.* 448, 510, 201-F9 (1995)

Baryonic Dark Matter and Big Bang Nucleosynthesis. *Arnon Dar.* 449, 550, 220-D1 (1995)

Deuterium in the Universe. *Francesco Palla, Daniele Galli, & Joseph Silk.* 451, 44, 246-F11 (1995)

Nucleosynthesis in the Presence of Primordial Isocurvature Baryon Fluctuations. *Karsten Jedamzik & George M. Fuller.* 452, 33, 262-F2 (1995)

Evidence of Higher Primordial Lithium from Keck Observations of M92. *Constantine P. Deliyannis, Ann Merchant Boesgaard, & Jeremy R. King.* 452, L13, 269-D10 (1995)

Baryon Density Contrast in a Quark-Hadron Phase Transition in the Early Universe. *Ashok Goyal, Saurav Pathak, V. K. Gupta, & J. D. Anand.* 452, 501, 271-E8 (1995)

Electromagnetic Cascade in the Early Universe and Its Application to the Big Bang Nucleosynthesis. *M. Kawasaki & T. Moroi.* 452, 506, 271-F3 (1995)

Generic Evolution of Deuterium and ^{3}He. *Gary Steigman & Monica Tosi.* 453, 173, 283-E7 (1995)

A Multispecies Model for Hydrogen and Helium Absorbers in Lyman-Alpha Forest Clouds. *Yu Zhang, Peter Anninos, & Michael L. Norman.* 453, L57, 298-A6 (1995)

COSMOLOGY: GRAVITATIONAL LENSING

Do the Redshifts of Gravitational Lens Galaxies Rule Out a Large Cosmological Constant? *Christopher S. Kochanek.* 384, 1, 1-A11 (1992)

The Radio Time Delay in the Double Quasar 0957+561. *J. Lehár, J. N. Hewitt, D. H. Roberts, & B. F. Burke.* 384, 453, 7-G1 (1992)

The Time Delay of Gravitational Lens 0957+561. I. Methodology and Analysis of Optical Photometric Data. *William H. Press, George B. Rybicki, & Jacqueline N. Hewitt.* 385, 404, 18-C4 (1992)

The Time Delay of Gravitational Lens 0957+561. II. Analysis of Radio Data and Combined Optical-Radio Analysis. *William H. Press, George B. Rybicki, & Jacqueline N. Hewitt.* 385, 416, 18-D4 (1992)

Probability Distributions for the Magnification of Quasars due to Microlensing. *Joachim Wambsganss.* 386, 19, 24-C7 (1992)

Caustic-induced Features in Microlensing Magnification Probability Distributions. *Kevin P. Rauch, Shude Mao, Joachim Wambsganss, & Bohdan Paczyński.* 386, 30, 24-D10 (1992)

A Gravitational Lens Candidate Discovered with the *Hubble Space Telescope*. *Dan Maoz, John N. Bahcall, Donald P. Schneider, Rodger Doxsey, Neta A. Bahcall, Alexei V. Filippenko, W. Miller Goss, Ofer Lahav, & Brian Yanny.* 386, L1, 29-B1 (1992)

Femtolensing of Gamma-Ray Bursters. *Andrew Gould.* 386, L5, 29-B5 (1992)

The Central Velocity Dispersion of the Lensing Galaxy in the Quadruple Lens System Q2237+0305. *Craig B. Foltz, Paul C. Hewett, Rachel L. Webster, & Geraint F. Lewis.* 386, L43, 36-C1 (1992)

The Snapshot Survey: A Search for Gravitationally Lensed Quasars with the *Hubble Space Telescope*. *J. N. Bahcall, D. Maoz, R. Doxsey, D. P. Schneider, N. A. Bahcall, O. Lahav, & B. Yanny.* 387, 56, 37-F6 (1992)

Reconciling the Image Brightness Ratios in the Gravitational Lens System 0957+561. *Samuel R. Conner, Joseph Lehár, & Bernard F. Burke.* 387, L61, 48-B7 (1992)

Gravitational Lensing by a Massive Black Hole at the Galactic Center. *Mark Wardle & Farhad Yusef-Zadeh.* 387, L65, 48-C1 (1992)

Multiple Quasars with Large Magnitude Differences: Extreme Magnification by Gravitational Lenses? *Aggeliki Kassiola & Israel Kovner.* 388, 33, 49-D10 (1992)

A Survey of the Milliarcsecond Polarization Properties of BL Lacertae Objects at 5 GHz. *D. C. Gabuzda, T. V. Cawthorne, D. H. Roberts, & J. F. C. Wardle.* 388, 40, 49-E5 (1992)

Gravitational Lens Effects on the Density Parameter. *Hiroshi Yoshida & Minoru Omote.* 388, L1, 52-A7 (1992)

Weak Gravitational Lensing of Distant Galaxies. *Nick Kaiser.* 388, 272, 53-F7 (1992)

A Spectroscopic Study of UM 673 A and B: On the Size of Lyman-Alpha Clouds. *A. Smette, J. Surdej, P. A. Shaver, C. B. Foltz, F. H. Chaffee, R. J. Weymann, R. E. Williams, & P. Magain.* 389, 39, 60-E1 (1992)

Gravitational Microlensing by a Single Star plus External Shear. *Shude Mao.* 389, 63, 60-G9 (1992)

Gravitational Lensing, Time Delay, and Gamma-Ray Bursts. *Shude Mao.* 389, L41, 73-B1 (1992)

On the Rotation of Polarization by a Gravitational Lens. *C. C. Dyer & Eric G. Shaver.* 390, L5, 78-B1 (1992)

Using Arcs in Clusters of Galaxies as Probes to Cluster Potentials and the Faint Blue Galaxies. *Jordi Miralda-Escudé.* 390, L65, 84-F7 (1992)

The Unusual *K*-Band Characteristics of the Gravitational Lens System MG 1131+0456. *James Annis.* 391, L17, 92-A7 (1992)

Using Gamma-Ray Bursts to Detect a Cosmological Density of Compact Objects. *O. M. Blaes & R. L. Webster.* 391, L63, 99-D7 (1992)

HRCam Survey for Closely Spaced Gravitational Lenses. *David Crampton, Robert D. McClure, & J. Murray Fletcher.* 392, 23, 101-C10 (1992)

Hubble Space Telescope Imaging of the Large-Redshift Gravitational Lens Candidate 1208+1011. *John N. Bahcall, Dan Maoz, Donald P. Schneider, Brian Yanny, & Rodger Doxsey.* 392, L1, 106-A7 (1992)

Gravitational Microlensing: The Effect of a Single Lens and the Impact of Sparse Sampling. *Joachim Wambsganss.* 392, 424, 107-E8 (1992)

Extending the MACHO Search to $\sim 10^6\ M_\odot$. *Andrew Gould.* 392, 442, 107-G1 (1992)

Statistical Properties of Gravitational Lenses with a Nonzero Cosmological Constant. *M. Fukugita, T. Futamase, M. Kasai, & E. L. Turner.* 393, 3, 114-B4 (1992)

On Distances and the Hubble Parameter Determination in Gravitational Lenses. *Kazuya Watanabe, Misao Sasaki, & Kenji Tomita.* 394, 38, 128-E1 (1992)

Gravitational Lensing of Quasars as Seen by the *Hubble Space Telescope* Snapshot Survey. *D. Maoz, J. N. Bahcall, R. Doxsey, D. P. Schneider, N. A. Bahcall, O. Lahav, & B. Yanny.* 394, 51, 128-F6 (1992)

Gravitational Lensing, Finite Galaxy Cores, and the Cosmological Constant. *Lawrence M. Krauss & Martin White.* 394, 385, 134-B1 (1992)

Continuum and C III] Microlensing in Q2237+0305 and the Quasar Geometry. *René Racine.* 395, L65, 153-F1 (1992)

On the Straight Arc in Abell 2390. *Aggeliki Kassiola, Israel Kovner, & Roger D. Blandford.* 396, 10, 155-C1 (1992)

Discovering Planetary Systems through Gravitational Microlenses. *Andrew Gould & Abraham Loeb.* 396, 104, 156-D6 (1992)

Microlensed Light Curves for Thin Accretion Disks around Schwarzschild and Kerr Black Holes. *M. Jaroszyński, J. Wambsganss, & B. Paczyński.* 396, L65, 167-A1 (1992)

A Direct Gravitational Lensing Test for $10^6\ M_\odot$ Black Holes in Halos of Galaxies. *Joachim Wambsganss & Bohdan Paczyński.* 397, L1, 173-A8 (1992)

Gravitational Lensing and the Variability of *G*. *Lawrence M. Krauss & Martin White.* 397, 357, 175-B4 (1992)

Effect of Binary Sources on the Search for Massive Astrophysical Compact Halo Objects via Microlensing. *Kim Griest & Wayne Hu.* 397, 362, 175-B12 (1992)

Gravitational Lenses in Redshift Surveys. *Christopher S. Kochanek.* 397, 381, 175-D6 (1992)

Lyα and C IV Narrow-Band Imaging of the Gravitational Lens 2237+030. *H. K. C. Yee & M. M. De Robertis.* 398, L21, 187-D1 (1992)

Nonstationary Gravitational Lenses and the Fermat Principle. *Valerio Faraoni.* 398, 425, 189-D1 (1992)

Determination of Lens Parameters from Gravitationally Lensed Gamma-Ray Bursts. *Ramesh Narayan & Sylvanie Wallington.* 399, 368, 202-E1 (1992)

An Arc System with a Radial Gravitational Image in the Cluster MS 2137−23. *B. Fort, O. Le Fevre, F. Hammer, & M. Cailloux.* 399, L125, 208-A1 (1992)

Perturbations of Cluster Cusps by Galaxies: The Triple Arc in Cl 0024+1654. *Aggeliki Kassiola, Israel Kovner, & Bernard Fort.* 400, 41, 209-E1 (1992)

Discovery of Neutral Hydrogen 21 Centimeter Absorption at Redshift 0.25 toward PKS 1413+135. *C. L. Carilli, Eric S. Perlman, & John T. Stocke.* 400, L13, 214-C1 (1992)

The BL Lacertae Object PKS 1413+135: Is It within or behind a Spiral Galaxy? *John T. Stocke, Ron Wurtz, Qingde Wang, Richard Elston, & Buell T. Jannuzi.* 400, L17, 214-C5 (1992)

Faint Object Spectrograph Observations of the Large-Redshift Gravitational Lens Candidate 1208+1011. *John N. Bahcall, George F. Hartig, Buell T. Jannuzi, Dan Maoz, & Donald P. Schneider.* 400, L51, 220-C1 (1992)

LensClean: An Algorithm for Inverting Extended, Gravitationally Lensed Images with Application to the Radio Ring Lens PKS 1830−211. *Christopher S. Kochanek & Ramesh Narayan.* 401, 461, 228-D8 (1992)

The *Hubble Space Telescope* Snapshot Survey. III. Further Observations in Search of Gravitationally Lensed Quasars. *D. Maoz, J. N. Bahcall, R. Doxsey, D. P. Schneider, N. A. Bahcall, O. Lahav, & B. Yanny.* 402, 69, 2-A1 (1993)

Gravitational Microlensing of Gamma-Ray Bursts. *Shude Mao.* 402, 382, 7-D1 (1993)

On the Probability of Magnification by Cosmologically Distributed Gravitational Lenses. *Yichuan C. Pei.* 403, 7, 14-B9 (1993)

The Detection of Gravitational Lenses by Radio Autocorrelation. *E. J. Spillar.* 403, 20, 14-C10 (1993)

Gravitational Lensing and the Cosmic Microwave Background. *Laura Cayón, Enrique Martínez-González, & Jose Luis Sanz.* 403, 471, 21-D9 (1993)

Statistics of Highly Magnified Gravitational Images in Clusters of Galaxies. I. Implications for the Clusters. *Jordi Miralda-Escudé.* 403, 497, 21-F11 (1993)

Statistics of Highly Magnified Gravitational Images in Clusters of Galaxies. II. Implications for the Sources. *Jordi Miralda-Escudé.* 403, 509, 21-G12 (1993)

The Influence of Core Radius on Gravitational Lensing by Elliptical Lenses. *Sylvanie Wallington & Ramesh Narayan.* 403, 517, 22-A9 (1993)

An Efficient Method to Compute Microlensed Light Curves for Point Sources. *Hans J. Witt.* 403, 530, 22-B11 (1993)

Probability of Lensing Magnification by Cosmologically Distributed Galaxies. *Yichuan C. Pei.* 404, 436, 34-D1 (1993)

Mapping the Dark Matter with Weak Gravitational Lensing. *Nick Kaiser & Gordon Squires.* 404, 441, 34-D8 (1993)

Probing the Large Magellanic Cloud Halo for MACHOS. *Andrew Gould.* 404, 451, 34-E9 (1993)

Gravitational Microlensing: The Effect of Random Motion of Individual Stars in the Lensing Galaxy. *Tomislav Kundić & Joachim Wambsganss.* 404, 455, 34-F1 (1993)

A Method to Distinguish Two Gamma-Ray Bursts with Similar Time Profiles. *Joachim Wambsganss.* 406, 29, 55-D6 (1993)

The Dark Matter Distribution in MS 2137−23 from the Modeling of the Multiple Arc Systems. *Yannick Mellier, Bernard Fort, & Jean-Paul Kneib.* 407, 33, 69-E1 (1993)

PKS 1830−211 as a Gravitationally Lensed System. *Sunita Nair, D. Narasimha, & A. Pramesh Rao.* 407, 46, 69-F5 (1993)

Damped Lyman-Alpha Absorption in Q0957+561A, B. *David A. Turnshek & Ralph C. Bohlin.* 407, 60, 69-G7 (1993)

Infrared Imaging of MG 0414+0534: The Red Gravitational Lens Systems as Lensed Radio Galaxies. *James Annis & Gerard A. Luppino.* 407, L69, 82-D6 (1993)

The *Hubble Space Telescope* Snapshot Survey. IV. A Summary of the Search for Gravitationally Lensed Quasars. *D. Maoz, J. N. Bahcall, D. P. Schneider, N. A. Bahcall, S. Djorgovski, R. Doxsey, A. Gould, S. Kirhakos, G. Meylan, & B. Yanny.* 409, 28, 97-D1 (1993)

Further Radio Investigations of Gravitational Lensing in MG 0414+0534. *C. A. Katz & J. N. Hewitt.* 409, L9, 104-B11 (1993)

The Velocity Dispersion of the Caustic Network Due to Random Motion of Individual Stars in the Lensing Galaxy. *Tomislav Kundić, Hans J. Witt, & Kyongae Chang.* 409, 537, 105-E13 (1993)

Discovery of a New Component in the Gravitationally Lensed Quasar 0957+561. *C. Jones, C. Stern, E. Falco, W. Forman, L. David, I. Shapiro, & A. C. Fabian.* 410, 21, 112-D1 (1993)

Velocity Dispersions in Statistical Lensing. *Xiang-Ping Wu.* 411, 513, 136-A7 (1993)

Neutral Hydrogen 21 Centimeter Absorption at $z = 0.6847$ toward the "Smallest Einstein Ring." *C. L. Carilli, M. P. Rupen, & Brian Yanny.* 412, L59, 155-C10 (1993)

Does a Cosmological Constant Increase the Effect of Gravitational Lensing on the Cosmic Microwave Background? *Laura Cayón, Enrique Martínez-González, & Jose Luis Sanz.* 413, 10, 156-B13 (1993)

Statistics of Arcs in Clusters of Galaxies. *Anton G. Bergmann & Vahé Petrosian.* 413, 18, 156-C11 (1993)

Features in the Spectra of Gamma-Ray Bursts. *Krzysztof Z. Stanek, Bohdan Paczyński, & Jeremy Goodman.* 413, L7, 162-B9 (1993)

Searching Gamma-Ray Bursts for Gravitational Lensing Echoes: Implications for Compact Dark Matter. *R. J. Nemiroff, J. P. Norris, W. A. D. T. Wickramasinghe, J. M. Horack, C. Kouveliotou, G. J. Fishman, C. A. Meegan, R. B. Wilson, & W. S. Paciesas.* 414, 36, 170-E1 (1993)

Is the BL Lacertae Object AO 0235+164 Being Lensed by Its Intervening Mg II Absorber? *Roberto G. Abraham, Carolin S. Crawford, Michael R. Merrifield, John B. Hutchings, & Ian M. McHardy.* 415, 101, 186-C5 (1993)

Null Geodesics in Perturbed Spacetimes. *Ted Pyne & Mark Birkinshaw.* 415, 459, 193-E7 (1993)

Early-Type Galaxies, Dark Halos, and Gravitational Lensing Statistics. *Dan Maoz & Hans-Walter Rix.* 416, 425, 208-F1 (1993)

The Complex, Gravitationally Lensed Arc System in the X-Ray–selected Cluster of Galaxies MS 0440+0204. *G. A. Luppino, I. M. Gioia, J. Annis, O. Le Fèvre, & F. Hammer.* 416, 444, 208-G8 (1993)

Gravitational Lensing Pairs in Clusters of Galaxies: A New Probe to the High-Redshift Universe. *Jordi Miralda-Escudé & Bernard Fort.* 417, L5, 222-F7 (1993)

A Hydrodynamic Treatment of the Cold Dark Matter Cosmological Scenario with a Cosmological Constant. *Renyue Cen, Nickolay Y. Gnedin, & Jeremiah P. Ostriker.* 417, 387, 224-B5 (1993)

The Analysis of Gravitational Lens Surveys. I. Selection Functions and Ambiguous Candidates. *Christopher S. Kochanek.* 417, 438, 224-G1 (1993)

Elliptic Mass Distributions versus Elliptic Potentials in Gravitational Lenses. *Aggeliki Kassiola & Israel Kovner.* 417, 450, 225-A1 (1993)

The Gravitational Lens Hypothesis for the Ring in A2218. *Aggeliki Kassiola & Israel Kovner.* 417, 474, 225-B14 (1993)

Detection of Far-Ultraviolet High-Excitation Line Emission and Lyman-β Absorption in the Gravitational Lens Q0957+561. *A. G. Michalitsianos, J. Nichols-Bohlin, F. C. Bruhweiler, D. Kazanas, Y. Kondo, M. De La Peña, S. P. Maran, T. Meylan, M. Perez, & R. Thompson.* 417, L57, 230-B1 (1993)

Observations of a High Surface Brightness Arclet Associated with the Cluster of Galaxies GHO 2154+0508. *Russell J. Lavery, Michael J. Pierce, & Robert D. McClure.* 418, 43, 231-E7 (1993)

The Analysis of Gravitational Lens Surveys. II. Maximum Likelihood Models and Singular Potentials. *Christopher S. Kochanek.* 419, 12, 246-C2 (1993)

MACHOs in a Flattened Halo. *Penny D. Sackett & Andrew Gould.* 419, 648, 255-F12 (1993)

Near-Infrared Images of MG 1131+0456 with the W. M. Keck Telescope: Another Dusty Gravitational Lens? *J. E. Larkin, K. Matthews, C. R. Lawrence, J. R. Graham, W. Harrison, G. Jernigan, S. Lin, J. Nelson, G. Neugebauer, G. Smith, B. T. Soifer, & C. Ziomkowski.* 420, L9, 7-B10 (1994)

A New Dark Matter Candidate: Kaluza-Klein Solitons. *Paul S. Wesson.* 420, L49, 15-B4 (1994)

Proper Motions of MACHOs. *Andrew Gould.* 421, L71, 29-D7 (1994)

MACHO Velocities from Satellite-based Parallaxes. *Andrew Gould.* 421, L75, 29-D13 (1994)

Imaging of 16 Distant EMSS Clusters with $z \geq 0.2$ and $L_{X,44} \geq 4$: New Arcs and First Consequences. *O. Le Fèvre, F. Hammer, M. C. Angonin, I. M. Gioia, & G. A. Luppino.* 422, L5, 36-B7 (1994)

Strong Gravitational Lensing Statistics as a Test of Cosmogonic Scenarios. *Renyue Cen, J. Richard Gott III, Jeremiah P. Ostriker, & Edwin L. Turner.* 423, 1, 46-B1 (1994)

Microlensing Events: Thin Disk, Thick Disk, or Halo? *Andrew Gould, Jordi Miralda-Escudé, & John N. Bahcall.* 423, L105, 60-E13 (1994)

Attenuation of Luminosity of Distant Galaxies by Multiple Gravitational Lensing. *Yoko Funato, Junichiro Makino, & Toshikazu Ebisuzaki.* 424, L17, 69-C9 (1994)

Finite Source Sizes and the Information Content of Macho-Type Lens Search Light Curves. *Robert J. Nemiroff & W. A. D. T. Wickramasinghe.* 424, L21, 69-G8 (1994)

Observational Limits on Ω in Stars, Brown Dwarfs, and Stellar Remnants from Gravitational Microlensing. *Julianne J. Dalcanton, Claude R. Canizares, Arno Granados, Charles C. Steidel, & John T. Stocke.* 424, 550, 71-E5 (1994)

High Dynamic Range Radio Observations of PKS 1413+135: A BL Lacertae Object with a Parsec-Scale Counterjet. *Eric S. Perlman, John T. Stocke, David B. Shaffer, Chris L. Carilli, & Chopo Ma.* 424, L69, 78-E8 (1994)

A Spectroscopic Method to Measure MACHO Proper Motions. *Dan Maoz & Andrew Gould.* 425, L67, 94-C1 (1994)

Gravitational Lens Inversion Using the Maximum Entropy Method. *Sylvanie Wallington, Ramesh Narayan, & Christopher S. Kochanek.* 426, 60, 96-G3 (1994)

Toward Estimation of H_0 from VLBI Observations of the Gravitational Lens System 0957+561. *R. M. Campbell, B. E. Corey, E. E. Falco, I. I. Shapiro, M. V. Gorenstein, P. Elósegui, J. M. Marcaide, & K. Alvi.* 426, 486, 104-D5 (1994)

The Optical Gravitational Lensing Experiment: The Discovery of Three Further Microlensing Events in the Direction of the Galactic Bulge. *A. Udalski, M. Szymański, J. Kałużny, M. Kubiak, M. Mateo, & W. Krzemiński.* 426, L69, 109-C5 (1994)

First Detection of a Gravitational Weak Shear at the Periphery of CL 0024+1654. *Henri Bonnet, Yannick Mellier, & Bernard Fort.* 427, L83, 126-G11 (1994)

Gravitational Microlensing by Dark Clusters in the Galactic Halo. *Eyal Maoz.* 428, L5, 134-B6 (1994)

Weak Lensing by Nearby Structures. *Andrew Gould & Jens Villumsen.* 428, L45, 142-D1 (1994)

Interpretation of Microlensing Events in Q2237+0305. *Hans J. Witt & Shude Mao.* 429, 66, 145-A8 (1994)

Conspicuous Tangential Alignment of Faint Blue and Red Objects in Cluster 0024+1654. *Aggeliki Kassiola, Israel Kovner, Bernard Fort, & Yannick Mellier.* 429, L9, 150-B9 (1994)

Gravitional Lenses and Unconventional Gravity Theories. *Jacob D. Bekenstein & Robert H. Sanders.* 429, 480, 151-F6 (1994)

Lensing in Alternative Gravity. *Mark A. Walker.* 430, 463, 167-D10 (1994)

Can Lensed Stars Be Regarded as Pointlike for Microlensing by MACHOs? *Hans J. Witt & Shude Mao.* 430, 505, 168-A11 (1994)

Gravitational Microlensing of the Galactic Bulge Stars. *Marcin Kiraga & Bohdan Paczyński.* 430, L101, 174-E11 (1994)

Arc Statistics and Constraints on Cluster Lenses. *Scott A. Grossman & Prasenjit Saha.* 431, 74, 177-B3 (1994)

Implications for Gravitational Lensing and the Dark Matter Content in Clusters of Galaxies from Spatially Resolved X-Ray Spectra. *M. Loewenstein.* 431, 91, 177-C9 (1994)

Can MACHOs Probe the Shape of the Galaxy Halo? *Joshua Frieman & Román Scoccimarro.* 431, L23, 182-E7 (1994)

Detection of Lens Candidates for the Double Quasar Q2345+007. *Philippe Fischer, J. Anthony Tyson, Gary M. Bernstein, & Puragra Guhathakurta.* 431, L71, 191-C1 (1994)

On the Mass of the Dark Compact Objects in the Galactic Disk. *Ph. Jetzer.* 432, L43, 199-F10 (1994)

Gravitational Lensing and Superluminal Motions in Quasars: The Linear Approximation. *J. A. Muñoz & M. Portilla.* 432, 448, 201-D13 (1994)

Null Result in Gamma-Ray Burst Lensed Echo Search. *R. J. Nemiroff, W. A. D. T. Wickramasinghe, J. P. Norris, C. Kouveliotou, G. J. Fishman, C. A. Meegan, W. S. Paciesas, & J. Horack.* 432, 478, 201-G12 (1994)

Infrared Observations of the Dark Matter Lens Candidate Q2345+007. *Brian McLeod, Marcia Rieke, & Daniel Weedman.* 433, 528, 217-E5 (1994)

The EMSS Catalog of X-Ray–selected Clusters of Galaxies. I. An Atlas of CCD Images of 41 Distant Clusters. *I. M. Gioia & G. A. Luppino.* 94, 583, 59-G13 (1994)

Galaxy Mergers and Gravitational Lens Statistics. *Hans-Walter Rix, Dan Maoz, Edwin L. Turner, & Masataka Fukugita.* 435, 49, 243-G12 (1994)

Emission-Line Profiles from a Relativistic Accretion Disk and the Role of Its Multiple Images. *G. Bao, P. Hadrava, & E. Østgaard.* 435, 55, 244-A8 (1994)

Gravitational Microlensing by the MACHOs of the Large Magellanic Cloud. *Xiang-Ping Wu.* 435, 66, 244-B9 (1994)

M Dwarfs, Microlensing, and the Mass Budget of the Galaxy. *John N. Bahcall, Chris Flynn, Andrew Gould, & Sofia Kirhakos.* 435, L51, 252-C11 (1994)

The Statistics of Gamma-Ray Burst Lensing. *Scott A. Grossman & Michael A. Nowak.* 435, 548, 253-F6 (1994)

Can We Identify Lensed Gamma-Ray Bursts? *Michael A. Nowak & Scott A. Grossman.* 435, 557, 253-G4 (1994)

Microlensing by Stars in the Disk of M31. *Andrew Gould.* 435, 573, 254-A9 (1994)

Magnification Bias in Galactic Microlensing Searches. *Robert J. Nemiroff.* 435, 682, 255-D9 (1994)

Deep Imaging of the Double Quasar QSO 0957+561: New Constraints on H_0. *H. Dahle, S. J. Maddox, & Per B. Lilje.* 435, L79, 259-C1 (1994)

Evidence from Gravitational Lensing for a Nonthermal Pressure Support in the Cluster of Galaxies Abell 2218. *Abraham Loeb & Shude Mao.* 435, L109, 259-F10 (1994)

Are the OGLE Microlenses in the Galactic Bar? *B. Paczyński, K. Z. Stanek, A. Udalski, M. Szymański, J. Kałużny, M. Kubiak, M. Mateo, & W. Krzemiński.* 435, L113, 259-G3 (1994)

The Dynamics of Luminous Galaxies in Isothermal Haloš. *Christopher S. Kochanek.* 436, 56, 262-A8 (1994)

The Detectability of Planetary Companions of Compact Galactic Objects from Their Effects on Microlensed Light Curves of Distant Stars. *Alberto D. Bolatto & Emilio E. Falco.* 436, 112, 262-G1 (1994)

Large-Scale Structure Effects on the Gravitational Lens Image Positions and Time Delay. *Uroš Seljak.* 436, 509, 272-D13 (1994)

The Optical Gravitational Lensing Experiment: OGLE No. 7: Binary Microlens or a New Unusual Variable? *A. Udalski, M. Szymański, S. Mao, R. Di Stefano, J. Kałużny, M. Kubiak, M. Mateo, & W. Krzemiński.* 436, L103, 280-D9 (1994)

The Effect of Gravitational Scattering on the Anisotropy of the Cosmic Background Radiation. *Toshiyuki Fukushige, Junichiro Makino, & Toshikazu Ebisuzaki.* 436, L107, 280-E4 (1994)

Exponential Growth of Distance between Nearby Rays Due to Multiple Gravitational Scatterings. *Toshiyuki Fukushige & Junichiro Makino.* 436, L111, 280-E13 (1994)

Determining Gravitational Masses of Galaxy Clusters with Virial Equilibrium and Arclike Images. *Xiang-Ping Wu.* 436, L115, 280-F7 (1994)

Dark Matter in MS 1224 from Distortion of Background Galaxies. *Greg Fahlman, Nick Kaiser, Gordon Squires, & David Woods.* 437, 56, 283-G13 (1994)

Lensing from the Light-Traces-Mass Map of MS 1224+20. *R. G. Carlberg, H. K. C. Yee, & E. Ellingson.* 437, 63, 284-A9 (1994)

Microlensing Maps for the Galactic Bulge. *N. W. Evans.* 437, L31, 291-E14 (1994)

Lensing by Compact Groups of Galaxies. *C. Mendes de Oliveira & E. Giraud.* 437, L103, 299-B1 (1994)

Mapping Cluster Mass Distributions via Gravitational Lensing of Background Galaxies. *T. J. Broadhurst, A. N. Taylor, & J. A. Peacock.* 438, 49, 2-A7 (1995)

On the Mass of the Dark Compact Objects in the Galactic Disk: Erratum. *Ph. Jetzer.* 438, L49, 10-E1 (1995) (Orig. paper in 432, L43, 199-F10 (1994))

Gravitational Lensing by a Cluster of Galaxies and the Central cD Galaxy: Measuring the Mass Profile. *Jordi Miralda-Escudé.* 438, 514, 11-C11 (1995)

Nonlinear Cluster Lens Reconstruction. *Nick Kaiser.* 439, L1, 29-E1 (1995)

The Ultraviolet Spectrum of the Gravitational Lens Candidate UM 425 = QSO 1120+019: Evidence for Broad Absorption Line (BAL) Structure. *A. G. Michalitsianos & R. J. Oliversen.* 439, 599, 32-E13 (1995)

Interpretation of Gravitational Microlensing by Binary Systems. *S. Mao & R. Di Stefano.* 440, 22, 41-D14 (1995)

Microlensing by the Galactic Bar. *HongSheng Zhao, David N. Spergel, & R. Michael Rich.* 440, L13, 48-C8 (1995)

Magnification of Quasars by Cosmologically Distributed Gravitational Lenses. *Yichuan C. Pei.* 440, 485, 50-A4 (1995)

Hubble Space Telescope Observations of Gravitationally Lensed Features in the Rich Cluster AC 114. *Ian Smail, Warrick J. Couch, Richard S. Ellis, & Ray M. Sharples.* 440, 501, 50-B10 (1995)

Analytic Error Estimates. *Andrew Gould.* 440, 510, 50-C10 (1995)

Gravitational Lens Inversions of Cl 0024+1654. *Sylvanie Wallington, Christopher S. Kochanek, & David C. Koo.* 441, 58, 60-B5 (1995)

Hydrogen Clouds and the MACHO/EROS Events. *Richard N. Henriksen & Lawrence M. Widrow.* 441, 70, 60-C8 (1995)

Self-Lensing by a Stellar Disk. *Andrew Gould.* 441, 77, 60-D5 (1995)

MACHO Parallaxes from a Single Satellite. *Andrew Gould.* 441, L21, 66-F1 (1995)

Magnitude Offset between Lensed Stars and Observed Stars: A New Probe of the Structure of the Galactic Bar. *K. Z. Stanek.* 441, L29, 66-G3 (1995)

Femtolensing: Beyond the Semiclassical Approximation. *Andrew Ulmer & Jeremy Goodman.* 442, 67, 78-B4 (1995)

The Gravitational Lens System Q0957+561 in the Ultraviolet. *J. F. Dolan, A. G. Michalitsianos, R. W. Thompson, P. T. Boyd, K. G. Wolinski, R. C. Bless, M. J. Nelson, J. W. Percival, M. J. Taylor, J. L. Elliot, & G. W. van Citters.* 442, 87, 78-D5 (1995)

Microlensing by Stars. *Marc Kamionkowski.* 442, L9, 84-E5 (1995)

On the Universality of Microlensing in Quadruple Gravitational Lenses. *Hans J. Witt, Shude Mao, & Paul L. Schechter.* 443, 18, 95-D13 (1995)

On Population III Stars as Gravitational Microlensing Objects in the Galactic Halo. *Masayuki Y. Fujimoto, Kiyoshi Sugiyama, Icko Iben, Jr., & David Hollowell.* 444, 175, 115-F13 (1995)

Gravitational Microlensing Is Not Required to Explain Quasar Variability. *Frederick K. Baganoff & Matthew A. Malkan.* 444, L13, 121-C8 (1995)

Transverse Velocities of Galaxies from Microlens Parallaxes. *Andrew Gould.* 444, 556, 124-A13 (1995)

Time Delay in the Einstein Ring PKS 1830−211. *T. D. van Ommen, D. L. Jones, R. A. Preston, & D. L. Jauncey.* 444, 561, 124-B7 (1995)

Probable Gravitational Microlensing toward the Galactic Bulge. *C. Alcock, R. A. Allsman, T. S. Axelrod, D. P. Bennett, K. H. Cook, K. C. Freeman, K. Griest, S. L. Marshall, S. Perlmutter, B. A. Peterson, M. R. Pratt, P. J. Quinn, A. W. Rodgers, C. W. Stubbs, & W. Sutherland (The MACHO Collaboration).* 445, 133, 134-B10 (1995)

ROSAT Observations of the Gravitationally Lensed System 0957+561. *G. Chartas, E. Falco, W. Forman, C. Jones, R. Schild, & I. Shapiro.* 445, 140, 134-C7 (1995)

Quasar Populations in a Cosmological Constant–dominated Flat Universe. *Sangeeta Malhotra & Edwin L. Turner.* 445, 553, 142-F3 (1995)

Evidence for Dark Matter in MG 1654+134. *Christopher S. Kochanek.* 445, 559, 142-F13 (1995)

Constraints on Cold Dark Matter Theories from Observations of Massive X-Ray–luminous Clusters of Galaxies at High Redshift. *G. A. Luppino & I. M. Gioia.* 445, L77, 150-D5 (1995)

Are the OGLE/MACHO Microlenses in a Heavy Spheroid? *N. W. Evans.* 445, L105, 151-A1 (1995)

W Ursae Majoris–Type Systems Discovered in the Central Baade's Window in the OGLE Experiment. *Slavek M. Rucinski.* 446, L19, 160-D6 (1995)

Self-lensing by Binaries. *Andrew Gould.* 446, 541, 163-E6 (1995)

Measurement of the Mass Profile of Abell 1689. *J. Anthony Tyson & Philippe Fischer.* 446, L55, 170-D1 (1995)

K-Band Microlensing of the Inner Galaxy. *Andrew Gould.* 446, L71, 170-F11 (1995)

The Mass Spectrum of MACHOs from Parallax Measurements. *Cheongho Han & Andrew Gould.* 447, 53, 173-A1 (1995)

The Mass Distribution of the Lens Galaxy in MG 1131+0456. *G. H. Chen, C. S. Kochanek, & J. N. Hewitt.* 447, 62, 173-A13 (1995)

1608+656: A Quadruple-Lens System Found in the CLASS Gravitational Lens Survey. *S. T. Myers, C. D. Fassnacht, S. G. Djorgovski, R. D. Blandford, K. Matthews, G. Neugebauer, T. J. Pearson, A. C. S. Readhead, J. D. Smith, D. J. Thompson, D. S. Womble, I. W. A. Browne, P. N. Wilkinson, S. Nair, N. Jackson, I. A. G. Snellen, G. K. Miley, A. G. de Bruyn, & R. T. Schilizzi.* 447, L5, 180-C11 (1995)

Radio Observations of the Quadruple Lens 1608+656. *I. A. G. Snellen, A. G. de Bruyn, R. T. Schilizzi, G. K. Miley, & S. T. Myers.* 447, L9, 180-D8 (1995)

A New MACHO Search Strategy. *Andrew Gould.* 447, 491, 182-E8 (1995)

On the Minimum Magnification between Caustic Crossings for Microlensing by Binary and Multiple Stars. *Hans J. Witt & Shude Mao.* 447, L105, 191-A1 (1995)

Blending of Light in Gravitational Microlensing Events. *R. Di Stefano & A. A. Esin.* 448, L1, 199-B1 (1995)

High-Redshift Active Galactic Nuclei from the 1 Jy Catalog and the Magnification Bias. *N. Benítez & E. Martínez-González.* 448, L89, 209-B1 (1995)

Gravitational Lensing in Clusters of Galaxies: New Clues Regarding the Dynamics of Intracluster Gas. *Jordi Miralda-Escudé & Arif Babul.* 449, 18, 210-D11 (1995)

Theory of Exploring the Dark Halo with Microlensing. I. Power-Law Models. *C. Alcock, R. A. Allsman, T. S. Axelrod, D. P. Bennett, K. H. Cook, N. W. Evans, K. C. Freeman, K. Griest, J. Jijina, M. Lehner, S. L. Marshall, S. Perlmutter, B. A. Peterson, M. R. Pratt, P. J. Quinn, A. W. Rodgers, C. W. Stubbs, & W. Sutherland (The MACHO Collaboration).* 449, 28, 210-E10 (1995)

The Effect of the Stellar Size on Microlensing at the Baade Window. *Hans J. Witt.* 449, 42, 210-F13 (1995)

Removing Degeneracy of Microlensing Light Curves through Narrowband Photometry of Giants. *Abraham Loeb & Dimitar Sasselov.* 449, L33, 216-E3 (1995)

A Method for Weak Lensing Observations. *Nick Kaiser, Gordon Squires, & Tom Broadhurst.* 449, 460, 219-B10 (1995)

Statistics of Microlensing Optical Depth. *Cheongho Han & Andrew Gould.* 449, 521, 220-A7 (1995)

The Local Halo Density. *Evalyn I. Gates, Geza Gyuk, & Michael S. Turner.* 449, L123, 227-B1 (1995)

Gravitational Microlensing by Random Motion of Stars: Analysis of Light Curves. *Joachim Wambsganss & Tomislav Kundić.* 450, 19, 228-C11 (1995)

A Gravitational Lens Solution for the *IRAS* Galaxy FSC 10214+4724. *Tom Broadhurst & Joseph Lehár.* 450, L41, 244-D1 (1995)

The Lens Parallax Method: Determining Redshifts of Faint Blue Galaxies through Gravitational Lensing. *Matthias Bartelmann & Ramesh Narayan.* 451, 60, 247-A7 (1995)

The Distribution of Mass and Gas in the Center of Clusters of Galaxies Implied by X-Ray and Lensing Observations. *Eli Waxman & Jordi Miralda-Escudé.* 451, 451, 253-E6 (1995)

Naked-Eye Observable Microlensing Events. *Wesley N. Colley & J. Richard Gott III.* 452, 82, 263-C4 (1995)

The FKS Gravitational Lens Survey. *Christopher S. Kochanek, Emilio E. Falco, & Rudolph Schild.* 452, 109, 263-E12 (1995)

Spectroscopic and Morphological Evidence That IRAS FSC 10214+4724 Is a Gravitational Lens. *Laird M. Close, Patrick B. Hall, Charles T. Liu, & E. Keith Hege.* 452, L9, 269-D1 (1995)

Probing for MACHOs of Mass 10^{-15} $M_{\odot}$ to 10^{-7} $M_{\odot}$ with Gamma-Ray Burst Parallax Spacecraft. *Robert J. Nemiroff & Andrew Gould.* 452, L111, 280-A5 (1995)

Microlensed Image Motions. *Mark A. Walker.* 453, 37, 281-F7 (1995)

New "Einstein Cross" Gravitational Lens Candidates in *Hubble Space Telescope* WFPC2 Survey Images. *Kavan U. Ratnatunga, Eric J. Ostrander, Richard E. Griffiths, & Myungshin Im.* 453, L5, 289-B12 (1995)

Gravitational Lensing Limits on Cold Dark Matter and Its Variants. *Christopher S. Kochanek.* 453, 545, 291-D6 (1995)

New Observations and a New Interpretation of CO(3–2) in IRAS F10214+4724. *D. Downes, P. M. Solomon, & S. J. E. Radford.* 453, L65, 298-B6 (1995)

The Molecular Medium of H1413+117: BIMA CO (3–2) and HCO^+ (4–3) Observations. *D. J. Wilner, J.-H. Zhao, & Paul T. P. Ho.* 453, L91, 298-E11 (1995)

MS 0205.7+3509: A Microlensed BL Lacertae Candidate. *John T. Stocke, Ronald E. Wurtz, & Eric S. Perlman.* 454, 55, 300-A4 (1995)

First Observation of Parallax in a Gravitational Microlensing Event. *C. Alcock, R. A. Allsman, D. Alves, T. S. Axelrod, D. P. Bennett, K. H. Cook, K. C. Freeman, K. Griest, J. Guern, M. J. Lehner, S. L. Marshall, B. A. Peterson, M. R. Pratt, P. J. Quinn, A. W. Rodgers, C. W. Stubbs, & W. Sutherland (The MACHO Collaboration).* 454, L125, 316-C1 (1995)

Microlensing Search of 10^6 Quasars. *Andrew Gould.* 455, 37, 318-F7 (1995)

Search for Intracluster MACHOs by Pixel Lensing of M87. *Andrew Gould.* 455, 44, 318-G3 (1995)

An Event in the Light Curve of 0957+561A and Prediction of the 1996 Image B Light Curve. *Tomislav Kundić, Wesley N. Colley, J. Richard Gott III, Sangeeta Malhotra, Ue-Li Pen, James E. Rhoads, Krzysztof Z. Stanek, Edwin L. Turner, & Joachim Wambsganss.* 455, L5, 324-C8 (1995)

Diffraction Effects in Microlensing of Q2237+0305. *M. Jaroszyński & B. Paczyński.* 455, 443, 328-A8 (1995)

Lensing by Distant Clusters: *HST* Observations of Weak Shear in the Field of 3C 324. *Ian Smail & Mark Dickinson.* 455, L99, 333-C8 (1995)

COSMOLOGY: LARGE-SCALE STRUCTURE OF UNIVERSE

Primordial Gaussian Perturbation Fields: Constrained Realizations. *Yehuda Hoffman & Erez Ribak.* 384, 448, 7-F9 (1992)

The Topology of Large-Scale Structure. V. Two-dimensional Topology of Sky Maps. *J. Richard Gott III, Shude Mao, Changbom Park, & Ofer Lahav.* 385, 26, 12-D1 (1992)

Gravitational Clustering of Galaxies: Comparison between Thermodynamic Theory and *N*-Body Simulations. III. Velocity Distributions for Different Mass Components. *Shogo Inagaki, Makoto Itoh, & William C. Saslaw.* 386, 9, 24-B10 (1992)

Abundance of Rich Clusters of Galaxies: A Test for Cosmological Parameters. *Per B. Lilje.* 386, L33, 36-B1 (1992)

The Coherence Length of the Peculiar Velocity Field in the Universe and the Large-Scale Galaxy Correlation Data. *A. Kashlinsky.* 386, L37, 36-B6 (1992)

The Topology of Large-Scale Structure. VI. Slices of the Universe. *Changbom Park, J. Richard Gott III, Adrian L. Melott, & I. D. Karachentsev.* 387, 1, 37-A11 (1992)

Large-Scale Morphological Segregation in the Center for Astrophysics Redshift Survey. *Basílio X. Santiago & Michael A. Strauss.* 387, 9, 37-B7 (1992)

Large-Scale Structure in Isocurvature Baryon Models. *Tatsushi Suginohara & Yasushi Suto.* 387, 431, 44-B1 (1992)

Topology of Large-Scale Structure in Seeded Hot Dark Matter Models. *Matthew M. Beaky, Robert J. Scherrer, & Jens V. Villumsen.* 387, 443, 44-C1 (1992)

On Modeling a Relativistic Hierarchical (Fractal) Cosmology by Tolman's Spacetime. I. Theory. *Marcelo B. Ribeiro.* 388, 1, 49-B1 (1992)

Possible Geometric Patterns in 0.1*c* Scale Structure. *R. Brent Tully, Roberto Scaramella, Giampaolo Vettolani, & Giovanni Zamorani.* 388, 9, 49-B10 (1992)

The Largest Possible Voids. *G. R. Blumenthal, L. Nicolaci da Costa, D. S. Goldwirth, M. Lecar, & T. Piran.* 388, 234, 53-C1 (1992)

Large-Scale Structure in a Low-Bias Universe. *H. M. P. Couchman & R. G. Carlberg.* 389, 453, 67-B6 (1992)

COBE Limits on Explosive Structure Formation Scenarios. *Janna J. Levin, Katherine Freese, & David N. Spergel.* 389, 464, 67-C5 (1992)

Relation of Redshift Surveys to Matter Distribution in Spherically Symmetric Dust Universes. *Hannu Kurki-Suonio & Edison Liang.* 390, 5, 74-B7 (1992)

The Large-Scale Galaxy Distribution in the Southern Sky Redshift Survey. *S. Maurogordato, R. Schaeffer, & L. N. da Costa.* 390, 17, 74-C7 (1992)

The Great Wall in the CfA Survey: Its Origin and Imprint on the Microwave Background Radiation. *F. Atrio-Barandela & A. Kashlinsky.* 390, 322, 79-C1 (1992)

Linear Velocity Fields in Non-Gaussian Models for Large-Scale Structure. *Robert J. Scherrer.* 390, 330, 79-C10 (1992)
Mass Fluctuations on 600 h^{-1} Mpc: A Result from Clusters of Galaxies. *Roberto Scaramella.* 390, L57, 84-E7 (1992)
The Quasi-Gaussian Density-Velocity Relationship. *Francis Bernardeau.* 390, L61, 84-F1 (1992)
Tracing Large-Scale Fluctuations Back in Time. *Adi Nusser & Avishai Dekel.* 391, 443, 93-D4 (1992)
The Gravity-induced Quasi-Gaussian Correlation Hierarchy. *Francis Bernardeau.* 392, 1, 101-B1 (1992)
On the Origin of Cosmic Structure. *David Layzer.* 392, L5, 106-B1 (1992)
Gravitational Field Fluctuations in Weakly Clustered Systems. *V. Antonuccio-Delogu & F. Atrio-Barandela.* 392, 403, 107-C12 (1992)
The Formation of Cosmic Structure in a Texture-seeded Cold Dark Matter Cosmogony. *Andrew K. Gooding, Changbom Park, David N. Spergel, Neil Turok, & J. Richard Gott III.* 393, 42, 114-E9 (1992)
The Distribution of Rich Clusters of Galaxies in the South Galactic Pole Region. *Luigi Guzzo, Chris A. Collins, Robert C. Nichol, & Stuart L. Lumsden.* 393, L5, 120-B1 (1992)
The Void Spectrum in Two-dimensional Numerical Simulations of Gravitational Clustering. *Guinevere Kauffmann & Adrian L. Melott.* 393, 415, 121-B1 (1992)
Coherent Structures in the Universe and the Adhesion Model. *Lev Kofman, Dmitri Pogosyan, Sergei F. Shandarin, & Adrian L. Melott.* 393, 437, 121-D1 (1992)
Percolation Analysis of Nonlinear Structures in Scale-free Two-dimensional Simulations. *Kurt G. Dominik & Sergei F. Shandarin.* 393, 450, 121-E1 (1992)
On Formation of the Superlarge Structure in the Universe. *Olga E. Buryak, Marek Demiański, & Andrej G. Doroshkevich.* 393, 464, 121-F1 (1992)
Does Faint Galaxy Clustering Contradict Gravitational Instability? *Adrian L. Melott.* 393, L45, 127-B1 (1992)
Large-Scale Radial Velocity Correlations as a Test of Gaussian Initial Conditions. *Stephen D. Landy & Alexander S. Szalay.* 394, 25, 128-D1 (1992)
Previrialization. *August E. Evrard & Mary M. Crone.* 394, L1, 133-A7 (1992)
Density Perturbations Driven by the Irregular Spatial Curvature in Inhomogeneous Cosmological Models. *Kenji Tomita.* 394, 401, 134-C9 (1992)
Statistics of the Cosmic Mach Number from Numerical Simulations of a Cold Dark Matter Universe. *Yasushi Suto, Renyue Cen, & Jeremiah P. Ostriker.* 395, 1, 140-B1 (1992)
The Angular Three-Point Function of Galaxy Clusters. *Stefano Borgani, Yi-Peng Jing, & Manolis Plionis.* 395, 339, 146-D5 (1992)
Nonlinear Gravitational Evolution of Phases and Amplitudes in One-dimensional Cosmological Density Fields. *Jiro Soda & Yasushi Suto.* 396, 379, 162-B1 (1992)
A Cosmological Field Theory. *Steven P. Starkovich & Fred I. Cooperstock.* 398, 1, 182-B1 (1992)
Clustering of Galaxy Clusters. II. Rare Events in the Cluster Distribution. *Manolis Plionis, Riccardo Valdarnini, & Yi-Peng Jing.* 398, 12, 182-C1 (1992)
Structure Formation in a Universe with Cold Plus Hot Dark Matter. *Anthony van Dalen & Robert K. Schaefer.* 398, 33, 182-D9 (1992)
The Evolution of Quasar Clustering. *Paola Andreani & Stefano Cristiani.* 398, L13, 187-C1 (1992)
N-Point Correlation Functions in the CfA and SSRS Redshift Distribution of Galaxies. *Enrique Gaztañaga.* 398, L17, 187-C7 (1992)
Dark Matter, Long-Range Forces, and Large-Scale Structure. *Ben-Ami Gradwohl & Joshua A. Frieman.* 398, 407, 189-B8 (1992)
The Shape of the Two-Point Correlation Function: Evidence for a Double Power Law. *Daniela Calzetti, Mauro Giavalisco, & Avery Meiksin.* 398, 429, 189-D7 (1992)
Galaxy Clusters and Cold Dark Matter: A Low-Density Unbiased Universe? *Neta A. Bahcall & Renyue Cen.* 398, L81, 194-B6 (1992)
Latest *COBE* Results, Large-Scale Data, and Predictions of Inflation. *A. Kashlinsky.* 399, L1, 199-G1 (1992)
The Implications of the *COBE* DMR Results for Cosmic Strings. *David P. Bennett, Albert Stebbins, & François R. Bouchet.* 399, L5, 199-G7 (1992)
A Tilted Cold Dark Matter Cosmological Scenario. *Renyue Cen, Nickolay Y. Gnedin, Lev A. Kofman, & Jeremiah P. Ostriker.* 399, L11, 200-A5 (1992)
Galaxy Formation and Physical Bias. *Renyue Cen & Jeremiah P. Ostriker.* 399, L113, 207-F7 (1992)
The Hubble Flow from Brightest Cluster Galaxies. *Tod R. Lauer & Marc Postman.* 400, L47, 220-B8 (1992)
A Quantitative Measure of Structure in the Three-dimensional Galaxy Distribution: Sheets and Filaments. *Arif Babul & Glenn D. Starkman.* 401, 28, 221-D3 (1992)
The Scaling Analysis as a Tool to Compare *N*-Body Simulations with Observations: Application to a Low-Bias Cold Dark Matter Model. *G. Yepes, R. Domínguez-Tenreiro, & H. M. P. Couchman.* 401, 40, 221-E3 (1992)
A Simple Multifractal Model of Nonlinear Gravitational Clustering. *Antonello Provenzale, Piero Galeotti, Giuseppe Murante, & Barbara Villone.* 401, 455, 228-D1 (1992)
Is There a Pancake at $z = 3.4$? *Douglas Scott.* 401, L53, 232-E10 (1992)
On the Microwave Background Anisotropies Produced by Nonlinear Voids. *J. V. Arnau, M. J. Fullana, L. Monreal, & D. Sáez.* 402, 359, 7-B1 (1993)
Small-Scale Microwave Background Anisotropies Implied by Large-Scale Data. *A. Kashlinsky.* 402, 369, 7-C1 (1993)
Generation of Seed Perturbations from Quantum Cosmology. *Tarun Souradeep.* 402, 375, 7-C8 (1993)
Non-Gaussian Signatures from Gaussian Initial Fluctuations: Evolution of Skewness and Kurtosis from Cosmological Simulations in the Highly Nonlinear Regime. *Ofer Lahav, Makoto Itoh, Shogo Inagaki, & Yasushi Suto.* 402, 387, 7-D7 (1993)
Textures and Clusters. *James G. Bartlett, Andrew K. Gooding, & David N. Spergel.* 403, 1, 14-B1 (1993)
Formation of Voids from Negative Density Perturbations. II. The Role of Rotation and Nonspherical Perturbations. *J. C. N. de Araujo & R. Opher.* 403, 26, 14-D3 (1993)
The Angular Dependence of the Three-Point Correlation Function of the Cosmic Microwave Background Radiation as Predicted by Inflationary Cosmologies. *Toby Falk, Raghavan Rangarajan, & Mark Srednicki.* 403, L1, 20-A7 (1993)
The Cosmic Doppler Instability. *Craig J. Hogan.* 403, 445, 21-B1 (1993)
Probing the Statistics of Primordial Fluctuations and Their Evolution. *Enrique Gaztañaga & Jun'ichi Yokoyama.* 403, 450, 21-B9 (1993)
Search for Large-Scale Structure in Quasar Distributions at Redshifts $z \approx 2.2$. *Michael J. Longo.* 403, 466, 21-D1 (1993)
Multifractal Analysis of Cluster Distribution in Two Dimensions. *Stefano Borgani, Manolis Plionis, & Riccardo Valdarnini.* 404, 21, 28-C11 (1993)
Formation of Large-Scale Cosmic Structure by the Doppler Instability. *Y. B. Band.* 404, 425, 34-C1 (1993)
Seeded Hot Dark Matter Models with Inflation. *John Gratsias, Robert J. Sherrer, Gary Steigman, & Jens V. Villumsen.* 405, 30, 41-D8 (1993)
Upper Limit on Periodicity in the Three-dimensional Large-Scale Distribution of Matter. *David Tytler, John Sandoval, & Xiao-Ming Fan.* 405, 57, 41-G1 (1993)
Cooperative Galaxy Formation and Large-Scale Structure. *Richard G. Bower, Peter Coles, Carlos S. Frenk, & Simon D. M. White.* 405, 403, 48-B1 (1993)
Compact Groups of Galaxies and Large-Scale Structure. *G. G. C. Palumbo, P. Saracco, C. Mendes de Oliveira, P. Hickson, V. Tornatore, & G. C. Baiesi-Pillastrini.* 405, 413, 48-C1 (1993)
Ω and the Initial Fluctuations from Velocity and Density Fields. *Adi Nusser & Avishai Dekel.* 405, 437, 48-E1 (1993)
The Power Spectra of *IRAS* Galaxies and of Abell Clusters. *Y. P. Jing & R. Valdarnini.* 406, 6, 55-B7 (1993)
The Advanced Cosmic Microwave Explorer: A Millimeter-Wave Telescope and Stabilized Platform. *P. R. Meinhold, A. O. Chingcuanco, J. O. Gundersen, J. A. Schuster, M. D. Seiffert, P. M. Lubin, D. Morris, & T. Villela.* 406, 12, 55-C1 (1993)
High-z Objects and Cold Dark Matter Cosmogonies: Constraints on the Primordial Power Spectrum on Small Scales. *A. Kashlinsky.* 406, L1, 60-E1 (1993)
COBE's Constraints on the Global Monopole and Texture Theories of Cosmic Structure Formation. *David P. Bennett & Sun Hong Rhie.* 406, L7, 60-E8 (1993)
Ω from the Anisotropy of the Redshift Correlation Function in the *IRAS* 2 Jansky Survey. *A. J. S. Hamilton.* 406, L47, 68-B7 (1993)
Solving the Bernoulli-Zel'dovich Equation. *M. Lachièze-Rey.* 407, 1, 69-B1 (1993)
The Mass Function of Clusters of Galaxies. *Neta A. Bahcall & Renyue Cen.* 407, L49, 82-B10 (1993)

Anisotropy of Cosmic Background Radiation from a Spherical Clustering on Large Scales. *Li-Zhi Fang & Xiang-Ping Wu.* 408, 25, 83-D3 (1993)

Kurtosis, Skewness, and Non-Gaussian Cosmological Density Perturbations. *Xiaochun Luo & David N. Schramm.* 408, 33, 83-E1 (1993)

Higher Order Statistics of the Galaxy Distribution Using Generating Functions. *István Szapudi & Alexander S. Szalay.* 408, 43, 83-E13 (1993)

The Cosmic Mach Number: Direct Comparisons of Observations and Models. *Michael A. Strauss, Renyue Cen, & Jeremiah P. Ostriker.* 408, 389, 90-B1 (1993)

Beyond the Zel'dovich Approximation. *M. Lachièze-Rey.* 408, 403, 90-C1 (1993)

Redshift Space Clustering of Galaxies and Cold Dark Matter Model. *Neta A. Bahcall, Renyue Cen, & Mirt Gramann.* 408, L77, 95-B7 (1993)

Measurements of the Anisotropy of the Cosmic Background Radiation at $0.^{\circ}5$ Scale near the Star μ Pegasi. *P. Meinhold, A. Clapp, M. Devlin, M. Fischer, J. Gundersen, W. Holmes, A. Lange, P. Lubin, P. Richards, & G. Smoot.* 409, L1, 104-A8 (1993)

Tests of Smoothing Methods for Topological Study of Galaxy Redshift Surveys. *Adrian L. Melott & Kurt G. Dominik.* 86, 1, 14-B1 (1993)

Nonlinear Properties and Time Evolution of Gravitational Galaxy Clustering. *William C. Saslaw & Ravi K. Sheth.* 409, 504, 105-B13 (1993)

Objective Detection of Voids and High-Density Structures in the First CfA Redshift Survey Slice. *E. Slezak, V. de Lapparent, & A. Bijaoui.* 409, 517, 105-D1 (1993)

Void Evolution and the Large-Scale Structure. *John Dubinski, L. Nicolaci da Costa, D. S. Goldwirth, M. Lecar, & T. Piran.* 410, 458, 119-D1 (1993)

Controlled Experiments in Cosmological Gravitational Clustering. *Adrian L. Melott & Sergei F. Shandarin.* 410, 469, 119-E1 (1993)

Zel'dovich Approximation and the Probability Distribution for the Smoothed Density Field in the Nonlinear Regime. *T. Padmanabhan & K. Subramanian.* 410, 482, 119-F1 (1993)

Inflationary Stochastic Dynamics and the Statistics of Large-Scale Structure. *Insu Yi & Ethan T. Vishniac.* 86, 333, 19-B1 (1993)

Cosmic Microwave Background Fluctuations as Observed by *COBE*: Theoretical and Experimental Uncertainties. *Roberto Scaramella & Nicola Vittorio.* 411, 1, 127-B1 (1993)

A Generalized Zel'dovich Approximation to Gravitational Instability. *M. Giavalisco, B. Mancinelli, P. J. Mancinelli, & A. Yahil.* 411, 9, 127-B12 (1993)

Mergers and Clustering Evolution. *R. G. Carlberg.* 411, L9, 133-E1 (1993)

Clumpy Cold Dark Matter. *Joseph Silk & Albert Stebbins.* 411, 439, 135-B1 (1993)

The Cluster-Cluster Correlation in Hybrid Models. *Y. P. Jing, H. J. Mo, G. Börner, & L. Z. Fang.* 411, 450, 135-C1 (1993)

IRAS Galaxies versus POTENT Mass: Density Fields, Biasing, and Ω. *Avishai Dekel, Edmund Bertschinger, Amos Yahil, Michael A. Strauss, Marc Davis, & John P. Huchra.* 412, 1, 142-B1 (1993)

On the Inhomogeneity of Dark Matter and Luminous Objects Induced by Infinitely Long Cosmic Strings. *Tetsuya Hara, Petri Mähönen, & Shigeru Miyoshi.* 412, 22, 142-C11 (1993)

Self-ordering Physics in an Open Universe. *David N. Spergel.* 412, L5, 148-B1 (1993)

Skewness Induced by Gravity. *R. Juszkiewicz, F. R. Bouchet, & S. Colombi.* 412, L9, 148-B6 (1993)

Cosmic Background Radiation Anisotropy at Degree Angular Scales: Further Results from the South Pole. *Jeffrey Schuster, Todd Gaier, Joshua Gunderson, Peter Meinhold, Timothy Koch, Michael Seiffert, Carlos Alexandre Wuensche, & Philip Lubin.* 412, L47, 155-B3 (1993)

Streaming Motions in the Local Universe: Evidence for Large-Scale, Low-Amplitude Density Fluctuations. *Stéphane Courteau, S. M. Faber, Alan Dressler, & Jeffrey A. Willick.* 412, L51, 155-B10 (1993)

Selection, Covariance, and Malmquist Bias. *Andrew Gould.* 412, L55, 155-C3 (1993)

Cosmological Constant, *COBE* Cosmic Microwave Background Anisotropy, and Large-Scale Clustering. *Lev A. Kofman, Nickolay Y. Gnedin, & Neta A. Bahcall.* 413, 1, 156-B1 (1993)

Observational Constraints on Primordial Bubbles. *Luca Amendola & Franco Occhionero.* 413, 39, 156-E6 (1993)

Percolation Technique for Galaxy Clustering. *Anatoly Klypin & Sergei F. Shandarin.* 413, 48, 156-F3 (1993)

Biasing and Hierarchical Statistics in Large-Scale Structure. *J. N. Fry & Enrique Gaztañaga.* 413, 447, 162-B7 (1993)

Linear Evolution of Cosmic Baryonic Medium on Large Scales. *Li-Zhi Fang, Hongguang Bi, Shouping Xiang, & Gerhard Börner.* 413, 477, 162-D13 (1993)

Large-Scale Angular Correlations in Cold Dark Matter Models. *Lauro Moscardini, Stefano Borgani, Peter Coles, Francesco Lucchin, Sabino Matarrese, Antonio Messina, & Manolis Plionis.* 413, L55, 168-B1 (1993)

Second-Order Perturbation Theory in an Expanding Universe: Spherical Harmonics Expansion. *Saleem Zaroubi & Yehuda Hoffman.* 414, 20, 170-C8 (1993)

Large-Scale Structure in Biased Cold Dark Matter Cosmologies. *D. G. Lambas, M. G. Abadi, M. A. Nicotra, & P. B. Tissera.* 414, 30, 170-D6 (1993)

A Hydrodynamic Treatment of the Tilted Cold Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah P. Ostriker.* 414, 407, 176-C1 (1993)

Improving the Reconstruction of the Velocity Potential and Primordial Density Fluctuations by Choice of Smoothing Windows. *Adrian L. Melott.* 414, L73, 185-D8 (1993)

Gamma-Ray Bursts as a Probe of Large-Scale Structure in the Universe. *D. Q. Lamb & Jean M. Quashnock.* 415, L1, 191-E8 (1993)

Constrained Realizations of Gaussian Fields: Reconstruction of the Large-Scale Structure. *Galit Ganon & Yehuda Hoffman.* 415, L5, 191-F1 (1993)

A Hydrodynamic Approach to Cosmology: The Primeval Baryon Isocurvature Model. *Renyue Cen, Jeremiah P. Ostriker, & P. J. E. Peebles.* 415, 423, 193-B5 (1993)

Large-Scale Peculiar Velocity Field Due to Infinitely Long Cosmic Strings. *Tetsuya Hara, Petri Mähönen, & Shigeru Miyoshi.* 415, 445, 193-D1 (1993)

Can Extra Power Explain Periodicity on Large Scales? *Shan Luo & Ethan T. Vishniac.* 415, 450, 193-D9 (1993)

The Redshift Space Power Spectrum of Galaxies in a Cold Dark Matter Universe. *Tereasa G. Brainerd & Jens V. Villumsen.* 415, L67, 199-D8 (1993)

Structure Formation with Cold plus Hot Dark Matter. *Anatoly Klypin, Jon Holtzman, Joel Primack, & Enikő Regős.* 416, 1, 201-B1 (1993)

A Hydrodynamic Approach to Cosmology: Nonlinear Effects on Cosmic Backgrounds in the Cold Dark Matter Model. *Roberto Scaramella, Renyue Cen, & Jeremiah P. Ostriker.* 416, 399, 208-B9 (1993)

Gravitational Collapse in an Expanding Universe: Asymptotic Self-similar Solutions. *Saleem Zaroubi & Yehuda Hoffman.* 416, 410, 208-D12 (1993)

Aspects of Zel'dovich Approximation. *T. Padmanabhan & K. Subramanian.* 417, 3, 217-B4 (1993)

Maximum-Likelihood Analysis of the *COBE* Angular Correlation Function. *Uroš Seljak & Edmund Bertschinger.* 417, L9, 222-F13 (1993)

A Hydrodynamic Treatment of the Cold Dark Matter Cosmological Scenario with a Cosmological Constant. *Renyue Cen, Nickolay Y. Gnedin, & Jeremiah P. Ostriker.* 417, 387, 224-B5 (1993)

Cold Dark Matter Cosmogony with Hydrodynamics and Galaxy Formation: Galaxy Properties at Redshift Zero. *Renyue Cen & Jeremiah P. Ostriker.* 417, 415, 224-E1 (1993)

Self-similar Collapse of Axisymmetric Systems. *Barbara S. Ryden.* 418, 4, 231-B5 (1993)

Velocity Fields and Alignments of Clusters in Gravitational Instability Scenarios. *Michiel van Haarlem & Rien van de Weygaert.* 418, 544, 239-C1 (1993)

Linear Evolution of the Gravitational Potential: A New Approximation for the Nonlinear Evolution of Large-Scale Structure. *Tereasa G. Brainerd, Robert J. Scherrer, & Jens V. Villumsen.* 418, 570, 239-E6 (1993)

Confusion Limits to the Measurement of the Sunyaev-Zel'dovich Effects in Clusters of Galaxies at Millimeter Wavelengths. *Marc L. Fischer & Andrew E. Lange.* 419, 433, 253-B8 (1993)

Minimal Microwave Anisotropy from Perturbations Induced at Late Times. *Andrew H. Jaffe, Albert Stebbins, & Joshua A. Frieman.* 420, 9, 1-B11 (1994)

On the Inevitability of Reionization: Implications for Cosmic Microwave Background Fluctuations. *Max Tegmark, Joseph Silk, & Alain Blanchard.* 420, 484, 8-F1 (1994)

Scale Dependence of Three-Point Correlation Functions: Model Predictions and Redshift-Space Contamination. *Takahiko Matsubara & Yasushi Suto.* 420, 497, 8-G2 (1994)

Departure from Hierarchical Clustering Relations for Two-, Three-, and Four-Point Correlation Functions: Analysis of Cosmological N-Body

Simulations. *Yasushi Suto & Takahiko Matsubara.* 420, 504, 8-G11 (1994)
The Genus Curve of the Abell Clusters. *James E. Rhoads, J. Richard Gott III, & Marc Postman.* 421, 1, 16-B1 (1994)
Structure in the Distribution of Southern Galaxies Described by the Distribution Function. *Fan Fang & Zhen-long Zou.* 421, 9, 16-B10 (1994)
On the Prediction of Velocity Fields from Redshift Space Galaxy Samples. *Adi Nusser & Marc Davis.* 421, L1, 21-C8 (1994)
The Phenomenological Status of Late Time Phase Transition Models after Cosmic Background Radiation Anisotropy Measurements. *Xiaochun Luo & David N. Schramm.* 421, 393, 23-B1 (1994)
Cosmological Dipoles in Depth. *Roberto Scaramella, Giampaolo Vettolani, & Giovanni Zamorani.* 422, 1, 30-B1 (1994)
Ω from Velocities in Voids. *Avishai Dekel & Martin J. Rees.* 422, L1, 36-B1 (1994)
Higher Order Moments of the Matter Distribution in Scale-free Cosmological Simulations with Large Dynamic Range. *Francesco Lucchin, Sabino Matarrese, Adrian L. Melott, & Lauro Moscardini.* 422, 430, 37-C4 (1994)
Strong Gravitational Lensing Statistics as a Test of Cosmogonic Scenarios. *Renyue Cen, J. Richard Gott III, Jeremiah P. Ostriker, & Edwin L. Turner.* 423, 1, 46-B1 (1994)
On the Anisotropy of the Cosmic Microwave Background. *A. Mészáros.* 423, 19, 46-C10 (1994)
Peculiar Velocities and Microwave Background Anisotropies from Cosmic Strings. *Leandros Perivolaropoulos & Tanmay Vachaspati.* 423, L77, 60-B1 (1994)
A Large Structure of Galaxies at a Redshift $z = 0.985$. *O. Le Fèvre, D. Crampton, F. Hammer, S. J. Lilly, & L. Tresse.* 423, L89, 60-C5 (1994)
Wiener Reconstruction of All-Sky Galaxy Surveys in Spherical Harmonics. *O. Lahav, K. B. Fisher, Y. Hoffman, C. A. Scharf, & S. Zaroubi.* 423, L93, 60-C13 (1994)
The Local Supercluster as a Test of Cosmological Models. *Renyue Cen.* 424, 22, 62-C8 (1994)
A Complete Southern Sky Redshift Survey. *L. Nicolaci da Costa, M. J. Geller, P. S. Pellegrini, D. W. Latham, A. P. Fairall, R. O. Marzke, C. N. A. Willmer, J. P. Huchra, J. H. Calderon, M. Ramella, & M. J. Kurtz.* 424, L1, 69-A8 (1994)
Modeling the Power Spectrum of Density Fluctuations: A Phenomenological Approach. *Enzo Branchini, Luigi Guzzo, & Riccardo Valdarnini.* 424, L5, 69-B5 (1994)
Redshift Distortions of Galaxy Correlation Functions. *J. N. Fry & Enrique Gaztañaga.* 425, 1, 80-B1 (1994)
Possible Identification of a Cluster of Galaxies at Redshift $z = 3.4$. *Mauro Giavalisco, Charles C. Steidel, & Alexander S. Szalay.* 425, L5, 85-B7 (1994)
Recovering the Real Density Field of Galaxies from Redshift Space. *Mirt Gramann, Renyue Cen, & J. Richard Gott III.* 425, 382, 86-D10 (1994)
The Three-Point Function as a Probe of Models for Large-Scale Structure. *Joshua A. Frieman & Enrique Gaztañaga.* 425, 392, 86-E8 (1994)
The Power Spectra of Dark Halos in a Cold Dark Matter Universe. *Tereasa G. Brainerd & Jens V. Villumsen.* 425, 403, 86-F7 (1994)
The Motion of the Local Group with Respect to the 15,000 Kilometer per Second Abell Cluster Inertial Frame. *Tod R. Lauer & Marc Postman.* 425, 418, 87-A1 (1994)
Shear Fields and the Evolution of Galactic Scale Density Peaks. *Rien van de Weygaert & Arif Babul.* 425, L59, 94-B1 (1994)
Kurtosis and Large-Scale Structure. *Paolo Catelan & Lauro Moscardini.* 426, 14, 96-C2 (1994)
The Correlation Function of Flux-limited X-Ray Clusters. *Neta A. Bahcall & Renyue Cen.* 426, L15, 103-B13 (1994)
Comparison of Dynamical Approximation Schemes for Nonlinear Gravitational Clustering. *Adrian L. Melott.* 426, L19, 103-C5 (1994)
Small-Scale Cosmic Microwave Background Anisotropies as a Probe of the Geometry of the Universe. *Marc Kamionkowski, David N. Spergel, & Naoshi Sugiyama.* 426, L57, 109-B1 (1994)
Testing the Gravitational Instability Hypothesis? *Arif Babul, David H. Weinberg, Avishai Dekel, & Jeremiah P. Ostriker.* 427, 1, 110-B1 (1994)
Reionization in a Cold Dark Matter Universe: The Feedback of Galaxy Formation on the Intergalactic Medium. *Paul R. Shapiro, Mark L. Giroux, & Arif Babul.* 427, 25, 110-D1 (1994)
The Nonlinear Evolution of Rare Events. *Francis Bernardeau.* 427, 51, 110-F1 (1994)
Contribution of Peculiar Shear Motions to Large-Scale Structure. *Hans-Reinhard Müller & Rudolf A. Treumann.* 427, L5, 117-B1 (1994)
Amplitude of Primeval Fluctuations from Cosmological Mass Density Reconstructions. *Uroš Seljak & Edmund Bertschinger.* 427, 523, 119-C1 (1994)
How Unusual is the Locally Quiet Hubble Flow? *David Schlegel, Marc Davis, Frank Summers, & Jon A. Holtzman.* 427, 527, 119-C7 (1994)
Exact Solutions of the Cosmological Perturbations in a Pressureless Medium. *Jai-chan Hwang.* 427, 533, 119-D1 (1994)
Evolution of Scalar Field Cosmological Perturbations. *Jai-chan Hwang.* 427, 542, 119-D13 (1994)
The Distribution of *IRAS* Galaxies on Linear and Nonlinear Scales. *Ravi K. Sheth, H. J. Mo, & William C. Saslaw.* 427, 562, 119-F11 (1994)
Hot Gas in the Cold Dark Matter Scenario: X-Ray Clusters from a High-Resolution Numerical Simulation. *Hyesung Kang, Renyue Cen, Jeremiah P. Ostriker, & Dongsu Ryu.* 428, 1, 128-C1 (1994)
A Test of the Adhesion Approximation for Gravitational Clustering. *Adrian L. Melott, Sergei F. Shandarin, & David H. Weinberg.* 428, 28, 128-E6 (1994)
Do Spirals and Ellipticals Trace the Same Velocity Field? *Tsafrir Kolatt & Avishai Dekel.* 428, 35, 128-F1 (1994)
The Zero-Point of the Cluster-Cluster Correlation Function: A Key Test of Cosmological Power Spectra. *Anatoly Klypin & George Rhee.* 428, 399, 135-B9 (1994)
X-Ray Clusters from a High-Resolution Hydrodynamic PPM Simulation of the Cold Dark Matter Universe. *Greg L. Bryan, Renyue Cen, Michael L. Norman, Jeremiah P. Ostriker, & James M. Stone.* 428, 405, 135-C1 (1994)
Perturbative Growth of Cosmological Clustering. I. Formalism. *Somnath Bharadwaj.* 428, 419, 135-D4 (1994)
Nonlinear Approximations to Gravitational Instability: A Comparison in Second-Order Perturbation Theory. *Dipak Munshi & Alexei A. Starobinsky.* 428, 433, 135-E6 (1994)
Weak Lensing by Nearby Structures. *Andrew Gould & Jens Villumsen.* 428, L45, 142-D1 (1994)
Skewness in Large-Scale Structure and Non-Gaussian Initial Conditions. *J. N. Fry & Robert J. Scherrer.* 429, 36, 144-F2 (1994)
Nonlinear Hydrodynamics of Cosmological Sheets. I. Numerical Techniques and Tests. *Wenbo Y. Anninos & Michael L. Norman.* 429, 434, 151-B10 (1994)
The Fraction of Matter in Voids. *Jaan Einasto, Enn Saar, Maret Einasto, Wolfram Freudling, & Mirt Gramann.* 429, 465, 151-E2 (1994)
Non-Gaussian Statistics of Pencil Beam Surveys. *Luca Amendola.* 430, L9, 165-B13 (1994)
The Three-Point Correlation Function of the Cosmic Microwave Background in Inflationary Models. *Alejandro Gangui, Francesco Lucchin, Sabino Matarrese, & Silvia Mollerach.* 430, 447, 167-C4 (1994)
The Variance of Quasar Counts in Cells. *Paola Andreani, Stefano Cristiani, Francesco Lucchin, Sabino Matarrese, & Lauro Moscardini.* 430, 458, 167-D3 (1994)
Gauge-invariant Cosmological Perturbations in Generalized Einstein Theories. *T. Hirai & K. Maeda.* 431, 6, 176-C8 (1994)
The Evolution of Voids in the Adhesion Approximation. *Varun Sahni, B. S. Sathyaprakash, & Sergei F. Shandarin.* 431, 20, 176-D10 (1994)
Growth of Adiabatic Perturbations in Self-interacting Dark Matter. *Marie E. Machacek.* 431, 41, 176-F6 (1994)
A Hydrodynamic Approach to Cosmology: The Mixed Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah P. Ostriker.* 431, 451, 184-C1 (1994)
On the Evolution of Clustering and the Biased Galaxy Formation Scenario. *Tereasa G. Brainerd & Jens V. Villumsen.* 431, 477, 184-E1 (1994)
Gravitational Instability of Cold Matter. *Edmund Bertschinger & Bhuvnesh Jain.* 431, 486, 184-E12 (1994)
Second-Order Power Spectrum and Nonlinear Evolution at High Redshift. *Bhuvnesh Jain & Edmund Bertschinger.* 431, 495, 184-F9 (1994)
Typical Scales in the Spatial Distribution of QSOs. *Zugan Deng, Xiaoyang Xia, & Li-Zhi Fang.* 431, 506, 184-G9 (1994)
How Cosmic Microwave Background Correlations at Large Angles Relate to Mass Autocorrelations in Space. *George R. Blumenthal & Kathryn V. Johnston.* 432, 1, 193-C1 (1994)

Large-Angle Cosmic Microwave Background Anisotropies in an Open Universe. *Marc Kamionkowski & David N. Spergel.* 432, 7, 193-C9 (1994)

Semiempirical Seeded Isocurvature Cosmogonies. *P. J. E. Peebles.* 432, L1, 199-B1 (1994)

The Angular Correlation Function of Galaxies in Cold Dark Matter and Cold Plus Hot Dark Matter Models. *G. Yepes, A. A. Klypin, A. Campos, & R. Fong.* 432, L11, 199-C1 (1994)

Abundance of Moderate-Redshift Clusters in the Cold Plus Hot Dark Matter Model. *Yi-Peng Jing & Li-Zhi Fang.* 432, 438, 201-D1 (1994)

Skewness and Kurtosis in Large-Scale Cosmic Fields. *Francis Bernardeau.* 433, 1, 208-C1 (1994)

On the Microwave Background Anisotropy Produced by Great Attractor–like Structures. *M. J. Fullana, D. Sáez, & J. V. Arnau.* 94, 1, 52-B1 (1994)

Analysis of Small-Scale Microwave Background Radiation Anisotropy in the Presence of Foreground Contamination. *Scott Dodelson & Albert Stebbins.* 433, 440, 216-D8 (1994)

Isotropy, Homogeneity, and Dipole Saturation. *Francesco Sylos Labini.* 433, 464, 216-F8 (1994)

Mixed Dark Matter from Neutrino Lasing. *G. D. Starkman, N. Kaiser, & R. A. Malaney.* 434, 12, 225-D1 (1994)

Measurement of Large- and Superlarge-Scale Structures of the Universe. *Olga E. Buryak, Andrei G. Doroshkevich, & Richard Fong.* 434, 24, 225-E2 (1994)

Cosmic Background Radiation Anisotropy in an Open Inflation, Cold Dark Matter Cosmogony. *Marc Kamionkowski, Bharat Ratra, David N. Spergel, & Naoshi Sugiyama.* 434, L1, 232-B1 (1994)

The Cosmological Dependence of Cluster Density Profiles. *Mary M. Crone, August E. Evrard, & Douglas O. Richstone.* 434, 402, 233-C9 (1994)

Large-Scale Streaming Motions in the Local Universe. *D. S. Mathewson & V. L. Ford.* 434, L39, 241-C1 (1994)

Lagrangian Evolution of the Weyl Tensor. *Edmund Bertschinger & A. J. S. Hamilton.* 435, 1, 243-C1 (1994)

Optimal Galaxy Distance Estimators. *M. A. Hendry & J. F. L. Simmons.* 435, 515, 253-C1 (1994)

The Cosmological Mass Distribution from Cayley Trees with Disorder. *A. Cavaliere & N. Menci.* 435, 528, 253-D3 (1994)

A "Skewed" Lognormal Approximation to the Probability Distribution Function of the Large-Scale Density Field. *S. Colombi.* 435, 536, 253-E1 (1994)

Imprints of Galaxy Clustering Evolution on $\Delta T/T$. *Enrique Martínez-González, Jose L. Sanz, & Joseph Silk.* 436, 1, 261-C1 (1994)

Kurtosis as a Non-Gaussian Signature of the Large-Scale Velocity Field. *Paolo Catelan & Lauro Moscardini.* 436, 5, 261-C8 (1994)

Hierarchical Numerical Cosmology with Hydrodynamics: Methods and Code Tests. *Peter Anninos, Michael L. Norman, & David A. Clarke.* 436, 11, 261-D3 (1994)

The Motions of Clusters and Groups of Galaxies. *Neta A. Bahcall, Mirt Gramann, & Renyue Cen.* 436, 23, 261-E4 (1994)

Cosmic Temperature Fluctuations from Two Years of *COBE* Differential Microwave Radiometers Observations. *C. L. Bennett, A. Kogut, G. Hinshaw, A. J. Banday, E. L. Wright, K. M. Górski, D. T. Wilkinson, R. Weiss, G. F. Smoot, S. S. Meyer, J. C. Mather, P. Lubin, K. Loewenstein, C. Lineweaver, P. Keegstra, E. Kaita, P. D. Jackson, & E. S. Cheng.* 436, 423, 271-D1 (1994)

Angular Power Spectrum of the Microwave Background Anisotropy Seen by the *COBE* Differential Microwave Radiometer. *E. L. Wright, G. F. Smoot, C. L. Bennett, & P. M. Lubin.* 436, 443, 271-E13 (1994)

Thermal History Constraints on the Isocurvature Baryon Model. *Wayne Hu & Naoshi Sugiyama.* 436, 456, 271-G4 (1994)

Large-Scale Structure Effects on the Gravitational Lens Image Positions and Time Delay. *Uroš Seljak.* 436, 509, 272-D13 (1994)

Nonlinear Approximations to Gravitational Instability: A Comparison in the Quasi-linear Regime. *Dipak Munshi, Varun Sahni, & Alexei A. Starobinsky.* 436, 517, 272-E10 (1994)

On the Peculiar Velocity Field of a CDM Universe. *Tereasa G. Brainerd & Jens V. Villumsen.* 436, 528, 272-F11 (1994)

Reconstruction of Initial Cosmological Density Fluctuations by the Pseudospectral Method. *Naoteru Gouda.* 436, 542, 273-A1 (1994)

The Effect of Gravitational Scattering on the Anisotropy of the Cosmic Background Radiation. *Toshiyuki Fukushige, Junichiro Makino, & Toshikazu Ebisuzaki.* 436, L107, 280-E4 (1994)

Statistics and Topology of the *COBE* Differential Microwave Radiometer First-Year Sky Maps. *G. F. Smoot, L. Tenorio, A. J. Banday, A. Kogut, E. L. Wright, G. Hinshaw, & C. L. Bennett.* 437, 1, 283-C1 (1994)

Internal Velocity and Mass Distributions in Simulated Clusters of Galaxies for a Variety of Cosmogonic Models. *Renyue Cen.* 437, 12, 283-D2 (1994)

Relativistic Fireworks: Not a Viable Model for Cosmology. *Lennart Widlund.* 437, 27, 283-E6 (1994)

Synthesizing the Observed Distribution of Galaxies. *Ravi K. Sheth & William C. Saslaw.* 437, 35, 283-F3 (1994)

The Power Spectrum of Galaxies in the Nearby Universe. *L. Nicolaci da Costa, Michael S. Vogeley, Margaret J. Geller, John P. Huchra, & Changbom Park.* 437, L1, 291-B1 (1994)

The Evolution of X-Ray Clusters in a Cold Plus Hot Dark Matter Universe. *Greg L. Bryan, Anatoly Klypin, Chris Loken, Michael L. Norman, & Jack O. Burns.* 437, L5, 291-B8 (1994)

Gravitational Collapse of Small-Scale Structure as the Origin of the Lyman-Alpha Forest. *Renyue Cen, Jordi Miralda-Escudé, Jeremiah P. Ostriker, & Michael Rauch.* 437, L9, 291-C1 (1994)

Bias and High-Order Galaxy Correlation Functions in the APM Galaxy Survey. *Enrique Gaztañaga & Joshua A. Frieman.* 437, L13, 291-C8 (1994)

Velocity Correlations of Galaxy Clusters. *Renyue Cen, Neta A. Bahcall, & Mirt Gramann.* 437, L51, 292-A8 (1994)

Correlations in Cosmic Density Fields. *B. C. Bromley.* 437, 541, 293-C1 (1994)

Correlations and Scaling in the QDOT Redshift Survey. *Vicent J. Martínez & Peter Coles.* 437, 550, 293-C13 (1994)

Sizes of Voids as a Test for Dark Matter Models. *Sebastiano Ghigna, Stefano Borgani, Silvio A. Bonometto, Luigi Guzzo, Anatoly Klypin, Joel R. Primack, Riccardo Giovanelli, & Martha P. Haynes.* 437, L71, 298-E1 (1994)

Inhomogeneity of Cold Dark Matter due to Initial Fluctuations in the Long Cosmic String Scheme. I. *Tetsuya Hara, Petri Mähönen, Hideki Yamamoto, & Shigeru J. Miyoshi.* 438, 27, 1-F4 (1995)

High-Order Correlations of Rich Galaxy Clusters. *Alberto Cappi & Sophie Maurogordato.* 438, 507, 11-C1 (1995)

Tilted Hybrid Dark Matter Models and Cosmic Microwave Background Anistropies. *Giancarlo De Gasperis, Pio Francesco Muciaccia, & Nicola Vittorio.* 439, 1, 21-C1 (1995)

An Analytical Model for the Triaxial Collapse of Cosmological Perturbations. *Daniel J. Eisenstein & Abraham Loeb.* 439, 520, 31-E1 (1995)

The Clustering Properties of Faint Galaxies. *L. Infante & C. J. Pritchet.* 439, 565, 32-B8 (1995)

Evidence for Small-Scale Clustering in a Column-Density–limited Sample of the Lyman-Alpha Forest. *Victor V. Chernomordik.* 440, 431, 49-C1 (1995)

Three-dimensional Shape Statistics: Methodology. *Shan Luo & Ethan Vishniac.* 96, 429, 8-B2 (1995)

The *COBE* Normalization for Standard Cold Dark Matter. *Emory F. Bunn, Douglas Scott, & Martin White.* 441, L9, 66-D4 (1995)

Large-Scale Motions in the Universe: Using Clusters of Galaxies as Tracers. *Mirt Gramann, Neta A. Bahcall, Renyue Cen, & J. Richard Gott.* 441, 449, 68-C1 (1995)

Reionization in an Open Cold Dark Matter Universe: Implications for Cosmic Microwave Background Fluctuations. *Max Tegmark & Joseph Silk.* 441, 458, 68-C13 (1995)

Moments of the Cluster Distribution as a Test of Dark Matter Models. *Manolis Plionis, Stefano Borgani, Lauro Moscardini, & Peter Coles.* 441, L57, 75-F6 (1995)

Dual-Frequency Mapping with the Tenerife Cosmic Microwave Background Experiments. *C. M. Gutiérrez de la Cruz, R. D. Davies, R. Rebolo, R. A. Watson, S. Hancock, & A. N. Lasenby.* 442, 10, 77-C13 (1995)

Dynamics of Gravitational Instability Is Nonlocal. *Lev Kofman & Dmitry Pogosyan.* 442, 30, 77-E12 (1995)

Weakly Nonlinear Gaussian Fluctuations and the Edgeworth Expansion. *Roman Juszkiewicz, David H. Weinberg, Piotr Amsterdamski, Michał Chodorowski, & François Bouchet.* 442, 39, 77-F10 (1995)

The Stromlo-APM Redshift Survey. II. Variation of Galaxy Clustering with Morphology and Luminosity. *J. Loveday, S. J. Maddox, G. Efstathiou, & B. A. Peterson.* 442, 457, 86-C1 (1995)

Testing the Velocity Field in Non–Scale-invariant Cold Dark Matter Models. *Lauro Moscardini, Giuseppe Tormen, Sabino Matarrese, & Francesco Lucchin.* 442, 469, 86-D3 (1995)

Evidence for a Very Large Scale Fractal Structure in the Universe from *COBE* Measurements. *Elisabete M. de Gouveia Dal Pino, Annibal Hetem, Jorge E. Horvath, Carlos A. W. de Souza, Thyrso Villela, & J. C. N. de Araujo.* 442, L45, 94-C1 (1995)

Bayesian Approaches to Testing the Nature of Primordial Density Fluctuation. *Shan Luo & Ethan Vishniac.* 443, 469, 104-D1 (1995)

Properties of the Cosmological Density Distribution Function. *Francis Bernardeau & Lev Kofman.* 443, 479, 104-F1 (1995)

Damped Lyman-Alpha Systems versus Cold + Hot Dark Matter. *Anatoly Klypin, Stefano Borgani, Jon Holtzman, & Joel Primack.* 444, 1, 113-C1 (1995)

Percolation and Cluster Analysis for $\Delta T/T$ Maps. *P. D. Naselsky & D. I. Novikov.* 444, L1, 121-B1 (1995)

Can Standard Cosmological Models Explain the Observed Abell Cluster Bulk Flow? *Michael A. Strauss, Renyue Cen, Jeremiah P. Ostriker, Tod R. Lauer, & Marc Postman.* 444, 507, 123-D8 (1995)

Higher Order Statistics from the APM Galaxy Survey. *István Szapudi, Gavin B. Dalton, George Efstathiou, & Alexander S. Szalay.* 444, 520, 123-E10 (1995)

COBE DMR–normalized Open Inflation, Cold Dark Matter Cosmology. *Krzysztof M. Górski, Bharat Ratra, Naoshi Sugiyama, & Anthony J. Banday.* 444, L65, 130-B8 (1995)

Velocity Differences as a Probe of Non-Gaussian Density Fields. *Paolo Catelan & Robert J. Scherrer.* 445, 1, 132-D1 (1995)

Vacuum Zero-Point Field Pressure Instability in Astrophysical Plasmas and the Formation of Cosmic Voids. *Alfonso Rueda, Bernhard Haisch, & Daniel C. Cole.* 445, 7, 132-D10 (1995)

Nonlinear Structure Formation in Flat Cosmological Models. *Hugo Martel.* 445, 537, 142-D11 (1995)

Dynamics of Silent Universes. *Marco Bruni, Sabino Matarrese, & Ornella Pantano.* 445, 958, 148-D13 (1995)

Constraints on Cold Dark Matter Theories from Observations of Massive X-Ray–luminous Clusters of Galaxies at High Redshift. *G. A. Luppino & I. M. Gioia.* 445, L77, 150-D5 (1995)

Determining the Motion of the Local Group Using Type Ia Supernova Light Curve Shapes. *Adam G. Riess, William H. Press, & Robert P. Kirshner.* 445, L91, 150-F3 (1995)

Cosmological Constant Cold Dark Matter Models and the *COBE* Two-Year Sky Maps. *Emory F. Bunn & Naoshi Sugiyama.* 446, 49, 153-G6 (1995)

Mass Segregation in Dark Matter Models. *A. Campos, G. Yepes, A. Klypin, G. Murante, A. Provenzale, & S. Borgani.* 446, 54, 154-A1 (1995)

Cosmic Strings and Cosmic Variance. *Alejandro Gangui & Leandros Perivolaropoulos.* 447, 1, 172-C1 (1995)

The Mass Function of Cosmic Structures with Nonspherical Collapse. *Pierluigi Monaco.* 447, 23, 172-E2 (1995)

The Effects of Inhomogeneities on Evaluating the Deceleration Parameter q_0. *R. Kantowski, T. Vaughan, & D. Branch.* 447, 35, 172-F4 (1995)

A Redshift-Magnitude Relation for Nonuniform Pressure Universes. *Mariusz P. Dąbrowski.* 447, 43, 172-G2 (1995)

Mixed Cold-Hot Dark Matter Model with Falling and Quasi-flat Initial Perturbation Spectra. *Dmitri Yu. Pogosyan & Alexei A. Starobinsky.* 447, 465, 182-C1 (1995)

COBE Constraints on Baryon Isocurvature Models. *Wayne Hu, Emory F. Bunn, & Naoshi Sugiyama.* 447, L59, 190-B1 (1995)

Probability Distribution of the Hubble Constant and the Age of the Universe Inferred from Local Observations. *Takahiro T. Nakamura & Yasushi Suto.* 447, L65, 190-B8 (1995)

Where is the Dark Matter? *Neta A. Bahcall, Lori M. Lubin, & Victoria Dorman.* 447, L81, 190-D8 (1995)

The Cloud-in-Cloud Problem in the Press-Schechter Formalism of Hierarchical Structure Formation. *Karsten Jedamzik.* 448, 1, 192-C1 (1995)

Constraints on the Topology of the Universe from the 2 Year *COBE* Data. *Angélica de Oliveira-Costa & George F. Smoot.* 448, 477, 201-C1 (1995)

Comparison of the *COBE* DMR and Tenerife Data. *C. H. Lineweaver, S. Hancock, G. F. Smoot, A. N. Lasenby, R. D. Davies, A. J. Banday, C. M. Gutiérrez de la Cruz, R. A. Watson, & R. Rebolo.* 448, 482, 201-C10 (1995)

On the Validity of the Streaming Model for the Redshift-Space Correlation Function in the Linear Regime. *Karl B. Fisher.* 448, 494, 201-E1 (1995)

Two-Point Angular Correlation Function for the Green Bank 4.85 GHz Sky Survey. *Brian L. Kooiman, Jack O. Burns, & Anatoly A. Klypin.* 448, 500, 201-E10 (1995)

On the Measurement of the Hubble Constant in a Local Low-Density Universe. *Xiang-Ping Wu, Zugan Deng, Zhenlong Zou, Li-Zhi Fang, & Bo Qin.* 448, L65, 208-F1 (1995)

Lyman-Alpha Forest Correlations Using Neighbor Counts. *Avery Meiksin & François R. Bouchet.* 448, L85, 209-A8 (1995)

A New X-Ray–discovered Cluster of Galaxies Associated with CL 0016+16. *John P. Hughes, Mark Birkinshaw, & John P. Huchra.* 448, L93, 209-B7 (1995)

Evidence for Gaussian Initial Fluctuations from the 1.2 Jansky *IRAS* Survey. *Adi Nusser, Avishai Dekel, & Amos Yahil.* 449, 439, 218-G11 (1995)

Wiener Reconstruction of the Large-Scale Structure. *S. Zaroubi, Y. Hoffman, K. B. Fisher, & O. Lahav.* 449, 446, 219-A7 (1995)

A Method for Weak Lensing Observations. *Nick Kaiser, Gordon Squires, & Tom Broadhurst.* 449, 460, 219-B10 (1995)

The Gunn-Peterson Effect from Underdense Regions in a Photoionized Intergalactic Medium. *Andreas Reisenegger & Jordi Miralda-Escudé.* 449, 476, 219-D5 (1995)

Nonlinear Hydrodynamics of Cosmological Sheets. II. Fragmentation and the Gravitational, Cooling, and Thin-Shell Instabilities. *Wenbo Y. Anninos, Michael L. Norman, & Peter Anninos.* 450, 1, 228-B1 (1995)

Observations in a Super–Horizon-Scale Inhomogeneous Cosmological Model. *Kenji Tomita.* 451, 1, 246-C1 (1995)

The Spontaneous Violation of the Cosmological Principle and the Possible Wave Structures of the Universe. *P. Budinich, P. Nurowski, R. Raczka, & M. Ramella.* 451, 10, 246-C13 (1995)

The Local Lyα Forest: Association of Clouds with Superclusters and Voids. *John T. Stocke, J. Michael Shull, Steve Penton, Megan Donahue, & Chris Carilli.* 451, 24, 246-E2 (1995)

Substructure: Clues to the Formation of Clusters of Galaxies. *Michael J. West, Christine Jones, & William Forman.* 451, L5, 252-B5 (1995)

Spectral Analysis of Microwave Background Perturbations Induced by Cosmic Strings. *Leandros Perivolaropoulos.* 451, 429, 253-C1 (1995)

Background X-Ray Emission from Hot Gas in CDM and CDM+Λ Universes: Spectral Signatures. *Renyue Cen, Hyesung Kang, Jeremiah P. Ostriker, & Dongsu Ryu.* 451, 436, 253-C11 (1995)

Matter Distribution for Power Spectra with Broken Scale Invariance. *Luca Amendola, Stefan Gottlöber, Jan Peter Mücket, & Volker Müller.* 451, 444, 253-D10 (1995)

Measuring q_0 from the Distortion of Voids in Redshift Space. *Barbara S. Ryden.* 452, 25, 262-E4 (1995)

Nucleosynthesis in the Presence of Primordial Isocurvature Baryon Fluctuations. *Karsten Jedamzik & George M. Fuller.* 452, 33, 262-F2 (1995)

Local Nonlinear Approximations to the Growth of Cosmic Structures. *Paul J. Mancinelli & Amos Yahil.* 452, 75, 263-B8 (1995)

Constraints on Self-interacting Dark Matter. *Andrew A. de Laix, Robert J. Scherrer, & Robert K. Schaefer.* 452, 495, 271-D13 (1995)

The Confluent System Formalism. I. The Mass Function of Objects in the Peak Model. *Alberto Manrique & Eduard Salvador-Solé.* 453, 6, 281-C9 (1995)

Cosmological Observations in a Local Void. *J. W. Moffat & D. C. Tatarski.* 453, 17, 281-D9 (1995)

Real-Space Cosmic Fields from Redshift-Space Distributions: A Green's Function Approach. *Max Tegmark & B. C. Bromley.* 453, 533, 291-C1 (1995)

The Hubble Parameter in a Void Universe: Effect of the Peculiar Velocity. *Ken-ichi Nakao, Naoteru Gouda, Takeshi Chiba, Satoru Ikeuchi, Takashi Nakamura, & Masaru Shibata.* 453, 541, 291-C13 (1995)

Gravitational Lensing Limits on Cold Dark Matter and Its Variants. *Christopher S. Kochanek.* 453, 545, 291-D6 (1995)

Galaxy Clustering Statistics of *Hubble Space Telescope* Medium Deep Survey WF/PC Images. *L. W. Neuschaefer, K. U. Ratnatunga, R. E. Griffiths, S. Casertano, & M. Im.* 453, 559, 291-E10 (1995)

Cosmological Simulations Using Special Purpose Computers: Implementing P^3M on GRAPE. *Philippe P. Brieu, F. J. Summers, & Jeremiah P. Ostriker.* 453, 566, 291-F6 (1995)

Interpreting New Data on Large-Scale Bulk Flows. *Richard Watkins & Hume A. Feldman.* 453, L73, 298-C8 (1995)

Galaxy Tracers and Velocity Bias. *F. J. Summers, Marc Davis, & August E. Evrard.* 454, 1, 299-C1 (1995)

Diagrammatic Methods in Statistics and Biasing in the Large-Scale Structure of the Universe. *Takahiko Matsubara.* 101, 1, 53-B1 (1995)

Skewness of Cosmic Microwave Background Temperature Fluctuations Due to Nonlinear Gravitational Instability. *Dipak Munshi, Tarun Souradeep, & Alexei A. Starobinsky.* 454, 552, 309-B5 (1995)

On the Interpretation of Clustering from the Angular APM Galaxy Survey. *Enrique Gaztañaga.* 454, 561, 309-C3 (1995)

On the Measurement of a Cosmological Dipole in the Photon Number Counts of Gamma-Ray Bursts. *C. A. Scharf, K. Jahoda, & E. Boldt.* 454, 573, 309-D4 (1995)

Quasar Constraints on the Cosmic String Models. *P. Mähönen, T. Hara, & S. J. Miyoshi.* 454, L81, 315-D2 (1995)

A Brute Force Analysis of the *COBE* DMR Data. *Max Tegmark & Emory F. Bunn.* 455, 1, 318-C1 (1995)

Cosmological Perturbation Theory in the Synchronous and Conformal Newtonian Gauges. *Chung-Pei Ma & Edmund Bertschinger.* 455, 7, 318-C10 (1995)

A Method for Extracting Maximum Resolution Power Spectra from Galaxy Surveys. *Max Tegmark.* 455, 429, 327-G1 (1995)

Mapping the Galaxy Distribution at Large Distances. *Christèle Bellanger & Valérie de Lapparent.* 455, L103, 333-D2 (1995)

COSMOLOGY: MISCELLANEOUS

Gamma-Ray Bursts from Extragalactic Radio Pulsars. *Fulvio Melia & Marco Fatuzzo.* 398, L85, 194-B10 (1992)

Focusing of Alfvénic Wave Power in the Context of Gamma-Ray Burst Emissivity. *Marco Fatuzzo & Fulvio Melia.* 414, L89, 185-F7 (1993)

Gamma-Ray Bursts: Multiwaveband Spectral Predictions for Blast Wave Models. *P. Mészáros & M. J. Rees.* 418, L59, 245-B7 (1993)

X-Ray Halos as Tracers of the Distance of the Gamma-Ray Bursters. *S. Klose.* 423, L23, 53-D5 (1994)

Unsteady Outflow Models for Cosmological Gamma-Ray Bursts. *M. J. Rees & P. Mészáros.* 430, L93, 174-D13 (1994)

COSMOLOGY: OBSERVATIONS

Do the Redshifts of Gravitational Lens Galaxies Rule Out a Large Cosmological Constant? *Christopher S. Kochanek.* 384, 1, 1-A11 (1992)

Statistical Tests of Peaks and Periodicities in the Observed Redshift Distribution of Quasi-stellar Objects. *Debiprosad Duari, Patrick Das Gupta, & Jayant V. Narlikar.* 384, 35, 1-D9 (1992)

The Distribution of Galaxies within the "Great Wall." *Massimo Ramella, Margaret J. Geller, & John P. Huchra.* 384, 396, 7-B7 (1992)

The Faint Galaxy Contribution to the Diffuse Extragalactic Background Light. *Shaun Cole, Marie-Agnes Treyer, & Joseph Silk.* 385, 9, 12-B10 (1992)

Measuring Omega and the Real Correlation Function from the Redshift Correlation Function. *A. J. S. Hamilton.* 385, L5, 17-B1 (1992)

The Time Delay of Gravitational Lens 0957+561. I. Methodology and Analysis of Optical Photometric Data. *William H. Press, George B. Rybicki, & Jacqueline N. Hewitt.* 385, 404, 18-C4 (1992)

The Time Delay of Gravitational Lens 0957+561. II. Analysis of Radio Data and Combined Optical-Radio Analysis. *William H. Press, George B. Rybicki, & Jacqueline N. Hewitt.* 385, 416, 18-D4 (1992)

Constraints on the Universe with a Decaying Cosmological Constant from a Number Count of Faint Galaxies. *Yuzuru Yoshii & Katsuhiko Sato.* 387, L7, 43-B1 (1992)

Possible Geometric Patterns in $0.1c$ Scale Structure. *R. Brent Tully, Roberto Scaramella, Giampaolo Vettolani, & Giovanni Zamorani.* 388, 9, 49-B10 (1992)

Magnetic Fields in Damped Lyα Systems. *A. M. Wolfe, K. M. Lanzetta, & A. L. Oren.* 388, 17, 49-C5 (1992)

Galactic Disks, Infall, and the Global Value of Ω. *G. Tóth & J. P. Ostriker.* 389, 5, 60-B6 (1992)

The Contribution of Quasars to the Ultraviolet Extragalactic Background. *Piero Madau.* 389, L1, 66-B1 (1992)

Type II-L Supernovae—Standard Bombs. *C. Martin Gaskell.* 389, L17, 66-C6 (1992)

The Properties of X-Ray Selected Active Galactic Nuclei. II. A Deeper Look at the Cosmological Evolution. *Roberto Della Ceca, Tommaso Maccacaro, Isabella M. Gioia, Anna Wolter, & John T. Stocke.* 389, 491, 67-E8 (1992)

Clustering of Galaxy Clusters. I. Is the Spatial Cluster-Cluster Correlation Function Enhanced Significantly by Contaminations? *Yi-Peng Jing, Manolis Plionis, & Riccardo Valdarnini.* 389, 499, 67-F3 (1992)

The Implications of the *Compton* (*GRO*) Observations for Cosmological Gamma-Ray Bursts. *Tsvi Piran.* 389, L45, 73-B6 (1992)

H I Observations of Galaxies in the Hercules Supercluster. II. Additional UGC Galaxies and Galaxies in Selected CGCG Fields. *Wolfram Freudling, Martha P. Haynes, & Riccardo Giovanelli.* 79, 157, 16-B1 (1992)

The Large-Scale Galaxy Distribution in the Southern Sky Redshift Survey. *S. Maurogordato, R. Schaeffer, & L. N. da Costa.* 390, 17, 74-C7 (1992)

Nearby Galaxy Flows Modeled by the Light Distribution. *Edward J. Shaya, R. Brent Tully, & Michael J. Pierce.* 391, 16, 86-C5 (1992)

An Upper Limit on the Cosmic Ultraviolet Background. *Edward L. Wright.* 391, 34, 86-D11 (1992)

Large-Scale Clustering of Galaxies in the CfA Redshift Survey. *Michael S. Vogeley, Changbom Park, Margaret J. Geller, & John P. Huchra.* 391, L5, 91-G1 (1992)

Rocket Observation of the Near-Infrared Spectrum of the Sky. *M. Noda, V. V. Christov, H. Matsuhara, T. Matsumoto, S. Matsuura, K. Noguchi, S. Sato, & H. Murakami.* 391, 456, 93-E9 (1992)

The Age and Chemical Evolution of High-Redshift QSOs. *Fred Hamann & Gary Ferland.* 391, L53, 99-C7 (1992)

He I Absorption by Lyman-Alpha Clouds and Low-Redshift Lyman-Alpha Clouds. *Jordi Miralda-Escudé & Jeremiah P. Ostriker.* 392, 15, 101-C1 (1992)

HRCam Survey for Closely Spaced Gravitational Lenses. *David Crampton, Robert D. McClure, & J. Murray Fletcher.* 392, 23, 101-C10 (1992)

Large-Scale Structure in the Southern Sky Redshift Survey. *Changbom Park, J. Richard Gott III, & L. Nicolaci da Costa.* 392, L51, 113-B6 (1992)

Nearby Galaxy Flows Modeled by the Light Distribution: Distances, Model, and the Local Velocity Anomaly. *R. Brent Tully, Edward J. Shaya, & Michael J. Pierce.* 80, 479, 30-B1 (1992)

The Distribution of Rich Clusters of Galaxies in the South Galactic Pole Region. *Luigi Guzzo, Chris A. Collins, Robert C. Nichol, & Stuart L. Lumsden.* 393, L5, 120-B1 (1992)

Hubble Flows in the Pisces-Perseus Region from the Giovanelli-Haynes Galaxy Sample. *T. Ichikawa & M. Fukugita.* 394, 61, 128-G5 (1992)

Multifractal Properties of Cosmological *N*-Body Simulations. *Riccardo Valdarnini, Stefano Borgani, & Antonello Provenzale.* 394, 422, 134-E7 (1992)

Expanding Photospheres of Type II Supernovae and the Extragalactic Distance Scale. *Brian P. Schmidt, Robert P. Kirshner, & Ronald G. Eastman.* 395, 366, 146-G7 (1992)

Structure in the *COBE* Differential Microwave Radiometer First-Year Maps. *G. F. Smoot, C. L. Bennett, A. Kogut, E. L. Wright, J. Aymon, N. W. Boggess, E. S. Cheng, G. De Amici, S. Gulkis, M. G. Hauser, G. Hinshaw, P. D. Jackson, M. Janssen, E. Kaita, T. Kelsall, P. Keegstra, C. Lineweaver, K. Loewenstein, P. Lubin, J. Mather, S. S. Meyer, S. H. Moseley, T. Murdock, L. Rokke, R. F. Silverberg, L. Tenorio, R. Weiss, & D. T. Wilkinson.* 396, L1, 160-B1 (1992)

Preliminary Separation of Galactic and Cosmic Microwave Emission for the *COBE* Differential Microwave Radiometers. *C. L. Bennett, G. F. Smoot, G. Hinshaw, E. L. Wright, A. Kogut, G. De Amici, S. S. Meyer, R. Weiss, D. T. Wilkinson, S. Gulkis, M. Janssen, N. W. Boggess, E. S. Cheng, M. G. Hauser, T. Kelsall, J. C. Mather, S. H. Moseley, Jr., T. L. Murdock, & R. F. Silverberg.* 396, L7, 160-C1 (1992)

Interpretation of the Cosmic Microwave Background Radiation Anisotropy Detected by the *COBE* Differential Microwave Radiometer. *E. L. Wright, S. S. Meyer, C. L. Bennett, N. W. Boggess, E. S. Cheng, M. G. Hauser, A. Kogut, C. Lineweaver, J. C. Mather, G. F. Smoot, R. Weiss, S. Gulkis, G. Hinshaw, M. Janssen, T. Kelsall, P. M. Lubin, S. H. Moseley, Jr., T. L. Murdock, R. A. Shafer, R. F. Silverberg, & D. T. Wilkinson.* 396, L13, 160-D1 (1992)

A Redshift Survey of *IRAS* Galaxies. V. The Acceleration on the Local Group. *Michael A. Strauss, Amos Yahil, Marc Davis, John P. Huchra, & Karl Fisher.* 397, 395, 175-E11 (1992)

A Direct Measure of the Gunn-Peterson Effect at $z = 3$: Limits on the Baryon Density of the Intergalactic Medium at High Redshifts. *Emanuele Giallongo, Stefano Cristiani, & Dario Trevese.* 398, L9, 187-B7 (1992)

Low-Redshift Lyman-Alpha Absorption Lines and the Dark Matter Halos of Disk Galaxies. *Philip Maloney.* 398, L89, 194-C1 (1992)

Possible Explanations of the Large Angle Fluctuations of the Microwave Background. *F. Hoyle & G. Burbidge.* 399, L9, 200-A1 (1992)

Angular Correlation Function of Faint Galaxies. *C. J. Pritchet & L. Infante.* 399, L35, 200-C13 (1992)

A Simple Test of Independence for Truncated Data with Applications to Redshift Surveys. *Bradley Efron & Vahé Petrosian.* 399, 345, 202-C1 (1992)

Large-Scale Structure in the Universe: Results from the Stromlo-APM Redshift Survey. *J. Loveday, G. Efstathiou, B. A. Peterson, & S. J. Maddox.* 400, L43, 220-B1 (1992)

The Gravitational Wave Contribution to Cosmic Microwave Background Anisotropies and the Amplitude of Mass Fluctuations from *COBE* Results. *Francesco Lucchin, Sabino Matarrese, & Silvia Mollerach.* 401, L49, 232-E4 (1992)

Is There a Pancake at $z = 3.4$? *Douglas Scott.* 401, L53, 232-E10 (1992)

$H_0 = 43 \pm 11$ km s^{-1} Mpc^{-1} Based on Angular Diameters of High-Luminosity Field Spiral Galaxies. *Allan Sandage.* 402, 3, 1-B5 (1993)

A Spectroscopic Study of Damped Lyman-α Systems in the Las Campanas/Palomar Survey. *Limin Lu, Arthur M. Wolfe, David A. Turnshek, & Kenneth M. Lanzetta.* 84, 1, 1-B1 (1993)

Automated Galaxy Redshift Measurements from Very Low Dispersion Objective Prism Schmidt Plates. *Peter Schuecker.* 84, 39, 1-E11 (1993)

Detection and Selection Effects in Observations of Faint Galaxies. *Yuzuru Yoshii.* 403, 552, 22-D11 (1993)

Direct Construction of the Galaxy Luminosity Function as a Function of Redshift. *Stephen Eales.* 404, 51, 28-F1 (1993)

The Quasar Proximity Effect in an Equivalent-Width–limited Sample of the Lyman-Alpha Forest. *Victor V. Chernomordik & Leonid M. Ozernoy.* 404, L5, 33-D1 (1993)

H_0 Found by Comparing Linear Diameters of M31 with Similar Field Galaxies. *Allan Sandage.* 404, 419, 34-B6 (1993)

Damped Lyman-Alpha Absorption by Disk Galaxies with Large Redshifts. IV. More Intermediate-Resolution Spectroscopy. *Arthur M. Wolfe, David A. Turnshek, Kenneth M. Lanzetta, & Limin Lu.* 404, 480, 35-A1 (1993)

Limits on the Anisotropy of the Microwave Background Radiation on Arcminute Scales. II. The Ring Experiment. *S. T. Myers, A. C. S. Readhead, & C. R. Lawrence.* 405, 8, 41-B11 (1993)

A Low-h High-Ω_0 Universe. *Edward Harrison.* 405, L1, 47-B1 (1993)

Comparison of Three Orthogonally Crossed Wakes with the CfA Large-Scale Structure. *Tetsuya Hara & Shigeru Miyoshi.* 405, 419, 48-C9 (1993)

A Measurement of Ω_0 from the Internal Dynamics of Spiral Galaxies. *Paolo Salucci, Massimo Persic, & Stefano Borgani.* 405, 459, 48-G1 (1993)

Deep Imaging Search for Lyman-Alpha Emission Associated with an H I Cloud at $z = 3.4$. *George Rhee, Chris Loken, & Oliver Le Fèvre.* 406, 26, 55-D1 (1993)

Peculiar Velocities and Galaxy Clustering: Do Bulk and Shell Motions Have the Same Origin? *Daniela Calzetti & Mauro Giavalisco.* 406, 388, 62-D12 (1993)

The Evolution of Bright, Optically Selected QSOs. *Paul C. Hewett, Craig B. Foltz, & Frederic H. Chaffee.* 406, L43, 68-B1 (1993)

Ω from the Anisotropy of the Redshift Correlation Function in the *IRAS* 2 Jansky Survey. *A. J. S. Hamilton.* 406, L47, 68-B7 (1993)

New High-Redshift Damped Lyman-Alpha Absorption Systems and the Redshift Evolution of Damped Absorbers. *Richard L. White, A. L. Kinney, & Robert H. Becker.* 407, 456, 76-C8 (1993)

The Mass Function of Clusters of Galaxies. *Neta A. Bahcall & Renyue Cen.* 407, L49, 82-B10 (1993)

Deep Galaxy Count Predictions in the Radio, Infrared, and X-Ray Spectral Bands. *Marie-Agnes Treyer & Joseph Silk.* 408, L1, 88-E1 (1993)

The Cosmic Mach Number: Direct Comparisons of Observations and Models. *Michael A. Strauss, Renyue Cen, & Jeremiah P. Ostriker.* 408, 389, 90-B1 (1993)

Measurements of the Cosmic Microwave Background Temperature at 1.47 GHz. *M. Bensadoun, M. Bersanelli, G. De Amici, A. Kogut, S. M. Levin, M. Limon, G. F. Smoot, & C. Witebsky.* 409, 1, 97-B1 (1993)

The Velocity Field of Clusters of Galaxies within 100 Megaparsecs. II. Northern Clusters. *J. R. Mould, R. L. Akeson, G. D. Bothun, M. Han, J. P. Huchra, J. Roth, & R. A. Schommer.* 409, 14, 97-C1 (1993)

The *Hubble Space Telescope* Snapshot Survey. IV. A Summary of the Search for Gravitationally Lensed Quasars. *D. Maoz, J. N. Bahcall, D. P. Schneider, N. A. Bahcall, S. Djorgovski, R. Doxsey, A. Gould, S. Kirhakos, G. Meylan, & B. Yanny.* 409, 28, 97-D1 (1993)

On the Origin of the Soft X-Ray Background. *Q. Daniel Wang & Richard McCray.* 409, L37, 111-B8 (1993)

Quasar Clustering on Large Scales. *H. J. Mo & L. Z. Fang.* 410, 493, 119-G1 (1993)

Galaxy Colors in Distant Clusters as a Test for the World Model. *Alberto Buzzoni, Guido Chincarini, & Emilio Molinari.* 410, 499, 119-G9 (1993)

The Signature of the Cosmological Redshift in Population Studies of Gamma-Ray Burst Spectra. *J. J. Brainerd.* 410, 507, 120-A5 (1993)

Statistically Efficient Testing of the Hubble and Lundmark Laws on *IRAS* Galaxy Samples. *I. E. Segal, J. F. Nicoll, P. Wu, & Z. Zhou.* 411, 465, 135-D6 (1993)

The Consistency of Standard Cosmology and the BATSE Number versus Brightness Relation. *W. A. D. T. Wickramasinghe, R. J. Nemiroff, J. P. Norris, C. Kouveliotou, G. J. Fishman, C. A. Meegan, R. B. Wilson, & W. S. Paciesas.* 411, L55, 142-B1 (1993)

The Influence of QSO Emission-Line Velocity Shifts on Estimates of the Intergalactic Background Intensity. *Brian R. Espey.* 411, L59, 142-B7 (1993)

On the Photoionization of the Intergalactic Medium by Quasars at High Redshift. *Avery Meiksin & Piero Madau.* 412, 34, 142-D12 (1993)

A Comparison of the Cosmic Microwave and Cosmic X-Ray Backgrounds: Constraints on Local Sources of the Fluctuations Observed by *COBE*. *S. P. Boughn & K. Jahoda.* 412, L1, 148-A9 (1993)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. I. First Observational Results, Including Lyman-Alpha and Lyman-Limit Systems. *John N. Bahcall, Jacqueline Bergeron, Alec Boksenberg, George F. Hartig, Buell T. Jannuzi, Sofia Kirhakos, W. L. W. Sargent, Blair D. Savage, Donald P. Schneider, David A. Turnshek, Ray J. Weymann, & Arthur M. Wolfe.* 87, 1, 27-B1 (1993)

A Degree Scale Anisotropy Measurement of the Cosmic Microwave Background near the Star Gamma Ursae Minoris. *J. O. Gundersen, A. C. Clapp, M. Devlin, W. Holmes, M. L. Fischer, P. R. Meinhold, A. E. Lange, P. M. Lubin, P. L. Richards, & G. F. Smoot.* 413, L1, 162-B1 (1993)

On the Redshift–Apparent Size Diagram of Double Radio Sources. *K. Nilsson, M. J. Valtonen, J. Kotilainen, & T. Jaakkola.* 413, 453, 162-C1 (1993)

On the Angular Correlation Function of Faint Galaxies. *Yuzuru Yoshii, Bruce A. Peterson, & Fumio Takahara.* 414, 431, 176-E1 (1993)

On Cosmological Constraints from Statistics of X-Ray Clusters. *Hitoshi Hanami.* 415, 42, 185-E6 (1993)

Galaxy Number Counts from $K = 10$ to $K = 23$. *J. P. Gardner, L. L. Cowie, & R. J. Wainscoat.* 415, L9, 191-F7 (1993)

Counter-Evolution of Faint Field Galaxies. *David C. Koo, Caryl Gronwall, & Gustavo Bruzual A.* 415, L21, 191-G10 (1993)

Arecibo Observation of B2 0902+343 in the 21 Centimeter Line at Redshift 3.4. *F. H. Briggs, E. Sorar, & A. Taramopoulos.* 415, L99, 200-A2 (1993)

Maximum-Likelihood Analysis of the *COBE* Angular Correlation Function. *Uroš Seljak & Edmund Bertschinger.* 417, L9, 222-F13 (1993)

Polarization of the Microwave Background Due to Primordial Gravitational Waves. *Robert Crittenden, Richard L. Davis, & Paul J. Steinhardt.* 417, L13, 222-G5 (1993)

Reconciliation of the Disparate Gamma-Ray Burst Catalogs in the Context of a Cosmological Source Distribution. *Peter Tamblyn & Fulvio Melia.* 417, L21, 223-A3 (1993)

The Analysis of Gravitational Lens Surveys. I. Selection Functions and Ambiguous Candidates. *Christopher S. Kochanek.* 417, 438, 224-G1 (1993)

Absorption by Discrete Intergalactic Clouds: Theory and Some Applications. *Lin Zuo & E. Sterl Phinney.* 418, 28, 231-D4 (1993)

The Failure of Simple Merging Models to Save a Flat, $\Omega_0 = 1$ Universe. *Boudewijn F. Roukema & Yuzuru Yoshii.* 418, L1, 238-A8 (1993)

Properties of High-Redshift Lyman-Alpha Clouds. II. Statistical Properties of the Clouds. *William H. Press & George B. Rybicki.* 418, 585, 239-F12 (1993)

Measurements of D_A for a Large QSO Sample and Determination of Evolution of Lyman-Alpha Clouds. *Lin Zuo & Limin Lu.* 418, 601, 240-A1 (1993)

Dipole Anisotropy in the *COBE* Differential Microwave Radiometers First-Year Sky Maps. *A. Kogut, C. Lineweaver, G. F. Smoot, C. L. Bennett, A. Banday, N. W. Boggess, E. S. Cheng, G. De Amici, D. J. Fixsen, G. Hinshaw, P. D. Jackson, M. Janssen, P. Keegstra, K. Loewenstein, P. Lubin, J. C. Mather, L. Tenorio, R. Weiss, D. T. Wilkinson, & E. L. Wright.* 419, 1, 246-B1 (1993)

On the Lyman-Alpha Emission of Starburst Galaxies. *David Valls-Gabaud.* 419, 7, 246-B9 (1993)

The Analysis of Gravitational Lens Surveys. II. Maximum Likelihood Models and Singular Potentials. *Christopher S. Kochanek.* 419, 12, 246-C2 (1993)

Tenerife and *COBE* Constraints on the Primordial Power Spectrum. *R. A. Watson & C. M. Gutiérrez de la Cruz.* 419, L5, 252-B7 (1993)

Upper Limits to Balmer-Line Emission in Three $z \sim 2$ Damped Lyman-α Systems. *E. M. Hu, A. Songaila, L. L. Cowie, & K.-W. Hodapp.* 419, L13, 252-C5 (1993)

A Search for Small-Scale Anisotropy in the Cosmic Microwave Background. *G. S. Tucker, G. S. Griffin, H. T. Nguyen, & J. B. Peterson.* 419, L45, 259-B1 (1993)

A Measurement of the Anisotropy in the Cosmic Microwave Background Radiation at Degree Angular Scales. *E. J. Wollack, N. C. Jarosik, C. B. Netterfield, L. A. Page, & D. Wilkinson.* 419, L49, 259-B6 (1993)

Comments on the Statistical Analysis of Excess Variance in the *COBE* Differential Microwave Radiometer Maps. *E. L. Wright, G. F. Smoot, A. Kogut, G. Hinshaw, L. Tenorio, C. Lineweaver, C. L. Bennett, & P. M. Lubin.* 420, 1, 1-B1 (1994)

A Measurement of the Hubble Constant from the X-Ray Properties and the Sunyaev-Zel'dovich Effect of Abell 2218. *M. Birkinshaw & J. P. Hughes.* 420, 33, 1-D9 (1994)

Deep Imaging of the Field of the $z = 4.9$ Quasar PC 1247+3406, and Faint Galaxy Counts in the K Band with the Keck Telescope. *B. T. Soifer, K. Matthews, S. Djorgovski, J. Larkin, J. R. Graham, W. Harrison, G. Jernigan, S. Lin, J. Nelson, G. Neugebauer, G. Smith, J. D. Smith, & C. Ziomkowski.* 420, L1, 7-A7 (1994)

Measurement of the Cosmic Microwave Background Spectrum by the *COBE* FIRAS Instrument. *J. C. Mather, E. S. Cheng, D. A. Cottingham, R. E. Eplee, Jr., D. J. Fixen, T. Hewagama, R. B. Isaacman, K. A. Jensen, S. S. Meyer, P. D. Noerdlinger, S. M. Read, L. P. Rosen, R. A. Shafer, E. L. Wright, C. L. Bennett, N. W. Boggess, M. G. Hauser, T. Kelsall, S. H. Moseley, Jr., R. F. Silverberg, G. F. Smoot, R. Weiss, & D. T. Wilkinson.* 420, 439, 8-B1 (1994)

Cosmic Microwave Background Dipole Spectrum Measured by the *COBE* FIRAS Instrument. *D. J. Fixsen, E. S. Cheng, D. A. Cottingham, R. E. Eplee, Jr., R. B. Isaacman, J. C. Mather, S. S. Meyer, P. D. Noerdlinger, R. A. Shafer, R. Weiss, E. L. Wright, C. L. Bennett, N. W. Boggess, T. Kelsall, S. H. Moseley, R. F. Silverberg, G. F. Smoot, & D. T. Wilkinson.* 420, 445, 8-B9 (1994)

Interpretation of the *COBE* FIRAS CMBR Spectrum. *E. L. Wright, J. C. Mather, D. J. Fixsen, A. Kogut, R. A. Shafer, C. L. Bennett, N. W. Boggess, E. S. Cheng, R. F. Silverberg, G. F. Smoot, & R. Weiss.* 420, 450, 8-C2 (1994)

Topological Analysis of the CfA Redshift Survey. *Michael S. Vogeley, Changbom Park, Margaret J. Geller, John P. Huchra, & J. Richard Gott III.* 420, 525, 9-B8 (1994)

Structure in the Distribution of Southern Galaxies Described by the Distribution Function. *Fan Fang & Zhen-long Zou.* 421, 9, 16-B10 (1994)

The Nature of Distant Galaxies Producing Multiple C IV Absorption Lines in the Spectra of High-Redshift Quasars. *A. Aragón-Salamanca, R. S. Ellis, J.-M. Schwartzenberg, & J. A. Bergeron.* 421, 27, 16-D5 (1994)

The Baryonic Fraction in Groups of Galaxies from X-Ray Measurements. *Mark J. Henriksen & Gary A. Mamon.* 421, L63, 29-C9 (1994)

Degree-Scale Observations of Cosmic Microwave Background Anisotropies. *P. de Bernardis, E. Aquilini, A. Boscaleri, M. De Petris, G. D'Andreta, M. Gervasi, E. Kreysa, L. Martinis, S. Masi, P. Palumbo, & F. Scaramuzzi.* 422, L33, 44-E1 (1994)

A Measurement of the Medium-Scale Anisotropy in the Cosmic Microwave Background Radiation. *E. S. Cheng, D. A. Cottingham, D. J. Fixsen, C. A. Inman, M. S. Kowitt, S. S. Meyer, L. A. Page, J. L. Puchalla, & R. F. Silverberg.* 422, L37, 44-E8 (1994)

Sampling Functions for Measuring the Cosmic Mass Density. *B. C. Bromley.* 423, L81, 60-B7 (1994)

Application of the Loh-Spillar Cosmological Test to Quasars. *David Schade & F. D. A. Hartwick.* 423, L85, 60-B13 (1994)

A Complete Southern Sky Redshift Survey. *L. Nicolaci da Costa, M. J. Geller, P. S. Pellegrini, D. W. Latham, A. P. Fairall, R. O. Marzke, C. N. A. Willmer, J. P. Huchra, J. H. Calderon, M. Ramella, & M. J. Kurtz.* 424, L1, 69-A8 (1994)

Observational Limits on Ω in Stars, Brown Dwarfs, and Stellar Remnants from Gravitational Microlensing. *Julianne J. Dalcanton, Claude R. Canizares, Arno Granados, Charles C. Steidel, & John T. Stocke.* 424, 550, 71-E5 (1994)

Large-Scale Morphological Segregation in Optically Selected Galaxy Redshift Catalogs. *R. Domínguez-Tenreiro, A. Campos, M. A. Gómez-Flechoso, & G. Yepes.* 424, L73, 78-F1 (1994)

Discovery of Cepheids in IC 4182: Absolute Peak Brightness of SN Ia 1937C and the Value of H_0. *A. Saha, Lukas Labhardt, Hans Schwengeler, F. D. Macchetto, N. Panagia, Allan Sandage, & G. A. Tammann.* 425, 14, 80-C6 (1994)

The Gunn-Peterson Effect in the Spectrum of the $z = 4.7$ QSO 1202−0725: The Intergalactic Medium at Very High Redshifts. *E. Giallongo, S. D'Odorico, A. Fontana, R. G. McMahon, S. Savaglio, S. Cristiani, P. Molaro, & D. Trevese.* 425, L1, 85-B1 (1994)

Possible Identification of a Cluster of Galaxies at Redshift $z = 3.4$. *Mauro Giavalisco, Charles C. Steidel, & Alexander S. Szalay.* 425, L5, 85-B7 (1994)

The Motion of the Local Group with Respect to the 15,000 Kilometer per Second Abell Cluster Inertial Frame. *Tod R. Lauer & Marc Postman.* 425, 418, 87-A1 (1994)

Apparent Milliarcsecond Sizes of Active Galactic Nuclei and the Geometry of the Universe. *L. I. Gurvits.* 425, 442, 87-C1 (1994)

Empirical Constraints on Cosmological Gamma-Ray Bursts. *Eric Woods & Abraham Loeb.* 425, L63, 94-B8 (1994)

Cluster Evolution and Microwave Source Counts. *M. Markevitch, G. R. Blumenthal, W. Forman, C. Jones, & R. A. Sunyaev.* 426, 1, 96-B1 (1994)

Cosmology with Powerful Extended Radio Sources. *Ruth A. Daly.* 426, 38, 96-E5 (1994)

Measuring the Hubble Constant and Our Virgo-Infall Velocity Independently. *Nanyao Y. Lu, E. E. Salpeter, & G. Lyle Hoffman.* 426, 473, 104-C4 (1994)

The Peak Brightness of SN 1937C in IC 4182 and the Hubble Constant. *Bradley E. Schaefer.* 426, 493, 104-E1 (1994)

Toward Unbiased Determination of the Redshift Evolution of Lyman-Alpha Forest Clouds. *Limin Lu & Lin Zuo.* 426, 502, 104-E12 (1994)

The Temperature of the Lyman-α Clouds and the Ultraviolet Ionizing Backgrounds at High Redshifts. *Emanuele Giallongo & Patrick Petitjean.* 426, L61, 109-B7 (1994)

HST Images of Very Compact Blue Galaxies at $z \sim 0.2$. *David C. Koo, Matthew A. Bershady, Gregory D. Wirth, S. Adam Stanford, & Steven R. Majewski.* 427, L9, 117-B8 (1994)

Anisotropy in the Microwave Sky at Intermediate Angular Scales. *M. Dragovan, J. E. Ruhl, G. Novak, S. R. Platt, B. Crone, R. Pernic, & J. B. Peterson.* 427, L67, 126-F1 (1994)

Measurement of the Sunyaev-Zel'dovich Effect toward Abell 2163 at a Wavelength of 2.2 Millimeters. *T. M. Wilbanks, P. A. R. Ade, M. L. Fischer, W. L. Holzapfel, & A. E. Lange.* 427, L75, 126-F13 (1994)

Infrared Surface Photometry of 3C 65: Stellar Evolution and the Tolman Signal. *M. A. Rigler & S. J. Lilly.* 427, L79, 126-G5 (1994)

Do Spirals and Ellipticals Trace the Same Velocity Field? *Tsafrir Kolatt & Avishai Dekel.* 428, 35, 128-F1 (1994)

VLBI Data for Compact Radio Sources versus Exotic Forms of Matter in the Universe. *J. Stelmach.* 428, 61, 129-A5 (1994)

Arcminute Sky Fluctuations at 1.25 Millimeters. *Paola Andreani.* 428, 447, 135-F11 (1994)

The Expected Dipole in the Distribution of Cosmological γ-Ray Bursts. *Eyal Maoz.* 428, 454, 135-G6 (1994)

Orbits of the Nearby Galaxies. *P. J. E. Peebles.* 429, 43, 144-F11 (1994)

Bias Properties of Extragalactic Distance Indicators. I. The Hubble Constant Does Not Increase Outward. *Allan Sandage.* 430, 1, 159-B1 (1994)

Bias Properties of Extragalactic Distance Indicators. II. Bias Corrections to Tully-Fisher Distances for Field Galaxies. *Allan Sandage.* 430, 13, 159-C1 (1994)

Measurements of Anisotropy in the Cosmic Microwave Background Radiation at 0.5° Angular Scales near the Star Gamma Ursae Minoris. *M. J. Devlin, A. C. Clapp, J. O. Gundersen, C. A. Hagmann, V. V. Hristov, A. E. Lange, M. A. Lim, P. M. Lubin, P. D. Mauskopf, P. R. Meinhold, P. L. Richards, G. F. Smoot, S. T. Tanaka, P. T. Timbie, & C. A. Wuensche.* 430, L1, 165-B1 (1994)

Theoretical Expectations for Bulk Flows in Large-Scale Surveys. *Hume A. Feldman & Richard Watkins.* 430, L17, 165-C11 (1994)

Superluminal Motion Statistics and Cosmology. *R. C. Vermeulen & M. H. Cohen.* 430, 467, 167-E3 (1994)

On Determining the Spectrum of Primordial Inhomogeneity from the *COBE* DMR Sky Maps: Results of Two-Year Data Analysis. *K. M. Górski, G. Hinshaw, A. J. Banday, C. L. Bennett, E. L. Wright, A. Kogut, G. F. Smoot, & P. Lubin.* 430, L89, 174-D7 (1994)

Limits on Three-Point Correlations in the *COBE* DMR First-Year Anisotropy Maps. *G. Hinshaw, A. Kogut, K. M. Górski, A. J. Banday, C. L. Bennett, C. Lineweaver, P. Lubin, G. F. Smoot, & E. L. Wright.* 431, 1, 176-C1 (1994)

Statistically Efficient Parallel Testing of the Hubble and Lundmark Laws in the Preevolutionary X-Ray Band. *I. E. Segal, J. F. Nicoll, & P. Wu.* 431, 52, 176-G5 (1994)

Recent Deuterium Observations and Big Bang Nucleosynthesis Constraints. *Lawrence M. Krauss & Peter J. Kernan.* 432, L79, 206-D10 (1994)

Hawaii 167: A Compact Absorption-Line Object at $z = 2.35$. *L. L. Cowie, A. Songaila, E. M. Hu, E. Egami, J.-S. Huang, A. J. Pickles, S. E. Ridgway, R. J. Wainscoat, & R. J. Weymann.* 432, L83, 206-E1 (1994)

The He II Lyman-Alpha Opacity of the Universe. *Piero Madau & Avery Meiksin.* 433, L53, 223-D1 (1994)

Measurements of Anisotropy in the Cosmic Microwave Background Radiation at Degree Angular Scales near the Stars Sigma Herculis and Iota Draconis. *A. C. Clapp, M. J. Devlin, J. O. Gundersen, C. A. Hagmann, V. V. Hristov, A. E. Lange, M. Lim, P. M. Lubin, P. D. Mauskopf, P. R. Meinhold, P. L. Richards, G. F. Smoot, S. T. Tanaka, P. T. Timbie, & C. A. Wuensche.* 433, L57, 223-D9 (1994)

Measurement of Large- and Superlarge-Scale Structures of the Universe. *Olga E. Buryak, Andrei G. Doroshkevich, & Richard Fong.* 434, 24, 225-E2 (1994)

The Θ-z Relation for *HST* Bulges and Disks out to $z \simeq 0.8$. *Steven B. Mutz, Rogier A. Windhorst, Paul C. Schmidtke, Sebastian M. Pascarelle, Richard E. Griffiths, Kavan U. Ratnatunga, Stefano Casertano, Myungshin Im, Richard S. Ellis, Karl Glazebrook, Richard F. Green, & Vicki L. Sarajedini.* 434, L55, 241-E1 (1994)

The Hawaii K-Band Galaxy Survey. III. Spectroscopy of $K < 20$ Galaxies. *A. Songaila, L. L. Cowie, E. M. Hu, & J. P. Gardner.* 94, 461, 58-C1 (1994)

The Morphology of Faint Galaxies in Medium Deep Survey Images Using WFPC2. *R. E. Griffiths, S. Casertano, K. U. Ratnatunga, L. W. Neuschaefer, R. S. Ellis, G. F. Gilmore, K. Glazebrook, B. Santiago, J. P. Huchra, R. A. Windhorst, S. M. Pascarelle, R. F. Green, G. D. Illingworth, D. C. Koo, & A. J. Tyson.* 435, L19, 251-E1 (1994)

The Motions of Clusters and Groups of Galaxies. *Neta A. Bahcall, Mirt Gramann, & Renyue Cen.* 436, 23, 261-E4 (1994)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. VI. Properties of the Metal-rich Systems. *Jacqueline Bergeron, Patrick Petitjean, W. L. W. Sargent, John N. Bahcall, Alec Boksenberg, George F. Hartig, Buell T. Jannuzi, Sofia Kirhakos, Blair D. Savage, Donald P. Schneider, David A. Turnshek, Ray J. Weymann, & Arthur M. Wolfe.* 436, 33, 261-F4 (1994)

Cosmic Temperature Fluctuations from Two Years of *COBE* Differential Microwave Radiometers Observations. *C. L. Bennett, A. Kogut, G. Hinshaw, A. J. Banday, E. L. Wright, K. M. Górski, D. T. Wilkinson, R. Weiss, G. F. Smoot, S. S. Meyer, J. C. Mather, P. Lubin, K. Loewenstein, C. Lineweaver, P. Keegstra, E. Kaita, P. D. Jackson, & E. S. Cheng.* 436, 423, 271-D1 (1994)

Angular Power Spectrum of the Microwave Background Anisotropy Seen by the *COBE* Differential Microwave Radiometer. *E. L. Wright, G. F. Smoot, C. L. Bennett, & P. M. Lubin.* 436, 443, 271-E13 (1994)

Correlated Noise in the *COBE* DMR Sky Maps. *C. H. Lineweaver, G. F. Smoot, C. L. Bennett, E. L. Wright, L. Tenorio, A. Kogut, P. B. Keegstra, G. Hinshaw, & A. J. Banday.* 436, 452, 271-F11 (1994)

Effects of Intergalactic Absorption on the Visibility of Young Galaxies. *Yuzuru Yoshii & Bruce A. Peterson.* 436, 551, 273-B3 (1994)

On the RMS Anisotropy at 7° and 10° in the *COBE*-DMR Two-Year Sky Maps. *A. J. Banday, K. M. Górski, L. Tenorio, E. L. Wright, G. F. Smoot, C. H. Lineweaver, A. Kogut, G. Hinshaw, & C. L. Bennett.* 436, L99, 280-D1 (1994)

Exponential Growth of Distance between Nearby Rays Due to Multiple Gravitational Scatterings. *Toshiyuki Fukushige & Junichiro Makino.* 436, L111, 280-E13 (1994)

The Faint End of the Galaxy Luminosity Function. *Marie A. Treyer & Joseph Silk.* 436, L143, 281-D3 (1994)

UBC/Laval 2.7 Meter Liquid Mirror Telescope. *Paul Hickson, Ermanno F. Borra, Rémi Cabanac, Robert Content, Brad K. Gibson, & Gordon A. H. Walker.* 436, L201, 282-F2 (1994)

Statistics and Topology of the *COBE* Differential Microwave Radiometer First-Year Sky Maps. *G. F. Smoot, L. Tenorio, A. J. Banday, A. Kogut, E. L. Wright, G. Hinshaw, & C. L. Bennett.* 437, 1, 283-C1 (1994)

Internal Velocity and Mass Distributions in Simulated Clusters of Galaxies for a Variety of Cosmogonic Models. *Renyue Cen.* 437, 12, 283-D2 (1994)

Dark Matter in MS 1224 from Distortion of Background Galaxies. *Greg Fahlman, Nick Kaiser, Gordon Squires, & David Woods.* 437, 56, 283-G13 (1994)

The *Hubble Space Telescope* Medium Deep Survey with the Wide Field and Planetary Camera. I. Methodology and Results on the Field near 3C 273. *R. E. Griffiths, K. U. Ratnatunga, L. W. Neuschaefer, S. Casertano, M. Im, E. W. Wyckoff, R. S. Ellis, G. F. Gilmore, R. A. W. Elson, K. Glazebrook, D. J. Schade, R. A. Windhorst, P. C. Schmidtke, J. M. Gordon, S. M. Pascarelle, G. D. Illingworth, D. C. Koo, M. A. Bershady, D. A. Forbes, A. C. Phillips, R. F. Green, V. Sarajedini, J. P. Huchra, & A. J. Tyson.* 437, 67, 284-B3 (1994)

The Power Spectrum of Galaxies in the Nearby Universe. *L. Nicolaci da Costa, Michael S. Vogeley, Margaret J. Geller, John P. Huchra, & Changbom Park.* 437, L1, 291-B1 (1994)

A Medium-deep Redshift Survey of a Minislice at the North Galactic Pole. *C. N. A. Willmer, David C. Koo, Alex S. Szalay, & Michael J. Kurtz.* 437, 560, 293-E1 (1994)

Deep Galaxy Counts in the K Band with the Keck Telescope. *S. Djorgovski, B. T. Soifer, M. A. Pahre, J. E. Larkin, J. D. Smith, G. Neugebauer, I. Smail, K. Matthews, D. W. Hogg, R. D. Blandford, J. Cohen, W. Harrison, & J. Nelson.* 438, L13, 9-F13 (1995)

The Luminosity Function of Quasars. *Yichuan C. Pei.* 438, 623, 12-F10 (1995)

The Angular Two-Point Correlation Function of Galaxies Down to $B_J \leq$ Magnitude on $\leq 10'$ Scales. *Lyman W. Neuschaefer & Rogier A. Windhorst.* 439, 14, 21-D7 (1995)

The Clustering Properties of Faint Galaxies. *L. Infante & C. J. Pritchet.* 439, 565, 32-B8 (1995)

A New Method for Measuring the H I Gunn-Peterson Effect at High Redshift. *Yihu Fang & Arlin P. S. Crotts.* 440, 69, 42-B8 (1995)

Resurrection of Traditional Luminosity Evolution Models to Explain Faint Field Galaxies. *Caryl Gronwall & David C. Koo.* 440, L1, 48-B1 (1995)

The *IUE* Survey for Damped Lyman-α and Lyman-Limit Absorption Systems: Evolution of the Gaseous Content of the Universe. *Kenneth M. Lanzetta, Arthur M. Wolfe, & David A. Turnshek.* 440, 435, 49-C8 (1995)

The Contribution of Low Surface Brightness Galaxies to Faint Galaxy Counts. *Henry C. Ferguson & Stacy S. McGaugh.* 440, 470, 49-F11 (1995)

An Arcminute-Resolution Search at 4.7 Inverse Centimeters for Point Source Confusion to Measurements of CMB Anisotropy. *S. E. Church, P. D. Mauskopf, P. A. R. Ade, M. J. Devlin, W. L. Holzapfel, T. M. Wilbanks, & A. E. Lange.* 440, L33, 57-B1 (1995)

High-Resolution Spectra of Distant Compact Narrow Emission Line Galaxies: Progenitors of Spheroidal Galaxies? *David C. Koo, Rafael Guzmán, S. M. Faber, Garth D. Illingworth, Matthew A. Bershady, Richard G. Kron, & Marianne Takamiya.* 440, L49, 57-D3 (1995)

Radiative Transfer in a Clumpy Universe: The Colors of High-Redshift Galaxies. *Piero Madau.* 441, 18, 59-D13 (1995)

Simulated Cosmic Microwave Background Maps at 0.5° Resolution: Basic Results. *G. Hinshaw, C. L. Bennett, & A. Kogut.* 441, L1, 66-C1 (1995)

Hubble Space Telescope Imaging of a Radio-quiet Galaxy at Redshift $z = 3.4$. *Mauro Giavalisco, F. Duccio Macchetto, Piero Madau, & William B. Sparks.* 441, L13, 66-D12 (1995)

A Test of Galaxy Evolutionary Models via Angular Sizes. *Myungshin Im, Stefano Casertano, Richard E. Griffiths, Kavan U Ratnatunga, & J. Anthony Tyson.* 441, 494, 68-G8 (1995)

Dual-Frequency Mapping with the Tenerife Cosmic Microwave Background Experiments. *C. M. Gutiérrez de la Cruz, R. D. Davies, R. Rebolo, R. A. Watson, S. Hancock, & A. N. Lasenby.* 442, 10, 77-C13 (1995)

Degree-Scale Anisotropy in the Cosmic Microwave Background: SP94 Results. *J. O. Gundersen, M. Lim, J. Staren, C. A. Wuensche, N. Figueiredo, T. C. Gaier, T. Koch, P. R. Meinhold, M. D. Seiffert, G. Cook, A. Segale, & P. M. Lubin.* 443, L57, 111-D10 (1995)

The Nature of the Stellar Continuum in the Radio Galaxy 3C 65. *Alan Stockton, Melinda Kellogg, & Susan E. Ridgway.* 443, L69, 111-F9 (1995)

Interpretation of the Faint Galaxy Number Counts in the K Band. *Yuzuru Yoshii & Bruce A. Peterson.* 444, 15, 113-D5 (1995)

Structure and Photometry of an $I < 20.5$ Galaxy Sample from the *Hubble Space Telescope* Medium Deep Survey. *Andrew C. Phillips, Matthew A. Bershady, Duncan A. Forbes, David C. Koo, Garth D. Illingworth, David B. Reitzel, Richard E. Griffiths, & Rogier A. Windhorst.* 444, 21, 113-E2 (1995)

A New Estimate of the Uncertainties in the Primordial Helium Abundance: New Bounds on Ω Baryons. *Dimitar Sasselov & Dalia Goldwirth.* 444, L5, 121-B8 (1995)

The Distribution of Cosmological γ-Ray Bursts. *Ehud Cohen & Tsvi Piran.* 444, L25, 121-E1 (1995)

COBE DMR–normalized Open Inflation, Cold Dark Matter Cosmology. *Krzysztof M. Górski, Bharat Ratra, Naoshi Sugiyama, & Anthony J. Banday.* 444, L65, 130-B8 (1995)

The Axis Ratio Distribution of Faint Galaxies: Evidence for a Population of Dwarf Galaxies at $I \sim 20.5$. *Myungshin Im, Kavan U. Ratnatunga, Richard E. Griffiths, & Stefano Casertano.* 445, L15, 140-C12 (1995)

The Anisotropy in the Cosmic Microwave Background at Degree Angular Scales. *C. B. Netterfield, N. Jarosik, L. Page, D. Wilkinson, & E. Wollack.* 445, L69, 150-C1 (1995)

Constraints on Cold Dark Matter Theories from Observations of Massive X-Ray–luminous Clusters of Galaxies at High Redshift. *G. A. Luppino & I. M. Gioia.* 445, L77, 150-D5 (1995)

The Effects of Substructure on Galaxy Cluster Mass Determinations. *Christina M. Bird.* 445, L81, 150-E1 (1995)

Determining the Motion of the Local Group Using Type Ia Supernova Light Curve Shapes. *Adam G. Riess, William H. Press, & Robert P. Kirshner.* 445, L91, 150-F3 (1995)

The Optical Redshift Survey: Sample Selection and the Galaxy Distribution. *Basílio X. Santiago, Michael A. Strauss, Ofer Lahav, Marc Davis, Alan Dressler, & John P. Huchra.* 446, 457, 162-D2 (1995)

Three-Point Correlations in the *COBE* DMR 2 Year Anisotropy Maps. *G. Hinshaw, A. J. Banday, C. L. Bennett, K. M. Górski, & A. Kogut.* 446, L67, 170-F3 (1995)

The Peak Brightness of SN 1895B in NGC 5253 and the Hubble Constant. *Bradley E. Schaefer.* 447, L13, 180-E3 (1995)

Mixed Cold-Hot Dark Matter Model with Falling and Quasi-flat Initial Perturbation Spectra. *Dmitri Yu. Pogosyan & Alexei A. Starobinsky.* 447, 465, 182-C1 (1995)

An Emission-Line Protogalaxy Candidate at $z = 2.5$. *M. Malkan, H. Teplitz, & I. McLean.* 448, L5, 199-B9 (1995)

Comparison of the *COBE* DMR and Tenerife Data. *C. H. Lineweaver, S. Hancock, G. F. Smoot, A. N. Lasenby, R. D. Davies, A. J. Banday, C. M. Gutiérrez de la Cruz, R. A. Watson, & R. Rebolo.* 448, 482, 201-C10 (1995)

Two-Point Angular Correlation Function for the Green Bank 4.85 GHz Sky Survey. *Brian L. Kooiman, Jack O. Burns, & Anatoly A. Klypin.* 448, 500, 201-E10 (1995)

A New X-Ray–discovered Cluster of Galaxies Associated with CL 0016+16. *John P. Hughes, Mark Birkinshaw, & John P. Huchra.* 448, L93, 209-B7 (1995)

A Near-Infrared Search for Line Emission from Protogalaxies Using the W. M. Keck Telescope. *Michael A. Pahre & S. G. Djorgovski.* 449, L1, 216-A1 (1995)

The Peak Brightness of SN 1981B in NGC 4536 and the Hubble Constant. *Bradley E. Schaefer.* 449, L9, 216-B2 (1995)

Evidence for Gaussian Initial Fluctuations from the 1.2 Jansky *IRAS* Survey. *Adi Nusser, Avishai Dekel, & Amos Yahil.* 449, 439, 218-G11 (1995)

A Method for Weak Lensing Observations. *Nick Kaiser, Gordon Squires, & Tom Broadhurst.* 449, 460, 219-B10 (1995)

Deep Optical Galaxy Counts with the Keck Telescope. *Ian Smail, David W. Hogg, Lin Yan, & Judith G. Cohen.* 449, L105, 226-F8 (1995)

Feasibility of Measuring the Cosmological Constant Λ and Mass Density Ω Using Type Ia Supernovae. *Ariel Goobar & Saul Perlmutter.* 450, 14, 228-C3 (1995)

The Peak Brightness of Supernovae in the *U* Band and the Hubble Constant. *Bradley E. Schaefer.* 450, L5, 235-D8 (1995)

The Lens Parallax Method: Determining Redshifts of Faint Blue Galaxies through Gravitational Lensing. *Matthias Bartelmann & Ramesh Narayan.* 451, 60, 247-A7 (1995)

Substructure: Clues to the Formation of Clusters of Galaxies. *Michael J. West, Christine Jones, & William Forman.* 451, L5, 252-B5 (1995)

The Hubble Diagram for Supernovae of Type Ia. II. The Effect on the Hubble Constant of a Correlation between Absolute Magnitude and Light Decay Rate. *G. A. Tammann & Allan Sandage.* 452, 16, 262-D6 (1995)

The Slope of the BATSE Number-Flux Distribution. *David Caditz.* 452, 140, 264-A4 (1995)

Hot and Cold Spots in the First Plus Second Year *COBE*/DMR Maps. *L. Cayón & G. Smoot.* 452, 487, 271-D1 (1995)

Anisotropy in the Microwave Sky at 90 GHz: Results from Python II. *J. E. Ruhl, M. Dragovan, S. R. Platt, J. Kovac, & G. Novak.* 453, L1, 289-B5 (1995)

New "Einstein Cross" Gravitational Lens Candidates in *Hubble Space Telescope* WFPC2 Survey Images. *Kavan U. Ratnatunga, Eric J. Ostrander, Richard E. Griffiths, & Myungshin Im.* 453, L5, 289-B12 (1995)

Astrophysical Limits on the Evolution of Dimensionless Physical Constants over Cosmological Time. *Lennox L. Cowie & Antoinette Songaila.* 453, 596, 292-B3 (1995)

Structural Parameters of Faint Galaxies from Prerefurbishment *Hubble Space Telescope* Medium Deep Survey Observations. *S. Casertano, K. U. Ratnatunga, R. E. Griffiths, M. Im, L. W. Neuschaefer, E. J. Ostrander, & R. A. Windhorst.* 453, 599, 292-B9 (1995)

Interpreting New Data on Large-Scale Bulk Flows. *Richard Watkins & Hume A. Feldman.* 453, L73, 298-C8 (1995)

Action Principle Solutions for Galaxy Motions within 3000 Kilometers per Second. *Edward J. Shaya, P. J. E. Peebles, & R. Brent Tully.* 454, 15, 299-D4 (1995)

On the Measurement of a Cosmological Dipole in the Photon Number Counts of Gamma-Ray Bursts. *C. A. Scharf, K. Jahoda, & E. Boldt.* 454, 573, 309-D4 (1995)

The $\nu\mathcal{F}_\nu$ Peak Energy Distributions of Gamma-Ray Bursts Observed by BATSE. *Robert S. Mallozzi, William S. Paciesas, Geoffrey N. Pendleton, Michael S. Briggs, Robert D. Preece, Charles A. Meegan, & Gerald J. Fishman.* 454, 597, 309-F10 (1995)

The Canada-France Redshift Survey. VI. Evolution of the Galaxy Luminosity Function to $z \sim 1$. *S. J. Lilly, L. Tresse, F. Hammer, David Crampton, & O. Le Fèvre.* 455, 108, 319-F9 (1995)

Lensing by Distant Clusters: *HST* Observations of Weak Shear in the Field of 3C 324. *Ian Smail & Mark Dickinson.* 455, L99, 333-C8 (1995)

Mapping the Galaxy Distribution at Large Distances. *Christèle Bellanger & Valérie de Lapparent.* 455, L103, 333-D2 (1995)

Detection of the Angular Correlation of Faint X-Ray Sources. *A. Vikhlinin & W. Forman.* 455, L109, 333-D10 (1995)

COSMOLOGY: THEORY

Charged Particle Creation in the Steady State Universe. *Richard L. Liboff.* 384, 12, 1-B10 (1992)

On the Origin of the Dipole Anisotropy as Determined by Quadrupole Measurements. *S. Bottani, P. de Bernardis, & F. Melchiorri.* 384, L1, 6-A9 (1992)

Cosmological Explosions from Cold Dark Matter Perturbations. *Robert J. Scherrer.* 384, 391, 7-B1 (1992)

Loitering Universe. *Varun Sahni, Hume Feldman, & Albert Stebbins.* 385, 1, 12-B1 (1992)

Measuring Omega and the Real Correlation Function from the Redshift Correlation Function. *A. J. S. Hamilton.* 385, L5, 17-B1 (1992)

Anisotropies of the Cosmic Microwave Background in Nonstandard Cold Dark Matter Models. *Nicola Vittorio & Joseph Silk.* 385, L9, 17-B6 (1992)

The Magnitude-Redshift Relation. *Allen I. Janis.* 385, 391, 18-B1 (1992)

Thermal Evolution of Phases during the Cosmological Quark-Hadron Transition. *Michele Mariani & Silvio A. Bonometto.* 385, 393, 18-B5 (1992)

Velocity Dipoles in Cold Dark Matter Cosmologies. *Giuseppe Tormen, Francesco Lucchin, & Sabino Matarrese.* 386, 1, 24-B1 (1992)

Predicted Galaxy Counts in CO Emission. *Frances Verter.* 386, 398, 30-D1 (1992)

A Hydrodynamic Approach to Cosmology: Methodology. *Renyue Cen.* 78, 341, 7-B1 (1992)

The Topology of Large-Scale Structure. VI. Slices of the Universe. *Changbom Park, J. Richard Gott III, Adrian L. Melott, & I. D. Karachentsev.* 387, 1, 37-A11 (1992)

Big Bang Archeology: WIMP Capture by the Earth at Finite Optical Depth. *Andrew Gould.* 387, 21, 37-C7 (1992)

Constraints on the Universe with a Decaying Cosmological Constant from a Number Count of Faint Galaxies. *Yuzuru Yoshii & Katsuhiko Sato.* 387, L7, 43-B1 (1992)

Large-Scale Structure in Isocurvature Baryon Models. *Tatsushi Suginohara & Yasushi Suto.* 387, 431, 44-B1 (1992)

Constraints on Cosmological Models with the Decaying Cosmological Constant from Cosmic Background Radiation Anisotropies. *Naoshi Sugiyama & Katsuhiko Sato.* 387, 439, 44-B10 (1992)

On Modeling a Relativistic Hierarchical (Fractal) Cosmology by Tolman's Spacetime. I. Theory. *Marcelo B. Ribeiro.* 388, 1, 49-B1 (1992)
Gravitational Lens Effects on the Density Parameter. *Hiroshi Yoshida & Minoru Omote.* 388, L1, 52-A7 (1992)
The Formation of Giant Low Surface Brightness Galaxies. *Yehuda Hoffman, Joseph Silk, & Rosemary F. G. Wyse.* 388, L13, 52-B6 (1992)
Cosmic Background Radiation Anisotropies from Cosmic Structures: Models Based on the Tolman Solution. *Mirosław Panek.* 388, 225, 53-B4 (1992)
Cosmological Density of WIMPs from Solar and Terrestrial Annihilations. *Andrew Gould.* 388, 338, 54-E5 (1992)
On the Cosmological Origin of Gamma-Ray Bursts. *Shude Mao & Bohdan Paczyński.* 388, L45, 59-A9 (1992)
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Large-Scale Structure in a Low-Bias Universe. *H. M. P. Couchman & R. G. Carlberg.* 389, 453, 67-B6 (1992)
COBE Limits on Explosive Structure Formation Scenarios. *Janna J. Levin, Katherine Freese, & David N. Spergel.* 389, 464, 67-C5 (1992)
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The Synchro-Compton Limit of the Brightness Temperature of Nonstationary Radio Sources. *V. I. Slysh.* 391, 453, 93-E4 (1992)
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Intergalactic Ionizing Flux from Active Galactic Nuclei. *Nobuo Terasawa.* 392, L15, 106-C1 (1992)
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Statistical Properties of Gravitational Lenses with a Nonzero Cosmological Constant. *M. Fukugita, T. Futamase, M. Kasai, & E. L. Turner.* 393, 3, 114-B4 (1992)
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A Lower Limit on the Cosmic Mean Density from the Ages of Clusters of Galaxies. *D. Richstone, A. Loeb, & E. L. Turner.* 393, 477, 121-G1 (1992)
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Can Neutrino Decay–driven Mock Gravity Save Hot Dark Matter? *Randall J. Splinter & Adrian L. Melott.* 394, 7, 128-B8 (1992)
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Weakly Nonlinear Gravitational Instability for Arbitrary Ω. *F. R. Bouchet, R. Juszkiewicz, S. Colombi, & R. Pellat.* 394, L5, 133-B1 (1992)
Gravitational Lensing, Finite Galaxy Cores, and the Cosmological Constant. *Lawrence M. Krauss & Martin White.* 394, 385, 134-B1 (1992)
Cosmological Density Perturbations with Modified Gravity. *Redouane Fakir, Salman Habib, & William Unruh.* 394, 396, 134-C1 (1992)
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The Mass Function of Galaxy Halos in a Cold Dark Matter Universe. *T. G. Brainerd & J. V. Villumsen.* 394, 409, 134-D5 (1992)
Statistics of the Cosmic Mach Number from Numerical Simulations of a Cold Dark Matter Universe. *Yasushi Suto, Renyue Cen, & Jeremiah P. Ostriker.* 395, 1, 140-B1 (1992)
QSO Absorbers: Evidence for a Primeval Galaxy Population. *Arati Chokshi.* 395, 21, 140-D5 (1992)
On Modeling a Relativistic Hierarchical (Fractal) Cosmology by Tolman's Spacetime. II. Analysis of the Einstein–de Sitter Model. *Marcelo B. Ribeiro.* 395, 29, 140-E1 (1992)
Cosmological Perturbations and the Physical Meaning of Gauge-invariant Variables. *Marco Bruni, Peter K. S. Dunsby, & George F. R. Ellis.* 395, 34, 140-E7 (1992)
Covariant Perturbations in a Multifluid Cosmological Medium. *Peter K. S. Dunsby, Marco Bruni, & George F. R. Ellis.* 395, 54, 140-G1 (1992)
Arcminute Fluctuations in the Microwave Background from Clusters of Galaxies. *M. Markevitch, G. R. Blumenthal, W. Forman, C. Jones, & R. A. Sunyaev.* 395, 326, 146-C1 (1992)
New Constraints and Improvements on Oscillating Physics. *Robert G. Crittenden & Paul J. Steinhardt.* 395, 360, 146-F9 (1992)
Interpretation of the Cosmic Microwave Background Radiation Anisotropy Detected by the *COBE* Differential Microwave Radiometer. *E. L. Wright, S. S. Meyer, C. L. Bennett, N. W. Boggess, E. S. Cheng, M. G. Hauser, A. Kogut, C. Lineweaver, J. C. Mather, G. F. Smoot, R. Weiss, S. Gulkis, G. Hinshaw, M. Janssen, T. Kelsall, P. M. Lubin, S. H. Moseley, Jr., T. L. Murdock, R. A. Shafer, R. F. Silverberg, & D. T. Wilkinson.* 396, L13, 160-D1 (1992)
Nonlinear Gravitational Evolution of Phases and Amplitudes in One-dimensional Cosmological Density Fields. *Jiro Soda & Yasushi Suto.* 396, 379, 162-B1 (1992)
Properties of Galactic Halos in Spatially Flat Universes Dominated by Cold Dark Matter: Effects of Nonvanishing Cosmological Constant. *Tatsushi Suginohara & Yasushi Suto.* 396, 395, 162-C11 (1992)
The Evolution of the QSO Luminosity Function Up to $z = 4$: The Role of *K*-Correction Uncertainties. *Emanuele Giallongo & Fausto Vagnetti.* 396, 411, 162-E5 (1992)
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Galaxy Clusters and Cold Dark Matter: A Low-Density Unbiased Universe? *Neta A. Bahcall & Renyue Cen.* 398, L81, 194-B6 (1992)
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A Tilted Cold Dark Matter Cosmological Scenario. *Renyue Cen, Nickolay Y. Gnedin, Lev A. Kofman, & Jeremiah P. Ostriker.* 399, L11, 200-A5 (1992)
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A Three-dimensional Hydrodynamic Treatment of the Hot Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah P. Ostriker.* 399, 331, 202-B1 (1992)
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Non–Self-similar Clustering of Galaxies. *Mirt Gramann.* 401, 19, 221-C7 (1992)
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The Gravitational Wave Contribution to Cosmic Microwave Background Anisotropies and the Amplitude of Mass Fluctuations from *COBE* Results. *Francesco Lucchin, Sabino Matarrese, & Silvia Mollerach.* 401, L49, 232-E4 (1992)
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On the Microwave Background Anisotropies Produced by Nonlinear Voids. *J. V. Arnau, M. J. Fullana, L. Monreal, & D. Sáez.* 402, 359, 7-B1 (1993)
Small-Scale Microwave Background Anisotropies Implied by Large-Scale Data. *A. Kashlinsky.* 402, 369, 7-C1 (1993)
Generation of Seed Perturbations from Quantum Cosmology. *Tarun Souradeep.* 402, 375, 7-C8 (1993)
Textures and Clusters. *James G. Bartlett, Andrew K. Gooding, & David N. Spergel.* 403, 1, 14-B1 (1993)
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The Cosmic Gamma-Ray Background from Type Ia Supernovae. *Lih-Sin The, Mark D. Leising, & Donald D. Clayton.* 403, 32, 14-D12 (1993)
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Gravitational Clustering of Galaxies: Comparison between Thermodynamic Theory and *N*-Body Simulations. IV. The Effects of Continuous Mass Spectra. *Makoto Itoh, Shogo Inagaki, & William C. Saslaw.* 403, 476, 21-E1 (1993)
Statistics of Highly Magnified Gravitational Images in Clusters of Galaxies. I. Implications for the Clusters. *Jordi Miralda-Escudé.* 403, 497, 21-F11 (1993)
Statistics of Highly Magnified Gravitational Images in Clusters of Galaxies. II. Implications for the Sources. *Jordi Miralda-Escudé.* 403, 509, 21-G12 (1993)
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Probability of Lensing Magnification by Cosmologically Distributed Galaxies. *Yichuan C. Pei.* 404, 436, 34-D1 (1993)
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Flat Spacetime Cosmology: A Unified Framework for Extragalactic Redshifts. *Jayant Narlikar & Halton Arp.* 405, 51, 41-F7 (1993)
A Low-h High-Ω_0 Universe. *Edward Harrison.* 405, L1, 47-B1 (1993)
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Significant Cluster Correlations at 30 h^{-1} Mpc: Can Standard Models Be Ruled Out? *Scot S. Olivier, Joel R. Primack, George R. Blumenthal, & Avishai Dekel.* 408, 17, 83-C7 (1993)
Anisotropy of Cosmic Background Radiation from a Spherical Clustering on Large Scales. *Li-Zhi Fang & Xiang-Ping Wu.* 408, 25, 83-D3 (1993)
Kurtosis, Skewness, and Non-Gaussian Cosmological Density Perturbations. *Xiaochun Luo & David N. Schramm.* 408, 33, 83-E1 (1993)
Understanding Soft Gamma-Ray Repeaters in the Context of the Extragalactic Radio Pulsar Origin of Gamma-Ray Bursts. *Fulvio Melia & Marco Fatuzzo.* 408, L9, 88-F1 (1993)
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A Quasi–Steady State Cosmological Model with Creation of Matter. *F. Hoyle, G. Burbidge, & J. V. Narlikar.* 410, 437, 119-B7 (1993)
Void Evolution and the Large-Scale Structure. *John Dubinski, L. Nicolaci da Costa, D. S. Goldwirth, M. Lecar, & T. Piran.* 410, 458, 119-D1 (1993)
Controlled Experiments in Cosmological Gravitational Clustering. *Adrian L. Melott & Sergei F. Shandarin.* 410, 469, 119-E1 (1993)

Zel'dovich Approximation and the Probability Distribution for the Smoothed Density Field in the Nonlinear Regime. *T. Padmanabhan & K. Subramanian.* 410, 482, 119-F1 (1993)

A Static Stable Universe. *David F. Crawford.* 410, 488, 119-F9 (1993)

Inflationary Stochastic Dynamics and the Statistics of Large-Scale Structure. *Insu Yi & Ethan T. Vishniac.* 86, 333, 19-B1 (1993)

Cosmic Microwave Background Fluctuations as Observed by *COBE*: Theoretical and Experimental Uncertainties. *Roberto Scaramella & Nicola Vittorio.* 411, 1, 127-B1 (1993)

A Generalized Zel'dovich Approximation to Gravitational Instability. *M. Giavalisco, B. Mancinelli, P. J. Mancinelli, & A. Yahil.* 411, 9, 127-B12 (1993)

The Galaxy Velocity Field and Cold Dark Matter Models. *Giuseppe Tormen, Lauro Moscardini, Francesco Lucchin, & Sabino Matarrese.* 411, 16, 127-C8 (1993)

Abundance and Evolution of Quasars in Cold Dark Matter Models. *Adi Nusser & Joseph Silk.* 411, L1, 133-D1 (1993)

Gravitational Radiation, Inspiraling Binaries, and Cosmology. *David F. Chernoff & Lee Samuel Finn.* 411, L5, 133-D8 (1993)

Clumpy Cold Dark Matter. *Joseph Silk & Albert Stebbins.* 411, 439, 135-B1 (1993)

IRAS Galaxies versus POTENT Mass: Density Fields, Biasing, and Ω. *Avishai Dekel, Edmund Bertschinger, Amos Yahil, Michael A. Strauss, Marc Davis, & John P. Huchra.* 412, 1, 142-B1 (1993)

On the Inhomogeneity of Dark Matter and Luminous Objects Induced by Infinitely Long Cosmic Strings. *Tetsuya Hara, Petri Mähönen, & Shigeru Miyoshi.* 412, 22, 142-C11 (1993)

Cosmological Constant, *COBE* Cosmic Microwave Background Anisotropy, and Large-Scale Clustering. *Lev A. Kofman, Nickolay Y. Gnedin, & Neta A. Bahcall.* 413, 1, 156-B1 (1993)

Does a Cosmological Constant Increase the Effect of Gravitational Lensing on the Cosmic Microwave Background? *Laura Cayón, Enrique Martínez-González, & Jose Luis Sanz.* 413, 10, 156-B13 (1993)

Microwave Background Anisotropy on Scales 10′–2° as an Indicator of the Cosmological Model. *P. Naselsky & I. Novikov.* 413, 14, 156-C5 (1993)

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Percolation Technique for Galaxy Clustering. *Anatoly Klypin & Sergei F. Shandarin.* 413, 48, 156-F3 (1993)

Linear Evolution of Cosmic Baryonic Medium on Large Scales. *Li-Zhi Fang, Hongguang Bi, Shouping Xiang, & Gerhard Börner.* 413, 477, 162-D13 (1993)

A Cosmological Hydrodynamic Code Based on the Total Variation Diminishing Scheme. *Dongsu Ryu, Jeremiah P. Ostriker, Hyesung Kang, & Renyue Cen.* 414, 1, 170-B1 (1993)

Second-Order Perturbation Theory in an Expanding Universe: Spherical Harmonics Expansion. *Saleem Zaroubi & Yehuda Hoffman.* 414, 20, 170-C8 (1993)

A Hydrodynamic Treatment of the Tilted Cold Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah P. Ostriker.* 414, 407, 176-C1 (1993)

Effects of Long Cosmic Strings on the Anisotropies of the Cosmic Background Radiation. *Tetsuya Hara, Petri Mähönen, & Shigeru Miyoshi.* 414, 421, 176-D3 (1993)

On the Angular Correlation Function of Faint Galaxies. *Yuzuru Yoshii, Bruce A. Peterson, & Fumio Takahara.* 414, 431, 176-E1 (1993)

Decaying Vacuum Flat Cosmological Models: Expressions for Some Observable Quantities and Their Properties. *I. Waga.* 414, 436, 176-E8 (1993)

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Improving the Reconstruction of the Velocity Potential and Primordial Density Fluctuations by Choice of Smoothing Windows. *Adrian L. Melott.* 414, L73, 185-D8 (1993)

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A Hydrodynamic Approach to Cosmology: The Primeval Baryon Isocurvature Model. *Renyue Cen, Jeremiah P. Ostriker, & P. J. E. Peebles.* 415, 423, 193-B5 (1993)

Large-Scale Peculiar Velocity Field Due to Infinitely Long Cosmic Strings. *Tetsuya Hara, Petri Mähönen, & Shigeru Miyoshi.* 415, 445, 193-D1 (1993)

On Modeling a Relativistic Hierarchical (Fractal) Cosmology by Tolman's Spacetime. III. Numerical Results. *Marcelo B. Ribeiro.* 415, 469, 193-F6 (1993)

Evolution of Ideal-Fluid Cosmological Perturbations. *Jai-chan Hwang.* 415, 486, 193-G12 (1993)

Prerecombination Cloud Collapse and Baryonic Dark Matter. *Craig J. Hogan.* 415, L63, 199-D1 (1993)

The Redshift Space Power Spectrum of Galaxies in a Cold Dark Matter Universe. *Tereasa G. Brainerd & Jens V. Villumsen.* 415, L67, 199-D8 (1993)

Structure Formation with Cold plus Hot Dark Matter. *Anatoly Klypin, Jon Holtzman, Joel Primack, & Enikő Regős.* 416, 1, 201-B1 (1993)

Cosmic Variance of the Three-Point Correlation Function of the Cosmic Microwave Background. *Mark Srednicki.* 416, L1, 207-B1 (1993)

Gravitational Collapse in an Expanding Universe: Asymptotic Self-similar Solutions. *Saleem Zaroubi & Yehuda Hoffman.* 416, 410, 208-D12 (1993)

Structure of Merger Remnants. III. Phase-Space Constraints. *Lars Hernquist, David N. Spergel, & Jeremy S. Heyl.* 416, 415, 208-E4 (1993)

Neutron-Photon Scattering in the Early Universe. *Robert J. Gould.* 417, 12, 217-C1 (1993)

Toward Better Ways to Measure the Galaxy Correlation Function. *A. J. S. Hamilton.* 417, 19, 217-C11 (1993)

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Reconciliation of the Disparate Gamma-Ray Burst Catalogs in the Context of a Cosmological Source Distribution. *Peter Tamblyn & Fulvio Melia.* 417, L21, 223-A3 (1993)

A Hydrodynamic Treatment of the Cold Dark Matter Cosmological Scenario with a Cosmological Constant. *Renyue Cen, Nickolay Y. Gnedin, & Jeremiah P. Ostriker.* 417, 387, 224-B5 (1993)

Cold Dark Matter Cosmology with Hydrodynamics and Galaxy Formation: The Evolution of the Intergalactic Medium and Background Radiation Fields. *Renyue Cen & Jeremiah P. Ostriker.* 417, 404, 224-C10 (1993)

Cold Dark Matter Cosmogony with Hydrodynamics and Galaxy Formation: Galaxy Properties at Redshift Zero. *Renyue Cen & Jeremiah P. Ostriker.* 417, 415, 224-E1 (1993)

Tidally Induced Elongation and Alignments of Galaxy Clusters. *Eduard Salvador-Solé & José María Solanes.* 417, 427, 224-F1 (1993)

Self-similar Collapse of Axisymmetric Systems. *Barbara S. Ryden.* 418, 4, 231-B5 (1993)

The Chemical Evolution of QSOs and the Implications for Cosmology and Galaxy Formation. *Fred Hamann & Gary Ferland.* 418, 11, 231-B13 (1993)

Radio Transients from Gamma-Ray Bursters. *Bohdan Paczyński & James E. Rhoads.* 418, L5, 238-B1 (1993)

Cosmic Variance in Cosmic Microwave Background Anisotropies: From 1° to *COBE*. *Martin White, Lawrence M. Krauss, & Joseph Silk.* 418, 535, 239-B3 (1993)

Velocity Fields and Alignments of Clusters in Gravitational Instability Scenarios. *Michiel van Haarlem & Rien van de Weygaert.* 418, 544, 239-C1 (1993)

Thin Shells in Flat McVittie Spacetimes. *Paul Haines & Joseph D. Harris.* 418, 579, 239-F3 (1993)

Reionization and Cosmic Microwave Anisotropies. *Naoshi Sugiyama, Joseph Silk, & Nicola Vittorio.* 419, L1, 252-B1 (1993)

A Morphology-Cosmology Connection for X-Ray Clusters. *August E. Evrard, Joseph J. Mohr, Daniel G. Fabricant, & Margaret J. Geller.* 419, L9, 252-B13 (1993)

Clustering of Galaxies in Redshift Space: Velocity Distortion of the Power Spectrum and Correlation Function. *Mirt Gramann, Renyue Cen, & Neta A. Bahcall.* 419, 440, 253-C1 (1993)

Early Cosmic Formation of Massive Black Holes. *Masayuki Umemura, Abraham Loeb, & Edwin L. Turner.* 419, 459, 253-D13 (1993)

Secondary Ionization in a Flat Universe. *F. Atrio-Barandela & A. G. Doroshkevich.* 420, 26, 1-D1 (1994)

Evolution of One-Point Distributions from Gaussian Initial Fluctuations. *Lev Kofman, Edmund Bertschinger, James M. Gelb, Adi Nusser, & Avishai Dekel.* 420, 44, 1-E8 (1994)

Microwave Background Fluctuations Due to the Sunyaev-Zel'dovich Effect in Pancakes. *M. U. SubbaRao, A. S. Szalay, R. K. Schaefer, S. Gulkis, & P. von Gronefeld.* 420, 474, 8-E2 (1994)

On the Inevitability of Reionization: Implications for Cosmic Microwave Background Fluctuations. *Max Tegmark, Joseph Silk, & Alain Blanchard.* 420, 484, 8-F1 (1994)

Scale Dependence of Three-Point Correlation Functions: Model Predictions and Redshift-Space Contamination. *Takahiko Matsubara & Yasushi Suto.* 420, 497, 8-G2 (1994)

Departure from Hierarchical Clustering Relations for Two-, Three-, and Four-Point Correlation Functions: Analysis of Cosmological N-Body Simulations. *Yasushi Suto & Takahiko Matsubara.* 420, 504, 8-G11 (1994)

Perturbing Friedmann Equations: An Introduction to Lifshitz Instability. *Jai-chan Hwang & Jong June Hyun.* 420, 512, 9-A7 (1994)

Neutrino Balls and Gamma-Ray Bursts. *B. Holdom & R. A. Malaney.* 420, L53, 15-B7 (1994)

The Genus Curve of the Abell Clusters. *James E. Rhoads, J. Richard Gott III, & Marc Postman.* 421, 1, 16-B1 (1994)

Decaying Neutrinos in Galaxy Clusters. *Adrian L. Melott, Randall J. Splinter, Massimo Persic, & Paolo Salucci.* 421, 16, 16-C5 (1994)

The Phenomenological Status of Late Time Phase Transition Models after Cosmic Background Radiation Anisotropy Measurements. *Xiaochun Luo & David N. Schramm.* 421, 393, 23-B1 (1994)

Galaxy Formation in $\Lambda > 0$ Friedmann Models: Consequences for the Number Counts versus Redshift Test. *Hugo Martel.* 421, L67, 29-D1 (1994)

Cosmological Dipoles in Depth. *Roberto Scaramella, Giampaolo Vettolani, & Giovanni Zamorani.* 422, 1, 30-B1 (1994)

Ω from Velocities in Voids. *Avishai Dekel & Martin J. Rees.* 422, L1, 36-B1 (1994)

Higher Order Moments of the Matter Distribution in Scale-free Cosmological Simulations with Large Dynamic Range. *Francesco Lucchin, Sabino Matarrese, Adrian L. Melott, & Lauro Moscardini.* 422, 430, 37-C4 (1994)

X-Ray Clusters and Gravitational Instability Theories. *S. Colafrancesco & N. Vittorio.* 422, 443, 37-D5 (1994)

Galaxy Groups in Cold + Hot Dark Matter and Cold Dark Matter Universes: Comparison with CfA Data. *Richard Nolthenius, Anatoly Klypin, & Joel R. Primack.* 422, L45, 44-F5 (1994)

Strong Gravitational Lensing Statistics as a Test of Cosmogonic Scenarios. *Renyue Cen, J. Richard Gott III, Jeremiah P. Ostriker, & Edwin L. Turner.* 423, 1, 46-B1 (1994)

On the Anisotropy of the Cosmic Microwave Background. *A. Mészáros.* 423, 19, 46-C10 (1994)

Applying the Zel'dovich Approximation to General Relativity. *K. M. Croudace, J. Parry, D. S. Salopek, & J. M. Stewart.* 423, 22, 46-D1 (1994)

The Transmission Correlation in the QSO Lyα Forest Produced by Finite Width Lines. *Lin Zuo & J. Richard Bond.* 423, 73, 47-A13 (1994)

Did the Universe Recombine? New Spectral Constraints on Reheating. *Max Tegmark & Joseph Silk.* 423, 529, 55-B1 (1994)

Self-similar Expansion of Axisymmetric Voids. *Barbara S. Ryden.* 423, 534, 55-B8 (1994)

The Local Supercluster as a Test of Cosmological Models. *Renyue Cen.* 424, 22, 62-C8 (1994)

Peculiar Velocity Effect on Galaxy Correlation Functions in Nonlinear Clustering Regime. *Takahiko Matsubara.* 424, 30, 62-D4 (1994)

Modeling the Power Spectrum of Density Fluctuations: A Phenomenological Approach. *Enzo Branchini, Luigi Guzzo, & Riccardo Valdarnini.* 424, L5, 69-B5 (1994)

Optical Signatures of High-Redshift Galaxy Clusters. *August E. Evrard & Stéphane Charlot.* 424, L13, 69-C1 (1994)

Anisotropies of Cosmic Background Radiation from a Local Collapse. *Xiang-Ping Wu & Li-Zhi Fang.* 424, 530, 71-C7 (1994)

Detection of Signature Consistent with Cosmological Time Dilation in Gamma-Ray Bursts. *J. P. Norris, R. J. Nemiroff, J. D. Scargle, C. Kouveliotou, G. J. Fishman, C. A. Meegan, W. S. Paciesas, & J. T. Bonnell.* 424, 540, 71-D5 (1994)

Cosmic Gamma-Ray Burst Sources: The Phenomenon with the Smallest Angular Size in the Observable Universe. *Igor G. Mitrofanov.* 424, 546, 71-D13 (1994)

Dark Matter in Hierarchical Cluster Evolution. *Mark J. Henriksen.* 425, 35, 80-E8 (1994)

The Ring around Supernova 1987A Revisited. I. Ellipticity of the Ring. *Andrew Gould.* 425, 51, 80-G2 (1994)

The Effects of Incomplete Sky Coverage on the Analysis of Large Angular Scale Microwave Background Anisotropy. *Emory Bunn, Yehuda Hoffman, & Joseph Silk.* 425, 359, 86-B8 (1994)

Recovering the Real Density Field of Galaxies from Redshift Space. *Mirt Gramann, Renyue Cen, & J. Richard Gott III.* 425, 382, 86-D10 (1994)

The Three-Point Function as a Probe of Models for Large-Scale Structure. *Joshua A. Frieman & Enrique Gaztañaga.* 425, 392, 86-E8 (1994)

The Power Spectra of Dark Halos in a Cold Dark Matter Universe. *Tereasa G Brainerd & Jens V. Villumsen.* 425, 403, 86-F7 (1994)

Self-similar Evolution of Magnetized Plasmas. II. Nonequilibrium Solutions and Hubble's Expansion. *Wei-Hong Yang.* 425, 439, 87-B10 (1994)

Shear Fields and the Evolution of Galactic Scale Density Peaks. *Rien van de Weygaert & Arif Babul.* 425, L59, 94-B1 (1994)

Kurtosis and Large-Scale Structure. *Paolo Catelan & Lauro Moscardini.* 426, 14, 96-C2 (1994)

Power-Spectrum Analysis of Three-dimensional Redshift Surveys. *Hume A. Feldman, Nick Kaiser, & John A. Peacock.* 426, 23, 96-D2 (1994)

Cosmology with Powerful Extended Radio Sources. *Ruth A. Daly.* 426, 38, 96-E5 (1994)

Comparison of Dynamical Approximation Schemes for Nonlinear Gravitational Clustering. *Adrian L. Melott.* 426, L19, 103-C5 (1994)

Counts of Galaxies in a Merger Model. *P. Colín, D. N. Schramm, & M. Peimbert.* 426, 459, 104-B1 (1994)

Small-Scale Cosmic Microwave Background Anisotropies as a Probe of the Geometry of the Universe. *Marc Kamionkowski, David N. Spergel, & Naoshi Sugiyama.* 426, L57, 109-B1 (1994)

Testing the Gravitational Instability Hypothesis? *Arif Babul, David H. Weinberg, Avishai Dekel, & Jeremiah P. Ostriker.* 427, 1, 110-B1 (1994)

Reionization in a Cold Dark Matter Universe: The Feedback of Galaxy Formation on the Intergalactic Medium. *Paul R. Shapiro, Mark L. Giroux, & Arif Babul.* 427, 25, 110-D1 (1994)

The Nonlinear Evolution of Rare Events. *Francis Bernardeau.* 427, 51, 110-F1 (1994)

Dynamical Friction, Secondary Infall, and the Evolution of Clusters of Galaxies. *V. Antonuccio-Delogu & S. Colafrancesco.* 427, 72, 110-G10 (1994)

How Unusual is the Locally Quiet Hubble Flow? *David Schlegel, Marc Davis, Frank Summers, & Jon A. Holtzman.* 427, 527, 119-C7 (1994)

Exact Solutions of the Cosmological Perturbations in a Pressureless Medium. *Jai-chan Hwang.* 427, 533, 119-D1 (1994)

Evolution of Scalar Field Cosmological Perturbations. *Jai-chan Hwang.* 427, 542, 119-D13 (1994)

The Distribution of *IRAS* Galaxies on Linear and Nonlinear Scales. *Ravi K. Sheth, H. J. Mo, & William C. Saslaw.* 427, 562, 119-F11 (1994)

Subclustering and Luminous-Dark Matter Segregation in Galaxy Clusters. *A. Serna, J.-M. Alimi, & H. Scholl.* 427, 574, 119-G11 (1994)

Higher Dimensional Vacuum Cosmologies. *A. A. Coley.* 427, 585, 120-A10 (1994)

The Time Development of a Resonance Line in the Expanding Universe. *George B. Rybicki & Ian P. Dell'Antonio.* 427, 603, 120-C2 (1994)

The Angular Bispectrum of the Cosmic Microwave Background. *Xiaochun Luo.* 427, L71, 126-F7 (1994)

Hot Gas in the Cold Dark Matter Scenario: X-Ray Clusters from a High-Resolution Numerical Simulation. *Hyesung Kang, Renyue Cen, Jeremiah P. Ostriker, & Dongsu Ryu.* 428, 1, 128-C1 (1994)

Can Conformal Weyl Gravity Be Considered a Viable Cosmological Theory? *D. Elizondo & G. Yepes.* 428, 17, 128-D5 (1994)

Producing the Universal Spectrum of Cosmological Gamma-Ray Bursts with the Klein-Nishina Cross Section. *J. J. Brainerd.* 428, 21, 128-D11 (1994)

The Zero-Point of the Cluster-Cluster Correlation Function: A Key Test of Cosmological Power Spectra. *Anatoly Klypin & George Rhee.* 428, 399, 135-B9 (1994)

X-Ray Clusters from a High-Resolution Hydrodynamic PPM Simulation of the Cold Dark Matter Universe. *Greg L. Bryan, Renyue Cen, Michael L. Norman, Jeremiah P. Ostriker, & James M. Stone.* 428, 405, 135-C1 (1994)

A Singularity-free Cosmological Model with a Conformally Coupled Scalar Field. *S. Ş. Bayin, F. I. Cooperstock, & V. Faraoni.* 428, 439, 135-F1 (1994)

Are SP 91 and *COBE* Inconsistent with Cold Dark Matter? *Emory Bunn, Martin White, Mark Srednicki, & Douglas Scott.* 429, 1, 144-C1 (1994)

X-Ray Clusters in a Cold Dark Matter + Λ Universe: A Direct, Large-Scale, High-Resolution, Hydrodynamic Simulation. *Renyue Cen & Jeremiah P. Ostriker.* 429, 4, 144-C6 (1994)

A Calculation of the Full Neutrino Phase Space in Cold + Hot Dark Matter Models. *Chung-Pei Ma & Edmund Bertschinger.* 429, 22, 144-D12 (1994)

Evolution of Systems of Galaxies in Cold Dark Matter Models. *Patricia B. Tissera, Diego G. Lambas, & Mario G. Abadi.* 429, 29, 144-E7 (1994)

Microwave Background Anisotropies in Primeval Isocurvature Baryon Models: Constraints on the Cosmological Parameters. *Takashi Chiba, Naoshi Sugiyama, & Yasushi Suto.* 429, 427, 151-B1 (1994)

Nonlinear Hydrodynamics of Cosmological Sheets. I. Numerical Techniques and Tests. *Wenbo Y. Anninos & Michael L. Norman.* 429, 434, 151-B10 (1994)

The Fraction of Matter in Voids. *Jaan Einasto, Enn Saar, Maret Einasto, Wolfram Freudling, & Mirt Gramann.* 429, 465, 151-E2 (1994)

Gravitional Lenses and Unconventional Gravity Theories. *Jacob D. Bekenstein & Robert H. Sanders.* 429, 480, 151-F6 (1994)

On the Variation of Vacuum Permittivity in Friedmann Universes. *William Q. Sumner.* 429, 491, 151-G5 (1994)

Modified Dynamics Predictions Agree with Observations of the H I Kinematics in Faint Dwarf Galaxies Contrary to the Conclusions of Lo, Sargent, and Young. *Mordehai Milgrom.* 429, 540, 152-D5 (1994)

Statistically Efficient Parallel Testing of the Friedmann and Chronometric Flux-Redshift Predictions in the Radio Band. *I. E. Segal, J. F. Nicoll, & E. Blackman.* 430, 63, 159-G1 (1994)

A Comparison of Cosmological Hydrodynamic Codes. *Hyesung Kang, Jeremiah P. Ostriker, Renyue Cen, Dongsu Ryu, Lars Hernquist, August E. Evrard, Greg L. Bryan, & Michael L. Norman.* 430, 83, 160-A12 (1994)

Power Spectrum Constraints from Spectral Distortions in the Cosmic Microwave Background. *Wayne Hu, Douglas Scott, & Joseph Silk.* 430, L5, 165-B7 (1994)

Probing the Large-Scale Velocity Field with Clusters of Galaxies. *Neta A. Bahcall, Renyue Cen, & Mirt Gramann.* 430, L13, 165-C5 (1994)

Theoretical Expectations for Bulk Flows in Large-Scale Surveys. *Hume A. Feldman & Richard Watkins.* 430, L17, 165-C11 (1994)

Damped Lyman-Alpha Systems and Galaxy Formation. *H. J. Mo & J. Miralda-Escudé.* 430, L25, 165-D7 (1994)

The Three-Point Correlation Function of the Cosmic Microwave Background in Inflationary Models. *Alejandro Gangui, Francesco Lucchin, Sabino Matarrese, & Silvia Mollerach.* 430, 447, 167-C4 (1994)

Constraints on Models of Galaxy Formation from the Evolution of Damped Lyman-Alpha Absorption Systems. *Guinevere Kauffmann & Stéphane Charlot.* 430, L97, 174-E5 (1994)

Gauge-invariant Cosmological Perturbations in Generalized Einstein Theories. *T. Hirai & K. Maeda.* 431, 6, 176-C8 (1994)

The Evolution of Voids in the Adhesion Approximation. *Varun Sahni, B. S. Sathyaprakash, & Sergei F. Shandarin.* 431, 20, 176-D10 (1994)

Growth of Adiabatic Perturbations in Self-interacting Dark Matter. *Marie E. Machacek.* 431, 41, 176-F6 (1994)

Statistically Efficient Parallel Testing of the Hubble and Lundmark Laws in the Preevolutionary X-Ray Band. *I. E. Segal, J. F. Nicoll, & P. Wu.* 431, 52, 176-G5 (1994)

Dipole and Higher Multipole Particle Creation in the Steady State Universe. *Richard L. Liboff.* 431, 69, 177-A10 (1994)

A Hydrodynamic Approach to Cosmology: The Mixed Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah P. Ostriker.* 431, 451, 184-C1 (1994)

On the Evolution of Clustering and the Biased Galaxy Formation Scenario. *Tereasa G. Brainerd & Jens V. Villumsen.* 431, 477, 184-E1 (1994)

Gravitational Instability of Cold Matter. *Edmund Bertschinger & Bhuvnesh Jain.* 431, 486, 184-E12 (1994)

Second-Order Power Spectrum and Nonlinear Evolution at High Redshift. *Bhuvnesh Jain & Edmund Bertschinger.* 431, 495, 184-F9 (1994)

Typical Scales in the Spatial Distribution of QSOs. *Zugan Deng, Xiaoyang Xia, & Li-Zhi Fang.* 431, 506, 184-G9 (1994)

Small-Scale Microwave Background Fluctuations from Cosmic Strings. *Mark Hindmarsh.* 431, 534, 185-B13 (1994)

Statistics of Cosmological Gamma-Ray Bursts: Source Evolution, Cosmological Geometry, and Relativistic Beaming. *Insu Yi.* 431, 543, 185-C10 (1994)

Large-Angle Cosmic Microwave Background Anisotropies in an Open Universe. *Marc Kamionkowski & David N. Spergel.* 432, 7, 193-C9 (1994)

Origin of Cluster-Cluster Correlation Functions in Biased Structure Formation Scenarios. *Takuya Watanabe, Takahiko Matsubara, & Yasushi Suto.* 432, 17, 193-D7 (1994)

Clusters of Galaxies in the Long Cosmic String Model. *Tetsuya Hara, Hideki Yamamoto, Petri Mähönen, & Shigeru J. Miyoshi.* 432, 31, 193-E9 (1994)

Cold Dark Matter Cosmogony in an Open Universe. *Bharat Ratra & P. J. E. Peebles.* 432, L5, 199-B7 (1994)

The Angular Correlation Function of Galaxies in Cold Dark Matter and Cold Plus Hot Dark Matter Models. *G. Yepes, A. A. Klypin, A. Campos, & R. Fong.* 432, L11, 199-C1 (1994)

Abundance of Moderate-Redshift Clusters in the Cold Plus Hot Dark Matter Model. *Yi-Peng Jing & Li-Zhi Fang.* 432, 438, 201-D1 (1994)

Gravitational Lensing and Superluminal Motions in Quasars: The Linear Approximation. *J. A. Muñoz & M. Portilla.* 432, 448, 201-D13 (1994)

Skewness and Kurtosis in Large-Scale Cosmic Fields. *Francis Bernardeau.* 433, 1, 208-C1 (1994)

On the Microwave Background Anisotropy Produced by Great Attractor–like Structures. *M. J. Fullana, D. Sáez, & J. V. Arnau.* 94, 1, 52-B1 (1994)

Analysis of Small-Scale Microwave Background Radiation Anisotropy in the Presence of Foreground Contamination. *Scott Dodelson & Albert Stebbins.* 433, 440, 216-D8 (1994)

Cosmic Microwave Background Anisotropy Induced by Gas in Clusters of Galaxies. *S. Colafrancesco, P. Mazzotta, Y. Rephaeli, & N. Vittorio.* 433, 454, 216-E10 (1994)

Isotropy, Homogeneity, and Dipole Saturation. *Francesco Sylos Labini.* 433, 464, 216-F8 (1994)

The Dynamical Survival of Small-Scale Substructure in Relaxed Galaxy Clusters. *Guillermo González-Casado, Gary A. Mamon, & Eduard Salvador-Solé.* 433, L61, 223-E3 (1994)

Power-Spectrum–independent Constraints on Cosmological Models. *Max Tegmark, Emory F. Bunn, & Wayne Hu.* 434, 1, 225-C1 (1994)

Testing the Least Action Principle in an $\Omega_0 = 1$ Universe. *E. Branchini & R. G. Carlberg.* 434, 37, 225-F4 (1994)

Do Galactic Systems Form too Late in Cold + Hot Dark Matter Models? *Chung-Pei Ma & Edmund Bertschinger.* 434, L5, 232-B7 (1994)

Redshift and the Hubble Constant in Conformally Flat Spacetime. *Geoffrey Endean.* 434, 397, 233-C1 (1994)

The Cosmological Dependence of Cluster Density Profiles. *Mary M. Crone, August E. Evrard, & Douglas O. Richstone.* 434, 402, 233-C9 (1994)

Confrontation of a Double Inflationary Cosmological Model with Observations. *Stefan Gottlöber, Jan P. Mücket, & Alexei A. Starobinsky.* 434, 417, 233-D13 (1994)

The Cosmic X-Ray Background–*IRAS* Galaxy Correlation and the Local X-Ray Volume Emissivity. *Takamitsu Miyaji, Ofer Lahav, Keith Jahoda, & Elihu Boldt.* 434, 424, 233-E9 (1994)

Analytic Expression of the Genus in a Weakly Non-Gaussian Field Induced by Gravity. *Takahiko Matsubara.* 434, L43, 241-C8 (1994)

Lagrangian Evolution of the Weyl Tensor. *Edmund Bertschinger & A. J. S. Hamilton.* 435, 1, 243-C1 (1994)

Cosmological Perturbations in the Early Prematter Universe. *Mark Israelit.* 435, 8, 243-C12 (1994)

Compatibility of the BATSE Gamma-Ray Burst Data with General Friedmann Cosmological Models. *A. Gordon Emslie & John M. Horack.* 435, 16, 243-D9 (1994)

The Cosmological Mass Distribution from Cayley Trees with Disorder. *A. Cavaliere & N. Menci.* 435, 528, 253-D3 (1994)

Skewness of Cosmic Microwave Background Anisotropies in an Inflationary Isocurvature Baryon Model. *Kazuhiro Yamamoto & Misao Sasaki.* 435, L83, 259-C8 (1994)

A Two-Fluid Approximation for Calculating the Cosmic Microwave Background Anisotropies. *Uroš Seljak.* 435, L87, 259-D1 (1994)

Gross Spectral Differences between Bright and Dim Gamma-Ray Bursts. *R. J. Nemiroff, J. P. Norris, J. T. Bonnell, W. A. D. T. Wickramasinghe, C. Kouveliotou, W. S. Paciesas, G. J. Fishman, & C. A. Meegan.* 435, L133, 260-B10 (1994)

Kurtosis as a Non-Gaussian Signature of the Large-Scale Velocity Field. *Paolo Catelan & Lauro Moscardini.* 436, 5, 261-C8 (1994)

Hierarchical Numerical Cosmology with Hydrodynamics: Methods and Code Tests. *Peter Anninos, Michael L. Norman, & David A. Clarke.* 436, 11, 261-D3 (1994)

The Motions of Clusters and Groups of Galaxies. *Neta A. Bahcall, Mirt Gramann, & Renyue Cen.* 436, 23, 261-E4 (1994)
Thermal History Constraints on the Isocurvature Baryon Model. *Wayne Hu & Naoshi Sugiyama.* 436, 456, 271-G4 (1994)
Cold Dark Matter. I. The Formation of Dark Halos. *James M. Gelb & Edmund Bertschinger.* 436, 467, 272-A5 (1994)
Cold Dark Matter. II. Spatial and Velocity Statistics. *James M. Gelb & Edmund Bertschinger.* 436, 491, 272-C5 (1994)
Nonlinear Approximations to Gravitational Instability: A Comparison in the Quasi-linear Regime. *Dipak Munshi, Varun Sahni, & Alexei A. Starobinsky.* 436, 517, 272-E10 (1994)
On the Peculiar Velocity Field of a CDM Universe. *Tereasa G. Brainerd & Jens V. Villumsen.* 436, 528, 272-F11 (1994)
Reconstruction of Initial Cosmological Density Fluctuations by the Pseudospectral Method. *Naoteru Gouda.* 436, 542, 273-A1 (1994)
An Embedding for the Big Bang. *Paul S. Wesson.* 436, 547, 273-A9 (1994)
Internal Velocity and Mass Distributions in Simulated Clusters of Galaxies for a Variety of Cosmogonic Models. *Renyue Cen.* 437, 12, 283-D2 (1994)
Relativistic Fireworks: Not a Viable Model for Cosmology. *Lennart Widlund.* 437, 27, 283-E6 (1994)
Velocity Correlations of Galaxy Clusters. *Renyue Cen, Neta A. Bahcall, & Mirt Gramann.* 437, L51, 292-A8 (1994)
Correlations in Cosmic Density Fields. *B. C. Bromley.* 437, 541, 293-C1 (1994)
Formation of Galaxies in the Early Universe. *J. C. N. de Araujo & R. Opher.* 437, 556, 293-D8 (1994)
A Simulation of the Intracluster Medium with Feedback from Cluster Galaxies. *Christopher A. Metzler & August E. Evrard.* 437, 564, 293-E8 (1994)
Massive Black Holes and Light-Element Nucleosynthesis in a Baryonic Universe. *Nickolay Y. Gnedin, Jeremiah P. Ostriker, & Martin J. Rees.* 438, 40, 1-G8 (1995)
Mapping Cluster Mass Distributions via Gravitational Lensing of Background Galaxies. *T. J. Broadhurst, A. N. Taylor, & J. A. Peacock.* 438, 49, 2-A7 (1995)
Collisions of the First Clouds. *J. C. N. de Araujo & R. Opher.* 439, 11, 21-D1 (1995)
Nonlinear Cluster Lens Reconstruction. *Nick Kaiser.* 439, L1, 29-E1 (1995)
Reionization and Its Imprint on the Cosmic Microwave Background. *Scott Dodelson & Jay M. Jubas.* 439, 503, 31-C3 (1995)
Sample Variance of Non-Gaussian Sky Distributions. *Xiaochun Luo.* 439, 517, 31-D7 (1995)
An Analytical Model for the Triaxial Collapse of Cosmological Perturbations. *Daniel J. Eisenstein & Abraham Loeb.* 439, 520, 31-E1 (1995)
Duration Distributions of Bright and Dim BATSE Gamma-Ray Bursts. *J. P. Norris, J. T. Bonnell, R. J. Nemiroff, J. D. Scargle, C. Kouveliotou, W. S. Paciesas, C. A. Meegan, & G. J. Fishman.* 439, 542, 31-F13 (1995)
The Classical Tests in Kaluza-Klein Gravity. *D. Kalligas, P. S. Wesson, & C. W. F. Everitt.* 439, 548, 31-G9 (1995)
Fully Covariant Cosmology and Its Astrophysical Implications. *Paul S. Wesson & Hongya Liu.* 440, 1, 41-C1 (1995)
Radial Orbit Instability in a Hubble-expanding Universe. *Daniel D. Carpintero & Juan C. Muzzio.* 440, 5, 41-C8 (1995)
Angular Size in a Static Universe. *David F. Crawford.* 440, 466, 49-F4 (1995)
Reionization and the Cosmic Microwave Background in an Open Universe. *Fred M. Persi.* 441, 1, 59-C1 (1995)
Scale Invariance and Self-Similar Behavior of Dark Matter Halos. *F. Moutarde, J.-M. Alimi, F. R. Bouchet, & R. Pellat.* 441, 10, 59-D1 (1995)
Giant Branch Mixing and the Ultimate Fate of Primordial Deuterium in the Galaxy. *Craig J. Hogan.* 441, L17, 66-E7 (1995)
Large-Scale Motions in the Universe: Using Clusters of Galaxies as Tracers. *Mirt Gramann, Neta A. Bahcall, Renyue Cen, & J. Richard Gott.* 441, 449, 68-C1 (1995)
Reionization in an Open Cold Dark Matter Universe: Implications for Cosmic Microwave Background Fluctuations. *Max Tegmark & Joseph Silk.* 441, 458, 68-C13 (1995)
Absence of a Lower Limit on Ω_b in Inhomogeneous Primordial Nucleosynthesis. *Karsten Jedamzik, Grant J. Mathews, & George M. Fuller.* 441, 465, 68-D9 (1995)
Cosmological and Astrophysical Consequences of a High Primordial Deuterium Abundance. *Elisabeth Vangioni-Flam & Michel Cassé.* 441, 471, 68-E4 (1995)
Observations in the Einstein–de Sitter Cosmology: Dust Statistics and Limits of Apparent Homogeneity. *Marcelo B. Ribeiro.* 441, 477, 68-E13 (1995)
The Quasar Distribution in a Static Universe. *David F. Crawford.* 441, 488, 68-F13 (1995)
The Tinsley Diagram Revisited. *Stephen Leonard & Kayll Lake.* 441, L55, 75-F1 (1995)
Hot Gas in Superclusters and Microwave Background Distortions. *Fred M. Persi, David N. Spergel, Renyue Cen, & J. P. Ostriker.* 442, 1, 77-C1 (1995)
Dynamics of Gravitational Instability Is Nonlocal. *Lev Kofman & Dmitry Pogosyan.* 442, 30, 77-E12 (1995)
Weakly Nonlinear Gaussian Fluctuations and the Edgeworth Expansion. *Roman Juszkiewicz, David H. Weinberg, Piotr Amsterdamski, Michał Chodorowski, & François Bouchet.* 442, 39, 77-F10 (1995)
On Observational Constraints on the Shapes of the Dark Matter Density and Temperature Distributions in the Model of Dark Matter–confined Lyα Clouds. *Valery K. Khersonsky & David A. Turnshek.* 442, 76, 78-C2 (1995)
On the Abundance of Primordial Helium. *Keith A. Olive & Gary Steigman.* 97, 49, 11-E9 (1995)
Testing the Velocity Field in Non–Scale-invariant Cold Dark Matter Models. *Lauro Moscardini, Giuseppe Tormen, Sabino Matarrese, & Francesco Lucchin.* 442, 469, 86-D3 (1995)
Evidence for a Very Large Scale Fractal Structure in the Universe from *COBE* Measurements. *Elisabete M. de Gouveia Dal Pino, Annibal Hetem, Jorge E. Horvath, Carlos A. W. de Souza, Thyrso Villela, & J. C. N. de Araujo.* 442, L45, 94-C1 (1995)
Proving Almost-Homogeneity of the Universe: An Almost Ehlers-Geren-Sachs Theorem. *W. R. Stoeger, R. Maartens, & G. F. R. Ellis.* 443, 1, 95-C1 (1995)
Window Functions for Cosmic Microwave Background Experiments. *Martin White & Mark Srednicki.* 443, 6, 95-C9 (1995)
Origin of Quasar Progenitors from the Collapse of Low-Spin Cosmological Perturbations. *Daniel J. Eisenstein & Abraham Loeb.* 443, 11, 95-D3 (1995)
Properties of the Cosmological Density Distribution Function. *Francis Bernardeau & Lev Kofman.* 443, 479, 104-F1 (1995)
Softened Lagrangian Hydrodynamics for Cosmology. *Nickolay Y. Gnedin.* 97, 231, 15-B1 (1995)
Damped Lyman-Alpha Systems versus Cold + Hot Dark Matter. *Anatoly Klypin, Stefano Borgani, Jon Holtzman, & Joel Primack.* 444, 1, 113-C1 (1995)
Anisotropies in the Cosmic Microwave Background: An Analytic Approach. *Wayne Hu & Naoshi Sugiyama.* 444, 489, 123-C1 (1995)
Can Standard Cosmological Models Explain the Observed Abell Cluster Bulk Flow? *Michael A. Strauss, Renyue Cen, Jeremiah P. Ostriker, Tod R. Lauer, & Marc Postman.* 444, 507, 123-D8 (1995)
Velocity Differences as a Probe of Non-Gaussian Density Fields. *Paolo Catelan & Robert J. Scherrer.* 445, 1, 132-D1 (1995)
Vacuum Zero-Point Field Pressure Instability in Astrophysical Plasmas and the Formation of Cosmic Voids. *Alfonso Rueda, Bernhard Haisch, & Daniel C. Cole.* 445, 7, 132-D10 (1995)
Gauge Invariance and the Cosmic Microwave Background Radiation Temperature. *W. R. Stoeger, C.-M. Xu, G. F. R. Ellis, & M. Katz.* 445, 17, 132-E9 (1995)
Cosmic Microwave Background Comptonization by Hot Intracluster Gas. *Yoel Rephaeli.* 445, 33, 132-G1 (1995)
Signatures of White Dwarf Galaxy Halos. *Stéphane Charlot & Joseph Silk.* 445, 124, 134-A12 (1995)
Sensitivity of Solar g-Modes to Varying G Cosmologies. *D. B. Guenther, Ken Sills, Pierre Demarque, & Lawrence M. Krauss.* 445, 148, 134-D4 (1995)
Gravity Wave–induced Polarization of the Cosmic Microwave Background Radiation. *Ka Lok Ng & Kin-Wang Ng.* 445, 521, 142-C1 (1995)
Nonlinear Structure Formation in Flat Cosmological Models. *Hugo Martel.* 445, 537, 142-D11 (1995)
Quasar Populations in a Cosmological Constant–dominated Flat Universe. *Sangeeta Malhotra & Edwin L. Turner.* 445, 553, 142-F3 (1995)
Cosmological Implications of *ROSAT* Observations of Groups and Clusters of Galaxies. *Laurence P. David, Christine Jones, & William Forman.* 445, 578, 143-A8 (1995)
Dynamics of Silent Universes. *Marco Bruni, Sabino Matarrese, & Ornella Pantano.* 445, 958, 148-D13 (1995)
The Imprint of Proper Motion of Nonlinear Structures on the Cosmic Microwave Background. *Robin Tuluie & Pablo Laguna.* 445, L73, 150-C9 (1995)

When Can Non-Gaussian Density Fields Produce a Gaussian Sachs-Wolfe Effect? *Robert J. Scherrer & Robert K. Schaefer.* 446, 44, 153-F12 (1995)

Cosmological Constant Cold Dark Matter Models and the *COBE* Two-Year Sky Maps. *Emory F. Bunn & Naoshi Sugiyama.* 446, 49, 153-G6 (1995)

Mass Segregation in Dark Matter Models. *A. Campos, G. Yepes, A. Klypin, G. Murante, A. Provenzale, & S. Borgani.* 446, 54, 154-A1 (1995)

Mining Energy in an Expanding Universe. *Edward R. Harrison.* 446, 63, 154-B2 (1995)

Anisotropies of the Cosmic Background Radiation in a Reionized Universe. *Robin Tuluie, Richard A. Matzner, & Peter Anninos.* 446, 447, 162-C1 (1995)

Cosmic Strings and Cosmic Variance. *Alejandro Gangui & Leandros Perivolaropoulos.* 447, 1, 172-C1 (1995)

Cosmological Constraints from Observed Cluster X-Ray Morphologies. *Joseph J. Mohr, August E. Evrard, Daniel G. Fabricant, & Margaret J. Geller.* 447, 8, 172-C12 (1995)

The Mass Function of Cosmic Structures with Nonspherical Collapse. *Pierluigi Monaco.* 447, 23, 172-E2 (1995)

The Effects of Inhomogeneities on Evaluating the Deceleration Parameter q_0. *R. Kantowski, T. Vaughan, & D. Branch.* 447, 35, 172-F4 (1995)

A Redshift-Magnitude Relation for Nonuniform Pressure Universes. *Mariusz P. Dąbrowski.* 447, 43, 172-G2 (1995)

Mixed Cold-Hot Dark Matter Model with Falling and Quasi-flat Initial Perturbation Spectra. *Dmitri Yu. Pogosyan & Alexei A. Starobinsky.* 447, 465, 182-C1 (1995)

The Effects of Pure Density Evolution on the Brightness Distribution of Cosmological Gamma-Ray Bursts. *J. M. Horack, A. G. Emslie, & D. H. Hartmann.* 447, 474, 182-C13 (1995)

Time and Its Evolution in an Inhomogeneous Universe. *Martin Harwit.* 447, 482, 182-D10 (1995)

Probability Distribution of the Hubble Constant and the Age of the Universe Inferred from Local Observations. *Takahiro T. Nakamura & Yasushi Suto.* 447, L65, 190-B8 (1995)

The Cloud-in-Cloud Problem in the Press-Schechter Formalism of Hierarchical Structure Formation. *Karsten Jedamzik.* 448, 1, 192-C1 (1995)

Probing Early Clustering with Lyα Absorption Lines beyond the Quasar Redshift. *Abraham Loeb & Daniel J. Eisenstein.* 448, 17, 192-D10 (1995)

Constraints on the Topology of the Universe from the 2 Year *COBE* Data. *Angélica de Oliveira-Costa & George F. Smoot.* 448, 477, 201-C1 (1995)

The Cosmic Microwave Background Dipole Cannot Be the Result of the Cosmological Entropy Gradient. *M. Jaroszyński & B. Paczyński.* 448, 488, 201-D5 (1995)

On the Validity of the Streaming Model for the Redshift-Space Correlation Function in the Linear Regime. *Karl B. Fisher.* 448, 494, 201-E1 (1995)

Multifractal Analysis of String-induced Cosmic Microwave Background Radiation Anisotropies. *M. P. Pompilio, F. R. Bouchet, G. Murante, & A. Provenzale.* 449, 1, 210-C1 (1995)

The Brightness Distribution of Bursting Sources in Relativistic Cosmologies. *P. Mészáros & A. Mészáros.* 449, 9, 210-C13 (1995)

Matching Exterior to Interior Solutions in Weyl Gravity: Comment on "Exact Vacuum Solution to Conformal Weyl Gravity and Galactic Rotation Curves." *Volker Perlick & Chongming Xu.* 449, 47, 210-G7 (1995)

Mass of the Milky Way and Redshifts of the Nearby Galaxies. *P. J. E. Peebles.* 449, 52, 211-A1 (1995)

A Simple Test for Non-Gaussianity in Cosmic Microwave Background Radiation Measurements. *Paul Graham, Neil Turok, P. M. Lubin, & J. A. Schuster.* 449, 404, 218-C9 (1995)

Groups of Galaxies in the *ROSAT* North Ecliptic Pole Survey. *J. P. Henry, I. M. Gioia, J. P. Huchra, R. Burg, B. McLean, H. Böhringer, R. G. Bower, U. G. Briel, W. Voges, H. MacGillivray, & R. G. Cruddace.* 449, 422, 218-E6 (1995)

Wiener Reconstruction of the Large-Scale Structure. *S. Zaroubi, Y. Hoffman, K. B. Fisher, & O. Lahav.* 449, 446, 219-A7 (1995)

Nonlinear Hydrodynamics of Cosmological Sheets. II. Fragmentation and the Gravitational, Cooling, and Thin-Shell Instabilities. *Wenbo Y. Anninos, Michael L. Norman, & Peter Anninos.* 450, 1, 228-B1 (1995)

Observations in a Super–Horizon-Scale Inhomogeneous Cosmological Model. *Kenji Tomita.* 451, 1, 246-C1 (1995)

The Spontaneous Violation of the Cosmological Principle and the Possible Wave Structures of the Universe. *P. Budinich, P. Nurowski, R. Raczka, & M. Ramella.* 451, 10, 246-C13 (1995)

Deuterium in the Universe. *Francesco Palla, Daniele Galli, & Joseph Silk.* 451, 44, 246-F11 (1995)

Large-Scale Baryon Isocurvature Inhomogeneities. *Craig J. Copi, Keith A. Olive, & David N. Schramm.* 451, 51, 246-G9 (1995)

Spectral Analysis of Microwave Background Perturbations Induced by Cosmic Strings. *Leandros Perivolaropoulos.* 451, 429, 253-C1 (1995)

Background X-Ray Emission from Hot Gas in CDM and CDM+Λ Universes: Spectral Signatures. *Renyue Cen, Hyesung Kang, Jeremiah P. Ostriker, & Dongsu Ryu.* 451, 436, 253-C11 (1995)

Matter Distribution for Power Spectra with Broken Scale Invariance. *Luca Amendola, Stefan Gottlöber, Jan Peter Mücket, & Volker Müller.* 451, 444, 253-D10 (1995)

Abundance Histories for QSO Absorption-Line Systems. *F. X. Timmes, J. T. Lauroesch, & J. W. Truran.* 451, 468, 253-F12 (1995)

Measuring q_0 from the Distortion of Voids in Redshift Space. *Barbara S. Ryden.* 452, 25, 262-E4 (1995)

Nucleosynthesis in the Presence of Primordial Isocurvature Baryon Fluctuations. *Karsten Jedamzik & George M. Fuller.* 452, 33, 262-F2 (1995)

Local Nonlinear Approximations to the Growth of Cosmic Structures. *Paul J. Mancinelli & Amos Yahil.* 452, 75, 263-B8 (1995)

A Simulation of Lyα Absorption Forests in Linear Approximation of Cold Dark Matter and Cold Plus Hot Dark Matter Models. *Hongguang Bi, Jian Ge, & Li-Zhi Fang.* 452, 90, 263-D1 (1995)

The Primordial Lithium Abundance. *Robert L. Kurucz.* 452, 102, 263-E2 (1995)

Constraints on Self-interacting Dark Matter. *Andrew A. de Laix, Robert J. Scherrer, & Robert K. Schaefer.* 452, 495, 271-D13 (1995)

Cosmic Background Anisotropies in Cold Dark Matter Cosmology. *Naoshi Sugiyama.* 100, 281, 50-B1 (1995)

Maxwell's Equations in the Einstein Universe and Chronometric Cosmology. *I. E. Segal & Z. Zhou.* 100, 307, 50-D1 (1995)

The Confluent System Formalism. I. The Mass Function of Objects in the Peak Model. *Alberto Manrique & Eduard Salvador-Solé.* 453, 6, 281-C9 (1995)

Cosmological Observations in a Local Void. *J. W. Moffat & D. C. Tatarski.* 453, 17, 281-D9 (1995)

Determination of Distance from Time Dilation of Cosmological Gamma-Ray Bursts. *E. E. Fenimore & J. S. Bloom.* 453, 25, 281-E6 (1995)

Real-Space Cosmic Fields from Redshift-Space Distributions: A Green's Function Approach. *Max Tegmark & B. C. Bromley.* 453, 533, 291-C1 (1995)

The Hubble Parameter in a Void Universe: Effect of the Peculiar Velocity. *Ken-ichi Nakao, Naoteru Gouda, Takeshi Chiba, Satoru Ikeuchi, Takashi Nakamura, & Masaru Shibata.* 453, 541, 291-C13 (1995)

Gravitational Lensing Limits on Cold Dark Matter and Its Variants. *Christopher S. Kochanek.* 453, 545, 291-D6 (1995)

Galaxy Clustering Statistics of *Hubble Space Telescope* Medium Deep Survey WF/PC Images. *L. W. Neuschaefer, K. U. Ratnatunga, R. E. Griffiths, S. Casertano, & M. Im.* 453, 559, 291-E10 (1995)

Cosmological Simulations Using Special Purpose Computers: Implementing P^3M on GRAPE. *Philippe P. Brieu, F. J. Summers, & Jeremiah P. Ostriker.* 453, 566, 291-F6 (1995)

Averaging Einstein's Equations over a Hierarchy of Bound and Unbound Fragments. *Natalia V. Zotov & William R. Stoeger, S.J.* 453, 574, 291-G3 (1995)

Empirical Constraints on Source Properties and Host Galaxies of Cosmological Gamma-Ray Bursts. *Eric Woods & Abraham Loeb.* 453, 583, 292-A1 (1995)

Astrophysical Limits on the Evolution of Dimensionless Physical Constants over Cosmological Time. *Lennox L. Cowie & Antoinette Songaila.* 453, 596, 292-B3 (1995)

Interpreting New Data on Large-Scale Bulk Flows. *Richard Watkins & Hume A. Feldman.* 453, L73, 298-C8 (1995)

Galaxy Tracers and Velocity Bias. *F. J. Summers, Marc Davis, & August E. Evrard.* 454, 1, 299-C1 (1995)

Diagrammatic Methods in Statistics and Biasing in the Large-Scale Structure of the Universe. *Takahiko Matsubara.* 101, 1, 53-B1 (1995)

Skewness of Cosmic Microwave Background Temperature Fluctuations Due to Nonlinear Gravitational Instability. *Dipak Munshi, Tarun Souradeep, & Alexei A. Starobinsky.* 454, 552, 309-B5 (1995)

On the Interpretation of Clustering from the Angular APM Galaxy Survey. *Enrique Gaztañaga.* 454, 561, 309-C3 (1995)

Powerful Extended Radio Sources as Tools to Estimate Ambient Gas Densities, Jet Luminosities, and Other Key Physical Parameters. *Ruth A. Daly.* 454, 580, 309-E1 (1995)

Evolution of the Double Neutron Star Merging Rate and the Cosmological Origin of Gamma-Ray Burst Sources. *V. M. Lipunov, K. A. Postnov, M. E. Prokhorov, I. E. Panchenko, & H. E. Jørgensen.* 454, 593, 309-F3 (1995)

Quasar Constraints on the Cosmic String Models. *P. Mähönen, T. Hara, & S. J. Miyoshi.* 454, L81, 315-D2 (1995)

Cosmological Perturbation Theory in the Synchronous and Conformal Newtonian Gauges. *Chung-Pei Ma & Edmund Bertschinger.* 455, 7, 318-C10 (1995)

Likelihood Analysis of Large-Scale Flows. *Andrew H. Jaffe & Nick Kaiser.* 455, 26, 318-E4 (1995)

On the Dynamical Origin of Bias in Clusters of Galaxies. *S. Colafrancesco, V. Antonuccio-Delogu, & A. Del Popolo.* 455, 32, 318-E13 (1995)

Microlensing Search of 10^6 Quasars. *Andrew Gould.* 455, 37, 318-F7 (1995)

Large-Angle Cosmic Microwave Background Anisotropy in an Open Universe in the One-Bubble Inflationary Scenario. *Kazuhiro Yamamoto, Misao Sasaki, & Takahiro Tanaka.* 455, 412, 327-E3 (1995)

Calculation of the Kinetic Sunyaev-Zeldovich Effect from the Boltzmann Equation. *Peter R. Phillips.* 455, 419, 327-E13 (1995)

Big Bang Nucleosynthesis and a New Approach to Galactic Chemical Evolution. *Craig J. Copi, David N. Schramm, & Michael S. Turner.* 455, L95, 333-C1 (1995)

DARK MATTER

N-Body Simulation of Large-Scale Structures in $\Lambda \neq 0$ Friedmann Models. *Hugo Martel.* 366, 353, 7-C1 (1991)

Bulk Flows, Shear, and the Great Attractor. *Nick Kaiser.* 366, 388, 7-F1 (1991)

Seeded Hot Dark Matter Models for Large-Scale Structure. *Jens V. Villumsen, Robert J. Scherrer, & Edmund Bertschinger.* 367, 37, 12-D11 (1991)

Modeling Galaxy Formation in Evolving Dark Matter Halos. *Shaun Cole.* 367, 45, 12-E7 (1991)

Hollow Galactic Halos of Fermionic Dark Matter. *John P. Ralston & Lesley L. Smith.* 367, 54, 12-F4 (1991)

A Technique for Using Radio Jets as Extended Gravitational Lensing Probes. *Philipp P. Kronberg, Charles C. Dyer, E. Margaret Burbidge, & Vesa T. Junkkarinen.* 367, L1, 17-B1 (1991)

The Galactic Disk Surface Mass Density and the Galactic Force K_z at $z = 1.1$ Kiloparsecs. *Konrad Kuijken & Gerard Gilmore.* 367, L9, 17-C1 (1991)

Zero Central Density Solutions of the Anisotropic Jeans Equation and Neutrino Dark Matter. *Jes Madsen.* 367, 507, 19-F1 (1991)

On the Observability of the Gamma-Ray Line Flux from Dark Matter Annihilation. *S. Rudaz & F. W. Stecker.* 368, 406, 30-B5 (1991)

Window for the Dark Matter Solution to the Solar Neutrino Problem. *David Dearborn, Kim Griest, & Georg Raffelt.* 368, 626, 33-A1 (1991)

Large-Aperture *BVRJK* Photometry of Rich Abell Clusters: Constraints on Dark Matter. *Juan M. Uson & Stephen P. Boughn.* 369, 38, 36-D11 (1991)

Filamentary Superclustering in a Universe Dominated by Cold Dark Matter. *Michael J. West, Jens V. Villumsen, & Avishai Dekel.* 369, 287, 41-C7 (1991)

Gravitational Lensing by Clusters of Galaxies: Constraining the Mass Distribution. *Jordi Miralda-Escudé.* 370, 1, 47-B1 (1991)

Compression of Dark Halos by Baryon Infall: Self-similar Solutions. *Barbara S. Ryden.* 370, 15, 47-C1 (1991)

Redshift-Space Correlation Functions in the Cold Dark Matter Scenario. *Yasushi Suto & Tatsushi Suginohara.* 370, L15, 53-C7 (1991)

Radiation-induced Reversal of Baryonic Perturbations. *W. H. Zurek.* 370, 474, 54-C8 (1991)

Bosons: Hot Dark Matter with Small-Scale Power. *Jes Madsen.* 371, L47, 73-A11 (1991)

Further Limits on Disklike Dark Matter from K Dwarf Kinematics. *Konrad Kuijken.* 372, 125, 75-E7 (1991)

Limits on Cold Dark Matter Cosmologies from New Anisotropy Bounds on the Cosmic Microwave Background. *Nicola Vittorio, Peter Meinhold, Pio Fráncesco Muciaccia, Philip Lubin, & Joseph Silk.* 372, L1, 79-A7 (1991)

Gravitational Clustering in the Expanding Universe: Controlled High-Resolution Studies in Two Dimensions. *John Francis Beacom, Kurt G. Dominik, Adrian L. Melott, Sam P. Perkins, & Sergei F. Shandarin.* 372, 351, 80-B7 (1991)

New Model for the 0957+561 Gravitational Lens System: Bounds on Masses of a Possible Black Hole and Dark Matter and Prospects for Estimation of H_0. *E. E. Falco, M. V. Gorenstein, & I. I. Shapiro.* 372, 364, 80-D1 (1991)

Type Ia Supernovae: Constraints on Baryonic Dark Matter. *Tammy A. Smecker & Rosemary F. G. Wyse.* 372, 448, 81-D1 (1991)

Constraints on Open Universe Models from Quadrupole Anisotropy of the Cosmic Microwave Background. *Naoteru Gouda, Naoshi Sugiyama, & Misao Sasaki.* 372, L49, 85-B1 (1991)

Large-Scale Structure in a Texture-seeded Cold Dark Matter Cosmogony. *Changbom Park, David N. Spergel, & Neil Turok.* 372, L53, 85-B5 (1991)

Gravitational Microlensing as a Method of Detecting Disk Dark Matter and Faint Disk Stars. *Kim Griest, Charles Alcock, Timothy S. Axelrod, David P. Bennett, Kem H. Cook, Kenneth C. Freeman, Hye-Sook Park, Saul Perlmutter, Bruce A. Peterson, Peter J. Quinn, Alexander W. Rodgers, & Christopher W. Stubbs (The MACHO Collaboration).* 372, L79, 85-D5 (1991)

Background Correlation Functions from Galaxy Rotation Curves. *Stefano Borgani, Silvio A. Bonometto, Massimo Persic, & Paolo Salucci.* 374, 20, 98-C7 (1991)

Evolution of Velocity and Density Fields around Clusters of Galaxies. *Per B. Lilje & Ofer Lahav.* 374, 29, 98-D3 (1991)

Gravitational Lens Interference. *J. B. Peterson & Toby Falk.* 374, L5, 103-C1 (1991)

Galaxy Pairs in Redshift Catalogs as a Probe of Dark Matter. *Jane C. Charlton & Edwin E. Salpeter.* 375, 517, 119-C1 (1991)

Evidence for a Massive, Dark Gravitational Lensing Object in Q2345+007. *Robert C. Duncan.* 375, L41, 124-B1 (1991)

The Distribution of Dark Matter in the Perseus Cluster. *C. J. Eyles, M. P. Watt, D. Bertram, M. J. Church, T. J. Ponman, G. K. Skinner, & A. P. Willmore.* 376, 23, 125-C12 (1991)

Formation of Galactic Halos from Seeded Hot Dark Matter. *Anthony van Dalen & Jens Verner Villumsen.* 376, 371, 131-B1 (1991)

Winds, Outflows, and Inflows in X-Ray Elliptical Galaxies. I. *Luca Ciotti, Annibale D'Ercole, Silvia Pellegrini, & Alvio Renzini.* 376, 380, 131-B12 (1991)

The Fragmentation of "Pancakes" in a Dark Matter–dominated Universe. *Wenbo Yuan, Joan M. Centrella, & Michael L. Norman.* 376, L29, 137-A11 (1991)

A Critical Look at Cosmions. *Jean Kaplan, François Martin de Volnay, Charling Tao, & Sylvaine Turck-Chièze.* 378, 315, 154-G11 (1991)

Gravitational Lensing, Time Delay, and Angular Diameter Distance. *Ramesh Narayan.* 378, L5, 157-B1 (1991)

Dynamical Evolution of Topology of Large-Scale Structure. *Changbom Park & J. Richard Gott III.* 378, 457, 158-B1 (1991)

H I Studies of the Sculptor Group Galaxies. VII. Implications on the Distribution and Nature of Dark Matter in Groups. *Daniel Puche & Claude Carignan.* 378, 487, 158-E1 (1991)

The Structure of Cold Dark Matter Halos. *John Dubinski & R. G. Carlberg.* 378, 496, 158-E11 (1991)

Cosmological Velocity-Density Relation in the Quasi-linear Regime. *Adi Nusser, Avishai Dekel, Edmund Bertschinger, & George R. Blumenthal.* 379, 6, 163-B7 (1991)

The Dark Matter Content of Spiral Galaxies. *Paolo Salucci, Keith M. Ashman, & Massimo Persic.* 379, 89, 164-B1 (1991)

The Magnification of Stars Crossing a Caustic. I. Lenses with Smooth Potentials. *Jordi Miralda-Escudé.* 379, 94, 164-B7 (1991)

The Small-Scale Clustering Properties of Dwarf Galaxies. *J. Patricia Vader & Allan Sandage.* 379, L1, 169-A8 (1991)

Collapse of Population III Objects Induced by Cold Collisionless Dark Matter. *J. C. N. de Araujo & R. Opher.* 379, 461, 170-D10 (1991)

The Correlation Function of Galaxy Ellipticities Produced by Gravitational Lensing. *Jordi Miralda-Escudé.* 380, 1, 176-B1 (1991)

Anisotropies of the Cosmic Background Radiation in a "Hot" Dark Matter Universe. *Peter Anninos, Richard A. Matzner, Robin Tuluie, & Joan Centrella.* 382, 71, 201-A1 (1991)

Precollapse Scale Invariance in Gravitational Instability. *F. Moutarde, J.-M. Alimi, F. R. Bouchet, R. Pellat, & A. Ramani.* 382, 377, 206-C5 (1991)

A Hydrodynamic Approach to Cosmology: Texture-seeded Cold Dark Matter and Hot Dark Matter Cosmogonies. *R. Y. Cen, J. P. Ostriker, D. N. Spergel, & N. Turok.* 383, 1, 212-B1 (1991)

Nonlinear Matter Clustering Properties of a Cold Dark Matter Universe. *François R. Bouchet, Richard Schaeffer, & Marc Davis.* 383, 19, 212-C7 (1991)

Thin and Giant Luminous Arcs: A Strong Test of the Lensing Cluster Mass Distribution. *F. Hammer.* 383, 66, 212-G8 (1991)

Expectations for X-Ray Cluster Observations by the *ROSAT* Satellite. *A. E. Evrard & J. P. Henry.* 383, 95, 213-C1 (1991)

Measurements of the Anisotropy of the Cosmic Background Radiation at 0.°5 Scale near the Star μ Pegasi. *P. Meinhold, A. Clapp, M. Devlin, M. Fischer, J. Gundersen, W. Holmes, A. Lange, P. Lubin, P. Richards, & G. Smoot.* 409, L1, 104-A8 (1993)

DENSE MATTER

Neutron Star Thermal Evolution. *Kenneth A. Van Riper.* 75, 449, 6-G7 (1991)

Explosion of a Rotating Neutron Star near the Minimum Mass. *Monica Colpi, Stuart L. Shapiro, & Saul A. Teukolsky.* 369, 422, 43-A5 (1991)

Steady State Energy Sources in Neutron Stars. *Kenneth A. Van Riper.* 372, 251, 77-A13 (1991)

Nuclear Reaction Rates in Dense Carbon-Oxygen Mixtures. *Shuji Ogata, Hiroshi Iyetomi, & Setsuo Ichimaru.* 372, 259, 77-B9 (1991)

Rotation of the Neutron-Drip Superfluid in Pulsars: The Interaction and Pinning of Vortices. *P. B. Jones.* 373, 208, 88-E6 (1991)

Accurate Collision Integrals for the Attractive Static Screened Coulomb Potential with Application to Electrical Conductivity. *James MacDonald.* 76, 369, 29-F3 (1991)

Mechanics and Energetics of Vortex Unpinning in Neutron Stars. *Bennett K. Link & Richard I. Epstein.* 373, 592, 95-C11 (1991)

Thermonuclear Reactions in Dense Stellar Matter: Electron Screening Revisited. *Setsuo Ichimaru & Shuji Ogata.* 374, 647, 107-B5 (1991)

Equation of State in a Strong Magnetic Field: Finite Temperature and Gradient Corrections. *Andrew M. Abrahams & Stuart L. Shapiro.* 374, 652, 107-B12 (1991)

The Shear Modulus of the Neutron Star Crust and Nonradial Oscillations of Neutron Stars. *T. Strohmayer, S. Ogata, H. Iyetomi, S. Ichimaru, & H. M. Van Horn.* 375, 679, 121-B7 (1991)

The Effects of Thermal Radiation on Some General Relativistic Stellar Models. *J. M. Aguirregabiria, J. Ibáñez, A. Di Prisco, & L. Herrera.* 376, 662, 134-E8 (1991)

Astrophysical Limits for Binding Energy of Strange Matter. *M. I. Krivoruchenko & B. V. Martemyanov.* 378, 628, 160-C1 (1991)

Superfluid Hydrodynamics in Rotating Neutron Stars. I. Nondissipative Equations. *Gregory Mendell.* 380, 515, 184-F1 (1991)

Superfluid Hydrodynamics in Rotating Neutron Stars. II. Dissipative Effects. *Gregory Mendell.* 380, 530, 184-G3 (1991)

Soft X-Ray Pulses from Neutron Star Glitches. *Kenneth A. Van Riper, Richard I. Epstein, & Guy S. Miller.* 381, L47, 199-C1 (1991)

Neutron Star Crustal Plate Tectonics. II. Evolution of Radio Pulsar Magnetic Fields. *M. Ruderman.* 382, 576, 208-F4 (1991)

Neutron Star Crustal Plate Tectonics. III. Cracking, Glitches, and Gamma-Ray Bursts. *M. Ruderman.* 382, 587, 208-G3 (1991)

The Rosseland Mean Free-Free Gaunt Factor of the Dense High-Temperature Stellar Plasma. *Naoki Itoh, Fumiyoshi Kuwashima, Koki Ichihashi, & Haruhiko Mutoh.* 382, 636, 209-E1 (1991)

Cold Equation of State in a Strong Magnetic Field: Effects of Inverse β-Decay. *Dong Lai & Stuart L. Shapiro.* 383, 745, 223-D11 (1991)

Rotational Properties of Strange Stars. *M. Colpi & J. C. Miller.* 388, 513, 56-F1 (1992)

Postglitch Behavior of the Crab Pulsar: Evidence for External Torque Variations. *Bennett Link, Richard I. Epstein, & Gordon Baym.* 390, L21, 78-D5 (1992)

Rapid Cooling of Neutron Stars by Hyperons and Δ Isobars. *Madappa Prakash, Manju Prakash, James M. Lattimer, & C. J. Pethick.* 390, L77, 85-A1 (1992)

Neutrino Emissivity of an Ultrarelativistic Plasma from Positron and Plasmino Annihilation. *Eric Braaten.* 392, 70, 101-G7 (1992)

A Solvable Model of Fusion Rates in Dense Stars. *Magnus Jändel & Mikael Sahrling.* 393, 679, 124-C5 (1992)

The Cooling of Neutron Stars by the Direct Urca Process. *Dany Page & James H. Applegate.* 394, L17, 133-C7 (1992)

Field Theoretical Model for Nuclear and Neutron Matter. V. Slowly Rotating Warm Cores in Neutron Stars. *José V. Romero, J. Díaz Alonso, José M^a. Ibáñez, Juan A. Miralles, & Armando Pérez.* 395, 612, 150-F5 (1992)

Neutrino Energy Loss in Stellar Interiors. IV. Plasma Neutrino Process for Strongly Degenerate Electrons. *Naoki Itoh, Haruhiko Mutoh, Atsushi Hikita, & Yasuharu Kohyama.* 395, 622, 150-G5 (1992)

Pycnonuclear Triple-α Fusion Rates. *S. Schramm, K. Langanke, & S. E. Koonin.* 397, 579, 178-B12 (1992)

Oscillations and Collapse of Compressible Homogeneous Rotating Spheroids with Electron Degeneracy. *T. T. Chia & S. Y. Pung.* 398, 574, 191-C7 (1992)

Implications of $^3P_2$ Superfluidity in the Interior of Neutron Stars. *H. F. Chau, K. S. Cheng, & K. Y. Ding.* 399, 213, 197-G9 (1992)

On the Evolution of Slowly Accreting Neutron Stars. *O. M. Blaes, R. D. Blandford, P. Madau, & L. Yan.* 399, 634, 205-G3 (1992)

Nuclear Solid Crust on Rotating Strange Quark Stars. *N. K. Glendenning & F. Weber.* 400, 647, 218-D11 (1992)

Pycnonuclear Reaction Rates for Binary Ionic Mixtures. *S. Ichimaru, S. Ogata, & H. M. Van Horn.* 401, L35, 227-E7 (1992)

Dense Clouds near the Central Engine of Active Galactic Nuclei. *R. Sivron & S. Tsuruta.* 402, 420, 7-G7 (1993)

Superfluid Vortex Creep and Rotational Dynamics of Neutron Stars. *Bennett Link, Richard I. Epstein, & Gordon Baym.* 403, 285, 17-D7 (1993)

Electrical and Thermal Conductivities of Dense Matter in the Crystalline Lattice Phase. II. Impurity Scattering. *Naoki Itoh & Yasuharu Kohyama.* 404, 268, 31-C1 (1993)

Properties of Ultracompact Neutron Stars. *Robert J. Nemiroff, Peter A. Becker, & Kent S. Wood.* 406, 590, 65-B13 (1993)

Magnetic Field Decay from the Core of Neutron Stars: Effects of Interpinning of $^3P_2$ Neutron Superfluid and $^1S_0$ Proton Superconducting Fluid. *K. Y. Ding, K. S. Cheng, & H. F. Chau.* 408, 167, 85-B11 (1993)

Thermal Evolution of Neutron Stars with Internal Frictional Heating. *Hideyuki Umeda, Noriaki Shibazaki, Ken'ichi Nomoto, & Sachiko Tsuruta.* 408, 186, 85-D7 (1993)

Postglitch Relaxation of the Vela Pulsar after Its First Eight Large Glitches: A Reevaluation with the Vortex Creep Model. *M. Ali Alpar, H. F. Chau, K. S. Cheng, & David Pines.* 409, 345, 101-D1 (1993)

Thermal Evolution of Neutron Stars with Internal Heating in the Superfluid Core. *Armen D. Sedrakian & David M. Sedrakian.* 413, 658, 164-F1 (1993)

Postglitch Relaxation following the Ninth Glitch of the Vela Pulsar. *H. F. Chau, P. M. McCulloch, R. Nandkumar, & D. Pines.* 413, L113, 169-A6 (1993)

Quantum Effects in Dense Coulombic Matter: Application to the Cooling of White Dwarfs. *Gilles Chabrier.* 414, 695, 179-G9 (1993)

Vortex Pinning by Quenched Randomness in Neutron Stars. *Eric Chevalier.* 414, L113, 186-A13 (1993)

Neutrino Emission from the Bubble Phase of Stellar Nuclear Matter. *L. B. Leinson.* 415, 759, 197-C8 (1993)

High-Density Matter in the Chiral Sigma Model. *Pradip K. Sahu, Rahul Basu, & Bhaskar Datta.* 416, 267, 204-D6 (1993)

Thomas-Fermi Calculations of Atoms and Matter in Magnetic Neutron Stars: Effects of Higher Landau Bands. *Ö. E. Rögnvaldsson, I. Fushiki, E. H. Gudmundsson, C. J. Pethick, & J. Yngvason.* 416, 276, 204-E3 (1993)

Thermonuclear Reaction Rates for Dense Binary-Ionic Mixtures. *Shuji Ogata, Setsuo Ichimaru, & Hugh M. Van Horn.* 417, 265, 220-F12 (1993)

Pions, Supernovae, and the Supranuclear Matter Density Equation of State. *Ronald W. Mayle, Marco Tavani, & James R. Wilson.* 418, 398, 236-A4 (1993)

Electrical and Thermal Conductivities of Dense Matter in the Crystalline Lattice Phase. III. Inclusion of Lower Densities. *Naoki Itoh, Hiroshi Hayashi, & Yasuharu Kohyama.* 418, 405, 236-A13 (1993)

Maximum Quark Core in a Neutron Star for Realistic Equations of State. *Marek Kutschera & Andrzej Kotlorz.* 419, 752, 257-A9 (1993)

The Oscillations of Superfluid Neutron Stars. *Lee Lindblom & Gregory Mendell.* 421, 689, 26-G3 (1994)

Relativistic Equation of State of Nuclear Matter for the Supernova Explosion and the Birth of Neutron Stars. *K. Sumiyoshi & H. Toki.* 422, 700, 40-E7 (1994)

The Role of the Equation of State in the "Prompt" Phase of Type II Supernovae. *F. Douglas Swesty, James M. Lattimer, & Eric S. Myra.* 425, 195, 82-F3 (1994)

Rapid Cooling and the Structure of Neutron Stars. *James M. Lattimer, Kenneth A. Van Riper, Madappa Prakash, & Manju Prakash.* 425, 802, 91-F12 (1994)

Postglitch Relaxation of the Crab Pulsar: Evidence for Crust Cracking. *M. A. Alpar, H. F. Chau, K. S. Cheng, & D. Pines.* 427, L29, 117-E1 (1994)

Glitches in the X-Ray Pulsar 1E 2259+586. *V. V. Usov.* 427, 984, 124-G10 (1994)

Geminga: A Cooling Superfluid Neutron Star. *Dany Page.* 428, 250, 131-C6 (1994)

Neutron Star Cooling and Pion Condensation. *Hideyuki Umeda, Ken'ichi Nomoto, Sachiko Tsuruta, Takumi Muto, & Toshitaka Tatsumi.* 431, 309, 180-A3 (1994)

Neutrino Energy Loss in Stellar Interiors. VI. Axial Vector Contribution to the Plasma Neutrino Energy-Loss Rate for Strongly Degenerate Electrons. *Yasuharu Kohyama, Naoki Itoh, Akihiko Obama, & Hiroshi Hayashi.* 431, 761, 188-A11 (1994)

Nonstandard Thermal Evolution of Neutron Stars. *Hideyuki Umeda, Sachiko Tsuruta, & Ken'ichi Nomoto.* 433, 256, 211-E1 (1994)

Soft X-Ray Spectral Fits of Geminga with Model Neutron Star Atmospheres. *R. D. Meyer, G. G. Pavlov, & P. Mészáros.* 433, 265, 211-E12 (1994)

Upper Limit of the Angular Velocity of Neutron Stars. *Masa-aki Hashimoto, Kazuhiro Oyamatsu, & Yoshiharu Eriguchi.* 436, 257, 264-G1 (1994)

Radiating Scalar Soliton-like Stars in a Pressurized Environment. *M. Esculpi & L. Herrera.* 437, 317, 287-E7 (1994)

Frictional Instabilities in Neutron Star Interiors. *Noriaki Shibazaki & Yuko Mochizuki.* 438, 288, 5-D7 (1995)

Pycnonuclear Reaction Rates in Stellar Interiors: Thermal Enhancement. *Hikaru Kitamura & Setsuo Ichimaru.* 438, 300, 5-E9 (1995)

Self-trapping of Superfluid Vortices and the Origin of Pulsar Glitches. *Yuko Mochizuki & Takeo Izuyama.* 440, 263, 44-G2 (1995)

The Conversion of Two-Flavor to Three-Flavor Quark Matter in a Supernova Core. *Zigao Dai, Qiuhe Peng, & Tan Lu.* 440, 815, 54-C9 (1995)

Surface Temperature of a Magnetized Neutron Star and Interpretation of the *ROSAT* Data. I. Dipolar Fields. *Dany Page.* 442, 273, 81-A1 (1995)

Deviations from Chemical Equilibrium Due to Spin-down as an Internal Heat Source in Neutron Stars. *Andreas Reisenegger.* 442, 749, 90-E3 (1995)

Superfluid Core Rotation in Pulsars. I. Vortex Cluster Dynamics. *Armen D. Sedrakian & David M. Sedrakian.* 447, 305, 176-F1 (1995)

Superfluid Core Rotation in Pulsars. II. Postjump Relaxations. *A. D. Sedrakian, D. M. Sedrakian, J. M. Cordes, & Yervant Terzian.* 447, 324, 176-G10 (1995)

Frictional Heating and Neutron Star Thermal Evolution. *Kenneth A. Van Riper, Bennett Link, & Richard I. Epstein.* 448, 294, 196-C6 (1995)

From Strange Stars to Strange Dwarfs. *N. K. Glendenning, Ch. Kettner, & F. Weber.* 450, 253, 231-E1 (1995)

Nucleation of a Dense Plasma and Crystallization of Neutron Star Crusts. *F. V. De Blasio.* 452, 359, 267-A13 (1995)

The Effect of Degeneracy on the Scattering Contribution to the Radiative Opacity. *S. J. Rose.* 453, L45, 290-A4 (1995)

DEUTERIUM

Fossil DCN in Orion-KL. *Jeffrey G. Mangum, Richard L. Plambeck, & Alwyn Wootten.* 369, 169, 38-A11 (1991)

Pure Rotational Spectrum of Hydrogen Deuteride by Far-Infrared Fourier Transform Spectroscopy. *Lorenzo Ulivi, Paolo De Natale, & Massimo Inguscio.* 378, L29, 157-D7 (1991)

DIFFUSION

A Crucial Test of the Diffusion Model: 53 Camelopardalis. *J. Babel & G. Michaud.* 366, 560, 10-A5 (1991)

Gravitational Diffusion of Solar System WIMPs. *Andrew Gould.* 368, 610, 32-F7 (1991)

Meridional Circulation and Diffusion in A and Early F Stars. *Paul Charbonneau & Georges Michaud.* 370, 693, 57-A10 (1991)

Lithium, Age, and Metallicity in Open Clusters. *Ann Merchant Boesgaard.* 370, L95, 59-E12 (1991)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. I. The Issues, Formulation of the Problem, and Method of Solution. *Telemachos Ch. Mouschovias & Scott A. Morton.* 371, 296, 63-G1 (1991)

Diffusion and Mixing of Lithium and Helium in Population II Dwarfs. *Charles R. Proffitt & Georges Michaud.* 371, 584, 68-G1 (1991)

A Simple Accretion/Diffusion Model for λ Bootis Stars. *Paul Charbonneau.* 372, L33, 79-D13 (1991)

Magnetic Braking, Ambipolar Diffusion, Cloud Cores, and Star Formation: Natural Length Scales and Protostellar Masses. *Telemachos Ch. Mouschovias.* 373, 169, 88-B3 (1991)

Consequences of Strong Pitch-Angle Diffusion of Particles in Solar Flares. *P. A. Bespalov, V. V. Zaitsev, & A. V. Stepanov.* 374, 369, 102-F5 (1991)

Flux-limited Diffusion in a Scattering Medium. *Fulvio Melia & Gregory J. Zylstra.* 374, 732, 108-B9 (1991)

Diffusion and Mixing in Classical Nova Precursors. *Icko Iben, Jr., Masayuki Y. Fujimoto, & Jim MacDonald.* 375, L27, 117-D1 (1991)

The Evolution of Discontinuities in Radiating Spheres in the Diffusion Approximation. *W. Barreto, L. Herrera, & L. Núñez.* 375, 663, 121-A1 (1991)

Suppression of Turbulent Transport by a Weak Magnetic Field. *Fausto Cattaneo & Samuel I. Vainshtein.* 376, L21, 130-C6 (1991)

The Effects of Thermal Radiation on Some General Relativistic Stellar Models. *J. M. Aguirregabiria, J. Ibáñez, A. Di Prisco, & L. Herrera.* 376, 662, 134-E8 (1991)

First Results from the Goddard High-Resolution Spectrograph: High-Resolution Observations of the 1942 Å Resonance Line of Hg II in the Chemically Peculiar B Star, χ Lupi. *David S. Leckrone, Glenn M. Wahlgren, & Sveneric G. Johansson.* 377, L37, 143-E1 (1991)

Energy Balance in the Solar Transition Region. II. Effects of Pressure and Energy Input on Hydrostatic Models. *J. M. Fontenla, E. H. Avrett, & R. Loeser.* 377, 712, 148-E1 (1991)

Lithium in Halo Stars: Constraining the Effects of Helium Diffusion on Globular Cluster Ages and Cosmology. *Constantine P. Deliyannis & Pierre Demarque.* 379, 216, 165-F7 (1991)

Gravitational Settling in Solar Models. *Charles R. Proffitt & Georges Michaud.* 380, 238, 179-A5 (1991)

Subthreshold Stochastic Diffusion with Application to Selective Acceleration of ^{3}He in Solar Flares. *Spilios Riyopoulos.* 381, 578, 197-G5 (1991)

Implications of Helium Diffusion for Globular Cluster Isochrones and Luminosity Functions. *Charles R. Proffitt & Don A. VandenBerg.* 77, 473, 51-C10 (1991)

The Fate of Accreted CNO Elements in Neutron Star Atmospheres: X-Ray Bursts and Gamma-Ray Lines. *Lars Bildsten, Edwin E. Salpeter, & Ira Wasserman.* 384, 143, 2-G1 (1992)

Covariant Flux-limited Diffusion Theories. *A. M. Anile & V. Romano.* 386, 325, 28-C5 (1992)

The Effect of Helium Diffusion on the Ages of Globular Clusters. *Brian Chaboyer, Constantine P. Deliyannis, Pierre Demarque, M. H. Pinsonneault, & Ata Sarajedini.* 388, 372, 55-A6 (1992)

Diffusion and Mixing in Accreting White Dwarfs. *Icko Iben, Jr., Masayuki Y. Fujimoto, & Jim MacDonald.* 388, 521, 56-F11 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. II. Results and a Length Scale for Protostellar Cores. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 144, 75-G1 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. III. A Further Parameter Study and Magnetically Controlled Accretion Rate. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 166, 76-A11 (1992)

Ambipolar Diffusion and Star Formation: Formation and Contraction of Axisymmetric Cloud Cores. I. Formulation of the Problem and Method of Solution. *Robert A. Fiedler & Telemachos Ch. Mouschovias.* 391, 199, 88-D12 (1992)

The Identification of Highly Ionized Metal Species in the Hot DA1 White Dwarf G191-B2B with the *Hubble Space Telescope* Faint Object Spectrograph. *Edward M. Sion, Ralph C. Bohlin, Richard W. Tweedy, & Gerard P. Vauclair.* 391, L29, 92-B11 (1992)

Nonlinear Restrictions on Dynamo Action. *Samuel I. Vainshtein & Fausto Cattaneo.* 393, 165, 116-B5 (1992)

A Flux-limited Model of Particle Diffusion and Viscosity. *Ramesh Narayan.* 394, 261, 131-C3 (1992)

Ages of Globular Clusters and Helium Diffusion. *Brian Chaboyer, Ata Sarajedini, & Pierre Demarque.* 394, 515, 135-F12 (1992)

Helium Diffusion in the Sun. *J. N. Bahcall & M. H. Pinsonneault.* 395, L119, 154-D7 (1992)

Helium Gravitational Settling in the Envelopes of Evolving Main-Sequence A and F Stars. *Jacques Richer, Georges Michaud, & Charles R. Proffitt.* 82, 329, 54-A1 (1992)

On "High Flyers" in Fermi Acceleration. *Lewis Ball, D. B. Melrose, & C. A. Norman.* 398, L65, 188-B7 (1992)

Flux-limited Diffusion in Hydrodynamics. *J. Cooperstein & E. Baron.* 398, 531, 190-F11 (1992)

A Study of Metal Abundance Patterns in Cool White Dwarfs. I. Time-dependent Calculations of Gravitational Settling. *J. Dupuis, G. Fontaine, C. Pelletier, & F. Wesemael.* 82, 505, 56-A7 (1992)

Enhancement of Diffusive Transport in Oscillatory Flows. *E. Knobloch & W. J. Merryfield.* 401, 196, 223-E3 (1992)

An Interpretation of the Spectral Properties of Hot Hydrogen-rich White Dwarfs with Stratified H/He Model Atmospheres. *Stéphane Vennes & Gilles Fontaine.* 401, 288, 224-E7 (1992)

On the Photon Diffusion Time Scale for the Sun. *R. Mitalas & K. R. Sills.* 401, 759, 232-A1 (1992)

Diffusion Effects on the Helium Abundance of the Solar Transition Region and Corona. *Viggo H. Hansteen, Thomas E. Holzer, & Egil Leer.* 402, 334, 5-C10 (1993)

Effects of Diffusion on Solar Models and Their Oscillation Frequencies. *J. Christensen-Dalsgaard, C. R. Proffitt, & M. J. Thompson.* 403, L75, 27-E1 (1993)

Covariant Flux-limited Diffusion Theory for an Anisotropic Source Term. *Alfio Bonanno & Vittorio Romano.* 404, 264, 31-B9 (1993)

On the Generation of "Strong" Magnetic Fields. *S. I. Vainshtein, E. N. Parker, & R. Rosner.* 404, 773, 38-E5 (1993)

Evolution and Seismology of Procyon. *D. B. Guenther & P. Demarque.* 405, 298, 44-G6 (1993)

Particle Transport and the λ Bootis Phenomenon. I. The Diffusion/Mass-Loss Model Revisited. *P. Charbonneau.* 405, 720, 52-A9 (1993)

Multiple Hydrogen Flashes on Accreting Low-Mass White Dwarfs: Novae and DAO Stars. *Michael M. Shara, Dina Prialnik, & Attay Kovetz.* 406, 220, 57-G1 (1993)

Energy Balance in the Solar Transition Region. III. Helium Emission in Hydrostatic, Constant-Abundance Models with Diffusion. *J. M. Fontenla, E. H. Avrett, & R. Loeser.* 406, 319, 59-A7 (1993)

Light-induced Drift and Abundance Anomalies. *F. LeBlanc & G. Michaud.* 408, 251, 86-C1 (1993)

Magnetic Diffusion Due to Supernova Explosions and Superbubbles in the Galactic Disk. *Katia Ferrière.* 409, 248, 100-C1 (1993)

Anomalous Diffusion of Magnetic Elements across the Solar Surface. *J. K. Lawrence & C. J. Schrijver.* 411, 402, 132-D1 (1993)

Radiative Accelerations on Iron Using Opacity Project Data. *G. Alecian, G. Michaud, & J. Tully.* 411, 882, 140-G1 (1993)

On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. II. Application to the Interstellar Medium. *Antonio Parravano, Miguel H. Ibáñez S., & César A. Mendoza B.* 412, 625, 151-E6 (1993)

Particle Transport and the λ Bootis Phenomenon. II. An Accretion/Diffusion Model. *S. Turcotte & P. Charbonneau.* 413, 376, 161-A3 (1993)

Ambipolar Diffusion and Star Formation: Formation and Contraction of Axisymmetric Cloud Cores. II. Results. *Robert A. Fiedler & Telemachos Ch. Mouschovias.* 415, 680, 196-C7 (1993)

Diffusion of Lithium and Beryllium in Evolving, Nonrotating Main-Sequence A and F Stars. *Jacques Richer & Georges Michaud.* 416, 312, 205-A5 (1993)

The Effects of Helium Diffusion on Solar *p*-Mode Frequencies. *D. B. Guenther, M. H. Pinsonneault, & J. N. Bahcall.* 418, 469, 236-G7 (1993)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. I. Basic Physics and Formulation of the Problem. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 418, 774, 242-B13 (1993)

Ion Thermalization in the Inner Coma of a Comet. *P. Puhl, T. E. Cravens, & J. Lindgren.* 418, 899, 243-G1 (1993)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. II. Numerical Method of Solution. *Scott A. Morton, Telemachos Ch. Mouschovias, & Glenn E. Ciolek.* 421, 561, 25-B6 (1994)

Element Diffusion in the Solar Interior. *Anne A. Thoul, John N. Bahcall, & Abraham Loeb.* 421, 828, 28-E3 (1994)

Nonadiabatic Nonradial *p*-Mode Frequencies of the Standard Solar Model, with and without Helium Diffusion. *D. B. Guenther.* 422, 400, 35-A10 (1994)

Cosmic-Ray Transport and Acceleration. *Reinhard Schlickeiser.* 90, 929, 15-D1 (1994)

Bohm Diffusion and Cosmic-Ray–Modified Shocks. *Peter Duffy.* 90, 981, 16-A12 (1994)

Separation of Low First Ionization Potential Ions from High First Ionization Potential Neutrals in the Low Chromosphere. *R. Grant Athay.* 423, 516, 52-E5 (1994)

Accretion onto a 1.4 $M_{\odot}$ White Dwarf: Classical Nova, Recurrent Nova, or Supernova? *Attay Kovetz & Dina Prialnik.* 424, 319, 65-G1 (1994)

On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. III. Molecular Gas. *Miguel H. Ibáñez S., & Antonio Parravano.* 424, 763, 74-C8 (1994)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. III. Typical Axisymmetric Solutions. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 425, 142, 82-A6 (1994)

Effects of Heavy-Element Settling on Solar Neutrino Fluxes and Interior Structures. *Charles R. Proffitt.* 425, 849, 92-C13 (1994)

Structure and Evolution of Magnetically Supported Molecular Clouds: Evidence for Ambipolar Diffusion in the Barnard 1 Cloud. *R. M. Crutcher, Telemachos Ch. Mouschovias, T. H. Troland, & Glenn E. Ciolek.* 427, 839, 123-A13 (1994)

Eigenfunction Solution of Boltzmann's Equation for the Case of a Focusing Magnetic Field with Finite Helicity. *H. L. Pauls & R. A. Burger.* 427, 927, 124-B9 (1994)

Coherent Pulses in the Diffusive Transport of Charged Particles. *J. Kóta.* 427, 1035, 125-D13 (1994)

Production of Heavy Elements in Inhomogeneous Cosmologies. *Thomas Rauscher, James H. Applegate, John J. Cowan, Friedrich-Karl Thielemann, & Michael Wiescher.* 429, 499, 152-A1 (1994)

Charged-Particle Motion in Multidimensional Magnetic Field Turbulence. *J. Giacalone & J. R. Jokipii.* 430, L137, 175-B10 (1994)

Causality in Strong Shear Flows. *Ramesh Narayan, Abraham Loeb, & Pawan Kumar.* 431, 359, 180-E4 (1994)

The Effect of Constant Horizontal Magnetic Fields on Model Atmospheres of Ap Stars. *F. LeBlanc, G. Michaud, & J. Babel.* 431, 388, 180-G9 (1994)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. I. Axisymmetric Solutions. *Shantanu Basu & Telemachos Ch. Mouschovias.* 432, 720, 205-A6 (1994)

^{7}Li Abundances in Halo Stars: Testing Stellar Evolution Models and the Primordial ^{7}Li Abundance. *Brian Chaboyer & P. Demarque.* 433, 510, 217-C11 (1994)

On the Effects of a Weak Magnetic Field on Turbulent Transport. *Fausto Cattaneo.* 434, 200, 228-B12 (1994)

Lithium in Halo Dwarfs: The Undoing of Diffusion by Mass Loss. *Fritz J. Swenson.* 438, L87, 19-G8 (1995)

Turbulent Diffusion and Its Effects on the Chemistry of Molecular Clouds. *Taoling Xie, Mark Allen, & William D. Langer.* 440, 674, 52-E1 (1995)

Propagation of Galactic Cosmic Rays under Diffusive Reacceleration. *U. Heinbach & M. Simon.* 441, 209, 62-C4 (1995)

Stellar Models with Microscopic Diffusion and Rotational Mixing. I. Application to the Sun. *Brian Chaboyer, P. Demarque, & M. H. Pinsonneault.* 441, 865, 73-G13 (1995)

Stellar Models with Microscopic Diffusion and Rotational Mixing. II. Application to Open Clusters. *Brian Chaboyer, P. Demarque, & M. H. Pinsonneault.* 441, 876, 74-A13 (1995)

Momentum Deposition in Wolf-Rayet Winds: Nonisotropic Diffusion with Effectively Gray Opacity. *Kenneth G. Gayley, Stanley P. Owocki, & Steven R. Cranmer.* 442, 296, 81-C2 (1995)

Incorporation of Ambipolar Diffusion into the ZEUS Magnetohydrodynamics Code. *Mordecai-Mark Mac Low, Michael L. Norman, Arieh Königl, & Mark Wardle.* 442, 726, 90-B10 (1995)

Kinematic Models of Supergranular Diffusion on the Sun. *G. W. Simon, A. M. Title, & N. O. Weiss.* 442, 886, 92-D2 (1995)

Thick to Thin: The Evolutionary Connection between PG 1159 Stars and the Thin Helium–enveloped Pulsating White Dwarf GD 358. *Benjamin T. Dehner & Steven D. Kawaler.* 445, L141, 151-F9 (1995)

Rotation, Diffusion, and Overshoot in the Sun: Effects on the Oscillation Frequencies and the Neutrino Flux. *Brian Chaboyer, P. Demarque, D. B. Guenther, & M. H. Pinsonneault.* 446, 435, 159-C3 (1995)

"Steady" and "Fluctuating" Parts of the Sun's Internal Magnetic Field: Improved Model. *K. M. Hiremath & M. H. Gokhale.* 448, 437, 198-B12 (1995)

Radiative Levitation in Hot White Dwarfs: Equilibrium Theory. *P. Chayer, G. Fontaine, & F. Wesemael.* 99, 189, 36-G5 (1995)

Effects of Pressure and Resistivity on the Ambipolar Diffusion Singularity: Too Little, Too Late. *Axel Brandenburg & Ellen G. Zweibel.* 448, 734, 204-G12 (1995)

A Reconciliation of the Discrepancy on the Cosmic-Ray Interplanetary Diffusion Mean Free Path. *L. Dennis Zhang.* 449, 386, 215-D6 (1995)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. II. A Parameter Study. *Shantanu Basu & Telemachos Ch. Mouschovias.* 452, 386, 267-D7 (1995)

Grain Alignment by Ambipolar Diffusion in Molecular Clouds. *W. G. Roberge, S. Hanany, & D. W. Messinger.* 453, 238, 284-D3 (1995)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. III. Effect of the Initial Mass-to-Flux Ratio. *Shantanu Basu & Telemachos Ch. Mouschovias.* 453, 271, 284-G9 (1995)

A Consistent Explanation for $^{12}C/^{13}C$, ^{7}Li, and ^{3}He Anomalies in Red Giant Stars. *C. Charbonnel.* 453, L41, 289-G10 (1995)

Pitch Angle Diffusion Coefficient in an Extended Quasi-linear Theory. *C. K. Ng & D. V. Reames.* 453, 890, 296-C3 (1995)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. IV. Effect of Ultraviolet Ionization and Magnetically Controlled Infall Rate. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 454, 194, 302-A10 (1995)

Improved Calculations of the Equilibrium Abundances of Heavy Elements Supported by Radiative Levitation in the Atmospheres of Hot DA White Dwarfs. *P. Chayer, S. Vennes, A. K. Pradhan, P. Thejll, A. Beauchamp, G. Fontaine, & F. Wesemael.* 454, 429, 305-D4 (1995)

EARLY UNIVERSE

N-Body Simulation of Large-Scale Structures in $\Lambda \neq 0$ Friedmann Models. *Hugo Martel.* 366, 353, 7-C1 (1991)

Microwave Distortions from Collapsing Domain-Wall Bubbles. *Michael S. Turner, Richard Watkins, & Lawrence M. Widrow.* 367, L43, 22-B1 (1991)

A Medium-Scale Measurement of the Cosmic Microwave Background at 3.3 Millimeters. *Peter Meinhold & Philip Lubin.* 370, L11, 53-C1 (1991)

Did the Universe Recombine? *James G. Bartlett & Albert Stebbins.* 371, 8, 60-B9 (1991)

Spectral Distortions of the Microwave Background Radiation Resulting from the Damping of Pressure Waves. *R. A. Daly.* 371, 14, 60-C3 (1991)

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Primordial Nucleosynthesis Redux. *Terry P. Walker, Gary Steigman, David N. Schramm, Keith A. Olive, & Ho-Shik Kang.* 376, 51, 125-F1 (1991)

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Baryon Isocurvature Scenario in Inflationary Cosmology: A Particle Physics Model and Its Astrophysical Implications. *Jun'ichi Yokoyama & Yasushi Suto.* 379, 427, 170-B1 (1991)

The Upper Bound to the Primordial Abundance of Helium and the Consistency of the Hot Big Bang Model. *Keith A. Olive, Gary Steigman, & Terry P. Walker.* 380, L1, 181-B1 (1991)

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Evidence for Particle Acceleration during Magnetospheric Substorms. *Ramon E. Lopez & Daniel N. Baker.* 90, 531, 10-C13 (1994)

Electron Acceleration at Quasi-parallel Shocks in the Solar Corona and Its Signature in Solar Type II Radio Bursts. *G. Mann & H. Lühr.* 90, 577, 11-A1 (1994)

Gamma Rays from Grazing Incidence Cosmic Rays in the Earth's Atmosphere. *Andrew Ulmer.* 429, L95, 158-E3 (1994)

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Diffusive Shock Acceleration Simulations: Comparison with Particle Methods and Bow Shock Measurements. *Hyesung Kang & T. W. Jones.* 447, 944, 188-G13 (1995)

Effects of Atmospheric Emission on Ground-based Microwave Background Measurements. *M. Bersanelli, M. Bensadoun, L. Danese, G. De Amici, A. Kogut, S. Levin, M. Limon, D. Maino, G. F. Smoot, & C. Witebsky.* 448, 8, 192-C11 (1995)

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Measurement of the Solar Limb Brightness Profile at 3 Millimeters during the Total Eclipse of 1991 July 11. *L. Belkora, G. J. Hurford, Dale E. Gary, & D. P. Woody.* 400, 692, 219-B1 (1992)

Submillimeter Observations of the 1991 July 11 Total Solar Eclipse. *M. W. Ewell, Jr., H. Zirin, J. B. Jensen, & T. S. Bastian.* 403, 426, 19-B1 (1993)

Solar Coronal Structure near the Time of the 1991 July 11 Total Solar Eclipse. *D. G. Sime & J. Streete.* 408, 368, 87-F6 (1993)

The Magnetic Field in the Corona above Sunspots at the Eclipse of 1991 July 11. *D. E. Gary, Y. Leblanc, G. A. Dulk, & L. Golub.* 412, 421, 147-C13 (1993)

Near-Infrared Emission-Line and Continuum Observations from the 1991 Eclipse. *M. J. Penn, J. Arnaud, D. L. Mickey, & B. J. LaBonte.* 436, 368, 266-C9 (1994)

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Time Correlation between Solar Structural Parameters: *p*-Mode Frequencies, Radius, and Neutrino Flux. *Ph. Delache, V. Gavryusev, E. Gavryuseva, F. Laclare, C. Régulo, & T. Roca Cortés.* 407, 801, 80-D8 (1993)
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Stellar Core Collapse: A Boltzmann Treatment of Neutrino-Electron Scattering. *Anthony Mezzacappa & Stephen W. Bruenn.* 410, 740, 123-A7 (1993)

Sub–Giant Branch Evolution and Efficient Central Energy Transport. *John Faulkner & Fritz J. Swenson.* 411, 200, 129-F3 (1993)

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The Annihilation of Positrons in the Cold Phase of the Interstellar Medium Revisited. *P. Wallyn, Ph. Durouchoux, C. Chapuis, & M. Leventhal.* 422, 610, 39-D7 (1994)

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Search for Low-Energy Neutrinos from Galactic Gamma-Ray Sources. *Y. Fukuda, T. Hayakawa, K. Inoue, T. Ishida, T. Kajita, Y. Koshio, M. Nakahata, K. Nakamura, A. Sakai, M. Shiozawa, J. Suzuki, Y. Suzuki, Y. Totsuka, M. Mori, K. S. Hirata, K. Kihara, Y. Oyama, A. Suzuki, M. Yamada, M. Koshiba, K. Nishijima, T. Kajimura, T. Suda, A. T. Suzuki, H. Takei, M. Koga, K. Miyano, H. Miyata, T. Hara, N. Kishi, Y. Nagashima, M. Takita, A. Yoshimoto, K. Kaneyuki, Y. Takeuchi, T. Tanimori, S. Tasaka, K. Nishikawa, E. W. Beier, E. D. Frank, W. Frati, S. B. Kim, A. K. Mann, F. M. Newcomer, R. Van Berg, & W. Zhang.* 435, 225, 246-D9 (1994)

On the Detection of Individual Primordial Black Hole Explosions. *D. V. Semikoz.* 436, 254, 264-F9 (1994)

Models of Pair Annihilation in 1E 1740.7−2942 and the *HEAO 1* A-4 Annihilation Source. *Andrzej Maciołek-Niedźwiecki & Andrzej A. Zdziarski.* 436, 762, 276-A6 (1994)

Observations of Cosmic-Ray Electrons and Positrons Using an Imaging Calorimeter. *R. L. Golden, C. Grimani, B. L. Kimbell, S. A. Stephens, S. J. Stochaj, W. R. Webber, G. Basini, F. Bongiorno, F. Massimo Brancaccio, M. Ricci, J. F. Ormes, R. E. Streitmatter, P. Papini, P. Spillantini, M. T. Brunetti, A. Codino, M. Menichelli, I. Salvatori, M. P. De Pascale, A. Morselli, & P. Picozza.* 436, 769, 276-B2 (1994)

Implications of Neutrino Balls as the Source of Gamma-Ray Bursts. *D. Syer.* 437, 144, 285-B10 (1994)

Radiating Scalar Soliton-like Stars in a Pressurized Environment. *M. Esculpi & L. Herrera.* 437, 317, 287-E7 (1994)

Solar Neutrinos: Sensitivity to Pre–Main-Sequence Evolution and to the Depth of the Convective Zone. *John N. Bahcall & Ami Glasner.* 437, 485, 289-F13 (1994)

On the Correlation of Solar Surface Magnetic Flux with Solar Neutrino Capture Rate. *David S. Oakley, Herschel B. Snodgrass, Roger K. Ulrich, & Toni L. VanDeKop.* 437, L63, 292-C7 (1994)

Massive Black Holes and Light-Element Nucleosynthesis in a Baryonic Universe. *Nickolay Y. Gnedin, Jeremiah P. Ostriker, & Martin J. Rees.* 438, 40, 1-G8 (1995)

Hot Accretion Disks with Nonthermal Pairs. *Masaaki Kusunose & Shin Mineshige.* 440, 100, 42-E7 (1995)

Analytic Error Estimates. *Andrew Gould.* 440, 510, 50-C10 (1995)

The Conversion of Two-Flavor to Three-Flavor Quark Matter in a Supernova Core. *Zigao Dai, Qiuhe Peng, & Tan Lu.* 440, 815, 54-C9 (1995)

Detection of a Cosmic Ray with Measured Energy Well beyond the Expected Spectral Cutoff due to Cosmic Microwave Radiation. *D. J. Bird, S. C. Corbató, H. Y. Dai, J. W. Elbert, K. D. Green, M. A. Huang, D. B. Kieda, S. Ko, C. G. Larsen, E. C. Loh, M. Z. Luo, M. H. Salamon, J. D. Smith, P. Sokolsky, P. Sommers, J. K. K. Tang, & S. B. Thomas.* 441, 144, 61-C12 (1995)

In Search of a Source for the 320 EeV Fly's Eye Cosmic Ray. *Jerome W. Elbert & Paul Sommers.* 441, 151, 61-D9 (1995)

Relativistic Hadrons and the Origin of Relativistic Outflows in Active Galactic Nuclei. *John Contopoulos & Demosthenes Kazanas.* 441, 521, 69-C2 (1995)

On Observational Constraints on the Shapes of the Dark Matter Density and Temperature Distributions in the Model of Dark Matter–confined Lyα Clouds. *Valery K. Khersonsky & David A. Turnshek.* 442, 76, 78-C2 (1995)

Galactic Evolution of D and ^{3}He. *Daniele Galli, Francesco Palla, Federico Ferrini, & Umberto Penco.* 443, 536, 105-C3 (1995)

A Search for Moderate- and High-Energy Neutrino Emission Correlated with Gamma-Ray Bursts. *R. Becker-Szendy, C. B. Bratton, J. Breault, D. Casper, S. T. Dye, W. Gajewski, M. Goldhaber, T. J. Haines, P. G. Halverson, D. Kielczewska, W. R. Kropp, J. G. Learned, S. Matsuno, J. Matthews, G. McGrath, C. McGrew, R. S. Miller, L. Price, F. Reines, J. Schultz, D. Sinclair, H. W. Sobel, J. L. Stone, L. R. Sulak, R. Svoboda, & J. C. van der Velde.* 444, 415, 119-C3 (1995)

Updated Seismic Solar Model. *W. A. Dziembowski, Philip R. Goode, A. A. Pamyatnykh, & R. Sienkiewicz.* 445, 509, 139-E6 (1995)

Rotation, Diffusion, and Overshoot in the Sun: Effects on the Oscillation Frequencies and the Neutrino Flux. *Brian Chaboyer, P. Demarque, D. B. Guenther, & M. H. Pinsonneault.* 446, 435, 159-C3 (1995)

The Screened Nuclear Reaction Rates and the Solar Neutrino Puzzle. *H. Dzitko, S. Turck-Chièze, P. Delbourgo-Salvador, & C. Lagrange.* 447, 428, 178-D2 (1995)

Neutrino Pair Synchrotron Radiation from Relativistic Electrons in Strong Magnetic Fields. *A. Vidaurre, A. Pérez, H. Sivak, J. Bernabéu, & J. Mª Ibáñez.* 448, 264, 195-G6 (1995)

The Synchrotron Self-Compton Model for X-Ray and γ-Ray Emission from Pulsars. *K. S. Cheng & D. M. Wei.* 448, 281, 196-B1 (1995)

Effects of Neutrino Degeneracy on the Primordial Abundances of ^{9}Be and ^{11}B. *Jong Bock Kim & Hyun Kyu Lee.* 448, 510, 201-F9 (1995)

Decaying Neutrinos, the Metagalactic Radiation Field, and the Ionization of Nitrogen in the Interstellar Medium. *D. W. Sciama.* 448, 667, 204-A4 (1995)

Prompt Subsidence of a Proto–Neutron Star into a Black Hole. *N. K. Glendenning.* 448, 797, 205-G9 (1995)

From Strange Stars to Strange Dwarfs. *N. K. Glendenning, Ch. Kettner, & F. Weber.* 450, 253, 231-E1 (1995)

Large-Scale Baryon Isocurvature Inhomogeneities. *Craig J. Copi, Keith A. Olive, & David N. Schramm.* 451, 51, 246-G9 (1995)

Parity Nonconservation and Neutrino Transport in Magnetic Fields. *Alexander Vilenkin.* 451, 700, 256-G4 (1995)

Baryon Density Contrast in a Quark-Hadron Phase Transition in the Early Universe. *Ashok Goyal, Saurav Pathak, V. K. Gupta, & J. D. Anand.* 452, 501, 271-E8 (1995)

Electromagnetic Cascade in the Early Universe and Its Application to the Big Bang Nucleosynthesis. *M. Kawasaki & T. Moroi.* 452, 506, 271-F3 (1995)

Astrophysical Limits on the Evolution of Dimensionless Physical Constants over Cosmological Time. *Lennox L. Cowie & Antoinette Songaila.* 453, 596, 292-B3 (1995)

Neutrino Capture and Supernova Nucleosynthesis. *George M. Fuller & Bradley S. Meyer.* 453, 792, 294-G7 (1995)

A Signature of Relativistic Electron-Positron Beams in BL Lacertae Objects. *G. Z. Xie, B. F. Liu, & J. C. Wang.* 454, 50, 299-G9 (1995)

Cosmological Perturbation Theory in the Synchronous and Conformal Newtonian Gauges. *Chung-Pei Ma & Edmund Bertschinger.* 455, 7, 318-C10 (1995)

Neutrino Capture on Heavy Nuclei. *Gail C. McLaughlin & George M. Fuller.* 455, 202, 321-A1 (1995)

EQUATION OF STATE

Structure and Stability of Rotating Relativistic Neutron Stars. *F. Weber, N. K. Glendenning, & M. K. Weigel.* 373, 579, 95-B10 (1991)

Equation of State in a Strong Magnetic Field: Finite Temperature and Gradient Corrections. *Andrew M. Abrahams & Stuart L. Shapiro.* 374, 652, 107-B12 (1991)

Equation of State in Metals and Cold Stars: Evaluation of Statistical Models. *Dong Lai, Andrew M. Abrahams, & Stuart L. Shapiro.* 377, 612, 147-C10 (1991)

On Equation of State Interpolation Errors in Stellar Interior Calculations. *Ben Dorman, Alan W. Irwin, & Brian B. Pedersen.* 381, 228, 191-G4 (1991)

Effects of Opacity and Equation of State on Solar Structure and Oscillations. *Joyce A. Guzik & Arthur N. Cox.* 381, 333, 193-B5 (1991)

Standard Solar Model. *D. B. Guenther, P. Demarque, Y.-C. Kim, & M. H. Pinsonneault.* 387, 372, 41-E9 (1992)

The Molecular-Metallic Transition of Hydrogen and the Structure of Jupiter and Saturn. *Gilles Chabrier, Didier Saumon, William B. Hubbard, & Jonathan I. Lunine.* 391, 817, 98-B1 (1992)

The Role of the Molecular-metallic Transition of Hydrogen in the Evolution of Jupiter, Saturn, and Brown Dwarfs. *Didier Saumon, William B. Hubbard, Gilles Chabrier, & Hugh M. Van Horn.* 391, 827, 98-B13 (1992)

Determining the Nuclear Equation of State from Neutron-Star Masses and Radii. *Lee Lindblom.* 398, 569, 191-C1 (1992)

Properties of Ultracompact Neutron Stars. *Robert J. Nemiroff, Peter A. Becker, & Kent S. Wood.* 406, 590, 65-B13 (1993)

Quark Neutron Layer Stars. *Philip A. Carinhas.* 412, 213, 144-F10 (1993)

Quantum Effects in Dense Coulombic Matter: Application to the Cooling of White Dwarfs. *Gilles Chabrier.* 414, 695, 179-G9 (1993)

High-Density Matter in the Chiral Sigma Model. *Pradip K. Sahu, Rahul Basu, & Bhaskar Datta.* 416, 267, 204-D6 (1993)

Thomas-Fermi Calculations of Atoms and Matter in Magnetic Neutron Stars: Effects of Higher Landau Bands. *Ö. E. Rögnvaldsson, I. Fushiki, E. H. Gudmundsson, C. J. Pethick, & J. Yngvason.* 416, 276, 204-E3 (1993)

Cooling and Spin-down of Pulsars with Evolving Rotating Equilibrium Configuration. II. Effects of Equations of State. *N. Chong & K. S. Cheng.* 417, 279, 221-A3 (1993)

Pions, Supernovae, and the Supranuclear Matter Density Equation of State. *Ronald W. Mayle, Marco Tavani, & James R. Wilson.* 418, 398, 236-A4 (1993)

Maximum Quark Core in a Neutron Star for Realistic Equations of State. *Marek Kutschera & Andrzej Kotlorz.* 419, 752, 257-A9 (1993)

Relativistic Equation of State of Nuclear Matter for the Supernova Explosion and the Birth of Neutron Stars. *K. Sumiyoshi & H. Toki.* 422, 700, 40-E7 (1994)

Rapidly Rotating Neutron Stars in General Relativity: Realistic Equations of State. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 424, 823, 75-A11 (1994)

Neutron Star Moments of Inertia. *D. G. Ravenhall & C. J. Pethick.* 424, 846, 75-C8 (1994)

The Role of the Equation of State in the "Prompt" Phase of Type II Supernovae. *F. Douglas Swesty, James M. Lattimer, & Eric S. Myra.* 425, 195, 82-F3 (1994)

Hydrodynamics of Binary Coalescence. I. Polytropes with Stiff Equations of State. *Frederic A. Rasio & Stuart L. Shapiro.* 432, 242, 196-C2 (1994)

The Influence of Crystallization on the Luminosity Function of White Dwarfs. *M. Hernanz, E. García-Berro, J. Isern, R. Mochkovitch, L. Segretain, & G. Chabrier.* 434, 652, 236-G2 (1994)

Upper Limit of the Angular Velocity of Neutron Stars. *Masa-aki Hashimoto, Kazuhiro Oyamatsu, & Yoshiharu Eriguchi.* 436, 257, 264-G1 (1994)

Deviations from Chemical Equilibrium Due to Spin-down as an Internal Heat Source in Neutron Stars. *Andreas Reisenegger.* 442, 749, 90-E3 (1995)

Prompt Subsidence of a Proto–Neutron Star into a Black Hole. *N. K. Glendenning.* 448, 797, 205-G9 (1995)

An Equation of State for Low-Mass Stars and Giant Planets. *D. Saumon, G. Chabrier, & H. M. Van Horn.* 99, 713, 44-E12 (1995)

The OPAL Equation of State and Low-Metallicity Isochrones. *Brian Chaboyer & Yong-Cheol Kim.* 454, 767, 312-C9 (1995)

ERRATA, ADDENDA

The Mass of the Classical Cepheid SU Cygni: Erratum. *Nancy Remage Evans & C. T. Bolton.* 366, 340, 5-C7 (1991) (Orig. paper in 356, 630, 108-A12 (1990))

Hard X-Rays from Coma Cluster Region: Erratum. *A. Bazzano, R. Fusco-Femiano, P. Ubertini, F. Perotti, E. Quadrini, A. J. Court, A. J. Dean, N. A. Dipper, R. Lewis, & J. B. Stephen.* 366, L95, 11-F1 (1991) (Orig. paper in 362, L51, 181-C1 (1990))

Infrared Emissions of H_3^+ in the Atmosphere of Jupiter in the 2.1 and 4.0 Micron Region: Erratum. *Steven Miller, Robert D. Joseph, & Jonathan Tennyson.* 367, L37, 17-F1 (1991) (Orig. paper in 360, L55, 156-E1 (1990))

Hot Gas in the Nucleus of M82: ^{12}CO and ^{13}CO J = 3–2 Observations. *Jean L. Turner, Robert N. Martin, & Paul T. P. Ho.* 367, 677, 21-F6 (1991) (Orig. paper in 351, 418, 45-C5 (1990))

The Kinematics of Abell Clusters: Erratum. *Ann I. Zabludoff, John P. Huchra, & Margaret J. Geller.* 75, 629, 9-C13 (1991) (Orig. paper in 74, 1, 30-B1 (1990))

Gravitational Radiation from the Galaxy. *D. Hils, P. L. Bender, & R. F. Webbink.* 369, 271, 39-C9 (1991) (Orig. paper in 360, 75, 146-A6 (1990))

Consequences of Relativistic Proton Injection in Active Galactic Nuclei: Erratum. *Mitchell C. Begelman, Bronisław Rudak, & Marek Sikora.* 370, 791, 58-D1 (1991) (Orig. paper in 362, 38, 169-E3 (1990))

Supernova Rates and Galaxy Inclinations: Erratum. *Sidney van den Bergh & Robert D. McClure.* 371, 443, 65-F3 (1991) (Orig. paper in 359, 277, 139-D13 (1990))

The Dark Halo of the Polar-Ring Galaxy NGC 4650A: Erratum. *Penny D. Sackett & Linda S. Sparke.* 371, 443, 65-F3 (1991) (Orig. paper in 361, 408, 163-B11 (1990))

Nonlinear Development of the Kink Instability in Coronal Flux Tubes: Erratum. *I. J. D. Craig & A. D. Sneyd.* 371, 443, 65-F3 (1991) (Orig. paper in 357, 653, 120-F5 (1990))

Extended X-Ray Emission in Nearby Seyfert Galaxies. *Martin Elvis, C. Fassnacht, A. S. Wilson, & U. Briel.* 371, 820, 71-F12 (1991) (Orig. paper in 361, 459, 163-G1 (1990))

Beams Crossing a Galactic Halo–Intergalactic Medium Interface and the Size of Extragalactic Radio Sources: Erratum. *Alexander Rosen & Paul J. Wiita.* 372, 349, 78-C7 (1991) (Orig. paper in 330, 16, 90-B11 (1988))

The Molecular Gas Content of the Nuclear Region of M33: Erratum. *Christine D. Wilson & Nick Scoville.* 372, 349, 78-C7 (1991) (Orig. paper in 347, 743, 192-E7 (1989))

Molecular and Atomic Hydrogen Line Emission from Star-forming Galaxies: Erratum. *P. J. Puxley, T. G. Hawarden, & C. M. Mountain.* 372, 733, 84-F13 (1991) (Orig. paper in 364, 77, 195-A1 (1990))

Excitation of Millimeter and Submillimeter Water Masers: Erratum. *David A. Neufeld & Gary J. Melnick.* 374, 784, 108-G4 (1991) (Orig. paper in 368, 215, 25-F11 (1991))

Galaxy Velocity Dispersions Using a Cross-Correlation Method: Erratum. *Cristina Dalle Ore, S. M. Faber, J. Jésus Gonzalez, Roland Stoughton, & David Burstein.* 375, 427, 116-B12 (1991) (Orig. paper in 366, 38, 1-E5 (1991))

Extended Stellar Hydrodynamics for Galactic Disks: Erratum. *Peter Amendt & Phil Cuddeford.* 375, 427, 116-B12 (1991) (Orig. paper in 368, 79, 24-B1 (1991))

Conformally Symmetric Spheres in the Thin Wall Approximation: Erratum. *L. Herrera, J. Ibáñez, & A. Di Prisco.* 376, 367, 129-D12 (1991) (Orig. paper in 353, 579, 71-B4 (1990))

Pycnonuclear Fusion Rates: Erratum. *S. Schramm & S. E. Koonin.* 377, 343, 142-B12 (1991) (Orig. paper in 365, 296, 210-B1 (1990))

Studies of H I and D I in the Local Interstellar Medium: Erratum. *J. Murthy, R. C. Henry, H. W. Moos, A. Vidal-Madjar, J. L. Linsky, & C. Gry.* 378, 455, 156-E8 (1991) (Orig. paper in 356, 223, 101-G5 (1990))

The Far-Infrared Morphology of the Double-ringed Spiral Galaxy NGC 4736 (M94): A Ring Surrounding an Extended Nucleus: Erratum. *Beverly J. Smith, D. F. Lester, P. M. Harvey, & R. W. Pogge.* 380, 677, 186-E6 (1991) (Orig. paper in 373, 66, 86-G5 (1991))

A Redshift Survey of *IRAS* Galaxies. II. Methods for Determining Self-consistent Velocity and Density Fields: Erratum. *Amos Yahil, Michael A. Strauss, Marc Davis, & John P. Huchra.* 381, 348, 193-C10 (1991) (Orig. paper in 372, 380, 80-E5 (1991))

Seeded Hot Dark Matter Models for Large-Scale Structure: Erratum. *Jens V. Villumsen, Robert J. Scherrer, & Edmund Bertschinger.* 381, 601, 198-C1 (1991) (Orig. paper in 367, 37, 12-D11 (1991))

Signatures of Inhomogeneity in the Early Universe: Erratum. *Lawrence H. Kawano, William A. Fowler, Ralph W. Kavanagh, & Robert A. Malaney.* 382, 358, 204-E13 (1991) (Orig. paper in 372, 1, 74-A11 (1991))

Surface Brightness Fluctuations: A Bridge from M31 to the Hubble Constant: Erratum. *John L. Tonry.* 382, L109, 211-F9 (1991) (Orig. paper in 373, L1, 91-A8 (1991))

Strangeness Condensation, Nucleon Superfluidity, and Cooling of Neutron Stars: Erratum. *Dany Page & E. Baron.* 382, L111, 211-F12 (1991) (Orig. paper in 354, L17, 80-C1 (1990))

Terminal Velocities for a Large Sample of O Stars, B Supergiants, and Wolf-Rayet Stars: Erratum. *Raman K. Prinja, M. J. Barlow, & Ian D. Howarth.* 383, 466, 218-B1 (1991) (Orig. paper in 379, 734, 173-G8 (1991))

Gravitational Microlensing of High-Redshift Supernovae by Compact Objects: Erratum. *Kevin P. Rauch.* 383, 466, 218-B1 (1991) (Orig. paper in 374, 83, 99-A11 (1991))

Gravitational Clustering in the Expanding Universe: Controlled High-Resolution Studies in Two Dimensions: Erratum. *John Francis Beacom, Kurt G. Dominik, Adrian L. Melott, Sam P. Perkins, & Sergei F. Shandarin.* 384, 665, 10-D1 (1992) (Orig. paper in 372, 351, 80-B7 (1991))

Six Balmer-dominated Supernova Remnants: Erratum. *R. Chris Smith, Robert P. Kirshner, William P. Blair, & P. Frank Winkler.* 384, 665, 10-D1 (1992) (Orig. paper in 375, 652, 120-G1 (1991))

Infrared Hot Spots in the Nucleus of NGC 253: Erratum. *Duncan A. Forbes, Martin J. Ward, & D. L. DePoy.* 385, L31, 17-D10 (1992) (Orig. paper in 380, L63, 188-C6 (1991))

IC 5063: A Merger Remnant with a Hidden Luminous Active Nucleus: Erratum. *L. Colina, W. B. Sparks, & F. Macchetto.* 385, 766, 22-E13 (1992) (Orig. paper in 370, 102, 48-C5 (1991))

Properties of the SN 1987A Circumstellar Ring and the Distance to the Large Magellanic Cloud: Erratum. *N. Panagia, R. Gilmozzi, F. Macchetto, H.-M. Adorf, & R. P. Kirshner.* 386, L31, 29-E1 (1992) (Orig. paper in 380, L23, 181-D1 (1991))

On the H_2 Line Emission from NGC 6240 and Other Starburst Galaxies: Erratum. *B. T. Draine & D. T. Woods.* 387, 732, 47-G1 (1992) (Orig. paper in 381, 288, 192-E5 (1991))

Models of Voids in the Expanding Universe. II.: Erratum. *W. B. Bonnor & A. Chamorro.* 391, 876, 98-G7 (1992) (Orig. paper in 378, 461, 158-B7 (1991))

A Catalog of Absorption in the Spectra of Quasi-stellar Objects: Erratum (Orig. paper in 77, 203, 47-B1 (1991)). *V. Junkkarinen, A. Hewitt, & G. Burbidge.* 81, 409, 40-F5 (1992) (Orig. paper in 77, 203, 47-B1 (1991))

The Structure of the Inner Arcsecond of R Aquarii Observed with the *Hubble Space Telescope*: Erratum. *Denis Burgarella & Francesco Paresce.* 395, L123, 154-D13 (1992) (Orig. paper in 389, L29, 66-D10 (1992))

Atomic Data for Resonance Absorption Lines. I. Wavelengths Longward of the Lyman Limit: Erratum. *Donald C. Morton.* 81, 883, 48-C9 (1992) (Orig. paper in 77, 119, 45-B1 (1991))

X-Ray-heated Models of Stellar Flare Atmospheres: Theory and Comparison with Observations: Erratum. *Suzanne L. Hawley & George H. Fisher.* 81, 885, 48-D1 (1992) (Orig. paper in 78, 565, 10-F1 (1992))

The Evolution of Low-Mass Close Binary Systems. V. Transport Processes in the Envelopes of Contact Components: Erratum. *Ronald F. Webbink.* 396, 378, 159-G3 (1992) (Orig. paper in 215, 851, 69-E2 (1977))

Hard X-Ray Observation of Scorpius X-1: Erratum. *P. Ubertini, A. Bazzano, M. Cocchi, C. La Padula, & R. K. Sood.* 396, 378, 159-G3 (1992) (Orig. paper in 386, 710, 34-B4 (1992))

Molecular Gas in Elliptical Galaxies: Erratum. *Joanna F. Lees, G. R. Knapp, Michael P. Rupen, & T. G. Phillips.* 396, 741, 166-E1 (1992) (Orig. paper in 379, 177, 165-B11 (1991))

Three-dimensional Compressible Hydrodynamic Convection in the Sun and Stars: Erratum. *Murshed Hossain & D. J. Mullan.* 397, 353, 172-C5 (1992) (Orig. paper in 380, 631, 186-A10 (1991))

The Broad Emission Line Profiles and Profile Variability of the Seyfert 1 Galaxy Arakelian 120: Erratum. *Kirk T. Korista.* 82, 445, 55-G5 (1992) (Orig. paper in 79, 285, 18-C7 (1992))

Ring Structure in Disk Galaxies: Erratum. *C. E. Zaspel.* 397, 736, 180-C6 (1992) (Orig. paper in 385, 83, 13-A11 (1992))

Evidence for Shock-heated Gas in the Hopkins Ultraviolet Telescope Spectrum of NGC 1068: Erratum. *Gerard A. Kriss, Arthur F. Davidsen, William P. Blair, Henry C. Ferguson, & Knox S. Long.* 397, L127, 181-F12 (1992) (Orig. paper in 394, L37, 139-B7 (1992))

Disk Instability and Outburst Properties of the Intermediate Polar GK Persei: Erratum. *Soon-Wook Kim, J. Craig Wheeler, & Shin Mineshige.* 399, 330, 199-E1 (1992) (Orig. paper in 384, 269, 4-C7 (1992))

Cross-Correlation of the X-Ray Background with Nearby Galaxies: Erratum. *Keith Jahoda, Ofer Lahav, Richard F. Mushotzky, & Elihu Boldt.* 399, L107, 201-E8 (1992) (Orig. paper in 378, L37, 162-D7 (1991))

VLA Observations of 1612 and 1665 MHz OH Masers Associated with IRC +10420. *G. E. Nedoluha & P. F. Bowers.* 399, 743, 207-C1 (1992) (Orig. paper in 392, 249, 104-A9 (1992))

Discovery of Hot Ammonia in the Proto–Planetary Nebulae CRL 618 and CRL 2688. *J. Martín-Pintado & R. Bachiller.* 401, L47, 227-G1 (1992) (Orig. paper in 391, L93, 99-G12 (1992))

Solar Spin-down with Internal Magnetic Fields: Erratum. *P. Charbonneau & K. B. MacGregor.* 403, L87, 27-F7 (1993) (Orig. paper in 397, L63, 174-A3 (1992))

Production of Recycled Pulsars in Globular Clusters via Two-Body Tidal Capture: Erratum. *R. Di Stefano & S. Rappaport.* 404, 417, 33-A7 (1993) (Orig. paper in 396, 587, 164-F9 (1992))

Neutrino-Pair Bremsstrahlung in Dense Stars. III. Low-Temperature Quantum Corrections in the Liquid Metal Phase: Erratum. *Naoki Itoh, Yasuharu Kohyama, Noriyoshi Matsumoto, & Midori Seki.* 404, 418, 33-A8 (1993) (Orig. paper in 280, 787, 58-D9 (1984))

Electrical and Thermal Conductiveness of Dense Matter in the Crystalline Lattice Phase: Erratum. *Naoki Itoh, Yasuharu Kohyama, Noriyoshi Matsumoto, & Midori Seki.* 404, 418, 33-A8 (1993) (Orig. paper in 285, 758, 119-F12 (1984))

On the Process of Resistive Heating Instability and the Formation of Coronal Loop Structures: Erratum. *Yu-Qing Lou.* 404, 418, 33-A8 (1993) (Orig. paper in 395, 682, 151-F13 (1992))

Neutrino Energy Loss in Stellar Interiors. IV. Plasma Neutrino Process for Strongly Degenerate Electrons: Erratum. *Naoki Itoh, Haruhiko Mutoh, Atsushi Hikita, & Yasuharu Kohyama.* 404, 418, 33-A8 (1993) (Orig. paper in 395, 622, 150-G5 (1992))

The X-Ray Outburst from X0115+634 in 1990 February: Erratum. *Keisuke Tamura, Hiroshi Tsunemi, Shunji Kitamoto, Kiyoshi Hayashida, & Fumiaki Nagase.* 405, 402, 46-B8 (1993) (Orig. paper in 389, 676, 69-G1 (1992))

On Determining the Primordial Helium Abundance from the Spectra of H II Galaxies: Erratum. *Alison Campbell.* 405, 803, 53-A14 (1993) (Orig. paper in 401, 157, 223-A1 (1992))

CO (v = 1-0) Emission in the Molecular Shock Regions of OMC-1: Erratum. *G. L. Grasdalen, John A. Hackwell, David K. Lynch, & Ray W. Russell.* 405, L83, 54-E12 (1993) (Orig. paper in 397, L119, 181-E13 (1992))

Effect of Binary Sources on the Search for Massive Astrophysical Compact Halo Objects via Microlensing: Erratum. *Kim Griest & Wayne Hu.* 407, 440, 74-E1 (1993) (Orig. paper in 397, 362, 175-B12 (1992))

Imaging Spectrophotometry of the Orion Nebula Core. I. Emission-Line Mapping and Physical Conditions: Erratum. *Richard W. Pogge, J. Michael Owen, & Bruce Atwood.* 408, 758, 94-E9 (1993) (Orig. paper in 399, 147, 197-A9 (1992))

The He II 1640 Å Multiplet Observed from Solar Prominences: Erratum. *J. M. Laming & U. Feldman.* 409, 869, 110-A9 (1993) (Orig. paper in 403, 434, 19-B11 (1993))

Discreteness Noise versus Force Errors in N-Body Simulations: Erratum. *Lars Hernquist, Piet Hut, & Jun Makino.* 411, L53, 134-D1 (1993) (Orig. paper in 402, L85, 13-C1 (1993))

Detection of an Unresolved Nuclear Radio Source in M31: Erratum. *Patrick C. Crane, John R. Dickel, & John J. Cowan.* 411, L107, 142-G9 (1993) (Orig. paper in 390, L9, 78-B7 (1992))

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Hubble Space Telescope Faint Object Spectrograph and Ground-based Observations of the Broad Absorption Line Quasar 0226−1024: Erratum. *Kirk T. Korista, Ray J. Weymann, Simon L. Morris, Michael Kopko, Jr., David A. Turnshek, George F. Hartig, Craig B. Foltz, E. Margaret Burbidge, & Vesa T. Junkkarinen.* 413, 445, 161-G5 (1993) (Orig. paper in 401, 529, 229-C1 (1992))

Polycyclic Aromatic Hydrocarbon Formation in Carbon-rich Stellar Envelopes: Erratum. *Isabelle Cherchneff, John R. Barker, & Alexander G. G. M. Tielens.* 413, 445, 161-G5 (1993) (Orig. paper in 401, 269, 224-D1 (1992))

High-Rate Active Galaxy Monitoring at the Wise Observatory. III. The Broad-Line Region of NGC 4151: Erratum. *D. Maoz, H. Netzer, T. Mazeh, S. Beck, E. Almoznino, E. Leibowitz, N. Brosch, H. Mendelson, & A. Laor.* 413, 445, 161-G5 (1993) (Orig. paper in 367, 493, 19-E1 (1991))

Problems with the Standard Theory of Three-dimensional Masers: Erratum. *David A. Neufeld.* 413, L145, 169-D7 (1993) (Orig. paper in 393, L37, 120-F1 (1992))

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A *ROSAT* Upper Limit on X-Ray Emission from SN 1992A: Erratum. *Eric M. Schlegel & Robert Petre.* 418, L53, 238-F11 (1993) (Orig. paper in 412, L29, 148-D1 (1993))

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Nova Herculis 1991: Thermonuclear Runaway on a Massive ONeMg White Dwarf: Erratum. *Thomas Matheson, Alexei V. Filippenko, & Luis C. Ho.* 423, L75, 54-C7 (1994) (Orig. paper in 418, L29, 238-D6 (1993))

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Quasar X-Ray Spectra Revisited: Erratum. *P. Shastri, B. J. Wilkes, M. Elvis, & J. McDowell.* 431, 901, 190-A1 (1994) (Orig. paper in 410, 29, 112-D11 (1993))

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H II Regions in M81 Group Dwarf Galaxies: Erratum. *Bryan W. Miller & Paul Hodge.* 440, 907, 55-F9 (1995) (Orig. paper in 427, 656, 120-G11 (1994))

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The Near-Infrared Structure and Spectra of the Bipolar Nebulae M2-9 and AFGL 2688: The Role of Ultraviolet Pumping and Shocks in Molecular Hydrogen Excitation: Erratum. *Joseph L. Hora & William B. Latter.* 449, 397, 215-E8 (1995) (Orig. paper in 437, 281, 287-A8 (1994))

Infrared Coronal Emission Lines and the Possibility of Their Laser Emission in Seyfert Nuclei: Erratum. *Matthew A. Greenhouse, Uri Feldman, Howard A. Smith, Marcel Klapisch, Anand K. Bhatia, & Avi Bar-Shalom.* 99, 743, 45-A3 (1995) (Orig. paper in 88, 23, 40-C11 (1993))

Locations of Starbursts in M82: Erratum. *Jianjun Shen & K. Y. Lo.* 450, L39, 236-B5 (1995) (Orig. paper in 445, L99, 150-G5 (1995))

Deep Infrared Array Photometry of Globular Clusters. III. M13: Erratum. *T. J. Davidge & W. E. Harris.* 454, 545, 306-G4 (1995) (Orig. paper in 445, 211, 135-D7 (1995))

Radiative and Nonradiative Charge Transfer in Collisions of H^+ with Li below 1 keV. *M. Kimura, C. M. Dutta, N. F. Lane, & N. Shimakura.* 454, 545, 306-G4 (1995) (Orig. paper in 430, 435, 164-F14 (1994))

Infrared Imaging of Spiral Galaxies: Colors and Luminosity Profiles: Erratum. *Donald M. Terndrup, Roger L. Davies, Jay A. Frogel, D. L. DePoy, & Lisa A. Wells.* 454, 945, 314-G13 (1995) (Orig. paper in 432, 518, 202-D5 (1994))

PKS 2349−014: A Luminous Quasar with Thin Wisps, a Large Off-Center Nebulosity, and a Close Companion Galaxy: Erratum. *John N. Bahcall, Sofia Kirhakos, & Donald P. Schneider.* 454, L175, 317-B12 (1995) (Orig. paper in 447, L1, 180-C1 (1995))

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Evolution of Spiral Galaxies. I. Halo-Disk Connection for the Evolution of the Solar Neighborhood. *Federico Ferrini, Francesca Matteucci, Chiara Pardi, & Umberto Penco.* 387, 138, 38-F5 (1992)

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X-Ray Spectral Structure of the Seyfert Galaxy NGC 6814. *M. Yamauchi, M. Matsuoka, N. Kawai, & A. Yoshida.* 395, 453, 148-A13 (1992)

The Influence of Dark Matter on the Chemical Evolution of Elliptical Galaxies. *Francesca Matteucci.* 397, 32, 168-D9 (1992)

The Oxygen Abundance Gradient in the Barred Spiral Galaxy NGC 4303. *Pierre Martin & Jean-René Roy.* 397, 463, 176-D13 (1992)

O-Star Photoionization Models of Liners with Weak [O I] λ6300 Emission. *Alexei V. Filippenko & Roberto Terlevich.* 397, L79, 181-A1 (1992)

Mg and Fe Absorption Features in Elliptical Galaxies. *Guy Worthey, S. M. Faber, & J. Jesús Gonzalez.* 398, 69, 182-G9 (1992)

Stellar Population Gradients in Early-Type Galaxies. *Jeffrey A. Munn.* 399, 444, 203-E1 (1992)

Observations of Zn II, Cr II, Fe II, and Ca II in the Damped Lyman-Alpha Absorber at $z = 0.692$ toward 3C 286. *David M. Meyer & Donald G. York.* 399, L121, 207-G7 (1992)

On Determining the Primordial Helium Abundance from the Spectra of H II Galaxies. *Alison Campbell.* 401, 157, 223-A1 (1992)

Chemical Evolution of Irregular Galaxies and the Primordial ^{4}He Abundance. *G. J. Mathews, R. N. Boyd, & G. M. Fuller.* 403, 65, 14-G7 (1993)

NGC 5018: A Metal-poor Giant Elliptical. *Francesco Bertola, David Burstein, & Lucio M. Buson.* 403, 573, 22-F10 (1993)

Chemical and Luminosity Evolution, and Counts of Galaxies in a Merger Model. *P. Colín & D. N. Schramm.* 407, 510, 77-A1 (1993)

Optical Emission-Line Properties of M33 Supernova Remnants. *R. Chris Smith, Robert P. Kirshner, William P. Blair, Knox S. Long, & P. Frank Winkler.* 407, 564, 77-E9 (1993)

Ar/S. *Christopher C. Stevenson, Marshall L. McCall, & Douglas L. Welch.* 408, 460, 90-G11 (1993)

Star Trapping and Metallicity Enrichment in Quasars and Active Galactic Nuclei. *Paweł Artymowicz, D. N. C. Lin, & E. Joseph Wampler.* 409, 592, 106-C12 (1993)

The Ionizing Radiation of Seyfert 2 Galactic Nuclei. *Luis C. Ho, Joseph C. Shields, & Alexei V. Filippenko.* 410, 567, 120-F9 (1993)

Abundances of H II Regions in Early-Type Spiral Galaxies. *M. S. Oey & R. C. Kennicutt, Jr.* 411, 137, 128-G3 (1993)

Dynamically Hot Galaxies. II. Global Stellar Populations. *Ralf Bender, David Burstein, & S. M. Faber.* 411, 153, 129-A8 (1993)

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Broad-Band X-Ray Telescope Observations of the Hot Interstellar Media in NGC 1399 and NGC 4472. *P. J. Serlemitsos, M. Loewenstein, R. F. Mushotzky, F. E. Marshall, & R. Petre.* 413, 518, 163-A1 (1993)

On ^{26}Al and Other Short-lived Interstellar Radioactivity. *Donald D. Clayton, Dieter H. Hartmann, & Mark D. Leising.* 415, L25, 192-A1 (1993)

Population II ^{6}Li as a Probe of Nucleosynthesis and Stellar Structure and Evolution. *Gary Steigman, Brian D. Fields, Keith A. Olive, David N. Schramm, & Terry P. Walker.* 415, L35, 192-B1 (1993)

Atomic Carbon in M82. *Peter Schilke, John E. Carlstrom, Jocelyn Keene, & T. G. Phillips.* 417, L67, 230-C3 (1993)

The Chemical Evolution of QSOs and the Implications for Cosmology and Galaxy Formation. *Fred Hamann & Gary Ferland.* 418, 11, 231-B13 (1993)

Spectroscopy of Giants in the Sextans Dwarf Spheroidal Galaxy. *Nicholas B. Suntzeff, Mario Mateo, Donald M. Terndrup, Edward W. Olszewski, Doug Geisler, & W. Weller.* 418, 208, 233-E12 (1993)

The Heavy Element Abundance in the Hot Corona of the Bright Elliptical Galaxy NGC 4472. *W. Forman, C. Jones, L. David, M. Franx, K. Makishima, & T. Ohashi.* 418, L55, 245-B1 (1993)

Production and Circulation of Iron in Elliptical Galaxies and Clusters of Galaxies. *Alvio Renzini, Luca Ciotti, Annibale D'Ercole, & Silvia Pellegrini.* 419, 52, 246-F12 (1993)

Chemical Evolution of Galaxies and Quasar Metallicities. *Francesca Matteucci & Paolo Padovani.* 419, 485, 253-G1 (1993)

Truncated Initial Mass Function in Starburst Galaxies. *Stéphane Charlot, Frank Ferrari, G. J. Mathews, & Joseph Silk.* 419, L57, 259-C1 (1993)

H II Regions and the Abundance Properties of Spiral Galaxies. *Dennis Zaritsky, Robert C. Kennicutt, Jr., & John P. Huchra.* 420, 87, 2-B1 (1994)

Element Abundances in H II Galaxies. *Josefa Masegosa, Mariano Moles, & Ana Campos-Aguilar.* 420, 576, 9-G3 (1994)

The Interstellar Medium in the Starburst Regions of NGC 253 and NGC 3256. *P. Carral, D. J. Hollenbach, S. D. Lord, S. W. J. Colgan, Michael R. Haas, R. H. Rubin, & E. F. Erickson.* 423, 223, 48-G7 (1994)

Anisotropic High-Excitation Emission and Chemical Abundances in the Seyfert 2 Galaxy NGC 5643. *Henrique R. Schmitt, Thaisa Storchi-Bergmann, & Jack A. Baldwin.* 423, 237, 49-A9 (1994)

The Influence of Bars on the Chemical Composition of Spiral Galaxies. *Pierre Martin & Jean-René Roy.* 424, 599, 72-B10 (1994)

Upper Limits on Metals in Quasar Lyman-α Forest Clouds: Absence of C IV Lines in Echelle Spectra. *David Tytler & Xiao-Ming Fan.* 424, L87, 78-G9 (1994)

Metal Enrichment, Dust, and Star Formation in Galaxies at High Redshifts. III. Zn and Cr Abundances for 17 Damped Lyman-Alpha Systems. *Max Pettini, Linda J. Smith, Richard W. Hunstead, & David L. King.* 426, 79, 97-A12 (1994)

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Far-Ultraviolet Absorption Spectra of Quasars: How to Find Missing Hot Gas and Metals. *D. A. Verner, David Tytler, & P. D. Barthel.* 430, 186, 161-D3 (1994)

A Calibration of Mg_2 versus [Fe/H] and [Mg/Fe]. *B. Barbuy.* 430, 218, 161-G1 (1994)

On the Influence of Bars and Star Formation on Galactic Abundance Gradients. *D. Friedli, W. Benz, & R. Kennicutt.* 430, L105, 174-F3 (1994)

Spatially Resolved Optical and Near-Infrared Spectroscopy of the Low-Metallicity Galaxy UGC 4483. *Evan D. Skillman, Roberto J. Terlevich, Robert C. Kennicutt, Jr., Donald R. Garnett, & Elena Terlevich.* 431, 172, 178-C9 (1994)

Galaxy Properties in Different Environments. II. Star Formation in Bulges of Late-Type Spirals. *M. G. Pastoriza, E. Bica, M. Maia, Ch. Bonatto, & H. Dottori.* 432, 128, 194-G3 (1994)

Soft X-Ray Spectrum of BL Lacertae Object AO 0235+164 as a Tracer of Elemental Abundances at $z \sim 0.5$. *Greg Madejski.* 432, 554, 202-G6 (1994)

Abundance Gradients in Cooling Flow Clusters: *Ginga* Large Area Counters and *Einstein* Solid State Spectrometer Spectra of A496, A1795, A2142, and A2199. *Raymond E. White III, C. S. R. Day, Isamu Hatsukade, & John P. Hughes.* 433, 583, 218-C2 (1994)

The Primordial Helium Abundance from a New Sample of Metal-deficient Blue Compact Galaxies. *Yuri I. Izotov, Trinh X. Thuan, & Valentin A. Lipovetsky.* 435, 647, 255-A5 (1994)

Metal Abundances and Kinematics of a High-Redshift Galaxy Obtained with the Keck Telescope. *Arthur M. Wolfe, Xiao-Ming Fan, David Tytler,*

Steven S. Vogt, Michael J. Keane, & Kenneth M. Lanzetta. 435, L101, 259-E9 (1994)

Discovery and Implications of Very Low Metal Abundances in NGC 1404 and NGC 4374. *M. Loewenstein, R. F. Mushotzky, T. Tamura, Y. Ikebe, K. Makishima, K. Matsushita, H. Awaki, & P. J. Serlemitsos.* 436, L75, 269-F1 (1994)

ASCA Observation of NGC 4636: Dark Matter and Metallicity Gradient. *R. F. Mushotzky, M. Loewenstein, H. Awaki, K. Makishima, K. Matsushita, & H. Matsumoto.* 436, L79, 269-F9 (1994)

Comprehensive Stellar Population Models and the Disentanglement of Age and Metallicity Effects. *Guy Worthey.* 95, 107, 65-E2 (1994)

The Form of Abundance Gradients in Three Nearby Spiral Galaxies: M33, M81, and M101. *R. B. C. Henry & J. W. Howard.* 438, 170, 3-F1 (1995)

The *IUE* Survey for Damped Lyman-α and Lyman-Limit Absorption Systems: Evolution of the Gaseous Content of the Universe. *Kenneth M. Lanzetta, Arthur M. Wolfe, & David A. Turnshek.* 440, 435, 49-C8 (1995)

The Evolution of C/O in Dwarf Galaxies from *Hubble Space Telescope* FOS Observations. *Donald R. Garnett, Evan D. Skillman, Reginald J. Dufour, Manuel Peimbert, Silvia Torres-Peimbert, Roberto Terlevich, Elena Terlevich, & Gregory A. Shields.* 443, 64, 96-B6 (1995)

Chemical Evolution of Irregular and Blue Compact Galaxies. *Leticia Carigi, Pedro Colín, Manuel Peimbert, & Antonio Sarmiento.* 445, 98, 133-F5 (1995)

Heavy Element Abundances in a New Sample of Low-Metallicity Blue Compact Galaxies. *Trinh X. Thuan, Yuri I. Izotov, & Valentin A. Lipovetsky.* 445, 108, 133-G5 (1995)

Oxygen Abundances in Diffuse Ellipticals and the Metallicity-Luminosity Relations for Dwarf Galaxies. *Michael G. Richer & Marshall L. McCall.* 445, 642, 144-A1 (1995)

New Age Indicators for Old Stellar Populations. *Lewis A. Jones & Guy Worthey.* 446, L31, 160-E13 (1995)

Metal Abundances and Physical Conditions in Two Damped Lyα Systems toward HS 1946+7658. *Limin Lu, Blair D. Savage, Todd M. Tripp, & David M. Meyer.* 447, 597, 184-D2 (1995)

Line Strength Gradients in Elliptical and Brightest Cluster Galaxies. *David Fisher, Marijn Franx, & Garth Illingworth.* 448, 119, 193-G2 (1995)

Evidence for Recent Accretion in Nearby Galaxies. *Dennis Zaritsky.* 448, L17, 199-D6 (1995)

The Planetary Nebula System and Dynamics of NGC 5128. III. Kinematics and Halo Mass Distributions. *Xiaohui Hui, Holland C. Ford, Kenneth C. Freeman, & Michael A. Dopita.* 449, 592, 221-A1 (1995)

Supernovae, Globular Clusters, and Galaxy Mergers. *Sidney van den Bergh.* 450, 27, 228-D9 (1995)

Echelle Spectroscopy of the Na I D Absorption-Line Systems of Markarian 231. *Karl Forster, R. Michael Rich, & James K. McCarthy.* 450, 74, 229-B5 (1995)

Element Abundances at High Redshifts: The N/O Ratio in a Primeval Galaxy. *Max Pettini, Keith Lipman, & Richard W. Hunstead.* 451, 100, 247-E1 (1995)

The Iron Group Abundance Pattern of the Damped Lyman-Alpha Absorber at $z = 1.3726$ toward the QSO 0935+417. *David M. Meyer, Kenneth M. Lanzetta, & Arthur M. Wolfe.* 451, L13, 252-C4 (1995)

Abundance Histories for QSO Absorption-Line Systems. *F. X. Timmes, J. T. Lauroesch, & J. W. Truran.* 451, 468, 253-F12 (1995)

Influence of Cooling Flows and Galactic Motion on the Iron Distribution in Clusters of Galaxies. *Yutaka Fujita & Hideo Kodama.* 452, 177, 264-D11 (1995)

Dwarf Galaxies and the Origin of the Intracluster Medium. *Biman B. Nath & Masashi Chiba.* 454, 604, 309-G6 (1995)

Mergers, Accretions, and the Globular Cluster Mean Metallicity-Number per Unit Mass Relation. *Jean-Marc Perelmuter.* 454, 762, 312-C1 (1995)

Stellar Abundances and Winds of A-Type Supergiant Stars in M33: First Results from the Keck HIRES Spectrograph. *James K. McCarthy, Daniel J. Lennon, Kim A. Venn, Rolf-Peter Kudritzki, Joachim Puls, & Francisco Najarro.* 455, L135, 333-G11 (1995)

GALAXIES: ACTIVE

The Lyα/Hα Ratio in High-Redshift Radio Galaxies. *Patrick J. McCarthy, Richard Elston, & Peter Eisenhardt.* 387, L29, 43-D1 (1992)

Coronal Lines and Starburst Features in Two New *IRAS* Active Galactic Nuclei: IRAS 04493−6441 and IRAS 22419−6049. *Sebastian Lípari & F. Macchetto.* 387, 522, 45-B9 (1992)

A New Scheme for Multidimensional Line Transfer. II. ETLA Method in One Dimension with Application to Iron Kα Lines. *John I. Castor, Pieter G. Dykema, & Richard I. Klein.* 387, 561, 45-F1 (1992)

The X-Ray Spectra of High-Luminosity Active Galactic Nuclei Observed by *Ginga*. *O. R. Williams, M. J. L. Turner, G. C. Stewart, R. D. Saxton, T. Ohashi, K. Makishima, T. Kii, H. Inoue, F. Makino, K. Hayashida, & K. Koyama.* 389, 157, 62-A5 (1992)

Intrinsically Asymmetric Astrophysical Jets. *J. C. L. Wang, M. E. Sulkanen, & R. V. E. Lovelace.* 390, 46, 74-F1 (1992)

Relativistic, Perpendicular Shocks in Electron-Positron Plasmas. *Yves A. Gallant, Masahiro Hoshino, A. Bruce Langdon, Jonathan Arons, & Claire E. Max.* 391, 73, 87-A1 (1992)

Variability of Near-Infrared Emission Lines in NGC 4151: Implications for Nuclear Star Formation. *Andrea H. Prestwich, Gillian S. Wright, & Robert D. Joseph.* 80, 205, 25-A5 (1992)

Active Galactic Nuclei. IV. Supplying Black Hole Clusters by Tidal Disruption and by Tidal Capture of Stars. *W. R. Stoeger, S.J., A. G. Pacholczyk, & T. F. Stepinski.* 391, 550, 94-F13 (1992)

The Milliarcsecond Structure of Highly Variable Radio Sources. *Ann E. Wehrle, Marshall H. Cohen, Stephen C. Unwin, Hugh D. Aller, Margo F. Aller, & George Nicolson.* 391, 589, 95-C5 (1992)

A VLBI Search for AGN Radio Cores in Starburst Galaxies. *Colin J. Lonsdale, Carol J. Lonsdale, & Harding E. Smith.* 391, 629, 95-G6 (1992)

A 20 Centimeter VLA Survey of Abell Clusters of Galaxies. II. Images and Optical Identifications. *Frazer N. Owen, Richard A. White, & Jack O. Burns.* 80, 501, 30-D13 (1992)

Comment on Red Giant Envelopes as Broad Emission-Line Clouds in Active Galactic Nuclei. *John Kwan, F. Z. Cheng, & Zongwei Li.* 393, 87, 115-B9 (1992)

The Spatial Distribution of Active Galactic Nuclei. I. The Density of Seyfert Galaxies and Liners. *John Huchra & Richard Burg.* 393, 90, 115-C1 (1992)

Line Profile and Variability Data to Probe the Broad-Line Region Geometry: Of Disks and Nests. *F. Mannucci, M. Salvati, & R. M. Stanga.* 394, 98, 129-C6 (1992)

The Stability of QSO/AGN Broad Emission Line Clouds. *I. S. Krinsky & R. C. Puetter.* 394, 472, 135-C1 (1992)

Implications of Ultraviolet Imaging Telescope Observations for Star Formation Histories in NGC 1275. *Eric P. Smith, Robert W. O'Connell, Ralph C. Bohlin, Kwang-Ping Cheng, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Paul Hintzen, Wayne B. Landsman, Susan G. Neff, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L49, 145-D9 (1992)

Infrared Emission in Seyfert 2 Galaxies: Reprocessed Radiation from a Dusty Torus? *Thaisa Storchi-Bergmann, John S. Mulchaey, & Andrew S. Wilson.* 395, L73, 153-F12 (1992)

Active Galactic Nuclei with Ultrasoft X-Ray Emission. *F. A. Córdova, J. F. Kartje, R. J. Thompson, Jr., K. O. Mason, E. M. Puchnarewicz, & F. R. Harnden, Jr.* 81, 661, 45-A11 (1992)

The Compact Triples 0710+439 and 2352+495: A New Morphology of Radio Galaxy Nuclei. *J. E. Conway, T. J. Pearson, A. C. S. Readhead, S. C. Unwin, W. Xu, & R. L. Mutel.* 396, 62, 155-G7 (1992)

IRAS 14070+0525: An OH Gigamaser at $z = 0.265$. *Willem A. Baan, James Rhoads, Karl Fisher, Daniel R. Altschuler, & Aubrey Haschick.* 396, L99, 167-E1 (1992)

IRAS 03202−5150: A New Ring Active Galactic Nucleus with Obscured Seyfert 1 Nucleus. *Sebastian Lípari & F. Macchetto.* 397, 126, 169-E6 (1992)

O-Star Photoionization Models of Liners with Weak [O I] λ6300 Emission. *Alexei V. Filippenko & Roberto Terlevich.* 397, L79, 181-A1 (1992)

The Near-Ultraviolet Spectrum of Markarian 205. *John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, George F. Hartig, & Edward B. Jenkins.* 398, 495, 190-C7 (1992)

Radiation-Pressure–supported Obscuring Tori around Active Galactic Nuclei. *Edward A. Pier & Julian H. Krolik.* 399, L23, 200-B8 (1992)

Infrared Fine-Structure Line Diagnostics of Shrouded Active Galactic Nuclei. *G. Mark Voit.* 399, 495, 204-B1 (1992)

Infrared Line Diagnostics of Active Galactic Nuclei. *Luigi Spinoglio & Matthew A. Malkan.* 399, 504, 204-B11 (1992)

Polarimetry and Spectrophotometry of the QSO IRAS 13349+2438 and the Unification of Active Galaxies. *Beverley J. Wills, D. Wills, Neal J. Evans II, A. Natta, K. L. Thompson, M. Breger, & M. L. Sitko.* 400, 96, 210-B10 (1992)

The X-Ray Variability of NGC 6814: Power Spectrum. *C. Done, G. M. Madejski, R. F. Mushotzky, T. J. Turner, K. Koyama, & H. Kunieda.* 400, 138, 210-F1 (1992)

The Colorado *IUE* Active Galaxy Survey. I. Blazars. *Rick Edelson, Gregory F. Pike, Jon M. Saken, Anne Kinney, & J. Michael Shull.* 83, 1, 57-B1 (1992)

Search for Partial Systemic Lyman Edges in Nearby Quasars. *A. P. Koratkar, A. L. Kinney, & R. C. Bohlin.* 400, 435, 215-F9 (1992)

Radiative Acceleration by Synchrotron Sources. *G. Ghisellini, G. Bodo, & E. Trussoni.* 401, 87, 222-B5 (1992)

Infrared Spectra of Obscuring Dust Tori around Active Galactic Nuclei. I. Calculational Method and Basic Trends. *Edward A. Pier & Julian H. Krolik.* 401, 99, 222-C5 (1992)

Infrared Lines from Active Galactic Nuclei: A Theoretical Approach. *Marcella Contini & Sueli M. Viegas.* 401, 481, 228-F3 (1992)

High-Energy Particle Acceleration by Explosive Electromagnetic Interaction in an Accretion Disk. *C. A. Haswell, T. Tajima, & J.-I. Sakai.* 401, 495, 228-G5 (1992)

Hubble Space Telescope Imaging of Distant Galaxies: 4C 41.17 at $z = 3.8$. *G. K. Miley, K. C. Chambers, W. J. M. van Breugel, & F. Macchetto.* 401, L69, 232-G10 (1992)

Subarcsecond Near-Infrared Imaging of Ultraluminous *IRAS* Galaxies. *S. R. Majewski, M. Hereld, D. C. Koo, G. D. Illingworth, & T. M. Heckman.* 402, 125, 2-E13 (1993)

Dense Clouds near the Central Engine of Active Galactic Nuclei. *R. Sivron & S. Tsuruta.* 402, 420, 7-G7 (1993)

Implications of Lyman-Alpha Equivalent Widths in Active Galactic Nuclei. *Joseph C. Shields & Gary J. Ferland.* 402, 425, 8-A1 (1993)

X-Ray Light Curves of Active Galactic Nuclei Are Phase Incoherent. *Julian Krolik, Chris Done, & Grzegorz Madejski.* 402, 432, 8-A9 (1993)

Spectroscopic Constraints on the Properties of Dust in Active Galactic Nuclei. *Ari Laor & Bruce T. Draine.* 402, 441, 8-B5 (1993)

The Structure of the Broad-Line Region in the Seyfert Galaxy Markarian 590. *Bradley M. Peterson, Babar Ali, Keith Horne, Ray Bertram, Nancy J. Lame, Richard W. Pogge, & R. Mark Wagner.* 402, 469, 8-D7 (1993)

Fast Rotation in the Nuclear Region of the Galaxy NGC 1808. *Bärbel Koribalski, John M. Dickey, & Ulrich Mebold.* 402, L41, 12-D9 (1993)

Radiation from Magnetized Accretion Disks in Active Galactic Nuclei. *G. B. Field & R. D. Rogers.* 403, 94, 15-C1 (1993)

NGC 4945: A Postburst Infrared Galaxy. *Jan Koornneef.* 403, 581, 22-G8 (1993)

The Nature and Structure of Active Galactic Nuclei. *Donald E. Osterbrock.* 404, 551, 35-G7 (1993)

Finding Protoquasars at High Redshifts. *Abraham Loeb.* 404, L37, 40-B6 (1993)

Dust in the Narrow-Line Region of Active Galactic Nuclei. *Hagai Netzer & Ari Laor.* 404, L51, 40-C11 (1993)

On Compton Reflection in the Sources of the Cosmic X-Ray Background. *Andrzej A. Zdziarski, Piotr T. Życki, Roland Svensson, & Elihu Boldt.* 405, 125, 42-E8 (1993)

Comptonization Effects as a Test for Hot Intercloud Medium in the Broad-Line Region of Active Galactic Nuclei. *A. Ferrara & P. Pietrini.* 405, 130, 42-F1 (1993)

The Starburst-AGN Connection: A Sensitive VLBI Survey of Luminous *IRAS* Galaxies. *Colin J. Lonsdale, Harding E. Smith, & Carol J. Lonsdale.* 405, L9, 47-C1 (1993)

On the Relation between Fanaroff-Riley Types I and II Radio Galaxies. *David S. De Young.* 405, L13, 47-C8 (1993)

Detection of Gamma-Ray Emission from the Quasar PKS 0208−512. *D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. Schneid, P. Sreekumar, & D. J. Thompson.* 405, L21, 47-D8 (1993)

The Excitation Mechanism of [Fe II] 1.644 Micron Emission in Seyfert and Starburst Galaxies Revisited. *Hideaki Mouri, Kimiaki Kawara, & Yoshiaki Taniguchi.* 406, 52, 55-F5 (1993)

Accretion Disk Models for Optical and Ultraviolet Microvariability in Active Galactic Nuclei. *Arun V. Mangalam & Paul J. Wiita.* 406, 420, 63-A1 (1993)

Extreme Optical Fe II Emission in Luminous *IRAS* Active Galactic Nuclei. *Sebastian Lípari, Roberto Terlevich, & F. Macchetto.* 406, 451, 63-C12 (1993)

Relativistic Bulk Motion in Active Galactic Nuclei. *G. Ghisellini, P. Padovani, A. Celotti, & L. Maraschi.* 407, 65, 70-A1 (1993)

The 8–13 Micron Spectrum of Arp 299C. *C. C. Dudley & C. G. Wynn-Williams.* 407, L65, 82-D1 (1993)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. IV. Intensity Variations of the Optical Emission Lines of NGC 5548. *M. Dietrich, W. Kollatschny, B. M. Peterson, J. Bechtold, R. Bertram, N. G. Bochkarev, T. A Boroson, T. E. Carone, M. Elvis, A. V. Filippenko, C. M. Gaskell, J. P. Huchra, J. B. Hutchings, A. P. Koratkar, K. T. Korista, N. J. Lame, A. Laor, G. M. MacAlpine, M. A. Malkan, C. Mendes de Oliveira, H. Netzer, J. Penfold, M. V. Penston, E. Pérez, R. W. Pogge, M. W. Richmond, E. I. Rosenblatt, A. I. Shapovalova, J. C. Shields, H. A. Smith, P. S. Smith, W.-H. Sun, U. Thiele, S. Veilleux, R. M. Wagner, B. J. Wilkes, B. J. Wills, & D. Wills.* 408, 416, 90-D1 (1993)

High-Resolution Mid-Infrared Imaging and Astrometry of the Nucleus of the Seyfert Galaxy NGC 1068. *J. A. Braatz, A. S. Wilson, D. Y. Gezari, F. Varosi, & C. A. Beichman.* 409, L5, 104-B1 (1993)

Star Trapping and Metallicity Enrichment in Quasars and Active Galactic Nuclei. *Paweł Artymowicz, D. N. C. Lin, & E. Joseph Wampler.* 409, 592, 106-C12 (1993)

Quasar X-Ray Spectra Revisited. *P. Shastri, B. J. Wilkes, M. Elvis, & J. McDowell.* 410, 29, 112-D11 (1993)

The Peculiar Balmer Line Profiles of OQ 208. *P. Marziani, J. W. Sulentic, M. Calvani, E. Perez, M. Moles, & M. V. Penston.* 410, 56, 112-G4 (1993)

The Narrow-Line Region of High-Luminosity Active Galactic Nuclei. *Beverley J. Wills, H. Netzer, M. S. Brotherton, Mingsheng Han, D. Wills, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 410, 534, 120-C11 (1993)

The Ionizing Radiation of Seyfert 2 Galactic Nuclei. *Luis C. Ho, Joseph C. Shields, & Alexei V. Filippenko.* 410, 567, 120-F9 (1993)

The High-Energy Diffuse Cosmic Gamma-Ray Background Radiation from Blazars. *F. W. Stecker, M. H. Salamon, & M. A. Malkan.* 410, L71, 125-F5 (1993)

Quasars and Active Galactic Nuclei in Rich Environments. III. The Rapid Evolution of Active Galactic Nucleus Activity in Rich Clusters. *H. K. C. Yee & E. Ellingson.* 411, 43, 127-E13 (1993)

BL Lacertae Objects, Fanaroff-Riley Type I Radio Sources, and Cluster Cooling Flows. *Craig L. Sarazin & Michael W. Wise.* 411, 55, 127-F13 (1993)

Statistical Evidence for Accretion Disks in Active Galactic Nuclei. *David Caditz.* 411, 103, 128-C13 (1993)

The Time Variability of the Ultraviolet Continuum and Lyman-Alpha in 3C 273. *M.-H. Ulrich, T. J.-L. Courvoisier, & W. Wamsteker.* 411, 125, 128-E13 (1993)

[Fe II] 1.64 Micron Emission in High-Luminosity and Ultraluminous *IRAS* Galaxies. *Luis Colina.* 411, 565, 136-F3 (1993)

Nuclear Winds and the Narrow-Line Emission from Active Galaxies. *Steven J. Smith.* 411, 570, 136-F10 (1993)

Nuclear Winds in Active Elliptical Galaxies. I. Interaction. *Steven J. Smith, C. F. Kennel, & F. V. Coroniti.* 411, 581, 136-G9 (1993)

Ionized Absorbers, Ionized Emitters, and the X-Ray Spectrum of Active Galactic Nuclei. *Hagai Netzer.* 411, 594, 137-A10 (1993)

Spiral Shocks in Accretion Disks As a Contributor to Variability in Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 411, 602, 137-B6 (1993)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. I. The *IUE* Campaign. *C. M. Urry, L. Maraschi, R. Edelson, A. Koratkar, J. Krolik, G. Madejski, E. Pian, G. Pike, G. Reichert, A. Treves, W. Wamsteker, R. Bohlin, J. Bregman, W. Brinkmann, L. Chiappetti, T. Courvoisier, A. V. Filippenko, H. Fink, I. M. George, Y. Kondo, P. G. Martin, H. R. Miller, P. O'Brien, J. M. Shull, M. Sitko, A. E. Szymkowiak, G. Tagliaferri, S. Wagner, & R. Warwick.* 411, 614, 137-C9 (1993)

A 20 Centimeter VLA Survey of Abell Clusters of Galaxies. III. Images and Optical Identifications. *Frazer N. Owen, Richard A. White, & JingPing Ge.* 87, 135, 28-E5 (1993)

The Case for an Optically Thin Thermal Big Blue Bump. *Richard Barvainis.* 412, 513, 150-A10 (1993)

Ten New BL Lacertae Objects Discovered by an Efficient X-Ray/Radio/Optical Technique. *Jonathan F. Schachter, John T. Stocke, Eric Perlman, Martin Elvis, Ron Remillard, Arno Granados, Jane Luu, John P. Huchra, Roberta Humphreys, C. Megan Urry, & John Wallin.* 412, 541, 150-D9 (1993)

Dynamical and Radiative Effects of Ultrarelativistic Hadronic Interactions in Active Galactic Nuclei. *I. E. Ekejiuba & P. N. Okeke.* 413, 110, 157-D11 (1993)

X-Ray Spectra from Two-Phase Accretion Disks. *Francesco Haardt & Laura Maraschi.* 413, 507, 162-G3 (1993)

The "Baldwin Effect" in Wolf-Rayet Stars. *Patrick Morris, Peter S. Conti, Henny J. G. L. M. Lamers, & Gloria Koenigsberger.* 414, L25, 175-E7 (1993)

Active Galactic Nuclei Make the Cosmic X-Ray Background. *Andrzej A. Zdziarski, Piotr T. Życki, & Julian H. Krolik.* 414, L81, 185-E8 (1993)

The Highly Polarized Hidden Quasar IRAS 09104+4109: A Double-lobed Radio Source in a Rich Cluster. *Dean C. Hines & Beverley J. Wills.* 415, 82, 186-A10 (1993)

A Masing [Fe XI] Line. *G. J. Ferland.* 88, 49, 40-F13 (1993)

Excitation Rate Coefficients and Line Ratios for the Optical and Ultraviolet Transitions in S II. *Wei Cai & Anil K. Pradhan.* 88, 329, 44-C7 (1993)

Polarization Changes of Radiation through Stimulated Raman Scattering. *R. T. Gangadhara & V. Krishan.* 415, 505, 194-B6 (1993)

Lyman-Alpha Emission from Galaxies. *Stéphane Charlot & S. Michael Fall.* 415, 580, 195-A13 (1993)

CO Emission in the Radio-loud Quasar 3C 48. *N. Z. Scoville, S. Padin, D. B. Sanders, B. T. Soifer, & M. S. Yun.* 415, L75, 199-E7 (1993)

Stellar Mass Loss in Elliptical Galaxies and the Fueling of Active Galactic Nuclei. *Paolo Padovani & Francesca Matteucci.* 416, 26, 201-D2 (1993)

Radio and Near-Infrared [Fe II] Emission from Active Galaxies. *Duncan A. Forbes & Martin J. Ward.* 416, 150, 202-G12 (1993)

Model for the High-Energy Emission from Blazars. *Charles D. Dermer & Reinhard Schlickeiser.* 416, 458, 209-A11 (1993)

Structure Function Analysis of High Radio Frequency Variability in the Metsähovi Monitoring Sample of Active Galactic Nuclei. *M. Lainela & E. Valtaoja.* 416, 485, 209-C12 (1993)

A Reevaluation of the Excitation Mechanism of LINERs. *Luis C. Ho, Alexei V. Filippenko, & Wallace L. W. Sargent.* 417, 63, 217-G8 (1993)

Contributions of Starburst Galaxies and Reflection-dominated Active Galactic Nuclei to the Cosmic X-Ray Background. *Paul M. Ricker & P. Mészáros.* 418, 49, 231-F8 (1993)

A Study of a Homogeneous Sample of Optically Selected Active Galactic Nuclei. III. Optical Observations. *G. L. Granato, V. Zitelli, F. Bonoli, L. Danese, C. Bonoli, & F. Delpino.* 89, 35, 49-D9 (1993)

New Evidence for an Anisotropic Radiation Field in NGC 5252. *M. Almudena Prieto & Wolfram Freudling.* 418, 668, 240-G2 (1993)

Infrared Spectra of Obscuring Dust Tori around Active Galactic Nuclei. II. Comparison with Observations. *Edward A. Pier & Julian H. Krolik.* 418, 673, 240-G10 (1993)

Search for Emission of Ultra–High-Energy Radiation from Active Galactic Nuclei. *D. E. Alexandreas, G. E. Allen, D. Berley, S. Biller, R. L. Burman, M. Cavalli-Sforza, C. Y. Chang, M. L. Chen, P. Chumney, D. Coyne, C. Dion, G. M. Dion, D. Dorfan, R. W. Ellsworth, J. A. Goodman, T. J. Haines, C. M. Hoffman, L. Kelley, S. Klein, D. E. Nagle, S. C. Schaller, R. Schnee, A. Shoup, C. Sinnis, M. J. Stark, D. D. Weeks, D. A. Williams, J.-P. Wu, T. Yang, G. B. Yodh, & W. Zhang (The CYGNUS Collaboration).* 418, 832, 242-G11 (1993)

Vertical Structure and Emission Spectrum of an Accretion Disk around a Massive Black Hole. *Toshiya Shimura & Fumio Takahara.* 419, 78, 247-B3 (1993)

The Wavelength Dependence of Polarization of Active Galaxies and Quasars. *Wayne Webb, Matthew Malkan, Gary Schmidt, & Chris Impey.* 419, 494, 253-G12 (1993)

The Ionization Cones in the Seyfert Galaxy NGC 5728. *A. S. Wilson, J. A. Braatz, T. M. Heckman, J. H. Krolik, & G. K. Miley.* 419, L61, 259-C7 (1993)

The Ultraviolet Emission Properties of Five Low-Redshift Active Galactic Nuclei at High Signal-to-Noise Ratio and Spectral Resolution. *Ari Laor, John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, Richard F. Green, & George F. Hartig.* 420, 110, 2-C12 (1994)

ROSAT Observations of X-Ray–selected Active Galactic Nuclei. *R. J. Thompson, Jr., E. M. Puchnarewicz, F. A. Córdova, & K. O. Mason.* 420, 136, 2-F1 (1994)

X-Ray Continuum and Iron K Emission Line from the Radio Galaxy 3C 390.3. *M. Inda, K. Makishima, Y. Kohmura, M. Tashiro, T. Ohashi, P. Barr, K. Hayashida, G. G. C. Palumbo, G. Trinchieri, M. Elvis, & G. Fabbiano.* 420, 143, 2-F9 (1994)

Infrared Observations of the $z = 3.8$ Radio Galaxy 4C 41.17, with the W. M. Keck Telescope. *James R. Graham, K. Matthews, B. T. Soifer, J. E. Nelson, W. Harrison, J. G. Jernigan, S. Lin, G. Neugebauer, G. Smith, & C. Ziomkowski.* 420, L5, 7-B1 (1994)

Extended and Compact X-Ray Emission in Powerful Radio Galaxies. *D. M. Worrall, C. R. Lawrence, T. J. Pearson, & A. C. S. Readhead.* 420, L17, 7-C11 (1994)

Stimulated Raman Scattering as an Explanation for the Extreme High-Velocity Features of Water Maser Emission. *Shuji Deguchi.* 420, 551, 9-D11 (1994)

Optical Caustics in a Kerr Spacetime and the Origin of Rapid X-Ray Variability in Active Galactic Nuclei. *Kevin P. Rauch & Roger D. Blandford.* 421, 46, 16-F1 (1994)

Near-Infrared Spectroscopic Imaging of the Circumnuclear Environment of NGC 1068. *M. Blietz, M. Cameron, S. Drapatz, R. Genzel, A. Krabbe, P. van der Werf, A. Sternberg, & M. Ward.* 421, 92, 17-B13 (1994)

Double-peaked Emission Lines in Active Galactic Nuclei. *Michael Eracleous & Jules P. Halpern.* 90, 1, 1-B1 (1994)

3.3 Micron Emission Feature in Infrared Galaxies. *Kohei Mizutani, Hiroshi Suto, & Toshinori Maihara.* 421, 475, 24-B1 (1994)

Relativistic Precession of the Orbit of a Star near a Supermassive Black Hole. *V. Karas & D. Vokrouhlický.* 422, 208, 32-F6 (1994)

The Aftermath of Tidal Disruption: The Dynamics of Thin Gas Streams. *Christopher S. Kochanek.* 422, 508, 38-B11 (1994)

High-Energy Gamma-Ray Observations of Active Galaxies. *Carl E. Fichtel.* 90, 917, 15-B12 (1994)

High-Energy Radiation from Active Galactic Nuclei. *Marek Sikora.* 90, 923, 15-C7 (1994)

Plasma Mechanisms for Variability in Active Galactic Nuclei. *Vinod Krishan & Paul J. Wiita.* 423, 172, 48-B13 (1994)

Do the More Powerful Monsters Live in the More Actively Star-forming Host Galaxies? *Toru Yamada.* 423, L27, 53-D11 (1994)

Two-Phase Model of Accretion Disks: Pressure Balance. *Masaaki Kusunose & Shin Mineshige.* 423, 600, 56-A1 (1994)

New Infrared Observations of Seyfert 2 Galaxies and Unification Theories. *M. Ruiz, G. H. Rieke, & G. D. Schmidt.* 423, 608, 56-A11 (1994)

Application of the Loh-Spillar Cosmological Test to Quasars. *David Schade & F. D. A. Hartwick.* 423, L85, 60-B13 (1994)

Apparent Milliarcsecond Sizes of Active Galactic Nuclei and the Geometry of the Universe. *L. I. Gurvits.* 425, 442, 87-C1 (1994)

Evidence for Two Classes of Parsec-Scale Radio Double Source in Active Galactic Nuclei. *J. E. Conway, S. T. Myers, T. J. Pearson, A. C. S. Readhead, S. C. Unwin, & W. Xu.* 425, 568, 88-F10 (1994)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. V. Variability of the Ultraviolet Continuum and Emission Lines of NGC 3783. *G. A. Reichert, P. M. Rodríguez-Pascual, D. Alloin, J. Clavel, D. M. Crenshaw, G. A. Kriss, J. H. Krolik, M. A. Malkan, H. Netzer, B. M. Peterson, W. Wamsteker, A. Altamore, B. Altieri, K. S. Anderson, J. H. Blackwell, Jr., C. Boisson, N. Brosch, T. E. Carone, M. Dietrich, M .N. England, I. N. Evans, A. V. Filippenko, C. M. Gaskell, M. Goad, P. M. Gondhalekar, K. Horne, D. Kazanas, W. Kollatschny, A. P. Koratkar, K. T. Korista, G. M. MacAlpine, D. Maoz, T. Mazeh, B. McCollum, H. R. Miller, C. Mendes de Oliveira, P. T. O'Brien, M. G. Pastoriza, D. Pelat, E. Pérez, G. C. Perola, R. W. Pogge, R. L. Ptak, M. C. Recondo-González, J. Rodríguez-Espinosa, E. I. Rosenblatt, A. C. Sadun, M. Santos-Lleó, J. C. Shields, C. R. Shrader, J. M. Shull, S. M. Simkin, M. L. Sitko, M. A. J. Snijders, L. S. Sparke, G. M. Stirpe, R. Stoner, T. Storchi-Bergmann, W.-H. Sun, T. Wang, W. F. Welsh, R. J. White, C. Winge, & W. Zheng.* 425, 582, 89-A1 (1994)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VI. Variability of NGC 3783 from Ground-based Data. *G. M. Stirpe, C. Winge, B. Altieri, D. Alloin, E. L. Aguero, G. C. Anupama, R. Ashley, R. Bertram, J. H. Calderon, R. M. Catchpole, R. L. M. Corradi, E. Covino, H. A. Dottori, M. W. Feast, K. K. Ghosh, R. Gil Hutton, I. S. Glass, E. K. Grebel, L. Jorda, C. Koen, C. D. Laney, M. Maia, F. Marang, Y. D. Mayya, N. Morrell, Y. Nakada, M. G. Pastoriza, A. K. Pati, D. Pelat, B. M. Peterson, T. P. Prabhu, G. Roberts, R. Sagar, I. Salamanca, K. Sekiguchi, T. Storchi-Bergmann, A. Subramaniam, H. van Winckel, F. van Wyk, M. Villada, R. M. Wagner, P. A. Whitelock, H. Winkler, J. Clavel, M. Dietrich, W. Kollatschny, P. T. O'Brien, G. C. Perola, M. C. Recondo-González, P. Rodríguez-Pascual, & M. Santos-Lleo.* 425, 609, 89-C1 (1994)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VII. Variability of the Optical Spectrum of NGC 5548 over 4 Years. *B. M. Peterson, P. Berlind, R. Bertram, N. G. Bochkarev, D. Bond, M. S. Brotherton, J. R. Busler, K. K. Chuvaev, R. D. Cohen, M. Dietrich, M. Elvis, A. V. Filippenko, C. B. Foltz, P. M. Garnavich, L. C. Ho, E. Horine, K. Horne, J. P. Huchra, W. Kollatschny, K. T. Korista, M. A. Malkan, T. Matheson, M. Mignoli, S. L. Morris, L. Nazarova, J. Penfold, J. Peters, R. W. Pogge, V. I. Pronik, B. Rush, S. G. Sergeev, A. I. Shapovalova, J. C. Shields, G. M. Stirpe, S. Tokarz, R. M. Wagner, R. J. Weymann, R. J. White, B. J. Wilkes, D. Wills, B. J. Wills, C. Winge, & P. F. Younger.* 425, 622, 89-D1 (1994)

An Optical Study of Compact Steep-Spectrum Radio Sources. I. The Spectroscopic Data. *Richard Gelderman & Mark Whittle.* 91, 491, 26-B1 (1994)

Equipartition Brightness Temperature and the Inverse Compton Catastrophe. *Anthony C. S. Readhead.* 426, 51, 96-F6 (1994)

Is the High-Energy Emission from Centaurus A Compton-scattered Jet Radiation? *J. G. Skibo, C. D. Dermer, & R. L. Kinzer.* 426, L23, 103-C11 (1994)

The Nature of the Dense Obscuring Material in the Nucleus of NGC 1068. *L. J. Tacconi, R. Genzel, M. Blietz, M. Cameron, A. I. Harris, & S. Madden.* 426, L77, 109-D11 (1994)

Orientation Modeling of Radio Galaxy and Quasar Properties: Evidence for a Unified Model. *Matthew L. Lister, J. B. Hutchings, & Ann C. Gower.* 427, 125, 111-D13 (1994)

Multiple X-Ray Emission Components in Low-Power Radio Galaxies. *D. M. Worrall & M. Birkinshaw.* 427, 134, 111-E10 (1994)

Obscuration, Orientation, and the Infrared Properties of Radio-loud Active Galaxies. *Timothy M. Heckman, Christopher P. O'Dea, Stefi A. Baum, & Eija Laurikainen.* 428, 65, 129-A11 (1994)

A Diagnosis of Dust in Active Galactic Nuclei through Analysis of the Infrared Bump. *S. M. Viegas & M. Contini.* 428, 113, 129-E9 (1994)

Nonthermal Pair Models, Reflection, and X-Ray Spectral Variability of Active Galaxies. *P. Grandi, C. Done, & C. M. Urry.* 428, 599, 137-F5 (1994)

Multifrequency Emission from Hot Ion Disks. *Michael Maisack, Peter A. Becker, & Menas Kafatos.* 92, 533, 38-G13 (1994)

Multiwavelength Properties of Active Galactic Nuclei. *Thierry J.-L. Courvoisier.* 92, 579, 39-E4 (1994)

The Nonthermal Pair Model for the X-Ray and Gamma-Ray Spectra from Active Galactic Nuclei. *Roland Svensson.* 92, 585, 39-E12 (1994)

Gamma-Ray Properties of Active Galactic Nuclei. *V. Schönfelder.* 92, 593, 39-F8 (1994)

Interaction of Ultraviolet and X-Ray Radiation with Gamma Rays Produced by a Jet in Active Galactic Nuclei. *Magda Zbyszewska.* 92, 615, 40-A12 (1994)

Do Active Galactic Nuclei Produce the Cosmic X-Ray Background? *Amri Wandel.* 92, 633, 40-C10 (1994)

Search for 10 TeV Gamma-Ray Emission from Active Galactic Nuclei with the Tibet Air Shower Array. *M. Amenomori, Z. Cao, B. Z. Dai, L. K. Ding, Y. X. Feng, Z. Y. Feng, K. Hibino, N. Hotta, Q. Huang, A. X. Huo, H. Y. Jia, G. Z. Jiang, S. Q. Jiao, F. Kajino, K. Kasahara, Labaciren, S. M. Liu, D. M. Mei, L. Meng, X. R. Meng, Mimaciren, K. Mizutani, J. Mu, H. Nanjo, M. Nishizawa, A. Oguro, M. Ohnishi, I. Ohta, T. Ouchi, J. R. Ren, To. Saito, M. Sakata, Z. Z. Shi, M. Shibata, T. Shirai, H. Sugimoto, X. X. Sun, K. Taira, Y. H. Tan, N. Tateyama, S. Torii, H. Wang, C. Z. Wen, Y. Yamamoto, G. C. Yu, P. Yuan, T. Yuda, C. S. Zhang, H. M. Zhang, L. Zhang, Zhasang, Zhaxiciren, & W. D. Zhou (The Tibet ASγ Collaboration).* 429, 634, 153-E11 (1994)

The Byurakan Classification and the Far-Infrared Radiation of Spiral Galaxies. *H. M. Tovmassian.* 430, 139, 160-G3 (1994)

The Optical–Ultraviolet–Gamma-Ray Spectrum of 3C 279. *Hagai Netzer, D. Kazanas, Beverley J. Wills, D. Wills, Mingsheng Han, M. S. Brotherton, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 430, 191, 161-D10 (1994)

The Blazar Gamma-Ray Luminosity Function and the Diffuse Extragalactic Gamma-Ray Background. *M. H. Salamon & F. W. Stecker.* 430, L21, 165-D1 (1994)

Detection of a VLBI Counterjet in NGC 1275: A Possible Probe of the Parsec-Scale Accretion Region. *R. C. Walker, J. D. Romney, & J. M. Benson.* 430, L45, 165-F13 (1994)

The Properties of X-Ray–selected Active Galactic Nuclei. III. The Radio-quiet versus Radio-loud Samples. *Roberto Della Ceca, Giovanni Zamorani, Tommaso Maccacaro, Anna Wolter, Richard Griffiths, John T. Stocke, & Giancarlo Setti.* 430, 533, 168-D1 (1994)

Ultraviolet Imaging of the AGN + Starburst Galaxy NGC 1068. *Susan G. Neff, Michael N. Fanelli, Laura J. Roberts, Robert W. O'Connell, Ralph Bohlin, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 430, 545, 168-E1 (1994)

X-Ray Observations of Cygnus A Using the *Ginga* Satellite. *Shiro Ueno, Katsuji Koyama, Minoru Nishida, Shigeo Yamauchi, & Martin J. Ward.* 431, L1, 182-C1 (1994)

Weak Soft X-Ray Excesses Need Not Result from the High-Frequency Tail of the Optical/Ultraviolet Bump in Active Galactic Nuclei. *Bożena Czerny & Piotr T. Życki.* 431, L5, 182-C7 (1994)

Compton Scattering of the Microwave Background by Quasar-blown Bubbles. *G. Mark Voit.* 432, L19, 199-C13 (1994)

On the Origin of Obscuring Tori in the Galactic Nucleus and Active Galactic Nuclei. *Insu Yi, George B. Field, & Eric G. Blackman.* 432, L31, 199-E2 (1994)

Compact Radio Cores in Seyfert Galaxies. *A. L. Roy, R. P. Norris, M. J. Kesteven, E. R. Troup, & J. E. Reynolds.* 432, 496, 202-B7 (1994)

Radiative Excitation of Molecules near Powerful Compact Radio Sources. *Philip R. Maloney, Mitchell C. Begelman, & Martin J. Rees.* 432, 606, 203-E3 (1994)

Two-sided Ejection in Powerful Radio Sources: The Compact Symmetric Objects. *P. N. Wilkinson, A. G. Polatidis, A. C. S. Readhead, W. Xu, & T. J. Pearson.* 432, L87, 206-E4 (1994)

Emergence of Double-peaked Emission Lines in the Broad-Line Radio Galaxy Pictor A. *Jules P. Halpern & Michael Eracleous.* 433, L17, 214-F5 (1994)

Star-Disk Collisions and the Origin of the Broad Lines in Quasars. *Wojciech H. Zurek, Aneta Siemiginowska, & Stirling A. Colgate.* 434, 46, 225-G2 (1994)

A Statistical Analysis of the Broadband 0.1 to 3.5 keV Spectral Properties of X-Ray–selected Active Galactic Nuclei. *R. J. Thompson, Jr., & F. A. Córdova.* 434, 54, 225-G13 (1994)

High-Resolution Optical and UV Observations of the Centers of NGC 1316 and NGC 3998 with the *Hubble Space Telescope*. *G. Fabbiano, C. Fassnacht, & G. Trinchieri.* 434, 67, 226-B1 (1994)

Active Galactic Nuclei. V. X-Ray Variability and the Black Hole Cluster Paradigm. *A. G. Pacholczyk & W. R. Stoeger, S.J.* 434, 435, 233-F9 (1994)

Disk-driven Hydromagnetic Winds as a Key Ingredient of Active Galactic Nuclei Unification Schemes. *Arieh Königl & John F. Kartje.* 434, 446, 233-G9 (1994)

Dynamo Generation of Magnetic Fields in Accretion Disks. *Arun V. Mangalam & K. Subramanian.* 434, 509, 234-F10 (1994)

High-Energy Spectra of Active Galactic Nuclei. I. The Catalog. *G. Malaguti, L. Bassani, & E. Caroli.* 94, 517, 59-B7 (1994)

Emission-Line Profiles from a Relativistic Accretion Disk and the Role of Its Multiple Images. *G. Bao, P. Hadrava, & E. Østgaard.* 435, 55, 244-A8 (1994)

X-Ray Color Analysis of the Spectra of Active Galactic Nuclei. *Hagai Netzer, T. J. Turner, & Ian M. George.* 435, 106, 244-G1 (1994)

Accretion Disk Coronae in High-Luminosity Systems. *Stephen D. Murray, John I. Castor, Richard I. Klein, & Christopher F. McKee.* 435, 631, 254-F13 (1994)

The 1993 Multiwavelength Campaign on 3C 279: The Radio to Gamma-Ray Energy Distribution in Low State. *L. Maraschi, P. Grandi, C. M. Urry, A. E. Wehrle, G. M. Madejski, H. H. Fink, G. Ghisellini, R. C. Hartman, A. P. Koratkar, C. von Montigny, E. Pian, H. C. Thomas, A. Treves, M. F. Aller, H. D. Aller, C. D. Bailyn, T. J. Balonek, H. Bock, W. Collmar, I. S. Glass, S. J. Litchfield, I. M. McHardy, R. Méndez, J. Pesce, H. P. Reuter, E. I. Robson, H. Steppe, J. A. Stevens, H. Teräsranta, & S. J. Wagner.* 435, L91, 259-D8 (1994)

The Radio Emission from the Ultraluminous Far-Infrared Galaxy NGC 6240. *Edward J. M. Colbert, Andrew S. Wilson, & Jonathan Bland-Hawthorn.* 436, 89, 262-D12 (1994)

Fe K Emission from the Hidden Quasar IRAS P09104+4109. *A. C. Fabian, Y. Shioya, K. Iwasawa, K. Nandra, C. Crawford, R. Johnstone, H. Kunieda, R. McMahon, K. Makishima, T. Murayama, T. Ohashi, Y. Tanaka, Y. Taniguchi, & Y. Terashima.* 436, L51, 269-B9 (1994)

An *ASCA* GIS Spectrum of S5 0014+813 at $z = 3.384$. *Martin Elvis, M. Matsuoka, A. Siemiginowska, F. Fiore, T. Mihara, & W. Brinkmann.* 436, L55, 269-C3 (1994)

The X-Ray Spectrum of the Highly Polarized Quasar PKS 1502+106. *I. M. George, K. Nandra, T. J. Turner, & A. Celotti.* 436, L59, 269-C11 (1994)

Environmental Effects on Local Active Galactic Nuclei. *Pierluigi Monaco, Giuliano Giuricin, Fabio Mardirossian, & Marino Mezzetti.* 436, 576, 273-D11 (1994)

Multiwavelength Tests of the Dusty Torus Model for Seyfert Galaxies. *John S. Mulchaey, Anuradha Koratkar, Martin J. Ward, Andrew S. Wilson, Mark Whittle, Robert R. J. Antonucci, Anne L. Kinney, & Todd Hurt.* 436, 586, 273-E10 (1994)

Black Hole Accretion Disks with Coronae. *Roland Svensson & Andrzej A. Zdziarski.* 436, 599, 273-F13 (1994)

Implosive Accretion and Outbursts of Active Galactic Nuclei. *R. V. E. Lovelace, M. M. Romanova, & W. I. Newman.* 437, 136, 285-A13 (1994)

X-Ray Reflection from Photoionized Media in Active Galactic Nuclei. *Piotr T. Życki, Julian H. Krolik, Andrzej A. Zdziarski, & Timothy R. Kallman.* 437, 597, 294-A6 (1994)

Non-LTE Effects on the Strength of the Lyman Edge in Quasar Accretion Disks. *H. Störzer, P. H. Hauschildt, & F. Allard.* 437, L91, 298-G8 (1994)

The Discovery of Five New H_2O Megamasers in Active Galaxies. *J. A. Braatz, A. S. Wilson, & C. Henkel.* 437, L99, 299-A8 (1994)

The Difference between Radio-loud and Radio-quiet Active Galaxies. *A. S. Wilson & E. J. M. Colbert.* 438, 62, 2-B10 (1995)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. IV. Multiwavelength Analysis. *R. Edelson, J. Krolik, G. Madejski, L. Maraschi, G. Pike, C. M. Urry, W. Brinkmann, T. J.-L. Courvoisier, J. Ellithorpe, K. Horne, A. Treves, S. Wagner, W. Wamsteker, R. Warwick, H. D. Aller, M. F. Aller, M. Ashley, A. Blecha, P. Bouchet, P. Bratschi, J. N. Bregman, M. Carini, A. Celotti, M. Donahue, E. Feigelson, A. V. Filippenko, H. Fink, I. George, I. Glass, J. Heidt, J. Hewitt, P. Hughes, R. Kollgaard, Y. Kondo, A. Koratkar, K. Leighly, A. Marscher, P. G. Martin, T. Matheson, H. R. Miller, J. C. Noble, P. O'Brien, E. Pian, G. Reichert, J. M. Saken, J. M. Shull, M. Sitko, P. S. Smith, W.-H. Sun, & G. Tagliaferri.* 438, 120, 3-A4 (1995)

Pictor A: A New Double-peaked Emission-Line Quasar. *J. W. Sulentic, P. Marziani, T. Zwitter, & M. Calvani.* 438, L1, 9-E1 (1995)

The Relation between Dynamical Perturbations, Morphology, and Nuclear Activity in Spiral Galaxies. *Mariano Moles, Isabel Márquez, & Enrique Pérez.* 438, 604, 12-D13 (1995)

Elliptical Accretion Disks in Active Galactic Nuclei. *Michael Eracleous, Mario Livio, Jules P. Halpern, & Thaisa Storchi-Bergmann.* 438, 610, 12-E8 (1995)

Keck Observations of the Most Distant Galaxy: 8C 1435+63 at $z = 4.25$. *Hyron Spinrad, Arjun Dey, & James R. Graham.* 438, L51, 19-B1 (1995)

The Discovery of an O VII Emission Line in the *ASCA* Spectrum of the Seyfert Galaxy NGC 3783. *I. M. George, T. J. Turner, & H. Netzer.* 438, L67, 19-D4 (1995)

Active Galaxies Observed during the *Extreme Ultraviolet Explorer* All-Sky Survey. *H. L. Marshall, A. Fruscione, & T. E. Carone.* 439, 90, 22-D6 (1995)

A Helical Jet in the Orthogonally Misaligned BL Lacertae Object Markarian 501 (B1652+398). *J. E. Conway & J. M. Wrobel.* 439, 98, 22-E3 (1995)

Detection of Compact Ultraviolet Nuclear Emission in LINER Galaxies. *Dan Maoz, Alexei V. Filippenko, Luis C. Ho, Hans-Walter Rix, John N. Bahcall, Donald P. Schneider, & F. Duccio Macchetto.* 440, 91, 42-D9 (1995)

Hot Accretion Disks with Nonthermal Pairs. *Masaaki Kusunose & Shin Mineshige.* 440, 100, 42-E7 (1995)

Emission-Line Profiles from Self-gravitating Thin Disks. *V. Karas, A. Lanza, & D. Vokrouhlický.* 440, 108, 42-F4 (1995)

Rapid Polarization Variability in Intense Sources. *R. T. Gangadhara & V. Krishan.* 440, 116, 42-G1 (1995)

Pure Scattered Emission as an Explanation for the Hard X-Ray Spectra of Active Galactic Nuclei. *E. Jourdain & J. P. Roques.* 440, 128, 43-A2 (1995)

Low-Luminosity Active Galaxies: Are They Similar to Seyfert Galaxies? *A. Koratkar, S. E. Deustua, T. Heckman, A. V. Filippenko, L. C. Ho, & M. Rao.* 440, 132, 43-A9 (1995)

Discovery of a $z = 2.76$ Dusty Radio Galaxy? *Arjun Dey, Hyron Spinrad, & Mark Dickinson.* 440, 515, 50-D5 (1995)

High-Energy Gamma-Ray Emission from Active Galaxies: EGRET Observations and Their Implications. *C. von Montigny, D. L. Bertsch, J. Chiang, B. L. Dingus, J. A. Esposito, C. E. Fichtel, J. M. Fierro, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, P. L. Nolan, H. D. Radecke, E. Schneid, P. Sreekumar, D. J. Thompson, & T. Willis.* 440, 525, 50-E4 (1995)

Relation between O VI Emission and X-Ray Intensity in Active Galactic Nuclei. *Wei Zheng, Gerard A. Kriss, & Arthur F. Davidsen.* 440, 606, 51-E2 (1995)

Pair Cascades in Extragalactic Jets. I. Gamma Rays. *R. D. Blandford & A. Levinson.* 441, 79, 60-D11 (1995)

Optically Thin Broad-Line Clouds in Active Galactic Nuclei. *Joseph C. Shields, Gary J. Ferland, & Bradley M. Peterson.* 441, 507, 69-A13 (1995)

Relativistic Hadrons and the Origin of Relativistic Outflows in Active Galactic Nuclei. *John Contopoulos & Demosthenes Kazanas.* 441, 521, 69-C2 (1995)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. X. Galactic H I 21 Centimeter Emission toward 143 Quasars and Active Galactic Nuclei. *Felix J. Lockman & Blair D. Savage.* 97, 1, 11-B1 (1995)

Multifrequency Observations of Kaz 102 during the *ROSAT* All-Sky Survey. *A. Treves, H. H. Fink, M. Malkan, S. J. Wagner, B. J. Wilkes, F. Baganoff, J. Heidt, E. Pian, A. Sadun, S. Schaeidt, J. T. Bonnell, W. Brinkmann, D. de Martino, L. Maraschi, E. G. Tanzi, M. H. Ulrich, & W. Wamsteker.* 442, 589, 88-A9 (1995)

ROSAT Observations of Blazars from a Polarized Radio-selected Sample. *L. Maraschi, G. Fossati, G. Tagliaferri, & A. Treves.* 443, 578, 105-G4 (1995)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VIII. An Intensive *HST*, *IUE*, and Ground-based Study of NGC 5548. *K. T. Korista, D. Alloin, P. Barr, J. Clavel, R. D. Cohen, D. M. Crenshaw, I. N. Evans, K. Horne, A. P. Koratkar, G. A. Kriss, J. H. Krolik, M. A. Malkan, S. L. Morris, H. Netzer, P. T. O'Brien, B. M. Peterson, G. A. Reichert, P. M. Rodríguez-Pascual, W. Wamsteker, K. S. J. Anderson, D. J. Axon, E. Benitez, P. Berlind, R. Bertram, J. H. Blackwell, Jr., N. G. Bochkarev, C. Boisson, M. Carini, R. Carrillo, T. E. Carone, F.-Z. Cheng, J. A. Christensen, K. K. Chuvaev, M. Dietrich, J. J. Dokter, V. Doroshenko, D. Dultzin-Hacyan, M. N. England, B. R. Espey, A. V. Filippenko, C. M. Gaskell, M. R. Goad, L. C. Ho, J. P. Huchra, X. J. Jiang, S. Kaspi, W. Kollatschny, A. Laor, J.-P. Luminet, G. M. MacAlpine, J. W. MacKenty, Yu. F. Malkov, D. Maoz, P. G. Martin, T. Matheson, B. McCollum, N. Merkulova, L. Metik, M. Mignoli, H. R. Miller, M. G. Pastoriza, D. Pelat, J. Penfold, M. Perez, G. C. Perola, J. L. Persaud, J. Peters, R. Pitts, R. W. Pogge, I. Pronik, V. I. Pronik, R. L. Ptak, L. Rawley, M. C. Recondo-González, J. M. Rodríguez-Espinosa, W. Romanishin, A. C. Sadun, I. Salamanca, M. Santos-Lleó, K. Sekiguchi, S. G. Sergeev, A. I. Shapovalova, J. C. Shields, C. Shrader, J. M. Shull, N. A. Silbermann, M. L. Sitko, D. R. Skillman, H. A. Smith, S. M. Smith, M. A. J. Snijders, L. S. Sparke, G. M. Stirpe, R. E. Stoner, W.-H. Sun, U. Thiele, S. Tokarz, Z. I. Tsvetanov, D. A. Turnshek, S. Veilleux, R. M. Wagner, S. J. Wagner, I. Wanders, T. Wang, W. F. Welsh, R. J. Weymann, R. J. White, B. J. Wilkes, B. J. Wills, C. Winge, H. Wu, & Z. L. Zou.* 97, 285, 15-F7 (1995)

Spectroscopy of Luminous Infrared Galaxies at 2 Microns. I. The Ultraluminous Galaxies ($L_{IR} \geq 10^{12} L_{\odot}$). *Jeffrey D. Goldader, R. D. Joseph, René Doyon, & D. B. Sanders.* 444, 97, 114-F2 (1995)

Optical Continuum Signature of the Jet in the Spiral Galaxy NGC 4258. *Yvan Dutil, Dominique Beauchamp, & Jean-René Roy.* 444, L85, 130-E8 (1995)

A Duty Cycle Hypothesis for the Central Engines of LINERs. *Michael Eracleous, Mario Livio, & Luc Binette.* 445, L1, 140-B1 (1995)

Gradual Approach to Coalescence for Compact Stars Orbiting Massive Black Holes. *Dieter Hils & Peter L. Bender.* 445, L7, 140-B10 (1995)

Optical Spectroscopy of Luminous Infrared Galaxies. II. Analysis of the Nuclear and Long-Slit Data. *S. Veilleux, D.-C. Kim, D. B. Sanders, J. M. Mazzarella, & B. T. Soifer.* 98, 171, 23-A8 (1995)

High-Resolution Near-Infrared Spectra of NGC 4151: Line and Continuum Analysis. *Rodger I. Thompson.* 445, 700, 144-G5 (1995)

Infrared Coronal Line Widths in Type 1 Seyfert Galaxies. *E. Giannuzzo, G. H. Rieke, & M. J. Rieke.* 446, L5, 160-B13 (1995)

The 10 Micron Emission of Seyfert Nuclei. *Giuliano Giuricin, Fabio Mardirossian, & Marino Mezzetti.* 446, 550, 163-F7 (1995)

On the Beaming Statistics of Gamma-Ray Sources. *Charles D. Dermer.* 446, L63, 170-E8 (1995)

Optical Structure and Polarization of the Western Hot Spot of Pictor A. *R. C. Thomson, P. Crane, & C. D. Mackay.* 446, L93, 171-B12 (1995)

Two Classes of Gamma-Ray–emitting Active Galactic Nuclei. *Charles D. Dermer & Neil Gehrels.* 447, 103, 173-E7 (1995)

QSO Broad Emission Line Asymmetries: Evidence of Gravitational Redshift? *Michael R. Corbin.* 447, 496, 182-F2 (1995)

Relativistic Electron Energy Spectra of Active Galactic Nuclei in the Thin Synchrotron Limit. I. The Method. *Luis Salas, Irene Cruz-González, & Luis Carrasco.* 447, 505, 182-G1 (1995)

Observable Properties of X-Ray–heated Winds in Active Galactic Nuclei: Warm Reflectors and Warm Absorbers. *Julian H. Krolik & Gerard A. Kriss.* 447, 512, 182-G11 (1995)

The Nuclear Energy Sources Powering Bright Infrared-selected Galaxies. *M. L. N. Ashby, J. R. Houck, & K. Matthews.* 447, 545, 183-C9 (1995)

The *Hubble Space Telescope* Sample of Radio-loud Quasars: The Lyα/Hβ Ratio. *Hagai Netzer, M. S. Brotherton, Beverley J. Wills, Mingsheng Han, D. Wills, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 448, 27, 192-E10 (1995)

Excitation of Activity in Galaxies by Minor Mergers. *Lars Hernquist & J. Christopher Mihos.* 448, 41, 192-G1 (1995)

Collisions of Ellipticals and the Onset of Fanaroff-Riley Type I Radio Sources. *Luis Colina & Lourdes de Juan.* 448, 548, 202-C4 (1995)

A Search for Optically Quiet Quasars. *R. I. Kollgaard, E. D. Feigelson, S. A. Laurent-Muehleisen, H. Spinrad, A. Dey, & W. Brinkmann.* 449, 61, 211-A13 (1995)

Nuclear Rings and Mass Inflow in Hydrodynamic Simulations of Barred Galaxies. *B. Glenn Piner, James M. Stone, & Peter J. Teuben.* 449, 508, 219-G5 (1995)

Extended Molecular Gas in FSC 10214+4724. *N. Z. Scoville, M. S. Yun, R. L. Brown, & P. A. Vanden Bout.* 449, L109, 226-G2 (1995)

H I Absorption Toward the Nucleus of the Powerful Radio Galaxy Cygnus A: Evidence for an Atomic Obscuring Torus? *J. E. Conway & P. R. Blanco.* 449, L131, 227-C1 (1995)

The Soft X-Ray Properties of a Large Optical QSO Sample: *ROSAT* Observations of the Large Bright Quasar Survey. *Paul J. Green, Norbert Schartel, Scott F. Anderson, Paul C. Hewett, Craig B. Foltz, Wolfgang Brinkmann, Henner Fink, Joachim Trümper, & Bruce Margon.* 450, 51, 228-G1 (1995)

Compton Heating and Superthermal Electrons in Gamma-loud Active Galactic Nuclei. *Andrei M. Beloborodov & Andrei F. Illarionov.* 450, 64, 229-A3 (1995)

Photoevaporation of Dusty Clouds near Active Galactic Nuclei. *Edward A. Pier & G. Mark Voit.* 450, 628, 239-D13 (1995)

WFPC2 Images of Multiple Nuclei in Nearby Active Galactic Nuclei. *Varoujan Gorjian.* 450, L51, 244-E3 (1995)

Discovery of an Optical Synchrotron Jet in 3C 78. *William B. Sparks, Daniel Golombek, Stefi A. Baum, John Biretta, Sigrid de Koff, Ferdinando Macchetto, Patrick McCarthy, & George K. Miley.* 450, L55, 244-F1 (1995)

Stellar Contrails in Quasi-stellar Objects: The Origin of Broad Absorption Lines. *Nick Scoville & Colin Norman.* 451, 510; 254-C10 (1995)

OSSE Observations of Blazars. *K. McNaron-Brown, W. N. Johnson, G. V. Jung, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, C. D. Dermer, D. A. Grabelsky, W. R. Purcell, M. P. Ulmer, M. Kafatos, P. A. Becker, R. Staubert, & M. Maisack.* 451, 575, 255-B11 (1995)

Imaging Spectrophotometry of Markarian 573. *Richard W. Pogge & Michael M. De Robertis.* 451, 585, 255-C11 (1995)

The Evolution of Gamma-Ray–loud Active Galactic Nuclei. *J. Chiang, C. E. Fichtel, C. von Montigny, P. L. Nolan, & V. Petrosian.* 452, 156, 264-B12 (1995)

Testing Unified X-Ray/Ultraviolet Absorber Models with NGC 5548. *Smita Mathur, Martin Elvis, & Belinda Wilkes.* 452, 230, 265-C2 (1995)

When Is BL Lac Not a BL Lac? *R. C. Vermeulen, P. M. Ogle, H. D. Tran, I. W. A. Browne, M. H. Cohen, A. C. S. Readhead, G. B. Taylor, & R. W. Goodrich.* 452, L5, 269-C8 (1995)

The Nature of the Ultraviolet Continuum in Type 2 Seyfert Galaxies. *T. Heckman, J. Krolik, G. Meurer, D. Calzetti, A. Kinney, A. Koratkar, C. Leitherer, C. Robert, & A. Wilson.* 452, 549, 272-C3 (1995)

Models of the Optical/Ultraviolet Continuum Polarization in Active Galactic Nuclei: Implications for Unification Schemes. *John F. Kartje.* 452, 565, 272-D8 (1995)

Upper Limits on TeV Gamma-Ray Emission from Active Galactic Nuclei. *A. D. Kerrick, C. W. Akerlof, S. Biller, J. Buckley, D. A. Carter-Lewis, M. F. Cawley, M. Chantell, V. Connaughton, D. J. Fegan, S. Fennell, J. Gaidos, A. M. Hillas, P. W. Kwok, R. C. Lamb, T. Lappin, R. Lessard, J. McEnery, D. I. Meyer, G. Mohanty, J. Quinn, H. J. Rose, A. C. Rovero, G. Sembroski, M. S. Schubnell, M. Punch, T. C. Weekes, M. West, C. Wilson, & J. Zweerink.* 452, 588, 272-F10 (1995)

Revealing the Effects of Orientation in Composite Quasar Spectra. *Joanne C. Baker & Richard W. Hunstead.* 452, L95, 279-F1 (1995)

Dust Grains and the Luminosity of Circumnuclear Water Masers in Active Galaxies. *Alan J. Collison & William D. Watson.* 452, L103, 279-G3 (1995)

Can Dust Formation in Evolved Stars Be Suppressed near Active Galactic Nuclei? *T. W. Hartquist, R. H. Durisen, J. E. Dyson, J. M. C. Rawlings, D. A. Williams, & R. J. R. Williams.* 453, 77, 282-C3 (1995)

Implications of Gamma-Ray Transparency Constraints in Blazars: Minimum Distances and Gamma-Ray Collimation. *Peter A. Becker & Menas Kafatos.* 453, 83, 282-C12 (1995)

No X-Ray–luminous Starbursts in the *Einstein* Medium Sensitivity Survey, Either. *Jules P. Halpern, David J. Helfand, & Edward C. Moran.* 453, 611, 292-C10 (1995)

Multiwavelength Energy Distributions and Bolometric Luminosities of the 12 Micron Galaxy Sample. *Luigi Spinoglio, Matthew A. Malkan, Brian Rush, Luis Carrasco, & Elsa Recillas-Cruz.* 453, 616, 292-D4 (1995)

New Observations and a New Interpretation of CO(3–2) in IRAS F10214+4724. *D. Downes, P. M. Solomon, & S. J. E. Radford.* 453, L65, 298-B6 (1995)

The Iron Kα Line Profile in NGC 4151. *T. Yaqoob, R. Edelson, K. A. Weaver, R. S. Warwick, R. F. Mushotzky, P. J. Serlemitsos, & S. S. Holt.* 453, L81, 298-D8 (1995)

The Geometry and Kinematics of the Broad-Line Region in NGC 5548 from *HST* and *IUE* Observations. *Ignaz Wanders, Mike R. Goad, Kirk T. Korista, Bradley M. Peterson, Keith Horne, Gary J. Ferland, Anuradha P. Koratkar, Richard W. Pogge, & Joseph C. Shields.* 453, L87, 298-E2 (1995)

Low-Luminosity and Obscured Seyfert Nuclei in Nearby Galaxies. *R. Maiolino & G. H. Rieke.* 454, 95, 300-E4 (1995)

The Far-Ultraviolet Spectrum of NGC 4151 as Observed with the Hopkins Ultraviolet Telescope on Astro-2. *Gerard A. Kriss, Arthur F. Davidsen, Wei Zheng, Jeffrey W. Kruk, & Brian R. Espey.* 454, L7, 307-C11 (1995)

Far-Ultraviolet Spectrum of Fairall 9 with the Hopkins Ultraviolet Telescope. *Wei Zheng, Gerard A. Kriss, Arthur F. Davidsen, & Jeffrey W. Kruk.* 454, L11, 307-D4 (1995)

Faint Blue Objects at High Galactic Latitude. VII. Spectroscopy of Narrow-Line Objects and the Morphological Selection Criterion of the US Survey. *P. D. Usher, K. J. Mitchell, & K.-L. Huang.* 454, 654, 310-F4 (1995)

High-Energy Gamma Rays from PKS 1406−076 and the Observation of Correlated Gamma-Ray and Optical Emission. *Stefan J. Wagner, John R. Mattox, Ulrich Hopp, H. Bock, J. Heidt, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, P. Sreekumar, & D. J. Thompson.* 454, L97, 315-F4 (1995)

The Unusual X-Ray Collision Morphology of NGC 4782/4783 (3C 278). *Luis Colina & Kirk D. Borne.* 454, L101, 315-F11 (1995)

Detection of Extended Polarized Ultraviolet Radiation from the $z = 1.82$ Radio Galaxy 3C 256. *Buell T. Jannuzi, Richard Elston, Gary D. Schmidt, Paul S. Smith, & H. S. Stockman.* 454, L111, 316-A1 (1995)

Optical Detection of the Hidden Nuclear Engine in NGC 4258. *Belinda J. Wilkes, Gary D. Schmidt, Paul S. Smith, Smita Mathur, & Kim K. McLeod.* 455, L13, 324-D8 (1995)

An Alignment between Optical Continuum and Emission-Line Structures in the Circumnuclear Regions of Seyfert Galaxies. *John S. Mulchaey & Andrew S. Wilson.* 455, L17, 324-E1 (1995)

The Softest X-Ray Sources in the *ROSAT* Pointed Catalog: WGACAT. *K. P. Singh, P. Barrett, N. E. White, P. Giommi, & L. Angelini.* 455, 456, 328-C2 (1995)

Spectral Signatures of Fast Shocks. II. Optical Diagnostic Diagrams. *Michael A. Dopita & Ralph S. Sutherland.* 455, 468, 328-D5 (1995)

Hard X-Ray Emission from Extragalactic *IRAS* 12 Micron Sources: Constraints on the Unified Active Galactic Nucleus Model and the Synthesis of the X-Ray Background. *Xavier Barcons, Alberto Franceschini, Gianfranco De Zotti, Luigi Danese, & Takamitsu Miyaji.* 455, 480, 328-E7 (1995)

The Galaxy Component and Nuclear Flux Measurements of NGC 5548 from Direct Imaging. *W. Romanishin, T. J. Balonek, R. Ciardullo, H. R. Miller, B. M. Peterson, A. C. Sadun, G. M. Stirpe, K. Takagishi, B. W. Taylor, & V. Zitelli.* 455, 516, 329-B1 (1995)

The Iron L/K Emission-Line Ratio in Photoioinized Gases. *T. R. Kallman.* 455, 603, 330-C1 (1995)

The H_2O Megamasers in NGC 2639—Evidence for an Accretion Disk in a LINER Nucleus. *A. S. Wilson, J. A. Braatz, & C. Henkel.* 455, L127, 333-F12 (1995)

Identification and Spectroscopy of Radio Sources from the B3VLA Survey. *S. G. Djorgovski, D. Thompson, L. Maxfield, M. Vigotti, & G. Grueff.* 101, 255, 57-B1 (1995)

GALAXIES: BL LACERTAE OBJECTS: GENERAL

Optical and Radio Variability in Blazars. *Beth R. Hufnagel & Joel N. Bregman.* 386, 473, 31-C5 (1992)

A Survey of the Milliarcsecond Polarization Properties of BL Lacertae Objects at 5 GHz. *D. C. Gabuzda, T. V. Cawthorne, D. H. Roberts, & J. F. C. Wardle.* 388, 40, 49-E5 (1992)

The *Einstein* Slew Survey. *Martin Elvis, David Plummer, Jonathan Schachter, & G. Fabbiano.* 80, 257, 25-E9 (1992)

CCD Photometry of 14 BL Lacertae Objects and Theoretical Model. *G. Z. Xie, K. H. Li, F. K. Liu, R. W. Lu, J. X. Wu, J. H. Fan, Y. Y. Zhu, & F. Z. Cheng.* 80, 683, 32-G11 (1992)

The University of Michigan Radio Astronomy Data Base. I. Structure Function Analysis and the Relation between BL Lacertae Objects and Quasi-stellar Objects. *P. A. Hughes, H. D. Aller, & M. F. Aller.* 396, 469, 163-C9 (1992)

A Survey for High Optical Polarization in Quasars with Core-dominant Radio Structure: Is There a Beamed Optical Continuum? *Beverley J. Wills, D. Wills, Michel Breger, R. R. J. Antonucci, & Richard Barvainis.* 398, 454, 189-F10 (1992)

Pearson-Readhead Survey Sources: Properties of the Centimeter-Wavelength Flux and Polarization of a Complete Radio Sample. *M. F. Aller, H. D. Aller, & P. A. Hughes.* 399, 16, 195-C8 (1992)

The BL Lacertae Object PKS 1413+135: Is It within or behind a Spiral Galaxy? *John T. Stocke, Ron Wurtz, Qingde Wang, Richard Elston, & Buell T. Jannuzi.* 400, L17, 214-C5 (1992)

The Colorado *IUE* Active Galaxy Survey. I. Blazars. *Rick Edelson, Gregory F. Pike, Jon M. Saken, Anne Kinney, & J. Michael Shull.* 83, 1, 57-B1 (1992)

A Survey of Ultraviolet Variability in Blazars. *Rick Edelson.* 401, 516, 229-B1 (1992)

The Ultraviolet–to–Near-Infrared Spectral Flux Distribution of Four BL Lacertae Objects. *R. Falomo, A. Treves, L. Chiappetti, L. Maraschi, E. Pian, & E. G. Tanzi.* 402, 532, 9-B7 (1993)

An Optical Polarization Survey for BL Lacertae Objects and Highly Polarized Quasars. *Buell T. Jannuzi, Richard F. Green, & Howard French.* 404, 100, 29-C5 (1993)

Ultraviolet Spectra of QSOs, BL Lacertae Objects, and Seyfert Galaxies. *Kenneth M. Lanzetta, David A. Turnshek, & Jennifer Sandoval.* 84, 109, 3-B1 (1993)

A Catalog of X-Ray Spectra of BL Lacertae Objects. *P. Ciliegi, L. Bassani, & E. Caroli.* 85, 111, 7-D7 (1993)

Accretion Disk Models for Optical and Ultraviolet Microvariability in Active Galactic Nuclei. *Arun V. Mangalam & Paul J. Wiita.* 406, 420, 63-A1 (1993)

The Radio Structure of X-Ray–selected BL Lacertae Objects. *Eric S. Perlman & John T. Stocke.* 406, 430, 63-A13 (1993)

Optical Polarimetry and Photometry of X-Ray Selected BL Lacertae Objects. *Buell T. Jannuzi, Paul S. Smith, & Richard Elston.* 85, 265, 10-F1 (1993)

A Spectral Study of Four X-Ray–selected BL Lacertae Objects with *EXOSAT*. *R. M. Sambruna, P. Barr, L. Maraschi, G. Tagliaferri, & A. Treves.* 408, 452, 90-G1 (1993)

Is 1308+326 a BL Lacertae Object or a Quasar? *D. C. Gabuzda, R. I. Kollgaard, D. H. Roberts, & J. F. C. Wardle.* 410, 39, 112-E12 (1993)

BL Lacertae Objects, Fanaroff-Riley Type I Radio Sources, and Cluster Cooling Flows. *Craig L. Sarazin & Michael W. Wise.* 411, 55, 127-F13 (1993)

Ten New BL Lacertae Objects Discovered by an Efficient X-Ray/Radio/Optical Technique. *Jonathan F. Schachter, John T. Stocke, Eric Perlman, Martin Elvis, Ron Remillard, Arno Granados, Jane Luu, John P. Huchra, Roberta Humphreys, C. Megan Urry, & John Wallin.* 412, 541, 150-D9 (1993)

Radio-selected BL Lacertae Objects and Some Correlations. *J. H. Fan, G. Z. Xie, J. J. Li, J. Liu, S. L. Wen, R. R. Huang, Z. M. Tang, & Y. J. Wang.* 415, 113, 186-D12 (1993)

Unified Model for X-Ray– and Radio-selected BL Lacertae Objects. *A. Celotti, L. Maraschi, G. Ghisellini, A. Caccianiga, & T. Maccacaro.* 416, 118, 202-D13 (1993)

The Ultraviolet Continua of Blazars: A Reconsideration of *IUE* Archives. *E. Pian & A. Treves.* 416, 130, 202-E14 (1993)

Structure Function Analysis of High Radio Frequency Variability in the Metsähovi Monitoring Sample of Active Galactic Nuclei. *M. Lainela & E. Valtaoja.* 416, 485, 209-C12 (1993)

Milliarcsecond Polarization Structure of 24 Objects from the Pearson-Readhead Sample of Bright Extragalactic Radio Sources. I. The Images. *T. V. Cawthorne, J. F. C. Wardle, D. H. Roberts, D. C. Gabuzda, & L. F. Brown.* 416, 496, 209-D11 (1993)

Milliarcsecond Polarization Structure of 24 Objects from the Pearson-Readhead Sample of Bright Extragalactic Radio Sources. II. Discussion. *T. V. Cawthorne, J. F. C. Wardle, D. H. Roberts, & D. C. Gabuzda.* 416, 519, 209-G5 (1993)

Search for Emission of Ultra–High-Energy Radiation from Active Galactic Nuclei. *D. E. Alexandreas, G. E. Allen, D. Berley, S. Biller, R. L. Burman, M. Cavalli-Sforza, C. Y. Chang, M. L. Chen, P. Chumney, D. Coyne, C. Dion, G. M. Dion, D. Dorfan, R. W. Ellsworth, J. A. Goodman, T. J. Haines, C. M. Hoffman, L. Kelley, S. Klein, D. E. Nagle, S. C. Schaller, R. Schnee, A. Shoup, C. Sinnis, M. J. Stark, D. D. Weeks, D. A. Williams, J.-P. Wu, T. Yang, G. B. Yodh, & W. Zhang (The CYGNUS Collaboration).* 418, 832, 242-G11 (1993)

On the Relationship between BL Lacertae Objects and Fanaroff-Riley I Radio Galaxies. *Geoffrey V. Bicknell.* 422, 542, 38-E8 (1994)

On the Location of the Acceleration and Emission Sites in Gamma-Ray Blazars. *Charles D. Dermer & Reinhard Schlickeiser.* 90, 945, 15-E7 (1994)

Plasma Mechanisms for Variability in Active Galactic Nuclei. *Vinod Krishan & Paul J. Wiita.* 423, 172, 48-B13 (1994)

Magnetic Activity in Thick Accretion Disks and Associated Observable Phenomena. I. Flux Expulsion. *Sandip K. Chakrabarti & Sydney D'Silva.* 424, 138, 63-F7 (1994)

Magnetic Activity in Thick Accretion Disks and Associated Observable Phenomena. II. Flux Storage. *Sydney D'Silva & Sandip K. Chakrabarti.* 424, 149, 63-G6 (1994)

High Dynamic Range Radio Observations of PKS 1413+135: A BL Lacertae Object with a Parsec-Scale Counterjet. *Eric S. Perlman, John T. Stocke, David B. Shaffer, Chris L. Carilli, & Chopo Ma.* 424, L69, 78-E8 (1994)

The Optical Polarization Properties of X-Ray–selected BL Lacertae Objects. *Buell T. Jannuzi, Paul S. Smith, & Richard Elston.* 428, 130, 129-G3 (1994)

Relativistic Jets in Blazars: Polarization of Radiation. *Juri Poutanen.* 92, 607, 40-A2 (1994)

Gamma-Ray Bright Quasars and BL Lacertae Objects: EGRET Data. *Jonathan Schachter & Martin Elvis.* 92, 623, 40-B9 (1994)

The Gamma-Ray Background. *G. Setti & L. Woltjer.* 92, 629, 40-C5 (1994)

Optical Spectrophotometry of Blazars. *R. Falomo, R. Scarpa, & M. Bersanelli.* 93, 125, 43-D13 (1994)

The Near-Infrared–Optical–Ultraviolet Emission of BL Lacertae Objects. *E. Pian, R. Falomo, R. Scarpa, & A. Treves.* 432, 547, 202-F11 (1994)

Luminosity Functions of BL Lacertae Objects. *Anna Wolter, Alessandro Caccianiga, Roberto Della Ceca, & Tommaso Maccacaro.* 433, 29, 208-E6 (1994)

The X-Ray Spectra of Blazars Observed with *EXOSAT*. *Rita M. Sambruna, Paul Barr, Paolo Giommi, Laura Maraschi, Gianpiero Tagliaferri, & Aldo Treves.* 434, 468, 234-B6 (1994)

Evolution of the Millarcsecond Total Intensity and Polarization Structures of BL Lacertae Objects. *D. C. Gabuzda, C. M. Mullan, T. V. Cawthorne, J. F. C. Wardle, & D. H. Roberts.* 435, 140, 245-C5 (1994)

A Unified Relativistic Beaming Model for BL Lacertae Objects and Flat Spectrum Radio Quasars. *Laura Maraschi & Fausto Rovetti.* 436, 79, 262-C13 (1994)

The Evolutionary Unified Scheme. I. Quasars and Radio Galaxies in the Viewing Angle–Redshift Plane. *F. Vagnetti & R. Spera.* 436, 611, 274-A4 (1994)

Multifrequency Observations of Blazars. V. Long-Term Millimeter, Submillimeter, and Infrared Monitoring. *J. A. Stevens, S. J. Litchfield, E. I. Robson, D. H. Hughes, W. K. Gear, H. Teräsranta, E. Valtaoja, & M. Tornikoski.* 437, 91, 284-F1 (1994)

The X-Ray Spectra of Blazars: Analysis of the Complete *EXOSAT* Archive. *Rita M. Sambruna, Paul Barr, Paolo Giommi, Laura Maraschi, Gianpiero Tagliaferri, & Aldo Treves.* 95, 371, 69-D1 (1994)

Outburst of TeV Photons from Markarian 421. *A. D. Kerrick, C. W. Akerlof, S. D. Biller, J. H. Buckley, M. F. Cawley, M. Chantell, V. Connaughton, D. J. Fegan, S. Fennell, J. A. Gaidos, A. M. Hillas, R. C. Lamb, D. A. Lewis, D. I. Meyer, J. McEnery, G. Mohanty, J. Quinn, A. C. Rovero, H. J. Rose, M. S. Schubnell, G. Sembroski, M. Urban, A. A. Watson, T. C. Weekes, M. West, C. Wilson, & J. Zweerink.* 438, L59, 19-C4 (1995)

On the X-Ray Spectra of BL Lacertae Objects. *P. Ciliegi, L. Bassani, & E. Caroli.* 439, 80, 22-C7 (1995)

Active Galaxies Observed during the *Extreme Ultraviolet Explorer* All-Sky Survey. *H. L. Marshall, A. Fruscione, & T. E. Carone.* 439, 90, 22-D6 (1995)

High-Energy Gamma-Ray Emission from Active Galaxies: EGRET Observations and Their Implications. *C. von Montigny, D. L. Bertsch, J. Chiang, B. L. Dingus, J. A. Esposito, C. E. Fichtel, J. M. Fierro, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, P. L. Nolan, H. D. Radecke, E. Schneid, P. Sreekumar, D. J. Thompson, & T. Willis.* 440, 525, 50-E4 (1995)

The Megaparsec-Scale Environments of BL Lacertae Objects. *Eric P. Smith, C. P. O'Dea, & S. A. Baum.* 441, 113, 60-G11 (1995)

ROSAT Observations of the Two Radio-selected Blazars PKS 1034−293 and PKS 1335−127. *L. Maraschi, A. Ciapi, G. Fossati, G. Tagliaferri, & A. Treves.* 443, 29, 95-E13 (1995)

The Connection between X-Ray– and Radio-selected BL Lacertae Objects. *Paolo Padovani & Paolo Giommi.* 444, 567, 124-C2 (1995)

Multiwavelength Observations of Markarian 421 during a TeV/X-Ray Flare. *D. J. Macomb, C. W. Akerlof, H. D. Aller, M. F. Aller, D. L. Bertsch, F. Bruhweiler, J. H. Buckley, D. A. Carter-Lewis, M. F. Cawley, K.-P. Cheng, C. Dermer, D. J. Fegan, J. A. Gaidos, W. K. Gear, C. R. Hall, R. C. Hartman, A. M. Hillas, M. Kafatos, A. D. Kerrick, D. A. Kniffen, Y. Kondo, H. Kubo, R. C. Lamb, F. Makino, K. Makishima, A. Marscher, J. McEnery, I. M. McHardy, D. I. Meyer, E. M. Moore, E. Ramos, E. I. Robson, H. J. Rose, M. S. Schubnell, G. Sembroski, J. A. Stevens, T. Takahashi, M. Tashiro, T. C. Weekes, C. Wilson, & J. Zweerink.* 449, L99, 226-F1 (1995)

Multifrequency Spectra of *EXOSAT* Blazars. *K. K. Ghosh & S. Soundararajaperumal.* 100, 37, 46-D12 (1995)

OSSE Observations of Blazars. *K. McNaron-Brown, W. N. Johnson, G. V. Jung, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, C. D. Dermer, D. A. Grabelsky, W. R. Purcell, M. P. Ulmer, M. Kafatos, P. A. Becker, R. Staubert, & M. Maisack.* 451, 575, 255-B11 (1995)

When Is BL Lac Not a BL Lac? *R. C. Vermeulen, P. M. Ogle, H. D. Tran, I. W. A. Browne, M. H. Cohen, A. C. S. Readhead, G. B. Taylor, & R. W. Goodrich.* 452, L5, 269-C8 (1995)

A Signature of Relativistic Electron-Positron Beams in BL Lacertae Objects. *G. Z. Xie, B. F. Liu, & J. C. Wang.* 454, 50, 299-G9 (1995)

GALAXIES: BL LACERTAE OBJECTS: INDIVIDUAL

Name: BL Lacertae Objects

When Is BL Lac Not a BL Lac? *R. C. Vermeulen, P. M. Ogle, H. D. Tran, I. W. A. Browne, M. H. Cohen, A. C. S. Readhead, G. B. Taylor, & R. W. Goodrich.* 452, L5, 269-C8 (1995)

Name: Markarian 421

Detection of High-Energy Gamma-Ray Emission from the BL Lacertae Object Markarian 421 by the Egret Telescope on the *Compton Observatory*. *Y. C. Lin, D. L. Bertsch, J. Chiang, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. Schneid, P. Sreekumar, & D. J. Thompson.* 401, L61, 232-F9 (1992)

Compton Scattering and the Gamma-Ray Power-Law Spectrum in Markarian 421. *Andrzej A. Zdziarski & Julian H. Krolik.* 409, L33, 111-B1 (1993)

On the Determination of the Cosmic Infrared Background Radiation from the High-Energy Spectrum of Extragalactic Gamma-Ray Sources. *Eli Dwek & Jonathan Slavin.* 436, 696, 275-B1 (1994)

Outburst of TeV Photons from Markarian 421. *A. D. Kerrick, C. W. Akerlof, S. D. Biller, J. H. Buckley, M. F. Cawley, M. Chantell, V. Connaughton, D. J. Fegan, S. Fennell, J. A. Gaidos, A. M. Hillas, R. C. Lamb, D. A. Lewis, D. I. Meyer, J. McEnery, G. Mohanty, J. Quinn, A. C. Rovero, H. J. Rose, M. S. Schubnell, G. Sembroski, M. Urban, A. A. Watson, T. C. Weekes, M. West, C. Wilson, & J. Zweerink.* 438, L59, 19-C4 (1995)

Multiwavelength Observations of Markarian 421 during a TeV/X-Ray Flare. *D. J. Macomb, C. W. Akerlof, H. D. Aller, M. F. Aller, D. L. Bertsch, F. Bruhweiler, J. H. Buckley, D. A. Carter-Lewis, M. F. Cawley, K.-P. Cheng, C. Dermer, D. J. Fegan, J. A. Gaidos, W. K. Gear, C. R. Hall, R. C. Hartman, A. M. Hillas, M. Kafatos, A. D. Kerrick, D. A. Kniffen, Y. Kondo, H. Kubo, R. C. Lamb, F. Makino, K. Makishima, A. Marscher, J. McEnery, I. M. McHardy, D. I. Meyer, E. M. Moore, E. Ramos, E. I. Robson, H. J. Rose, M. S. Schubnell, G. Sembroski, J. A. Stevens, T. Takahashi, M. Tashiro, T. C. Weekes, C. Wilson, & J. Zweerink.* 449, L99, 226-F1 (1995)

Name: Markarian 501

A Helical Jet in the Orthogonally Misaligned BL Lacertae Object Markarian 501 (B1652+398). *J. E. Conway & J. M. Wrobel.* 439, 98, 22-E3 (1995)

Alphanumeric: 0235+164

The Kinematics of Intermediate-Redshift Gaseous Galaxy Halos. *Kenneth M. Lanzetta & David V. Bowen.* 391, 48, 86-E14 (1992)

Alphanumeric: 0521−365

EGRET Observations of the BL Lacertae Objects 0716+714 and 0521−365. *Y. C. Lin, D. L. Bertsch, B. L. Dingus, J. A. Esposito, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, R. Mukherjee, P. L. Nolan, E. Schneid, P. Sreekumar, & D. J. Thompson.* 442, 96, 78-E7 (1995)

Alphanumeric: 0716+714

EGRET Observations of the BL Lacertae Objects 0716+714 and 0521−365. *Y. C. Lin, D. L. Bertsch, B. L. Dingus, J. A. Esposito, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, R. Mukherjee, P. L. Nolan, E. Schneid, P. Sreekumar, & D. J. Thompson.* 442, 96, 78-E7 (1995)

Alphanumeric: 0735+178

Unusual Evolution in the VLBI Structure of 0735+178. *D. C. Gabuzda, J. F. C. Wardle, D. H. Roberts, M. F. Aller, & H. D. Aller.* 435, 128, 245-B3 (1994)

Alphanumeric: 0754+100

First Ultraviolet Spectropolarimetry of Radio-selected BL Lacertae Objects. *Paul S. Smith, Richard G. Allen, & J. R. P. Angel.* 415, L83, 199-F6 (1993)

Alphanumeric: 0954+658

EGRET Gamma-Ray Sources: GRO J0744+54 and GRO J0957+65 (= BL Lacertae Object 0954+658). *R. Mukherjee, H. D. Aller, M. F. Aller, D. L. Bertsch, W. Collmar, S. W. Digel, B. L. Dingus, J. A. Esposito, C. E. Fichtel, R. C. Hartman, S. D. Hunter, W. N. Johnson, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, P. V. Ramanamurthy, E. Schneid, P. Sreekumar, H. Teräsranta, D. J. Thompson, & S. J. Wagner.* 445, 189, 135-B3 (1995)

Alphanumeric: AO 0235+164

Is the BL Lacertae Object AO 0235+164 Being Lensed by Its Intervening Mg II Absorber? *Roberto G. Abraham, Carolin S. Crawford, Michael R. Merrifield, John B. Hutchings, & Ian M. McHardy.* 415, 101, 186-C5 (1993)

Soft X-Ray Spectrum of BL Lacertae Object AO 0235+164 as a Tracer of Elemental Abundances at $z \sim 0.5$. *Greg Madejski.* 432, 554, 202-G6 (1994)

Alphanumeric: 1E 141516+2557

The BL Lacertae Object 1E 1415.6+2557: Host Galaxy, Possible Optical Jet, and Environment. *W. Romanishin.* 401, L65, 232-G1 (1992)

Alphanumeric: MS 0205.7+3509

MS 0205.7+3509: A Microlensed BL Lacertae Candidate. *John T. Stocke, Ronald E. Wurtz, & Eric S. Perlman.* 454, 55, 300-A4 (1995)

Alphanumeric: OJ 287

First Ultraviolet Spectropolarimetry of Radio-selected BL Lacertae Objects. *Paul S. Smith, Richard G. Allen, & J. R. P. Angel.* 415, L83, 199-F6 (1993)

Alphanumeric: PG 1424+240

ROSAT Observations of Blazars from a Polarized Radio-selected Sample. *L. Maraschi, G. Fossati, G. Tagliaferri, & A. Treves.* 443, 578, 105-G4 (1995)

Alphanumeric: PKS 0301−243

ROSAT Observations of Blazars from a Polarized Radio-selected Sample. *L. Maraschi, G. Fossati, G. Tagliaferri, & A. Treves.* 443, 578, 105-G4 (1995)

Alphanumeric: PKS 0537−441

ROSAT Observations of the Blazar PKS 0537−441. *A. Treves, T. Belloni, R. Falomo, H. Fink, L. Maraschi, R. M. Sambruna, G. Tagliaferri, & H. U. Zimmermann.* 406, 447, 63-C5 (1993)

Gamma Radiation from Blazar PKS 0537−441. *D. J. Thompson, D. L. Bertsch, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. J. Schneid, & P. Sreekumar.* 410, 87, 113-C1 (1993)

Alphanumeric: PKS 0548−322

Host Galaxy and Environment of the BL Lacertae Object PKS 0548−322: Observations with Subarcsecond Resolution. *Renato Falomo, Joseph E. Pesce, & Aldo Treves.* 438, L9, 9-F2 (1995)

Alphanumeric: PKS 1413+135

Discovery of Neutral Hydrogen 21 Centimeter Absorption at Redshift 0.25 toward PKS 1413+135. *C. L. Carilli, Eric S. Perlman, & John T. Stocke.* 400, L13, 214-C1 (1992)

The BL Lacertae Object PKS 1413+135: Is It within or behind a Spiral Galaxy? *John T. Stocke, Ron Wurtz, Qingde Wang, Richard Elston, & Buell T. Jannuzi.* 400, L17, 214-C5 (1992)

High Dynamic Range Radio Observations of PKS 1413+135: A BL Lacertae Object with a Parsec-Scale Counterjet. *Eric S. Perlman, John T. Stocke, David B. Shaffer, Chris L. Carilli, & Chopo Ma.* 424, L69, 78-E8 (1994)

Alphanumeric: PKS 2005−489

Spectral Variability of the X-Ray–bright BL Lacertae Object PKS 2005−489. *Rita M. Sambruna, C. Megan Urry, Gabriele Ghisellini, & Laura Maraschi.* 449, 567, 220-E12 (1995)

Alphanumeric: PKS 2155−304

The Optical Variability of PKS 2155−304. *Michael T. Carini & H. Richard Miller.* 385, 146, 13-G1 (1992)

Intensive Optical Monitoring of the BL Lacertae Object PKS 2155−304. *Paul S. Smith, Patrick B. Hall, Richard G. Allen, & Michael L. Sitko.* 400, 115, 210-D1 (1992)

Ultraviolet Polarimetry and Spectroscopy of the BL Lacertae Object PKS 2155−304. *Richard G. Allen, Paul S. Smith, J. R. P. Angel, Bryan W. Miller, Scott F. Anderson, & Bruce Margon.* 403, 610, 23-C1 (1993)

The X-Ray Spectral Variability of the BL Lacertae Type Object PKS 2155−304. *S. Sembay, R. S. Warwick, C. Megan Urry, J. Sokoloski, I. M. George, F. Makino, T. Ohashi, & M. Tashiro.* 404, 112, 29-D5 (1993)

The Galactic Halo and Local Intergalactic Medium toward PKS 2155−304. *Frederick C. Bruhweiler, A. Boggess, Dara J. Norman, C. A. Grady, C. Megan Urry, & Yoji Kondo.* 409, 199, 99-D6 (1993)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. I. The *IUE* Campaign. *C. M. Urry, L. Maraschi, R. Edelson, A. Koratkar, J. Krolik, G. Madejski, E. Pian, G. Pike, G. Reichert, A. Treves, W. Wamsteker, R. Bohlin, J. Bregman, W. Brinkmann, L. Chiappetti, T. Courvoisier, A. V. Filippenko, H. Fink, I. M. George, Y. Kondo, P. G. Martin, H. R. Miller, P. O'Brien, J. M. Shull, M. Sitko, A. E. Szymkowiak, G. Tagliaferri, S. Wagner, & R. Warwick.* 411, 614, 137-C9 (1993)

The Environment of the BL Lacertae Object PKS 2155−304. *R. Falomo, Joseph E. Pesce, & A. Treves.* 411, L63, 142-B13 (1993)

Observations of PKS 2155−304 with the *Extreme Ultraviolet Explorer*. *H. L. Marshall, T. E. Carone, & A. Fruscione.* 414, L53, 185-B7 (1993)

Extreme Ultraviolet Spectroscopy of PKS 2155−304. *Antonella Fruscione, Stuart Bowyer, Arieh Königl, & Steven M. Kahn.* 422, L55, 44-G6 (1994)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. III. Ground-based Observations in 1991 November. *T. J.-L. Courvoisier, A. Blecha, P. Bouchet, P. Bratschi, M. T. Carini, M. Donahue, R. Edelson, E. D. Feigelson, A. V. Filippenko, I. S. Glass, J. Heidt, R. I. Kollgaard, T. Matheson, H. R. Miller, J. C. Noble, K. Sekiguchi, P. S. Smith, C. M. Urry, & S. J. Wagner.* 438, 108, 2-G2 (1995)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. IV. Multiwavelength Analysis. *R. Edelson, J. Krolik, G. Madejski, L. Maraschi, G. Pike, C. M. Urry, W. Brinkmann, T. J.-L. Courvoisier, J. Ellithorpe, K. Horne, A. Treves, S. Wagner, W. Wamsteker, R. Warwick, H. D. Aller, M. F. Aller, M. Ashley, A. Blecha, P. Bouchet, P. Bratschi, J. N. Bregman, M. Carini, A. Celotti, M. Donahue, E. Feigelson, A. V. Filippenko, H. Fink, I. George, I. Glass, J. Heidt, J. Hewitt, P. Hughes, R. Kollgaard, Y. Kondo, A. Koratkar, K. Leighly, A. Marscher, P. G. Martin, T. Matheson, H. R. Miller, J. C. Noble, P. O'Brien, E. Pian, G. Reichert, J. M. Saken, J. M. Shull, M. Sitko, P. S. Smith, W.-H. Sun, & G. Tagliaferri.* 438, 120, 3-A4 (1995)

Medium-Resolution Far-Ultraviolet Spectroscopy of PKS 2155−304. *I. Appenzeller, H. Mandel, J. Krautter, S. Bowyer, M. Hurwitz, M. Grewing, G. Krämer, & N. Kappelmann.* 439, L33, 40-B9 (1995)

The Extreme Ultraviolet Spectrum of the BL Lacertae Object PKS 2155−304. *Arieh Königl, John F. Kartje, Stuart Bowyer, Steven M. Kahn, & Chorng-Yuan Hwang.* 446, 598, 164-D1 (1995)

High-Energy Gamma Rays from the BL Lacertae Object PKS 2155−304. *W. Thomas Vestrand, J. Gregory Stacy, & P. Sreekumar.* 454, L93, 315-E11 (1995)

GALAXIES: CLUSTERING

A Model for the Evolution of Large Density Perturbations: Normalization and Predictions. *E. Martínez-González & J. L. Sanz.* 366, 1, 1-A11 (1991)

Galaxies Clustering around QSOs with $z = 0.9–1.5$ and the Origin of Blue Field Galaxies. *Paul Hintzen, W. Romanishin, & Francisco Valdes.* 366, 7, 1-B5 (1991)

N-Body Simulation of Large-Scale Structures in $\Lambda \neq 0$ Friedmann Models. *Hugo Martel.* 366, 353, 7-C1 (1991)

On the "Mixing" of Self-gravitating Systems in a Cosmological Context. *Henry E. Kandrup.* 366, 384, 7-E7 (1991)

Bulk Flows, Shear, and the Great Attractor. *Nick Kaiser.* 366, 388, 7-F1 (1991)

The Luminosity-Diameter Relation for Disk Galaxies in Different Environments. *M. Girardi, A. Biviano, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 366, 393, 7-F7 (1991)

A Straight Gravitational Image in Abell 2390: A Striking Case of Lensing by a Cluster of Galaxies. *Roser Pelló, Jean-François Le Borgne, Geneviève Soucail, Yannick Mellier, & Blai Sanahuja.* 366, 405, 7-G9 (1991)

X-Ray Luminosity Functions of Clusters of Galaxies. *A. Cavaliere, R. Burg, & R. Giacconi.* 366, L61, 11-B11 (1991)

A Change in the Cluster Environments of Radio Galaxies with Cosmic Epoch. *G. J. Hill & S. J. Lilly.* 367, 1, 12-A13 (1991)

Seeded Hot Dark Matter Models for Large-Scale Structure. *Jens V. Villumsen, Robert J. Scherrer, & Edmund Bertschinger.* 367, 37, 12-D11 (1991)

On the Interpretation of the Morphology-Density Relation for Galaxies in Clusters. *Bradley C. Whitmore & Diane M. Gilmore.* 367, 64, 12-G1 (1991)

The Metal Abundance and Specific Energy of Intracluster Gas. *Raymond E. White III.* 367, 69, 12-G8 (1991)

Dynamical Biases in Gravitational Clustering. *R. G. Carlberg.* 367, 385, 18-C1 (1991)

Comparison of Likely Candidate Models for Abell Cluster Structures against the Observed Distribution. *David J. Batuski, Adrian L. Melott, Robert J. Scherrer, & Edmund Bertschinger.* 367, 393, 18-C11 (1991)

X-Ray Continuum and Evidence for an Iron Emission Line from the Quasar E1821+643. *T. Kii, O. R. Williams, T. Ohashi, H. Awaki, K. Hayashida, H. Inoue, H. Kondo, K. Koyama, F. Makino, K. Makishima, R. D. Saxton, G. C. Stewart, S. Takano, Y. Tanaka, & M. J. L. Turner.* 367, 455, 19-A11 (1991)

The Angular Correlation Function of Galaxies from POSS-II. *Alain Picard.* 368, L7, 28-B7 (1991)

Dissipationless Collapse in an Expanding Universe. *Neal Katz.* 368, 325, 29-B4 (1991)

Numerical Study of a Perturbed Einstein–de Sitter Cosmological Model. *H. V. Fagundes & S. F. Kwok.* 368, 337, 29-C4 (1991)

Stripped Interstellar Gas in Cluster Cooling Flows. *Noam Soker, Joel N. Bregman, & Craig L. Sarazin.* 368, 341, 29-C10 (1991)

Mesh-refined P^3M: A Fast Adaptive *N*-Body Algorithm. *H. M. P. Couchman.* 368, L23, 35-A11 (1991)

The Supergalactic Plane Redshift Survey. *Alan Dressler.* 75, 241, 4-C1 (1991)

A New Survey for Quasar Clustering. *Patrick S. Osmer & Paul C. Hewett.* 75, 273, 4-E9 (1991)

Cluster Infall with Friction. *R. G. Carlberg & John Dubinski.* 369, 13, 36-B11 (1991)

Universe with Oscillating Expansion Rate. *Masahiro Morikawa.* 369, 20, 36-C5 (1991)
Scaling Invariance in the Galaxy Distribution. II. Spatial and Luminosity Effects. *Sophie Maurogordato & Marc Lachièze-Rey.* 369, 30, 36-D1 (1991)
Large-Aperture *BVRJK* Photometry of Rich Abell Clusters: Constraints on Dark Matter. *Juan M. Uson & Stephen P. Boughn.* 369, 38, 36-D11 (1991)
Diffuse Light in Dense Clusters of Galaxies. I. *R*-Band Observations of Abell 2029. *Juan M. Uson, Stephen P. Boughn, & Jeffrey R. Kuhn.* 369, 46, 36-E7 (1991)
Cooling Flows and the Formation of Massive Halos in cD Galaxies. *Andrea H. Prestwich & Marshall Joy.* 369, L1, 40-A7 (1991)
Measures of Large-Scale Structure in the CfA Redshift Survey Slices. *Valérie de Lapparent, Margaret J. Geller, & John P. Huchra.* 369, 273, 41-B5 (1991)
Filamentary Superclustering in a Universe Dominated by Cold Dark Matter. *Michael J. West, Jens V. Villumsen, & Avishai Dekel.* 369, 287, 41-C7 (1991)
Self-Organization of Cosmic Radiation Pressure Instability. *Craig J. Hogan.* 369, 300, 41-D8 (1991)
Gravitational Lensing by Clusters of Galaxies: Constraining the Mass Distribution. *Jordi Miralda-Escudé.* 370, 1, 47-B1 (1991)
Northern Dwarf and Low Surface Brightness Galaxies. IV. The Large-Scale Space Distribution. *Trinh X. Thuan, Jean-Michel Alimi, J. Richard Gott III, & Stephen E. Schneider.* 370, 25, 47-D1 (1991)
The Joint Far-Infrared–Optical Luminosity Function for Spiral Galaxies and Data for the Abell 400 and Cancer Clusters. *Edvige Corbelli, Edwin E. Salpeter, & John M. Dickey.* 370, 49, 47-F4 (1991)
Redshift-Space Correlation Functions in the Cold Dark Matter Scenario. *Yasushi Suto & Tatsushi Suginohara.* 370, L15, 53-C7 (1991)
Cosmological *N*-Body Simulations with a Tree Code: Fluctuations in the Linear and Nonlinear Regimes. *Tatsushi Suginohara, Yasushi Suto, François R. Bouchet, & Lars Hernquist.* 75, 631, 10-B1 (1991)
The Surface Brightness Test for the Expansion of the Universe. III. Reduction of Data for the Several Brightest Galaxies in Clusters to Standard Conditions and a First Indication That the Expansion Is Real. *Allan Sandage & Jean-Marc Perelmuter.* 370, 455, 54-B1 (1991)
Correlation Function of Gravitational Deflection Angles of Light Paths. *Kazuya Watanabe & Kenji Tomita.* 370, 481, 54-D1 (1991)
Dust from Early Galaxies and the X-Ray Background Radiation. *B. Rudak & P. Mészáros.* 371, 29, 60-D5 (1991)
Quasars and Active Galactic Nuclei in Rich Environments. II. The Evolution of Radio-loud Quasars. *E. Ellingson, H. K. C. Yee, & R. F. Green.* 371, 49, 60-F7 (1991)
High Chemical Abundances in Virgo Spiral Galaxies? *Gregory A. Shields, Evan D. Skillman, & Robert C. Kennicutt, Jr.* 371, 82, 61-B1 (1991)
A Long-lasting Compact Group. *Fabio Governato, Rajiv Bhatia, & Guido Chincarini.* 371, L15, 66-C1 (1991)
Statistics of Peaks in Cosmological Nonlinear Density Fields. *Tatsushi Suginohara & Yasushi Suto.* 371, 470, 67-D1 (1991)
Peculiar Cluster Velocities from Measurements of the Kinematic Sunyaev-Zeldovich Effect. *Yoel Rephaeli & Ofer Lahav.* 372, 21, 74-C7 (1991)
On Magnetothermal Instability in Cluster Cooling Flows. *Steven A. Balbus.* 372, 25, 74-C13 (1991)
On the Population of H I Dwarf Galaxies. *David H. Weinberg, Arpad Szomoru, P. Guhathakurta, & J. H. van Gorkom.* 372, L13, 79-B11 (1991)
Gravitational Clustering in the Expanding Universe: Controlled High-Resolution Studies in Two Dimensions. *John Francis Beacom, Kurt G. Dominik, Adrian L. Melott, Sam P. Perkins, & Sergei F. Shandarin.* 372, 351, 80-B7 (1991)
A Measurement of the Mass Fluctuation Spectrum from the Cluster X-Ray Temperature Function. *J. Patrick Henry & Keith A. Arnaud.* 372, 410, 80-G11 (1991)
The Influence of High-Density Environment on the Radio–Far-Infrared Correlation of Spiral Galaxies. *T. K. Menon.* 372, 419, 81-A7 (1991)
Large-Scale Structure in a Texture-seeded Cold Dark Matter Cosmogony. *Changbom Park, David N. Spergel, & Neil Turok.* 372, L53, 85-B5 (1991)
Evidence for Structure in the Distribution of Active Galactic Nuclei with $z < 0.05$. *Michael J. Longo.* 372, L59, 85-B11 (1991)
The Correlation Function of cD Clusters. *Michael J. West & Sidney van den Bergh.* 373, 1, 86-B1 (1991)
The Luminosity Distribution of Globular Clusters in Three Giant Virgo Ellipticals. *William E. Harris, J. W. B. Allwright, Christopher J. Pritchet, & Sidney van den Bergh.* 76, 115, 25-D11 (1991)
Optical Properties and Dynamics of Galaxies in the Hickson Compact Groups. *Vera C. Rubin, Deidre A. Hunter, & W. Kent Ford, Jr.* 76, 153, 26-A1 (1991)
Luminosity Segregation as an Indication of Dynamical Evolution in Rich Clusters of Galaxies. *G. Yepes, R. Domínguez-Tenreiro, & R. del Pozo-Sanz.* 373, 336, 92-B13 (1991)
H I Mapping of Galaxies in the Cluster A1367. *John M. Dickey & Giuseppe Gavazzi.* 373, 347, 92-C12 (1991)
Background Correlation Functions from Galaxy Rotation Curves. *Stefano Borgani, Silvio A. Bonometto, Massimo Persic, & Paolo Salucci.* 374, 20, 98-C7 (1991)
Evolution of Velocity and Density Fields around Clusters of Galaxies. *Per B. Lilje & Ofer Lahav.* 374, 29, 98-D3 (1991)
H I Deficiency in Cluster Spiral Galaxies: Dependence on Galaxy Size. *Monica Valluri & Chanda J. Jog.* 374, 103, 99-C7 (1991)
Reconstructing the Primordial Spectrum of Fluctuations of the Universe from the Observed Nonlinear Clustering of Galaxies. *A. J. S. Hamilton, P. Kumar, Edward Lu, & Alex Matthews.* 374, L1, 103-B7 (1991)
Superposition and Incompleteness Effects in Abell's Statistical Sample of Clusters. *Mitchell F. Struble & Herbert J. Rood.* 374, 395, 104-B5 (1991)
Infrared Emission in Paired Galaxies. II. Luminosity Functions and Far-Infrared Properties. *Cong Xu & Jack W. Sulentic.* 374, 407, 104-C5 (1991)
Quasars and Active Galactic Nuclei in Rich Environments. I. Fields Surrounding Optically Faint Quasars. *E. Ellingson, H. K. C. Yee, & R. F. Green.* 76, 455, 31-D2 (1991)
Fundamental Parameters of Brightest Cluster Galaxies. *William R. Oegerle & John G. Hoessel.* 375, 15, 111-B13 (1991)
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Ram-Pressure Stripping of the Multiphase Interstellar Medium of the Virgo Cluster Elliptical Galaxy M86 (NGC 4406). *David A. White, A. C. Fabian, W. Forman, C. Jones, & C. Stern.* 375, 35, 111-D9 (1991)
Non-Gaussian Temperature Fluctuations in the Cosmic Microwave Background Sky from a Random Gaussian Density Field. *Roberto Scaramella & Nicola Vittorio.* 375, 439, 118-C1 (1991)
Formation and Distortion of Optical Rings around Rich Cluster Galaxies. *Christopher S. Kochanek & Roger D. Blandford.* 375, 492, 118-G11 (1991)
Galaxy Pairs in Redshift Catalogs as a Probe of Dark Matter. *Jane C. Charlton & Edwin E. Salpeter.* 375, 517, 119-C1 (1991)
Optical Coronal Emission Lines from Cooling Flows in Elliptical Galaxies and Galaxy Clusters. *Craig L. Sarazin & Christopher M. Graney.* 375, 532, 119-D3 (1991)
The Accuracy of Galaxy Masses from the Timing Argument. *T. L. Kroeker & R. G. Carlberg.* 376, 1, 125-B1 (1991)
The Distance to the Coma Cluster Using the *B*-Band Tully-Fisher Relation. *M. Fukugita, S. Okamura, K. Tarusawa, H. J. Rood, & B. A. Williams.* 376, 8, 125-B9 (1991)
The Distribution of Dark Matter in the Perseus Cluster. *C. J. Eyles, M. P. Watt, D. Bertram, M. J. Church, T. J. Ponman, G. K. Skinner, & A. P. Willmore.* 376, 23, 125-C12 (1991)
Superclusters and Pencil-Beam Surveys: The Origin of Large-Scale Periodicity. *Neta A. Bahcall.* 376, 43, 125-E6 (1991)
Dynamics of the Microwave-Decrement Cluster Abell 665. *William R. Oegerle, Michael J. Fitchett, John M. Hill, & Paul Hintzen.* 376, 46, 125-E10 (1991)
The Distribution of Clusters of Galaxies within 300 Mpc h^{-1} and the Crossover to an Isotropic and Homogeneous Universe. *Roberto Scaramella, Giampaolo Vettolani, & Giovanni Zamorani.* 376, L1, 130-A7 (1991)
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Extremely Low Surface Brightness Galaxies in the Fornax Cluster: Properties, Stability, and Luminosity Fluctuations. *Gregory D. Bothun, Christopher D. Impey, & David F. Malin.* 376, 404, 131-D10 (1991)
The X-Ray Cooling Flow in the Cluster of Galaxies around PKS 2354−35. *Daniel A. Schwartz, Hale V. Bradt, Ronald A. Remillard, & I. R. Tuohy.* 376, 424, 131-F6 (1991)
The Merging Runaway. *A. Cavaliere, S. Colafrancesco, & N. Menci.* 376, L37, 137-B10 (1991)

The Evolution of Void-filled Cosmological Structures. *Enikő Regős & Margaret J. Geller.* 377, 14, 138-C1 (1991)

A Quantitative Measure of Phase Correlations in Density Fields. *Robert J. Scherrer, Adrian L. Melott, & Sergei F. Shandarin.* 377, 29, 138-D5 (1991)

The Peculiar Velocity Field in the Hercules Region. *Wolfram Freudling, Hugo Martel, & Martha P. Haynes.* 377, 349, 144-B12 (1991)

Narrow-Band Photometry and the Evolution of Galaxies. III. The Intermediate-Redshift Sample. *Karl D. Rakos, James M. Schombert, & Tobias J. Kreidl.* 377, 382, 144-E7 (1991)

An X-Ray and Radio Study of Steep-Spectrum Radio Sources. II. Four Fields from a 22 MHz Polar Cap Survey. *P. E. Dewdney, C. H. Costain, I. McHardy, A. G. Willis, D. E. Harris, & C. P. Stern.* 76, 1055, 40-D1 (1991)

Scales of Structures and Homogeneity in the Universe. *Peter Schuecker & Heinz-Albert Ott.* 378, L1, 157-A7 (1991)

Dynamical Evolution of Topology of Large-Scale Structure. *Changbom Park & J. Richard Gott III.* 378, 457, 158-B1 (1991)

Models of Voids in the Expanding Universe. II. *W. B. Bonnor & A. Chamorro.* 378, 461, 158-B7 (1991)

Clusters of Galaxies Associated with Quasars. II. Galaxy Cluster Dynamics. *E. Ellingson, R. F. Green, & H. K. C. Yee.* 378, 476, 158-D1 (1991)

H I Studies of the Sculptor Group Galaxies. VII. Implications on the Distribution and Nature of Dark Matter in Groups. *Daniel Puche & Claude Carignan.* 378, 487, 158-E1 (1991)

Do Clusters of Galaxies Affect the Spectrum of the Microwave Background? *M. Markevitch, G. R. Blumenthal, W. Forman, C. Jones, & R. A. Sunyaev.* 378, L33, 162-D1 (1991)

Cross-Correlation of the X-Ray Background with Nearby Galaxies. *Keith Jahoda, Ofer Lahav, Richard F. Mushotzky, & Elihu Boldt.* 378, L37, 162-D7 (1991)

Cosmological Velocity-Density Relation in the Quasi-linear Regime. *Adi Nusser, Avishai Dekel, Edmund Bertschinger, & George R. Blumenthal.* 379, 6, 163-B7 (1991)

Superclustering at High Redshifts. *Michael J. West.* 379, 19, 163-C7 (1991)

Galaxy Formation through Hierarchical Clustering. *Simon D. M. White & Carlos S. Frenk.* 379, 52, 163-F3 (1991)

Detection of Excess Rotation Measure Due to Intracluster Magnetic Fields in Clusters of Galaxies. *K.-T. Kim, Peter C. Tribble, & P. P. Kronberg.* 379, 80, 164-A5 (1991)

The Magnification of Stars Crossing a Caustic. I. Lenses with Smooth Potentials. *Jordi Miralda-Escudé.* 379, 94, 164-B7 (1991)

The Small-Scale Clustering Properties of Dwarf Galaxies. *J. Patricia Vader & Allan Sandage.* 379, L1, 169-A8 (1991)

Excursion Set Mass Functions for Hierarchical Gaussian Fluctuations. *J. R. Bond, S. Cole, G. Efstathiou, & N. Kaiser.* 379, 440, 170-C1 (1991)

A Measurement of the Value of the Hubble Constant from the X-Ray Properties and the Sunyaev-Zel'dovich Effect of Abell 665. *M. Birkinshaw, J. P. Hughes, & K. A. Arnaud.* 379, 466, 170-E1 (1991)

Power-Spectrum Analysis of One-dimensional Redshift Surveys. *N. Kaiser & J. A. Peacock.* 379, 482, 170-F5 (1991)

Small-Scale Fluctuations and Angular Correlations of the X-Ray Background in the *HEAO 1* A-2 Energy Band: Constraints on Clustering of X-Ray Sources. *J. M. Martín-Mirones, G. De Zotti, E. A. Boldt, F. E. Marshall, L. Danese, A. Franceschini, & M. Persic.* 379, 507, 171-A4 (1991)

Vacuum Ultraviolet Imagery of the Virgo Cluster Region. III. Diffuse Far-Ultraviolet Radiation at High Galactic Latitudes. *Takashi Onaka & Keiichi Kodaira.* 379, 532, 171-C5 (1991)

The Correlation Function of Galaxy Ellipticities Produced by Gravitational Lensing. *Jordi Miralda-Escudé.* 380, 1, 176-B1 (1991)

The Mass Distribution of Groups and Clusters of Galaxies. *A. Cavaliere, S. Colafrancesco, & R. Scaramella.* 380, 15, 176-C1 (1991)

Galaxy Correlations, Counts, and Moments. *P. Carruthers.* 380, 24, 176-C11 (1991)

The Luminosity Function of Compact Groups of Galaxies. *Cláudia Mendes de Oliveira & Paul Hickson.* 380, 30, 176-D5 (1991)

Constrained Realizations of Gaussian Fields: A Simple Algorithm. *Yehuda Hoffman & Erez Ribak.* 380, L5, 181-B6 (1991)

The Origin of Quasar Correlations. *Neta A. Bahcall & Arati Chokshi.* 380, L9, 181-B11 (1991)

The Scale Dependence of Galaxy Distribution Functions. *William C. Saslaw & Philippe Crane.* 380, 315, 182-C1 (1991)

Spectroscopy of the Gravitational Arcs in Cl 2244−02, A370 (Arclet A5), and Cl 0024+1654. *Yannick Mellier, Bernard Fort, Geneviève Soucail, Guy Mathez, & Mireille Cailloux.* 380, 334, 182-D10 (1991)

Turbulently Generated Magnetic Fields in Clusters of Galaxies. *Itzhak Goldman & Yoel Rephaeli.* 380, 344, 182-E8 (1991)

The Clustering of Faint Galaxies. *G. Efstathiou, G. Bernstein, N. Katz, J. A. Tyson, & P. Guhathakurta.* 380, L47, 188-B1 (1991)

Galaxy Evolution in Distant, X-Ray–Selected Clusters of Galaxies. I. Cl 1358+6245. *Daniel G. Fabricant, Jeffrey E. McClintock, & Marshall W. Bautz.* 381, 33, 189-D8 (1991)

Probing the Galactic Halo along the 3C 273 Sight Line Using *IUE*. *Geoffrey S. Burks, Donald G. York, J. Chris Blades, Ralph C. Bohlin, & Willem Wamsteker.* 381, 55, 189-F5 (1991)

Statistics of Primordial Density Perturbations from Discrete Seed Masses. *Robert J. Scherrer & Edmund Bertschinger.* 381, 349, 195-B1 (1991)

A Photoionization Model for the Optical Line Emission from Cooling Flows. *Megan Donahue & G. Mark Voit.* 381, 361, 195-C1 (1991)

Systematic Bias in Cluster Galaxy Data, Affecting Galaxy Distances and Evolutionary History. *Donald H. Gudehus.* 382, 1, 200-A13 (1991)

Large-Scale Peculiar Velocity Fields in Superclusters of Galaxies. *G. Gavazzi, M. Scodeggio, A. Boselli, & G. Trinchieri.* 382, 19, 200-C5 (1991)

The Galaxy Two-Point Correlation Function Down to $V = 26$ Magnitudes on 0.5° Scales. *Lyman W. Neuschaefer, Rogier A. Windhorst, & Alan Dressler.* 382, 32, 200-D12 (1991)

Void Statistics of the CfA Redshift Survey. *Michael S. Vogeley, Margaret J. Geller, & John P. Huchra.* 382, 44, 200-E12 (1991)

An Analysis of Abell and ACO Catalogs of Clusters of Galaxies. *Mariano A. Nicotra & Diego G. Lambas.* 382, 55, 200-F11 (1991)

Anisotropies of the Cosmic Background Radiation in a "Hot" Dark Matter Universe. *Peter Anninos, Richard A. Matzner, Robin Tuluie, & Joan Centrella.* 382, 71, 201-A1 (1991)

Upper Limit on Interstellar Gas in Coma Cluster Ellipticals. *Claude R. Canizares & Paula Blizzard.* 382, 79, 201-B1 (1991)

Scale-invariant Clustering in the Large-Scale Distribution of Galaxies. *Luigi Guzzo, Angela Iovino, Guido Chincarini, Riccardo Giovanelli, & Martha P. Haynes.* 382, L5, 205-B1 (1991)

Neutral Hydrogen Observations of Galaxies in Superclusters. *M. P. Haynes & R. Giovanelli.* 77, 331, 49-B1 (1991)

A Compilation of Redshifts and Velocity Dispersions for Abell Clusters (Epoch 1991.2). *Mitchell F. Struble & Herbert J. Rood.* 77, 363, 49-F1 (1991)

Precollapse Scale Invariance in Gravitational Instability. *F. Moutarde, J.-M. Alimi, F. R. Bouchet, R. Pellat, & A. Ramani.* 382, 377, 206-C5 (1991)

Infrared Images, Virgo Spirals, and the Tully-Fisher Law. *R. F. Peletier & S. P. Willner.* 382, 382, 206-C13 (1991)

Constraints on Cosmological Models from the *IRAS* QDOT Survey Results. *Changbom Park.* 382, L59, 211-B1 (1991)

A Hydrodynamic Approach to Cosmology: Texture-seeded Cold Dark Matter and Hot Dark Matter Cosmogonies. *R. Y. Cen, J. P. Ostriker, D. N. Spergel, & N. Turok.* 383, 1, 212-B1 (1991)

Nonlinear Matter Clustering Properties of a Cold Dark Matter Universe. *François R. Bouchet, Richard Schaeffer, & Marc Davis.* 383, 19, 212-C7 (1991)

Deep Galactic Surveys and the Structure of the Universe. *Olga E. Buryak, Marek Demiański, & Andrej G. Doroshkevich.* 383, 41, 212-E1 (1991)

Models of Voids in Elliptic Universes. *A. Chamorro.* 383, 51, 212-F1 (1991)

Thin and Giant Luminous Arcs: A Strong Test of the Lensing Cluster Mass Distribution. *F. Hammer.* 383, 66, 212-G8 (1991)

Bound Populations around cD Galaxies and cD Velocity Offsets in Clusters of Galaxies. *Karl Gebhardt & Timothy C. Beers.* 383, 72, 213-A1 (1991)

The Three-Point Correlation Function for Abell Clusters: Observations and Simulations. *J. Richard Gott III, Bin Gao, & Changbom Park.* 383, 90, 213-B10 (1991)

Expectations for X-Ray Cluster Observations by the *ROSAT* Satellite. *A. E. Evrard & J. P. Henry.* 383, 95, 213-C1 (1991)

Evolution of Clusters of Galaxies. *N. Kaiser.* 383, 104, 213-C11 (1991)

Microwave Background Anisotropies Implied by Large-Scale Galaxy Correlations: The Minimum of $C(0)$ and Cosmological Parameters. *A. Kashlinsky.* 383, L1, 219-A7 (1991)

The Velocity Field of Clusters of Galaxies within 100 Megaparsecs. I. Southern Clusters. *J. R. Mould, L. Staveley-Smith, R. A. Schommer, G. D. Bothun, P. J. Hall, Ming Sheng Han, J. P. Huchra, J. Roth, W. Walsh, & A. E. Wright.* 383, 467, 220-B7 (1991)

Optical Colors of Early-Type Galaxies in Compact Groups. *Stephen E. Zepf, Bradley C. Whitmore, & Harold F. Levison.* 383, 524, 220-G1 (1991)

Modeling the Evolution of Galaxies in Compact Groups. *Stephen E. Zepf & Bradley C. Whitmore.* 383, 542, 221-A8 (1991)

Phase Shifts in Gravitationally Evolving Density Fields. *Barbara S. Ryden & Mirt Gramann.* 383, L33, 226-B1 (1991)

Relaxation-driven Binary Mergers. *Sergio Gelato, David F. Chernoff, & Ira Wasserman.* 384, 15, 1-C1 (1992)

The Distribution of Galaxies within the "Great Wall." *Massimo Ramella, Margaret J. Geller, & John P. Huchra.* 384, 396, 7-B7 (1992)

The Distribution of Nearby Rich Clusters of Galaxies. *Marc Postman, John P. Huchra, & Margaret J. Geller.* 384, 404, 7-C1 (1992)

Primordial Gaussian Perturbation Fields: Constrained Realizations. *Yehuda Hoffman & Erez Ribak.* 384, 448, 7-F9 (1992)

The Topology of Large-Scale Structure. V. Two-dimensional Topology of Sky Maps. *J. Richard Gott III, Shude Mao, Changbom Park, & Ofer Lahav.* 385, 26, 12-D1 (1992)

Velocity Differences in Binary Galaxies. I. Suggestions for a Nonmonotonic, Two-Component Distribution. *Stephen E. Schneider & Edwin E. Salpeter.* 385, 32, 12-D8 (1992)

Distant Cooling Flows. *Megan Donahue, John T. Stocke, & Isabella M. Gioia.* 385, 49, 12-E13 (1992)

Measuring Omega and the Real Correlation Function from the Redshift Correlation Function. *A. J. S. Hamilton.* 385, L5, 17-B1 (1992)

Spectroscopy of Galaxies in Distant Clusters. IV. A Catalog of Photometry and Spectroscopy for Galaxies in Seven Clusters with $0.35 < z < 0.55$. *Alan Dressler & James E. Gunn.* 78, 1, 1-B1 (1992)

A Redshift Survey of *IRAS* Galaxies. IV. The Galaxy Distribution and the Inferred Density Field. *Michael A. Strauss, Marc Davis, Amos Yahil, & John P. Huchra.* 385, 421, 18-D11 (1992)

Two-Component Gravitating Systems and Red Giant–like Structure. *Masayuki Y. Fujimoto & Kohji Tomisaka.* 385, 445, 18-F10 (1992)

The Clustering of Radio Galaxies. *Neta A. Bahcall & Arati Chokshi.* 385, L33, 23-B1 (1992)

Gravitational Clustering of Galaxies: Comparison between Thermodynamic Theory and *N*-Body Simulations. III. Velocity Distributions for Different Mass Components. *Shogo Inagaki, Makoto Itoh, & William C. Saslaw.* 386, 9, 24-B10 (1992)

The Angular Correlation of Quasars and Abell Clusters. *Roger W. Romani & Dan Maoz.* 386, 36, 24-E3 (1992)

The Extended Medium Sensitivity Survey Distant Cluster Sample: X-Ray Data and Interpretation of the Luminosity Evolution. *J. P. Henry, I. M. Gioia, T. Maccacaro, S. L. Morris, J. T. Stocke, & A. Wolter.* 386, 408, 30-D13 (1992)

The Distribution of cD Galaxy Peculiar Velocities. *Eliot M. Malumuth.* 386, 420, 30-E13 (1992)

Abundance of Rich Clusters of Galaxies: A Test for Cosmological Parameters. *Per B. Lilje.* 386, L33, 36-B1 (1992)

The Coherence Length of the Peculiar Velocity Field in the Universe and the Large-Scale Galaxy Correlation Data. *A. Kashlinsky.* 386, L37, 36-B6 (1992)

The Topology of Large-Scale Structure. VI. Slices of the Universe. *Changbom Park, J. Richard Gott III, Adrian L. Melott, & I. D. Karachentsev.* 387, 1, 37-A11 (1992)

On the Dynamical Evolution of Rich Galaxy Clusters. *G. Yepes & R. Domínguez-Tenreiro.* 387, 27, 37-D1 (1992)

Constraints on the Power Spectrum of the Primordial Density Field from Large-Scale Data: Microwave Background and Predictions of Inflation. *A. Kashlinsky.* 387, L1, 43-A8 (1992)

A Deficiency of Large-Scale Pairs among Nearby Quasars. *Robert C. Roeder.* 387, L13, 43-B8 (1992)

Large-Scale Structure in Isocurvature Baryon Models. *Tatsushi Suginohara & Yasushi Suto.* 387, 431, 44-B1 (1992)

Topology of Large-Scale Structure in Seeded Hot Dark Matter Models. *Matthew M. Beaky, Robert J. Scherrer, & Jens V. Villumsen.* 387, 443, 44-C1 (1992)

On Modeling a Relativistic Hierarchical (Fractal) Cosmology by Tolman's Spacetime. I. Theory. *Marcelo B. Ribeiro.* 388, 1, 49-B1 (1992)

Possible Geometric Patterns in 0.1*c* Scale Structure. *R. Brent Tully, Roberto Scaramella, Giampaolo Vettolani, & Giovanni Zamorani.* 388, 9, 49-B10 (1992)

Wavelet Analysis of Subclustering: An Illustration, Abell 754. *Eric Escalera & Alain Mazure.* 388, 23, 49-C12 (1992)

A Huge H I Cloud near a Galaxy Pair. *G. Lyle Hoffman, E. E. Salpeter, C. Lamphier, & T. Roos.* 388, L5, 52-A11 (1992)

Cosmic Background Radiation Anisotropies from Cosmic Structures: Models Based on the Tolman Solution. *Mirosław Panek.* 388, 225, 53-B4 (1992)

The Largest Possible Voids. *G. R. Blumenthal, L. Nicolaci da Costa, D. S. Goldwirth, M. Lecar, & T. Piran.* 388, 234, 53-C1 (1992)

Where Have All the Cluster Halos Gone? *Jack O. Burns, Martin E. Sulkanen, Galen R. Gisler, & Rick A. Perley.* 388, L49, 59-B1 (1992)

The Mass Distribution Function of Groups of Galaxies. *A. Pisani, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 389, 68, 61-A1 (1992)

Large-Scale Structure in a Low-Bias Universe. *H. M. P. Couchman & R. G. Carlberg.* 389, 453, 67-B6 (1992)

Clustering of Galaxy Clusters. I. Is the Spatial Cluster-Cluster Correlation Function Enhanced Significantly by Contaminations? *Yi-Peng Jing, Manolis Plionis, & Riccardo Valdarnini.* 389, 499, 67-F3 (1992)

The Efficiency of Galaxy Formation in Clusters. *Laurence P. David & George R. Blumenthal.* 389, 510, 67-G1 (1992)

X-Ray–emitting Filaments in the Cooling Flow Cluster A2029. *Craig L. Sarazin, Robert W. O'Connell, & Brian R. McNamara.* 389, L59, 73-C8 (1992)

The Large-Scale Galaxy Distribution in the Southern Sky Redshift Survey. *S. Maurogordato, R. Schaeffer, & L. N. da Costa.* 390, 17, 74-C7 (1992)

Spatial Correlations in a Redshift Survey of APM Galaxy Clusters. *G. B. Dalton, G. Efstathiou, S. J. Maddox, & W. J. Sutherland.* 390, L1, 78-A8 (1992)

A2163: An Exceptionally Hot Cluster of Galaxies. *M. Arnaud, J. P. Hughes, W. Forman, C. Jones, M. Lachièze-Rey, K. Yamashita, & I. Hatsukade.* 390, 345, 79-E1 (1992)

Cluster Correlations from *N*-Point Correlation Amplitudes. *I. Szapudi, A. S. Szalay, & P. Boschán.* 390, 350, 79-E7 (1992)

Using Arcs in Clusters of Galaxies as Probes to Cluster Potentials and the Faint Blue Galaxies. *Jordi Miralda-Escudé.* 390, L65, 84-F7 (1992)

The Contribution of Galaxy Clusters to the Soft X-Ray Background. *A. Blanchard, K. Wachter, A. E. Evrard, & Joseph Silk.* 391, 1, 86-B1 (1992)

Nearby Galaxy Flows Modeled by the Light Distribution. *Edward J. Shaya, R. Brent Tully, & Michael J. Pierce.* 391, 16, 86-C5 (1992)

Large-Scale Clustering of Galaxies in the CfA Redshift Survey. *Michael S. Vogeley, Changbom Park, Margaret J. Geller, & John P. Huchra.* 391, L5, 91-G1 (1992)

The Rate of Gravitational Galaxy Clustering. *William C. Saslaw.* 391, 423, 93-B4 (1992)

Tracing Large-Scale Fluctuations Back in Time. *Adi Nusser & Avishai Dekel.* 391, 443, 93-D4 (1992)

Statistics of Pencil Beams in Voronoi Foams. *Mark U. SubbaRao & Alexander S. Szalay.* 391, 483, 93-G12 (1992)

Lyα Emission from Cooling Flows and Measures of the Dust Content of Rich Clusters of Galaxies. *Esther M. Hu.* 391, 608, 95-E7 (1992)

Merging in Cosmic Structures. *A. Cavaliere, S. Colafrancesco, & N. Menci.* 392, 41, 101-E1 (1992)

Gravitational Field Fluctuations in Weakly Clustered Systems. *V. Antonuccio-Delogu & F. Atrio-Barandela.* 392, 403, 107-C12 (1992)

The Cluster Correlation Function: Consistent Results from an Automated Survey. *Neta A. Bahcall & Michael J. West.* 392, 419, 107-E1 (1992)

Observations of 10 Faint Quasar Candidates in the Field of the Tololo 1037−2703/1038−2712 Quasar Pair. *Peter Jakobsen & M. A. C. Perryman.* 392, 432, 107-F3 (1992)

On the Error Estimates of Correlation Functions. *H. J. Mo, Y. P. Jing, & G. Börner.* 392, 452, 107-G13 (1992)

Large-Scale Structure in the Southern Sky Redshift Survey. *Changbom Park, J. Richard Gott III, & L. Nicolaci da Costa.* 392, L51, 113-B6 (1992)

Nearby Galaxy Flows Modeled by the Light Distribution: Distances, Model, and the Local Velocity Anomaly. *R. Brent Tully, Edward J. Shaya, & Michael J. Pierce.* 80, 479, 30-B1 (1992)

A 20 Centimeter VLA Survey of Abell Clusters of Galaxies. II. Images and Optical Identifications. *Frazer N. Owen, Richard A. White, & Jack O. Burns.* 80, 501, 30-D13 (1992)

Statistical Methods for Investigating Periodicities in Double-Galaxy Redshifts. *W. J. Cocke.* 393, 59, 114-G1 (1992)

The Distribution of Rich Clusters of Galaxies in the South Galactic Pole Region. *Luigi Guzzo, Chris A. Collins, Robert C. Nichol, & Stuart L. Lumsden.* 393, L5, 120-B1 (1992)

The Void Spectrum in Two-dimensional Numerical Simulations of Gravitational Clustering. *Guinevere Kauffmann & Adrian L. Melott.* 393, 415, 121-B1 (1992)

The Three-Point Function in an Ensemble of Numerical Simulations. *J. N. Fry, Adrian L. Melott, & Sergei F. Shandarin.* 393, 431, 121-C5 (1992)

Percolation Analysis of Nonlinear Structures in Scale-free Two-dimensional Simulations. *Kurt G. Dominik & Sergei F. Shandarin.* 393, 450, 121-E1 (1992)

On Formation of the Superlarge Structure in the Universe. *Olga E. Buryak, Marek Demiański, & Andrej G. Doroshkevich.* 393, 464, 121-F1 (1992)

A Lower Limit on the Cosmic Mean Density from the Ages of Clusters of Galaxies. *D. Richstone, A. Loeb, & E. L. Turner.* 393, 477, 121-G1 (1992)

High-Resolution Imaging of Virgo Cluster Galaxies. I. The Distance Based on the Brightest Stars in NGC 4571. *Michael J. Pierce, Robert D. McClure, & René Racine.* 393, 523, 122-C9 (1992)

Color Gradients in Cooling Flows in Clusters of Galaxies. *Brian R. McNamara & Robert W. O'Connell.* 393, 579, 123-B1 (1992)

Does Faint Galaxy Clustering Contradict Gravitational Instability? *Adrian L. Melott.* 393, L45, 127-B1 (1992)

Can Neutrino Decay–driven Mock Gravity Save Hot Dark Matter? *Randall J. Splinter & Adrian L. Melott.* 394, 7, 128-B8 (1992)

Thick Strings, the Liquid Crystal Blue Phase, and Cosmological Large-Scale Structure. *Xiaochun Luo & David N. Schramm.* 394, 12, 128-C1 (1992)

Hubble Flows in the Pisces-Perseus Region from the Giovanelli-Haynes Galaxy Sample. *T. Ichikawa & M. Fukugita.* 394, 61, 128-G5 (1992)

The Unusual Field of the Quasar 3C 336: Identification of Three Foreground Mg II Absorbing Galaxies. *Charles C. Steidel & Mark Dickinson.* 394, 81, 129-A13 (1992)

Higher Order Correlations of *IRAS* Galaxies. *Avery Meiksin, Istvan Szapudi, & Alexander Szalay.* 394, 87, 129-B6 (1992)

Previrialization. *August E. Evrard & Mary M. Crone.* 394, L1, 133-A7 (1992)

Weakly Nonlinear Gravitational Instability for Arbitrary Ω. *F. R. Bouchet, R. Juszkiewicz, S. Colombi, & R. Pellat.* 394, L5, 133-B1 (1992)

Cospatial Counterrotating Stellar Disks in the Virgo E7/S0 Galaxy NGC 4550. *Vera C. Rubin, J. A. Graham, & Jeffrey D. P. Kenney.* 394, L9, 133-B7 (1992)

I-Band CCD Surface Photometry of Spiral Galaxies in 16 Nearby Clusters. *Mingsheng Han.* 81, 35, 35-E5 (1992)

Multifractal Properties of Cosmological *N*-Body Simulations. *Riccardo Valdarnini, Stefano Borgani, & Antonello Provenzale.* 394, 422, 134-E7 (1992)

Redshift Asymmetry and Color-Velocity Correlation in Nearby Galaxy Groups: Evidence of Dust? *M. Girardi, M. Mezzetti, G. Giuricin, & F. Mardirossian.* 394, 442, 134-G9 (1992)

Semiempirical Limits on the Thermal Conductivity of Intracluster Gas. *Laurence P. David, John P. Hughes, & Wallace H. Tucker.* 394, 452, 135-A7 (1992)

The Large-Scale Velocity Field beyond the Local Supercluster. *Mingsheng Han.* 395, 75, 141-A9 (1992)

Reproducing the Local and Global Morphological Segregation between S and S0 Galaxies in Rich Clusters by Simple Ram-Pressure Stripping. *José M. Solanes & Eduardo Salvador-Solé.* 395, 91, 141-C1 (1992)

Characteristic-based Models for the Evolution of Cooling Flows. *Stephen D. Murray & Steven A. Balbus.* 395, 99, 141-C11 (1992)

Arcminute Fluctuations in the Microwave Background from Clusters of Galaxies. *M. Markevitch, G. R. Blumenthal, W. Forman, C. Jones, & R. A. Sunyaev.* 395, 326, 146-C1 (1992)

The Angular Three-Point Function of Galaxy Clusters. *Stefano Borgani, Yi-Peng Jing, & Manolis Plionis.* 395, 339, 146-D5 (1992)

The Velocity-Distance Relation for Galaxies on a Bubble. *Gregory D. Bothun, Margaret J. Geller, Michael J. Kurtz, John P. Huchra, & Rudolph E. Schild.* 395, 347, 146-E5 (1992)

Using Electron Scattering to Probe the Environment of Cluster Cooling Flows. *Michael W. Wise & Craig L. Sarazin.* 395, 387, 147-B5 (1992)

Velocity Segregation in Galaxy Clusters. *A. Biviano, M. Girardi, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 396, 35, 155-E1 (1992)

Interpretation of the Cosmic Microwave Background Radiation Anisotropy Detected by the *COBE* Differential Microwave Radiometer. *E. L. Wright, S. S. Meyer, C. L. Bennett, N. W. Boggess, E. S. Cheng, M. G. Hauser, A. Kogut, C. Lineweaver, J. C. Mather, G. F. Smoot, R. Weiss, S. Gulkis, G. Hinshaw, M. Janssen, T. Kelsall, P. M. Lubin, S. H. Moseley, Jr., T. L. Murdock, R. A. Shafer, R. F. Silverberg, & D. T. Wilkinson.* 396, L13, 160-D1 (1992)

Biasing and Distribution Functions for Different Galaxy Types in Optical and *IRAS* Catalogs. *Ofer Lahav & William C. Saslaw.* 396, 430, 162-G1 (1992)

The Intrinsic Shapes of Elliptical Galaxies. *Barbara S. Ryden.* 396, 445, 163-A5 (1992)

Peculiar Velocities of Clusters in the Perseus-Pisces Supercluster. *M. Han & J. R. Mould.* 396, 453, 163-B1 (1992)

String-induced Density Perturbations in Hot Dark Matter. *Dan N. Vollick.* 397, 14, 168-C1 (1992)

X-Ray and Optical Emission-Line Filaments in the Cooling Flow Cluster 2A 0335+096. *Craig L. Sarazin, Robert W. O'Connell, & Brian R. McNamara.* 397, L31, 173-D10 (1992)

Optical Identification, Radio Galaxy Environment, and Statistical Properties for a Homogeneous Sample of 3196 Radio Sources from the Texas Survey. *Elizabeth P. Bozyan.* 82, 1, 49-B1 (1992)

Clusters in Collision? *M. P. Ulmer, G. D. Wirth, & M. P. Kowalski.* 397, 430, 176-A9 (1992)

High-Energy X Emission from the Coma Cluster. *Yoel Rephaeli & Oleg Goldshmidt.* 397, 438, 176-B6 (1992)

Clustering of Galaxy Clusters. II. Rare Events in the Cluster Distribution. *Manolis Plionis, Riccardo Valdarnini, & Yi-Peng Jing.* 398, 12, 182-C1 (1992)

Structure Formation in a Universe with Cold Plus Hot Dark Matter. *Anthony van Dalen & Robert K. Schaefer.* 398, 33, 182-D9 (1992)

The X-Ray Spectrum of Abell 665. *John P. Hughes & Yasuo Tanaka.* 398, 62, 182-G1 (1992)

The Evolution of Quasar Clustering. *Paola Andreani & Stefano Cristiani.* 398, L13, 187-C1 (1992)

N-Point Correlation Functions in the CfA and SSRS Redshift Distribution of Galaxies. *Enrique Gaztañaga.* 398, L17, 187-C7 (1992)

The Shape of the Two-Point Correlation Function: Evidence for a Double Power Law. *Daniela Calzetti, Mauro Giavalisco, & Avery Meiksin.* 398, 429, 189-D7 (1992)

A Study of the Velocity Field in the Local Supercluster Based on a New Peculiar-Velocity Sample. *Kazuhiro Shimasaku & Sadanori Okamura.* 398, 441, 189-E9 (1992)

Galaxy Clusters and Cold Dark Matter: A Low-Density Unbiased Universe? *Neta A. Bahcall & Renyue Cen.* 398, L81, 194-B6 (1992)

The Estimation of Absolute Magnitude and Distance from the Tully-Fisher Relation. *Geoffrey V. Bicknell.* 399, 1, 195-B1 (1992)

Void Probability Function in the Southern Sky Redshift Survey. *Marc Lachièze-Rey, Luiz Nicolaci da Costa, & Sophie Maurogordato.* 399, 10, 195-B13 (1992)

Nuclear Molecular Gas in the Virgo Cluster S0 Galaxy NGC 4710. *J. M. Wrobel & Jeffrey D. P. Kenney.* 399, 94, 196-C10 (1992)

Angular Correlation Function of Faint Galaxies. *C. J. Pritchet & L. Infante.* 399, L35, 200-C13 (1992)

Dynamical Properties of Compact Groups of Galaxies. *Paul Hickson, Claudia Mendes de Oliveira, John P. Huchra, & Giorgio G. C. Palumbo.* 399, 353, 202-C11 (1992)

H I Imaging of Four Quasar-Galaxy Pairs: The Parent Galaxies of Low-Redshift Quasar Absorption Systems. *C. L. Carilli & J. H. van Gorkom.* 399, 373, 202-E7 (1992)

Filamentary and Hierarchical Pictures: Kinetic Energy Criterion. *Anatoly A. Klypin & Adrian L. Melott.* 399, 397, 203-A1 (1992)

Galaxy Formation and Physical Bias. *Renyue Cen & Jeremiah P. Ostriker.* 399, L113, 207-F7 (1992)

An Arc System with a Radial Gravitational Image in the Cluster MS 2137−23. *B. Fort, O. Le Fevre, F. Hammer, & M. Cailloux.* 399, L125, 208-A1 (1992)

Gravity and Count Probabilities in an Expanding Universe. *François R. Bouchet & Lars Hernquist.* 400, 25, 209-C13 (1992)

The Stellar Content of Central Dominant Galaxies. II. Colors of cD Envelopes. *Glen Mackie.* 400, 65, 209-G1 (1992)

The Asymmetric Distribution of Satellite Galaxy Velocities. *Dennis Zaritsky.* 400, 74, 209-G12 (1992)

X-Ray Constraints on the Shape of the Dark Matter in Five Abell Clusters. *David A. Buote & Claude R. Canizares.* 400, 385, 215-B3 (1992)

The Spatial Correlation Properties of Galaxy Halos in a Cold Dark Matter Universe. *T. G. Brainerd & J. V. Villumsen.* 400, 398, 215-C5 (1992)

A Spatial, Kinematical, and Dynamical Analysis of Abell 400. *Timothy C. Beers, Karl Gebhardt, John P. Huchra, William Forman, Christine Jones, & Gregory D. Bothun.* 400, 410, 215-D6 (1992)

Large-Scale Structure in the Universe: Results from the Stromlo-APM Redshift Survey. *J. Loveday, G. Efstathiou, B. A. Peterson, & S. J. Maddox.* 400, L43, 220-B1 (1992)

Non–Self-similar Clustering of Galaxies. *Mirt Gramann.* 401, 19, 221-C7 (1992)

A Quantitative Measure of Structure in the Three-dimensional Galaxy Distribution: Sheets and Filaments. *Arif Babul & Glenn D. Starkman.* 401, 28, 221-D3 (1992)

The Scaling Analysis as a Tool to Compare *N*-Body Simulations with Observations: Application to a Low-Bias Cold Dark Matter Model. *G. Yepes, R. Domínguez-Tenreiro, & H. M. P. Couchman.* 401, 40, 221-E3 (1992)

Are Cluster Ellipticals the Products of Mergers? *Gary A. Mamon.* 401, L3, 227-A10 (1992)

A Simple Multifractal Model of Nonlinear Gravitational Clustering. *Antonello Provenzale, Piero Galeotti, Giuseppe Murante, & Barbara Villone.* 401, 455, 228-D1 (1992)

The CFHT North Galactic Pole Faint Galaxy Survey. *L. Infante & C. J. Pritchet.* 83, 237, 61-B1 (1992)

The Power Spectrum of *IRAS* Galaxies. *Karl B. Fisher, Marc Davis, Michael A. Strauss, Amos Yahil, & John P. Huchra.* 402, 42, 1-E8 (1993)

Non-Gaussian Signatures from Gaussian Initial Fluctuations: Evolution of Skewness and Kurtosis from Cosmological Simulations in the Highly Nonlinear Regime. *Ofer Lahav, Makoto Itoh, Shogo Inagaki, & Yasushi Suto.* 402, 387, 7-D7 (1993)

Detection of Correlation among Galaxies within Clusters from Their Two-dimensional Number Density Profiles. *Eduard Salvador-Solé, Manuel Sanromà, & Guillermo González-Casado.* 402, 398, 7-E5 (1993)

Clustering of Galaxies near Damped Lyman-Alpha Systems with $\langle z \rangle = 2.6$. *A. M. Wolfe.* 402, 411, 7-F11 (1993)

Textures and Clusters. *James G. Bartlett, Andrew K. Gooding, & David N. Spergel.* 403, 1, 14-B1 (1993)

NGC 1407: Center of a Dark, Massive Cluster? *Andrew Gould.* 403, 37, 14-E4 (1993)

Probing the Statistics of Primordial Fluctuations and Their Evolution. *Enrique Gaztañaga & Jun'ichi Yokoyama.* 403, 450, 21-B9 (1993)

Search for Large-Scale Structure in Quasar Distributions at Redshifts $z \approx 2.2$. *Michael J. Longo.* 403, 466, 21-D1 (1993)

Gravitational Clustering of Galaxies: Comparison between Thermodynamic Theory and *N*-Body Simulations. IV. The Effects of Continuous Mass Spectra. *Makoto Itoh, Shogo Inagaki, & William C. Saslaw.* 403, 476, 21-E1 (1993)

Statistics of Highly Magnified Gravitational Images in Clusters of Galaxies. I. Implications for the Clusters. *Jordi Miralda-Escudé.* 403, 497, 21-F11 (1993)

Statistics of Highly Magnified Gravitational Images in Clusters of Galaxies. II. Implications for the Sources. *Jordi Miralda-Escudé.* 403, 509, 21-G12 (1993)

Do Rotation Curves of Spiral Galaxies in Clusters Decline? *P. Amram, W. T. Sullivan III, C. Balkowski, M. Marcelin, & V. Cayatte.* 403, L59, 27-C1 (1993)

Multifractal Analysis of Cluster Distribution in Two Dimensions. *Stefano Borgani, Manolis Plionis, & Riccardo Valdarnini.* 404, 21, 28-C11 (1993)

Velocity Dispersions in Galaxy Clusters. *M. Girardi, A. Biviano, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 404, 38, 28-E1 (1993)

Dark Matter and Dynamics in the Hercules Cluster (A2151). *Christina M. Bird, John M. Dickey, & E. E. Salpeter.* 404, 81, 29-A11 (1993)

Three-Point Correlation Functions and the Hierarchical Clustering *Ansatz* in Low-Density Cold Dark Matter Universes. *Yasushi Suto.* 404, L1, 33-C7 (1993)

The Soft X-Ray Background and Galaxy Clusters. *R. Burg, A. Cavaliere, & N. Menci.* 404, L55, 40-D1 (1993)

Anisotropies in the Microwave Background Due to the Sunyaev-Zel'dovich Effect from Virialized Objects at High Redshifts. *Nobuyoshi Makino & Yasushi Suto.* 405, 1, 41-B1 (1993)

Upper Limit on Periodicity in the Three-dimensional Large-Scale Distribution of Matter. *David Tytler, John Sandoval, & Xiao-Ming Fan.* 405, 57, 41-G1 (1993)

Far-Infrared Emission from the Intracluster Medium. *Michael W. Wise, Robert W. O'Connell, Joel N. Bregman, & Morton S. Roberts.* 405, 94, 42-B13 (1993)

The Insignificance of "Heating Flows" in "Cooling Flow" Clusters of Galaxies. *Claude R. Canizares, Thomas H. Markert, Sera Markoff, & John P. Hughes.* 405, L17, 47-D1 (1993)

Compact Groups of Galaxies and Large-Scale Structure. *G. G. C. Palumbo, P. Saracco, C. Mendes de Oliveira, P. Hickson, V. Tornatore, & G. C. Baiesi-Pillastrini.* 405, 413, 48-C1 (1993)

Comparison of Three Orthogonally Crossed Wakes with the CfA Large-Scale Structure. *Tetsuya Hara & Shigeru Miyoshi.* 405, 419, 48-C9 (1993)

Cluster Correlations for Cold + Hot Dark Matter and Other Models. *Jon A. Holtzman & Joel R. Primack.* 405, 428, 48-D5 (1993)

An Improved Reconstruction Method for Cosmological Density Fields. *Mirt Gramann.* 405, 449, 48-F1 (1993)

A Measurement of Ω_0 from the Internal Dynamics of Spiral Galaxies. *Paolo Salucci, Massimo Persic, & Stefano Borgani.* 405, 459, 48-G1 (1993)

Satellites of Spiral Galaxies. *Dennis Zaritsky, Rodney Smith, Carlos Frenk, & Simon D. M. White.* 405, 464, 48-G7 (1993)

The Ultraviolet Absorption Spectrum of the Quasar PKS 0405−12 and the Local Density of Lyman-Alpha Absorption Systems. *John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, & George F. Hartig.* 405, 491, 49-B11 (1993)

Second-Order Solution for Determining Density and Velocity Fields of Galaxies. *Mirt Gramann.* 405, L47, 54-B6 (1993)

Trajectories of Nonzero–Rest-Mass Particles in Curved Spacetime. *P. S. Negi, A. K. Pande, & M. C. Durgapal.* 406, 1, 55-B1 (1993)

The Power Spectra of *IRAS* Galaxies and of Abell Clusters. *Y. P. Jing & R. Valdarnini.* 406, 6, 55-B7 (1993)

Peculiar Velocities and Galaxy Clustering: Do Bulk and Shell Motions Have the Same Origin? *Daniela Calzetti & Mauro Giavalisco.* 406, 388, 62-D12 (1993)

Orientation of Galaxies in Galaxy Triplets. *Piotr Flin.* 406, 395, 62-E8 (1993)

The Halo Radio Source Coma C and the Origin of Halo Sources. *G. Giovannini, L. Feretti, T. Venturi, K.-T. Kim, & P. P. Kronberg.* 406, 399, 62-F1 (1993)

Ω from the Anisotropy of the Redshift Correlation Function in the *IRAS* 2 Jansky Survey. *A. J. S. Hamilton.* 406, L47, 68-B7 (1993)

Does the Baryon Fraction in Clusters Imply an Open Universe? *Arif Babul & Neal Katz.* 406, L51, 68-B13 (1993)

Metal Enrichment of the Intracluster Medium from Protogalaxies and the Gamma-Ray Bursters. *Makoto Hattori & Nobuo Terasawa.* 406, L55, 68-C5 (1993)

The Local Galaxy Density and the Bars of Spiral Galaxies. *Giuliano Giuricin, Fabio Mardirossian, Marino Mezzetti, & Pierluigi Monaco.* 407, 22, 69-D1 (1993)

The Dark Matter Distribution in MS 2137−23 from the Modeling of the Multiple Arc Systems. *Yannick Mellier, Bernard Fort, & Jean-Paul Kneib.* 407, 33, 69-E1 (1993)

Cooling Flows and Cluster Evolution. *Mark J. Henriksen.* 407, L13, 75-B11 (1993)

An Hα Survey of Cluster Spirals: Comparison of Star Formation in Clusters and the Field. *C. Moss & M. Whittle.* 407, L17, 75-C1 (1993)

Transition Scale to a Homogeneous Universe. *Jaan Einasto & Mirt Gramann.* 407, 443, 76-B6 (1993)

The Frequency of Mergers in Compact Groups. *Stephen E. Zepf.* 407, 448, 76-B12 (1993)

All-Sky Catalogs of Superclusters of Abell-ACO Clusters. *Elena Zucca, Giovanni Zamorani, Roberto Scaramella, & Giampaolo Vettolani.* 407, 470, 76-D10 (1993)

What Determines the Morphological Fractions in Clusters of Galaxies? *Bradley C. Whitmore, Diane M. Gilmore, & Christine Jones.* 407, 489, 76-F8 (1993)

Galaxy Clusters and the *COBE* Result. *James G. Bartlett & Joseph Silk.* 407, L45, 82-B6 (1993)

The Mass Function of Clusters of Galaxies. *Neta A. Bahcall & Renyue Cen.* 407, L49, 82-B10 (1993)

Surface Photometry of the Hydra I Cluster of Galaxies. I. Photometric Data. *Masaru Hamabe.* 85, 249, 10-D5 (1993)

Clusters and Groups of Galaxies as Cosmological Probes. *Haruhiko Ueda, Makoto Itoh, & Yasushi Suto.* 408, 3, 83-B5 (1993)

Significant Cluster Correlations at 30 h^{-1} Mpc: Can Standard Models Be Ruled Out? *Scot S. Olivier, Joel R. Primack, George R. Blumenthal, & Avishai Dekel.* 408, 17, 83-C7 (1993)

Compressive Tidal Heating of a Disk Galaxy in a Rich Cluster. *Monica Valluri.* 408, 57, 83-G1 (1993)

X-Ray Spectra of 12 Distant Clusters of Galaxies. *Qingde Wang & John T. Stocke.* 408, 71, 84-A4 (1993)

On the Thermal Stability of a Radiating Plasma Subject to Nonlocal Thermal Conduction. I. Linear Analysis. *E. Chun & R. Rosner.* 408, 678, 93-F1 (1993)

Redshift Space Clustering of Galaxies and Cold Dark Matter Model. *Neta A. Bahcall, Renyue Cen, & Mirt Gramann.* 408, L77, 95-B7 (1993)

The Velocity Field of Clusters of Galaxies within 100 Megaparsecs. II. Northern Clusters. *J. R. Mould, R. L. Akeson, G. D. Bothun, M. Han, J. P. Huchra, J. Roth, & R. A. Schommer.* 409, 14, 97-C1 (1993)

Tests of Smoothing Methods for Topological Study of Galaxy Redshift Surveys. *Adrian L. Melott & Kurt G. Dominik.* 86, 1, 14-B1 (1993)

Nonlinear Properties and Time Evolution of Gravitational Galaxy Clustering. *William C. Saslaw & Ravi K. Sheth.* 409, 504, 105-B13 (1993)

Objective Detection of Voids and High-Density Structures in the First CfA Redshift Survey Slice. *E. Slezak, V. de Lapparent, & A. Bijaoui.* 409, 517, 105-D1 (1993)

Small-Scale Substructure in Relaxed Clusters. I. Statistical Characterization. *Eduard Salvador-Solé, Guillermo González-Casado, & José María Solanes.* 410, 1, 112-B1 (1993)

Small-Scale Substructure in Relaxed Clusters. II. Clustering Model. *Guillermo González-Casado, José María Solanes, & Eduard Salvador-Solé.* 410, 15, 112-C8 (1993)

Void Evolution and the Large-Scale Structure. *John Dubinski, L. Nicolaci da Costa, D. S. Goldwirth, M. Lecar, & T. Piran.* 410, 458, 119-D1 (1993)

Controlled Experiments in Cosmological Gravitational Clustering. *Adrian L. Melott & Sergei F. Shandarin.* 410, 469, 119-E1 (1993)

Quasar Clustering on Large Scales. *H. J. Mo & L. Z. Fang.* 410, 493, 119-G1 (1993)

Galaxy Colors in Distant Clusters as a Test for the World Model. *Alberto Buzzoni, Guido Chincarini, & Emilio Molinari.* 410, 499, 119-G9 (1993)

The Shapes of Brightest Cluster Galaxies. *Barbara S. Ryden, Tod R. Lauer, & Marc Postman.* 410, 515, 120-B1 (1993)

Searching for a Far-Infrared Enhancement in Compact Groups of Galaxies. *Jack W. Sulentic & Duilia F. De Mello Rabaça.* 410, 520, 120-B8 (1993)

The Galaxy Velocity Field and Cold Dark Matter Models. *Giuseppe Tormen, Lauro Moscardini, Francesco Lucchin, & Sabino Matarrese.* 411, 16, 127-C8 (1993)

Sources of Scatter in the Fundamental Plane and the D_n-σ Relation. *Inger Jørgensen, Marijn Franx, & Per Kjærgaard.* 411, 34, 127-E1 (1993)

Quasars and Active Galactic Nuclei in Rich Environments. III. The Rapid Evolution of Active Galactic Nucleus Activity in Rich Clusters. *H. K. C. Yee & E. Ellingson.* 411, 43, 127-E13 (1993)

BL Lacertae Objects, Fanaroff-Riley Type I Radio Sources, and Cluster Cooling Flows. *Craig L. Sarazin & Michael W. Wise.* 411, 55, 127-F13 (1993)

Mergers and Clustering Evolution. *R. G. Carlberg.* 411, L9, 133-E1 (1993)

The Mass Function of Nearby Galaxy Clusters. *A. Biviano, M. Girardi, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 411, L13, 133-E8 (1993)

The Cluster-Cluster Correlation in Hybrid Models. *Y. P. Jing, H. J. Mo, G. Börner, & L. Z. Fang.* 411, 450, 135-C1 (1993)

Peculiar Velocities of Rich Clusters in Hot and Cold Dark Matter Models. *George Rhee.* 411, 455, 135-C8 (1993)

Velocity Dispersions in Statistical Lensing. *Xiang-Ping Wu.* 411, 513, 136-A7 (1993)

Turbulent Generation of Intracluster Magnetic Fields and Faraday Rotation Measurements. *Oleg Goldshmidt & Yoel Rephaeli.* 411, 518, 136-B1 (1993)

The Environment of the BL Lacertae Object PKS 2155−304. *R. Falomo, Joseph E. Pesce, & A. Treves.* 411, L63, 142-B13 (1993)

IRAS Galaxies versus POTENT Mass: Density Fields, Biasing, and Ω. *Avishai Dekel, Edmund Bertschinger, Amos Yahil, Michael A. Strauss, Marc Davis, & John P. Huchra.* 412, 1, 142-B1 (1993)

Angular Correlations of the X-Ray Background and Clustering of Extragalactic X-Ray Sources. *L. Danese, L. Toffolatti, A. Franceschini, J. M. Martín-Mirones, & G. De Zotti.* 412, 56, 142-F9 (1993)

Bias and Variance of Angular Correlation Functions. *Stephen D. Landy & Alexander S. Szalay.* 412, 64, 142-G6 (1993)

Skewness Induced by Gravity. *R. Juszkiewicz, F. R. Bouchet, & S. Colombi.* 412, L9, 148-B6 (1993)

The Mass Distribution in a Merger Model. *Nir J. Shaviv & Giora Shaviv.* 412, L25, 148-C11 (1993)

A 20 Centimeter VLA Survey of Abell Clusters of Galaxies. III. Images and Optical Identifications. *Frazer N. Owen, Richard A. White, & JingPing Ge.* 87, 135, 28-E5 (1993)

Studies of Galaxy Clustering through the Use of Binary Tree Hierarchies. I. Multipoint Correlation Functions. *Gregory J. Ruffa & David H. Porter.* 87, 179, 29-D11 (1993)

Hierarchical Galaxy Formation: Overmerging and the Formation of an X-Ray Cluster. *Neal Katz & Simon D. M. White.* 412, 455, 149-C1 (1993)

A Catalog of Intracluster Gas Temperatures. *L. P. David, A. Slyz, C. Jones, W. Forman, S. D. Vrtilek, & K. A. Arnaud.* 412, 479, 149-E9 (1993)

Spartan 1 X-Ray Observations of the Perseus Cluster. III. The Distribution of Iron in the Intracluster Gas. *M. P. Kowalski, R. G. Cruddace, W. A. Snyder, G. G. Fritz, M. P. Ulmer, & E. E. Fenimore.* 412, 489, 149-F8 (1993)

Statistics of Arcs in Clusters of Galaxies. *Anton G. Bergmann & Vahé Petrosian.* 413, 18, 156-C11 (1993)

Observational Constraints on Primordial Bubbles. *Luca Amendola & Franco Occhionero.* 413, 39, 156-E6 (1993)

Percolation Technique for Galaxy Clustering. *Anatoly Klypin & Sergei F. Shandarin.* 413, 48, 156-F3 (1993)

Velocity Functions of Galaxies and Clusters of Galaxies. *Kazuhiro Shimasaku.* 413, 59, 156-G3 (1993)

Biasing and Hierarchical Statistics in Large-Scale Structure. *J. N. Fry & Enrique Gaztañaga.* 413, 447, 162-B7 (1993)

An X-Ray Method for Detecting Substructure in Galaxy Clusters: Application to Perseus, A2256, Centaurus, Coma, and Sersic 40/6. *Joseph J. Mohr, Daniel G. Fabricant, & Margaret J. Geller.* 413, 492, 162-F1 (1993)

Large-Scale Angular Correlations in Cold Dark Matter Models. *Lauro Moscardini, Stefano Borgani, Peter Coles, Francesco Lucchin, Sabino Matarrese, Antonio Messina, & Manolis Plionis.* 413, L55, 168-B1 (1993)

The Dark Matter Distribution of M87 and NGC 1399. *John C. Tsai.* 413, L59, 168-B7 (1993)

Second-Order Perturbation Theory in an Expanding Universe: Spherical Harmonics Expansion. *Saleem Zaroubi & Yehuda Hoffman.* 414, 20, 170-C8 (1993)

X-Ray Spectral Observations of Clusters of Galaxies Undergoing Merger Events. *Mark J. Henriksen.* 414, L5, 175-C6 (1993)

On the Angular Correlation Function of Faint Galaxies. *Yuzuru Yoshii, Bruce A. Peterson, & Fumio Takahara.* 414, 431, 176-E1 (1993)

Amplification of Cluster Correlations: The Effect of Sharp Clipping. *István Szapudi & Alexander S. Szalay.* 414, 493, 177-C12 (1993)

On Cosmological Constraints from Statistics of X-Ray Clusters. *Hitoshi Hanami.* 415, 42, 185-E6 (1993)

Distant Clusters of Galaxies Detected by X-Rays. *A. Cavaliere, S. Colafrancesco, & N. Menci.* 415, 50, 185-F1 (1993)

The X-Ray Spectra of Cluster Cooling Flows. I. Optically Thin Models. *Michael W. Wise & Craig L. Sarazin.* 415, 58, 185-F10 (1993)

The Highly Polarized Hidden Quasar IRAS 09104+4109: A Double-lobed Radio Source in a Rich Cluster. *Dean C. Hines & Beverley J. Wills.* 415, 82, 186-A10 (1993)

The Relation between Velocity Dispersion and Temperature in Clusters: Limiting the Velocity Bias. *Lori M. Lubin & Neta A. Bahcall.* 415, L17, 191-G5 (1993)

Optical CCD Imaging of GHz-peaked-Spectrum Radio Sources. *C. Stanghellini, C. P. O'Dea, S. A. Baum, & E. Laurikainen.* 88, 1, 40-B1 (1993)

Can Extra Power Explain Periodicity on Large Scales? *Shan Luo & Ethan T. Vishniac.* 415, 450, 193-D9 (1993)

The Redshift Space Power Spectrum of Galaxies in a Cold Dark Matter Universe. *Tereasa G. Brainerd & Jens V. Villumsen.* 415, L67, 199-D8 (1993)

Structure Formation with Cold plus Hot Dark Matter. *Anatoly Klypin, Jon Holtzman, Joel Primack, & Enikő Regős.* 416, 1, 201-B1 (1993)

Simulations of Compact Groups of Galaxies: The Effect of the Dark Matter Distribution. *Paul W. Bode, Haldan N. Cohn, & Phyllis M. Lugger.* 416, 17, 201-C5 (1993)

The Shapes of Galaxy Groups. *G. Fasano, A. Pisani, R. Vio, & M. Girardi.* 416, 546, 210-B8 (1993)

Transverse Dissections of the Fundamental Planes of Elliptical Galaxies and Clusters of Galaxies. *Alvio Renzini & Luca Ciotti.* 416, L49, 216-B6 (1993)

H I 21 Centimeter Observations and *I*-Band CCD Surface Photometry of Spiral Galaxies behind the Virgo Cluster and toward Its Antipode. *N. Y Lu, G. L. Hoffman, T. Groff, T. Roos, & C. Lamphier.* 88, 383, 45-D1 (1993)

Toward Better Ways to Measure the Galaxy Correlation Function. *A. J. S. Hamilton.* 417, 19, 217-C11 (1993)

Moments of the Counts Distribution in the 1.2 Jansky *IRAS* Galaxy Redshift Survey. *François R. Bouchet, Michael A. Strauss, Marc Davis, Karl B. Fisher, Amos Yahil, & John P. Huchra.* 417, 36, 217-E3 (1993)

Gravitational Lensing Pairs in Clusters of Galaxies: A New Probe to the High-Redshift Universe. *Jordi Miralda-Escudé & Bernard Fort.* 417, L5, 222-F7 (1993)

Reconciliation of the Disparate Gamma-Ray Burst Catalogs in the Context of a Cosmological Source Distribution. *Peter Tamblyn & Fulvio Melia.* 417, L21, 223-A3 (1993)

A Hydrodynamic Treatment of the Cold Dark Matter Cosmological Scenario with a Cosmological Constant. *Renyue Cen, Nickolay Y. Gnedin, & Jeremiah P. Ostriker.* 417, 387, 224-B5 (1993)

Tidally Induced Elongation and Alignments of Galaxy Clusters. *Eduard Salvador-Solé & José María Solanes.* 417, 427, 224-F1 (1993)

Elliptic Mass Distributions versus Elliptic Potentials in Gravitational Lenses. *Aggeliki Kassiola & Israel Kovner.* 417, 450, 225-A1 (1993)

Helium-like Iron Line Temperature Diagnostics in Clusters of Galaxies. *Douglas A. Swartz & Martin E. Sulkanen.* 417, 487, 225-D3 (1993)

Comptonization of the Cosmic Microwave Background by Gas in Superclusters of Galaxies. *Yoel Rephaeli.* 418, 1, 231-B1 (1993)

Polarized Scattering in the Vicinity of Galaxies. *Brian W. Murphy & David F. Chernoff.* 418, 60, 231-G7 (1993)

The Structure and Dynamics of Elliptical Galaxies in Compact Groups. *Stephen E. Zepf & Bradley C. Whitmore.* 418, 72, 232-A7 (1993)

Velocity Fields and Alignments of Clusters in Gravitational Instability Scenarios. *Michiel van Haarlem & Rien van de Weygaert.* 418, 544, 239-C1 (1993)

Linear Evolution of the Gravitational Potential: A New Approximation for the Nonlinear Evolution of Large-Scale Structure. *Tereasa G. Brainerd, Robert J. Scherrer, & Jens V. Villumsen.* 418, 570, 239-E6 (1993)

The Fundamental Plane and the Surface Brightness Test for the Expansion of the Universe. *Per Kjærgaard, Inger Jørgensen, & Mariano Moles.* 418, 617, 240-B6 (1993)

Dynamics of Binary Galaxies. I. Wide Pairs. *Jayaram N. Chengalur, E. E. Salpeter, & Yervant Terzian.* 419, 30, 246-D10 (1993)

A Technique for Detecting Structure in Cluster Velocity Distributions. *Ann I. Zabludoff, Marijn Franx, & Margaret J. Geller.* 419, 47, 246-F5 (1993)

Production and Circulation of Iron in Elliptical Galaxies and Clusters of Galaxies. *Alvio Renzini, Luca Ciotti, Annibale D'Ercole, & Silvia Pellegrini.* 419, 52, 246-F12 (1993)

A Morphology-Cosmology Connection for X-Ray Clusters. *August E. Evrard, Joseph J. Mohr, Daniel G. Fabricant, & Margaret J. Geller.* 419, L9, 252-B13 (1993)

Confusion Limits to the Measurement of the Sunyaev-Zel'dovich Effects in Clusters of Galaxies at Millimeter Wavelengths. *Marc L. Fischer & Andrew E. Lange.* 419, 433, 253-B8 (1993)

Clustering of Galaxies in Redshift Space: Velocity Distortion of the Power Spectrum and Correlation Function. *Mirt Gramann, Renyue Cen, & Neta A. Bahcall.* 419, 440, 253-C1 (1993)

Correlation Functions from the Perseus-Pisces Redshift Survey. *S. A. Bonometto, A. Iovino, L. Guzzo, R. Giovanelli, & M. Haynes.* 419, 451, 253-D4 (1993)

Evolution of One-Point Distributions from Gaussian Initial Fluctuations. *Lev Kofman, Edmund Bertschinger, James M. Gelb, Adi Nusser, & Avishai Dekel.* 420, 44, 1-E8 (1994)

Near-Infrared Imaging of FSC 10214+4724 with the W. M. Keck Telescope. *K. Matthews, B. T. Soifer, J. Nelson, H. Boesgaard, J. R. Graham, W. Harrison, W. Irace, G. Jernigan, J. E. Larkin, H. Lewis, S. Lin, G. Neugebauer, M. Sirota, G. Smith, & C. Ziomkowski.* 420, L13, 7-C5 (1994)

Departure from Hierarchical Clustering Relations for Two-, Three-, and Four-Point Correlation Functions: Analysis of Cosmological *N*-Body Simulations. *Yasushi Suto & Takahiko Matsubara.* 420, 504, 8-G11 (1994)

Topological Analysis of the CfA Redshift Survey. *Michael S. Vogeley, Changbom Park, Margaret J. Geller, John P. Huchra, & J. Richard Gott III.* 420, 525, 9-B8 (1994)

The Genus Curve of the Abell Clusters. *James E. Rhoads, J. Richard Gott III, & Marc Postman.* 421, 1, 16-B1 (1994)

Structure in the Distribution of Southern Galaxies Described by the Distribution Function. *Fan Fang & Zhen-long Zou.* 421, 9, 16-B10 (1994)

Decaying Neutrinos in Galaxy Clusters. *Adrian L. Melott, Randall J. Splinter, Massimo Persic, & Paolo Salucci.* 421, 16, 16-C5 (1994)

On the Galactic Pair Correlation Function for a Gravitational Plasma. *Andrzej R. Altenberger & John S. Dahler.* 421, L9, 21-D6 (1994)

The X-Ray Luminosity Functions of Abell Clusters from the *Einstein* Cluster Survey. *R. Burg, R. Giacconi, W. Forman, & C. Jones.* 422, 37, 30-E1 (1994)

Infall-related Observational Effects around Clusters: Large-Scale Structure, Transverse Motions, and Redshift-Space Artifacts. *Elizabeth A. Praton & Stephen E. Schneider.* 422, 46, 30-E13 (1994)

Ω from Velocities in Voids. *Avishai Dekel & Martin J. Rees.* 422, L1, 36-B1 (1994)

Imaging of 16 Distant EMSS Clusters with $z \geq 0.2$ and $L_{X,44} \geq 4$: New Arcs and First Consequences. *O. Le Fèvre, F. Hammer, M. C. Angonin, I. M. Gioia, & G. A. Luppino.* 422, L5, 36-B7 (1994)

Higher Order Moments of the Matter Distribution in Scale-free Cosmological Simulations with Large Dynamic Range. *Francesco Lucchin, Sabino Matarrese, Adrian L. Melott, & Lauro Moscardini.* 422, 430, 37-C4 (1994)

X-Ray Clusters and Gravitational Instability Theories. *S. Colafrancesco & N. Vittorio.* 422, 443, 37-D5 (1994)

Coronal Line Emission in Cluster Cooling Flows. *Megan Donahue & John T. Stocke.* 422, 459, 37-E9 (1994)

Galaxy Groups in Cold + Hot Dark Matter and Cold Dark Matter Universes: Comparison with CfA Data. *Richard Nolthenius, Anatoly Klypin, & Joel R. Primack.* 422, L45, 44-F5 (1994)

The Sunyaev-Zel'dovich Effect and Cluster Evolution. *James G. Bartlett & Joseph Silk.* 423, 12, 46-C1 (1994)

Applying the Zel'dovich Approximation to General Relativity. *K. M. Croudace, J. Parry, D. S. Salopek, & J. M. Stewart.* 423, 22, 46-D1 (1994)

Clumped X-Ray Emission around Radio Galaxies in Abell Clusters. *Jack O. Burns, George Rhee, Frazer N. Owen, & Jason Pinkney.* 423, 94, 47-C9 (1994)

Self-similar Expansion of Axisymmetric Voids. *Barbara S. Ryden.* 423, 534, 55-B8 (1994)

Structures in Galaxy Clusters. *E. Escalera, A. Biviano, M. Girardi, G. Giuricin, F. Mardirossian, A. Mazure, & M. Mezzetti.* 423, 539, 55-C1 (1994)

X-Ray Emission from a Simulated Cluster of Galaxies. *John C. Tsai, Neal Katz, & Edmund Bertschinger.* 423, 553, 55-D4 (1994)

Sampling Functions for Measuring the Cosmic Mass Density. *B. C. Bromley.* 423, L81, 60-B7 (1994)

A Large Structure of Galaxies at a Redshift $z = 0.985$. *O. Le Fèvre, D. Crampton, F. Hammer, S. J. Lilly, & L. Tresse.* 423, L89, 60-C5 (1994)

Wiener Reconstruction of All-Sky Galaxy Surveys in Spherical Harmonics. *O. Lahav, K. B. Fisher, Y. Hoffman, C. A. Scharf, & S. Zaroubi.* 423, L93, 60-C13 (1994)

Peculiar Velocity Effect on Galaxy Correlation Functions in Nonlinear Clustering Regime. *Takahiko Matsubara.* 424, 30, 62-D4 (1994)

Scaling Analysis of the Distribution of Galaxies in the CfA Catalog. *R. Domínguez-Tenreiro, M. A. Gómez-Flechoso, & V. J. Martínez.* 424, 42, 62-E4 (1994)

Einstein X-Ray Observations of the Core of the Shapley Supercluster in Northern Centaurus. *Jeffrey Breen, Somak Raychaudhury, William Forman, & Christine Jones.* 424, 59, 62-F9 (1994)

A Complete Southern Sky Redshift Survey. *L. Nicolaci da Costa, M. J. Geller, P. S. Pellegrini, D. W. Latham, A. P. Fairall, R. O. Marzke, C. N. A. Willmer, J. P. Huchra, J. H. Calderon, M. Ramella, & M. J. Kurtz.* 424, L1, 69-A8 (1994)

The Variance of Correlation Function Estimates. *Gary M. Bernstein.* 424, 569, 71-F12 (1994)

Simulations of Deep Galaxy Fields. I. Monte Carlo Simulations of Optical and Near-Infrared Counts. *Arati Chokshi, Carol J. Lonsdale, Paola Mazzei, & Gianfranco De Zotti.* 424, 578, 71-G9 (1994)

Large-Scale Morphological Segregation in Optically Selected Galaxy Redshift Catalogs. *R. Domínguez-Tenreiro, A. Campos, M. A. Gómez-Flechoso, & G. Yepes.* 424, L73, 78-F1 (1994)

The Detection of X-Ray Emission from the Highest Redshift Galaxy Clusters. *Francisco J. Castander, Richard S. Ellis, Carlos S. Frenk, Alan Dressler, & James E. Gunn.* 424, L79, 78-F9 (1994)

Redshift Distortions of Galaxy Correlation Functions. *J. N. Fry & Enrique Gaztañaga.* 425, 1, 80-B1 (1994)
Dark Matter in Hierarchical Cluster Evolution. *Mark J. Henriksen.* 425, 35, 80-E8 (1994)
Mergers, Cooling Flows, and Evaporation Revisited. *A. C. Fabian, C. R. Canizares, & H. Böhringer.* 425, 40, 80-F1 (1994)
Recovering the Real Density Field of Galaxies from Redshift Space. *Mirt Gramann, Renyue Cen, & J. Richard Gott III.* 425, 382, 86-D10 (1994)
The Three-Point Function as a Probe of Models for Large-Scale Structure. *Joshua A. Frieman & Enrique Gaztañaga.* 425, 392, 86-E8 (1994)
The Power Spectra of Dark Halos in a Cold Dark Matter Universe. *Tereasa G. Brainerd & Jens V. Villumsen.* 425, 403, 86-F7 (1994)
The Motion of the Local Group with Respect to the 15,000 Kilometer per Second Abell Cluster Inertial Frame. *Tod R. Lauer & Marc Postman.* 425, 418, 87-A1 (1994)
The Local Galaxy Density and the Arm Class of Spiral Galaxies. *Giuliano Giuricin, Pierluigi Monaco, Fabio Mardirossian, & Marino Mezzetti.* 425, 450, 87-C11 (1994)
Cluster Evolution and Microwave Source Counts. *M. Markevitch, Ğ. R. Blumenthal, W. Forman, C. Jones, & R. A. Sunyaev.* 426, 1, 96-B1 (1994)
Kurtosis and Large-Scale Structure. *Paolo Catelan & Lauro Moscardini.* 426, 14, 96-C2 (1994)
Is the Universe Gravitationally Dominated by Nonbaryonic Dark Matter? *Makoto Hattori.* 426, 19, 96-C9 (1994)
Comparison of Dynamical Approximation Schemes for Nonlinear Gravitational Clustering. *Adrian L. Melott.* 426, L19, 103-C5 (1994)
Resolving the Beta-Discrepancy for Clusters of Galaxies. *Neta A. Bahcall & Lori M. Lubin.* 426, 513, 104-F11 (1994)
Correlations of Galaxies at $z = 0.3$. *G. M. Bernstein, J. A. Tyson, W. R. Brown, & J. F. Jarvis.* 426, 516, 104-G3 (1994)
Testing the Gravitational Instability Hypothesis? *Arif Babul, David H. Weinberg, Avishai Dekel, & Jeremiah P. Ostriker.* 427, 1, 110-B1 (1994)
Dynamical Friction, Secondary Infall, and the Evolution of Clusters of Galaxies. *V. Antonuccio-Delogu & S. Colafrancesco.* 427, 72, 110-G10 (1994)
A Redshift Survey in Quasar Fields. I. Photometric and Spectroscopic Catalog. *E. Ellingson & H. K. C. Yee.* 92, 33, 31-D8 (1994)
How Unusual is the Locally Quiet Hubble Flow? *David Schlegel, Marc Davis, Frank Summers, & Jon A. Holtzman.* 427, 527, 119-C7 (1994)
The Distribution of *IRAS* Galaxies on Linear and Nonlinear Scales. *Ravi K. Sheth, H. J. Mo, & William C. Saslaw.* 427, 562, 119-F11 (1994)
Subclustering and Luminous-Dark Matter Segregation in Galaxy Clusters. *A. Serna, J.-M. Alimi, & H. Scholl.* 427, 574, 119-G11 (1994)
Mass Segregation, Relaxation, and the Coulomb Logarithm in N-Body Systems (Again). *R. T. Farouki & E. E. Salpeter.* 427, 676, 121-B5 (1994)
Morphology of Galaxies in Compact Groups. *Cláudia Mendes de Oliveira & Paul Hickson.* 427, 684, 121-C1 (1994)
The Coma Cluster after Lunch: Has a Galaxy Group Passed through the Cluster Core? *Jack O. Burns, Kurt Roettiger, Michael Ledlow, & Anatoly Klypin.* 427, L87, 127-A5 (1994)
Hot Gas in the Cold Dark Matter Scenario: X-Ray Clusters from a High-Resolution Numerical Simulation. *Hyesung Kang, Renyue Cen, Jeremiah P. Ostriker, & Dongsu Ryu.* 428, 1, 128-C1 (1994)
A Test of the Adhesion Approximation for Gravitational Clustering. *Adrian L. Melott, Sergei F. Shandarin, & David H. Weinberg.* 428, 28, 128-E6 (1994)
Dark Matter around a Cluster of Galaxies under the Long Cosmic String Scheme. *Tetsuya Hara, Masakazu Matsuura, Hideki Yamamoto, Petri Mähönen, & Shigeru J. Miyoshi.* 428, 51, 128-G7 (1994)
The Zero-Point of the Cluster-Cluster Correlation Function: A Key Test of Cosmological Power Spectra. *Anatoly Klypin & George Rhee.* 428, 399, 135-B9 (1994)
Perturbative Growth of Cosmological Clustering. I. Formalism. *Somnath Bharadwaj.* 428, 419, 135-D4 (1994)
X-Ray Clusters in a Cold Dark Matter + Λ Universe: A Direct, Large-Scale, High-Resolution, Hydrodynamic Simulation. *Renyue Cen & Jeremiah P. Ostriker.* 429, 4, 144-C6 (1994)
Evolution of Systems of Galaxies in Cold Dark Matter Models. *Patricia B. Tissera, Diego G. Lambas, & Mario G. Abadi.* 429, 29, 144-E7 (1994)
Skewness in Large-Scale Structure and Non-Gaussian Initial Conditions. *J. N. Fry & Robert J. Scherrer.* 429, 36, 144-F2 (1994)
Orbits of the Nearby Galaxies. *P. J. E. Peebles.* 429, 43, 144-F11 (1994)
The Fraction of Matter in Voids. *Jaan Einasto, Enn Saar, Maret Einasto, Wolfram Freudling, & Mirt Gramann.* 429, 465, 151-E2 (1994)
Optical Luminosity Functions for Compact Groups of Galaxies. *Jack W. Sulentic & Carlos R. Rabaça.* 429, 531, 152-C8 (1994)
Nonpolytropic Model for the Coma Cluster. *R. Fusco-Femiano & John P. Hughes.* 429, 545, 152-D12 (1994)
Companion Galaxies: A Test of the Assumption That Velocities Can Be Inferred from Redshifts. *Halton Arp.* 430, 74, 160-A1 (1994)
A Comparison of Cosmological Hydrodynamic Codes. *Hyesung Kang, Jeremiah P. Ostriker, Renyue Cen, Dongsu Ryu, Lars Hernquist, August E. Evrard, Greg L. Bryan, & Michael L. Norman.* 430, 83, 160-A12 (1994)
A Model for the Declining Rotation Curves of Cluster Spiral Galaxies. *Monica Valluri.* 430, 101, 160-C9 (1994)
Non-Gaussian Statistics of Pencil Beam Surveys. *Luca Amendola.* 430, L9, 165-B13 (1994)
Probing the Large-Scale Velocity Field with Clusters of Galaxies. *Neta A. Bahcall, Renyue Cen, & Mirt Gramann.* 430, L13, 165-C5 (1994)
Theoretical Expectations for Bulk Flows in Large-Scale Surveys. *Hume A. Feldman & Richard Watkins.* 430, L17, 165-C11 (1994)
Structural Properties of Compact Groups. *R. R. de Carvalho, A. L. B. Ribeiro, & Stephen E. Zepf.* 93, 47, 42-F1 (1994)
On the Accurate Determination of the Clustering Hierarchy of Galaxies. *Péter Boschán, István Szapudi, & Alexander S. Szalay.* 93, 65, 42-G6 (1994)
The Variance of Quasar Counts in Cells. *Paola Andreani, Stefano Cristiani, Francesco Lucchin, Sabino Matarrese, & Lauro Moscardini.* 430, 458, 167-D3 (1994)
The Evolution of Voids in the Adhesion Approximation. *Varun Sahni, B. S. Sathyaprakash, & Sergei F. Shandarin.* 431, 20, 176-D10 (1994)
Arc Statistics and Constraints on Cluster Lenses. *Scott A. Grossman & Prasenjit Saha.* 431, 74, 177-B3 (1994)
A Hydrodynamic Approach to Cosmology: The Mixed Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah P. Ostriker.* 431, 451, 184-C1 (1994)
On the Evolution of Clustering and the Biased Galaxy Formation Scenario. *Tereasa G. Brainerd & Jens V. Villumsen.* 431, 477, 184-E1 (1994)
Second-Order Power Spectrum and Nonlinear Evolution at High Redshift. *Bhuvnesh Jain & Edmund Bertschinger.* 431, 495, 184-F9 (1994)
Typical Scales in the Spatial Distribution of QSOs. *Zugan Deng, Xiaoyang Xia, & Li-Zhi Fang.* 431, 506, 184-G9 (1994)
Large-Scale Structure after *COBE*: Peculiar Velocities and Correlations of Cold Dark Matter Halos. *Wojciech H. Zurek, Peter J. Quinn, John K. Salmon, & Michael S. Warren.* 431, 559, 185-E1 (1994)
Power Spectrum, Correlation Function, and Tests for Luminosity Bias in the CfA Redshift Survey. *Changbom Park, Michael S. Vogeley, Margaret J. Geller, & John P. Huchra.* 431, 569, 185-F1 (1994)
Detection of Lens Candidates for the Double Quasar Q2345+007. *Philippe Fischer, J. Anthony Tyson, Gary M. Bernstein, & Puragra Guhathakurta.* 431, L71, 191-C1 (1994)
Galaxy Properties in Different Environments. I. The Sample. *Marcio A. G. Maia, Miriani G. Pastoriza, Eduardo Bica, & Horacio Dottori.* 93, 425, 48-D8 (1994)
Origin of Cluster-Cluster Correlation Functions in Biased Structure Formation Scenarios. *Takuya Watanabe, Takahiko Matsubara, & Yasushi Suto.* 432, 17, 193-D7 (1994)
Clusters of Galaxies in the Long Cosmic String Model. *Tetsuya Hara, Hideki Yamamoto, Petri Mähönen, & Shigeru J. Miyoshi.* 432, 31, 193-E9 (1994)
Temperatures of Distant Clusters of Galaxies. *J. P. Henry, L. Jiao, & I. M. Gioia.* 432, 49, 193-G3 (1994)
The Angular Correlation Function of Galaxies in Cold Dark Matter and Cold Plus Hot Dark Matter Models. *G. Yepes, A. A. Klypin, A. Campos, & R. Fong.* 432, L11, 199-C1 (1994)
Abundance of Moderate-Redshift Clusters in the Cold Plus Hot Dark Matter Model. *Yi-Peng Jing & Li-Zhi Fang.* 432, 438, 201-D1 (1994)
Evolution of Galaxies in Clusters. *Stéphane Charlot & Joseph Silk.* 432, 453, 201-E6 (1994)
Cosmic Microwave Background Anisotropy Induced by Gas in Clusters of Galaxies. *S. Colafrancesco, P. Mazzotta, Y. Rephaeli, & N. Vittorio.* 433, 454, 216-E10 (1994)
Isotropy, Homogeneity, and Dipole Saturation. *Francesco Sylos Labini.* 433, 464, 216-F8 (1994)
Velocity Bias in Clusters. *R. G. Carlberg.* 433, 468, 216-G1 (1994)

The Dynamical Evolution of Poor Clusters of Galaxies: Growth and Properties of the First-ranked Galaxy. *Paul W. Bode, Robert C. Berrington, Haldan N. Cohn, & Phyllis M. Lugger.* 433, 479, 217-A2 (1994)

The Dynamical Survival of Small-Scale Substructure in Relaxed Galaxy Clusters. *Guillermo González-Casado, Gary A. Mamon, & Eduard Salvador-Solé.* 433, L61, 223-E3 (1994)

Testing the Least Action Principle in an $\Omega_0 = 1$ Universe. *E. Branchini & R. G. Carlberg.* 434, 37, 225-F4 (1994)

The Cosmological Dependence of Cluster Density Profiles. *Mary M. Crone, August E. Evrard, & Douglas O. Richstone.* 434, 402, 233-C9 (1994)

Confrontation of a Double Inflationary Cosmological Model with Observations. *Stefan Gottlöber, Jan P. Mücket, & Alexei A. Starobinsky.* 434, 417, 233-D13 (1994)

Analytic Expression of the Genus in a Weakly Non-Gaussian Field Induced by Gravity. *Takahiko Matsubara.* 434, L43, 241-C8 (1994)

The EMSS Catalog of X-Ray–selected Clusters of Galaxies. I. An Atlas of CCD Images of 41 Distant Clusters. *I. M. Gioia & G. A. Luppino.* 94, 583, 59-G13 (1994)

Is There Any Scaling in the Cluster Distribution? *Stefano Borgani, Vicent J. Martínez, Miguel A. Pérez, & Riccardo Valdarnini.* 435, 37, 243-F10 (1994)

Galaxy Mergers and Gravitational Lens Statistics. *Hans-Walter Rix, Dan Maoz, Edwin L. Turner, & Masataka Fukugita.* 435, 49, 243-G12 (1994)

The Cosmological Mass Distribution from Cayley Trees with Disorder. *A. Cavaliere & N. Menci.* 435, 528, 253-D3 (1994)

A "Skewed" Lognormal Approximation to the Probability Distribution Function of the Large-Scale Density Field. *S. Colombi.* 435, 536, 253-E1 (1994)

Statistical Uncertainties in Temperature Diagnostics for Hot Coronal Plasma Using the *ASCA* SIS. *Douglas A. Swartz, S. L. O'Dell, M. E. Sulkanen, & A. F. Tennant, Jr.* 435, L149, 260-D11 (1994)

Imprints of Galaxy Clustering Evolution on $\Delta T/T$. *Enrique Martínez-González, Jose L. Sanz, & Joseph Silk.* 436, 1, 261-C1 (1994)

Kurtosis as a Non-Gaussian Signature of the Large-Scale Velocity Field. *Paolo Catelan & Lauro Moscardini.* 436, 5, 261-C8 (1994)

The Motions of Clusters and Groups of Galaxies. *Neta A. Bahcall, Mirt Gramann, & Renyue Cen.* 436, 23, 261-E4 (1994)

X-Ray Emission from Hickson's Compact Groups of Galaxies: Results from the *ROSAT* All-Sky Survey. *Harald Ebeling, Wolfgang Voges, & Hans Böhringer.* 436, 44, 261-G6 (1994)

Why Do Head-Tail Sources Exist in Poor Clusters of Galaxies? *T. C. A. Venkatesan, David J. Batuski, Robert J. Hanisch, & Jack O. Burns.* 436, 67, 262-B8 (1994)

Nonisothermality of the Hottest Cluster Abell 2163. *Maxim Markevitch, Koujun Yamashita, Akihiro Furuzawa, & Yuzuru Tawara.* 436, L71, 269-E7 (1994)

Nonlinear Approximations to Gravitational Instability: A Comparison in the Quasi-linear Regime. *Dipak Munshi, Varun Sahni, & Alexei A. Starobinsky.* 436, 517, 272-E10 (1994)

Merging Rates inside Large-Scale Structures. *Nicola Menci & Riccardo Valdarnini.* 436, 559, 273-C1 (1994)

Scaling Analysis of the Galaxy Distribution in the SSRS Catalog. *A. Campos, R. Domínguez-Tenreiro, & G. Yepes.* 436, 565, 273-C10 (1994)

Environmental Effects on Local Active Galactic Nuclei. *Pierluigi Monaco, Giuliano Giuricin, Fabio Mardirossian, & Marino Mezzetti.* 436, 576, 273-D11 (1994)

Determining Gravitational Masses of Galaxy Clusters with Virial Equilibrium and Arclike Images. *Xiang-Ping Wu.* 436, L115, 280-F7 (1994)

Internal Velocity and Mass Distributions in Simulated Clusters of Galaxies for a Variety of Cosmogonic Models. *Renyue Cen.* 437, 12, 283-D2 (1994)

Relativistic Fireworks: Not a Viable Model for Cosmology. *Lennart Widlund.* 437, 27, 283-E6 (1994)

Synthesizing the Observed Distribution of Galaxies. *Ravi K. Sheth & William C. Saslaw.* 437, 35, 283-F3 (1994)

Galaxies in Clusters: Gas Stripping and Accretion. *Dinshaw Balsara, Mario Livio, & Christopher P. O'Dea.* 437, 83, 284-C6 (1994)

The Power Spectrum of Galaxies in the Nearby Universe. *L. Nicolaci da Costa, Michael S. Vogeley, Margaret J. Geller, John P. Huchra, & Changbom Park.* 437, L1, 291-B1 (1994)

Bias and High-Order Galaxy Correlation Functions in the APM Galaxy Survey. *Enrique Gaztañaga & Joshua A. Frieman.* 437, L13, 291-C8 (1994)

Velocity Correlations of Galaxy Clusters. *Renyue Cen, Neta A. Bahcall, & Mirt Gramann.* 437, L51, 292-A8 (1994)

Correlations in Cosmic Density Fields. *B. C. Bromley.* 437, 541, 293-C1 (1994)

Correlations and Scaling in the QDOT Redshift Survey. *Vicent J. Martínez & Peter Coles.* 437, 550, 293-C13 (1994)

A Medium-deep Redshift Survey of a Minislice at the North Galactic Pole. *C. N. A. Willmer, David C. Koo, Alex S. Szalay, & Michael J. Kurtz.* 437, 560, 293-E1 (1994)

A Simulation of the Intracluster Medium with Feedback from Cluster Galaxies. *Christopher A. Metzler & August E. Evrard.* 437, 564, 293-E8 (1994)

Sizes of Voids as a Test for Dark Matter Models. *Sebastiano Ghigna, Stefano Borgani, Silvio A. Bonometto, Luigi Guzzo, Anatoly Klypin, Joel R. Primack, Riccardo Giovanelli, & Martha P. Haynes.* 437, L71, 298-E1 (1994)

Lensing by Compact Groups of Galaxies. *C. Mendes de Oliveira & E. Giraud.* 437, L103, 299-B1 (1994)

Position Angles and Alignments of Clusters of Galaxies. *Manolis Plionis.* 95, 401, 69-G1 (1994)

Mapping Cluster Mass Distributions via Gravitational Lensing of Background Galaxies. *T. J. Broadhurst, A. N. Taylor, & J. A. Peacock.* 438, 49, 2-A7 (1995)

Host Galaxy and Environment of the BL Lacertae Object PKS 0548−322: Observations with Subarcsecond Resolution. *Renato Falomo, Joseph E. Pesce, & Aldo Treves.* 438, L9, 9-F2 (1995)

Gravitational Lensing by a Cluster of Galaxies and the Central cD Galaxy: Measuring the Mass Profile. *Jordi Miralda-Escudé.* 438, 514, 11-C11 (1995)

Neutral Hydrogen Profiles of Cluster Galaxies. *Jeremy Mould, Sarah Martin, Greg Bothun, John Huchra, & Bob Schommer.* 96, 1, 1-B1 (1995)

Large-Scale Motions in the Universe: Using Clusters of Galaxies as Tracers. *Mirt Gramann, Neta A. Bahcall, Renyue Cen, & J. Richard Gott.* 441, 449, 68-C1 (1995)

Weakly Nonlinear Gaussian Fluctuations and the Edgeworth Expansion. *Roman Juszkiewicz, David H. Weinberg, Piotr Amsterdamski, Michał Chodorowski, & François Bouchet.* 442, 39, 77-F10 (1995)

Physically Detached "Compact Groups." *Lars Hernquist, Neal Katz, & David H. Weinberg.* 442, 57, 78-A3 (1995)

The Stromlo-APM Redshift Survey. II. Variation of Galaxy Clustering with Morphology and Luminosity. *J. Loveday, S. J. Maddox, G. Efstathiou, & B. A. Peterson.* 442, 457, 86-C1 (1995)

Testing the Velocity Field in Non–Scale-invariant Cold Dark Matter Models. *Lauro Moscardini, Giuseppe Tormen, Sabino Matarrese, & Francesco Lucchin.* 442, 469, 86-D3 (1995)

Bayesian Approaches to Testing the Nature of Primordial Density Fluctuation. *Shan Luo & Ethan Vishniac.* 443, 469, 104-D1 (1995)

The Spatial Distribution of Blue Compact Galaxies in the Second Byurakan Survey. *Simon A. Pustil'nik, Andrei V. Ugryumov, Valentin A. Lipovetsky, Trinh X. Thuan, & Natalia G. Guseva.* 443, 499, 104-F11 (1995)

Evidence for Gaussian Initial Fluctuations from the 1.2 Jansky *IRAS* Survey. *Adi Nusser, Avishai Dekel, & Amos Yahil.* 449, 439, 218-G11 (1995)

Large-Scale Structures in the Zone of Avoidance: The Galactic Anticenter Region. *Nanyao Y. Lu & Wolfram Freudling.* 449, 527, 220-B2 (1995)

GALAXIES: CLUSTERS: GENERAL

High-Order Correlations of Rich Galaxy Clusters. *Alberto Cappi & Sophie Maurogordato.* 438, 507, 11-C1 (1995)

Optical Radii of Galaxy Clusters. *M. Girardi, A. Biviano, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 438, 527, 11-D13 (1995)

ROSAT HRI Images of Abell 85 and Abell 496: Evidence for Inhomogeneities in Cooling Flows. *Andrea H. Prestwich, Stephen J. Guimond, Christian B. Luginbuhl, & Marshall Joy.* 438, L71, 19-D11 (1995)

The Angular Two-Point Correlation Function of Galaxies Down to $B_J \leq$ Magnitude on $\leq 10'$ Scales. *Lyman W. Neuschaefer & Rogier A. Windhorst.* 439, 14, 21-D7 (1995)

The Reliability of X-Ray Constraints of Intrinsic Cluster Shapes. *David A. Buote & John C. Tsai.* 439, 29, 21-E11 (1995)

Nonlinear Cluster Lens Reconstruction. *Nick Kaiser.* 439, L1, 29-E1 (1995)

The Clustering Properties of Faint Galaxies. *L. Infante & C. J. Pritchet.* 439, 565, 32-B8 (1995)

Morphology Classification of Galaxies in CL 0939+4713 Using a Ground-based Telescope Image. *M. Fukugita, M. Doi, A. Dressler, & J. E. Gunn.* 439, 584, 32-D3 (1995)

Brightest Cluster Galaxies as Standard Candles. *Marc Postman & Tod R. Lauer.* 440, 28, 41-E9 (1995)

Abell 548: An X-Ray and Optical Analysis of Substructure. *David S. Davis, Christina M. Bird, Richard F. Mushotzky, & S. C. Odewahn.* 440, 48, 41-G9 (1995)

Evidence for Small-Scale Clustering in a Column-Density–limited Sample of the Lyman-Alpha Forest. *Victor V. Chernomordik.* 440, 431, 49-C1 (1995)

Redshifts of 165 Abell and Southern Rich Clusters of Galaxies. *H. Quintana & A. Ramírez.* 96, 343, 7-B1 (1995)

Observation and Reduction Methods of Deep Palomar 200 Inch 4-Shooter Mosaics. *Lyman W. Neuschaefer & Rogier A. Windhorst.* 96, 371, 7-D9 (1995)

A Count Probability Cookbook: Spurious Effects and the Scaling Model. *S. Colombi, F. R. Bouchet, & R. Schaeffer.* 96, 401, 7-F13 (1995)

Three-dimensional Shape Statistics: Methodology. *Shan Luo & Ethan Vishniac.* 96, 429, 8-B2 (1995)

Gravitational Lens Inversions of Cl 0024+1654. *Sylvanie Wallington, Christopher S. Kochanek, & David C. Koo.* 441, 58, 60-B5 (1995)

The Megaparsec-Scale Environments of BL Lacertae Objects. *Eric P. Smith, C. P. O'Dea, & S. A. Baum.* 441, 113, 60-G11 (1995)

Globular Cluster Systems in Three cD Galaxies within Rich Abell Clusters. *William E. Harris, Christopher J. Pritchet, & Robert D. McClure.* 441, 120, 61-A8 (1995)

Combinatorics and Companion Galaxies: Paradox Lost. *William I. Newman & Yervant Terzian.* 441, 505, 69-A8 (1995)

Moments of the Cluster Distribution as a Test of Dark Matter Models. *Manolis Plionis, Stefano Borgani, Lauro Moscardini, & Peter Coles.* 441, L57, 75-F6 (1995)

The Least-Action Method, Cold Dark Matter, and Ω. *A. M. Dunn & R. Laflamme.* 443, L1, 102-B1 (1995)

An X-Ray Temperature Map of Abell 754: A Major Merger. *J. Patrick Henry & Ulrich G. Briel.* 443, L9, 102-C1 (1995)

Properties of the Cosmological Density Distribution Function. *Francis Bernardeau & Lev Kofman.* 443, 479, 104-F1 (1995)

ROSAT Observations of Compact Groups of Galaxies. *Rachel A. Pildis, Joel N. Bregman, & August E. Evrard.* 443, 514, 105-A1 (1995)

Testing the Accuracy of Redshift-Space Group-finding Algorithms. *James J. Frederic.* 97, 259, 15-D3 (1995)

Assessing the Accuracy of Masses and Spatial Correlations of Galaxy Groups. *James J. Frederic.* 97, 275, 15-E8 (1995)

Higher Order Statistics from the APM Galaxy Survey. *István Szapudi, Gavin B. Dalton, George Efstathiou, & Alexander S. Szalay.* 444, 520, 123-E10 (1995)

A Search for "Failed Clusters" of Galaxies. *W. H. Tucker, H. Tananbaum, & R. A. Remillard.* 444, 532, 123-F11 (1995)

Higher Order Correlation Functions for Quasars. *M. J. Pons-Borderia & S. A. Bonometto.* 444, 548, 124-A2 (1995)

Velocity Differences as a Probe of Non-Gaussian Density Fields. *Paolo Catelan & Robert J. Scherrer.* 445, 1, 132-D1 (1995)

Statistics of Close Galaxy Pairs from a Faint-Galaxy Redshift Survey. *H. K. C. Yee & E. Ellingson.* 445, 37, 132-G9 (1995)

A First Determination of the Surface Density of Galaxy Clusters at Very Low X-Ray Fluxes. *Piero Rosati, Roberto Della Ceca, Richard Burg, Colin Norman, & Riccardo Giacconi.* 445, L11, 140-C3 (1995)

Cosmological Implications of *ROSAT* Observations of Groups and Clusters of Galaxies. *Laurence P. David, Christine Jones, & William Forman.* 445, 578, 143-A8 (1995)

Wavelet Transform Analysis of the Small-Scale X-Ray Structure of the Cluster Abell 1367. *S. A. Grebenev, W. Forman, C. Jones, & S. Murray.* 445, 607, 143-D12 (1995)

The Effects of Substructure on Galaxy Cluster Mass Determinations. *Christina M. Bird.* 445, L81, 150-E1 (1995)

Homogeneous Velocity-Distance Data for Peculiar Velocity Analysis. I. Calibration of Cluster Samples. *Jeffrey A. Willick, Stéphane Courteau, Sandra M. Faber, David Burstein, & Avishai Dekel.* 446, 12, 153-D1 (1995)

Mass Segregation in Dark Matter Models. *A. Campos, G. Yepes, A. Klypin, G. Murante, A. Provenzale, & S. Borgani.* 446, 54, 154-A1 (1995)

A Possible Mechanism for the Formation of the Nebular Filaments in Cluster Cooling Flows. *Shlomi Pistinner & Giora Shaviv.* 446, L11, 160-C7 (1995)

The Optical Redshift Survey: Sample Selection and the Galaxy Distribution. *Basílio X. Santiago, Michael A. Strauss, Ofer Lahav, Marc Davis, Alan Dressler, & John P. Huchra.* 446, 457, 162-D2 (1995)

On the Origin of Blue Lobes in Central Cooling Flow Galaxies. *David S. De Young.* 446, 521, 163-C7 (1995)

Nonlinear Evolution of Internal Gravity Waves in Cluster Cooling Flows. *Eric A. Lufkin, Steven A. Balbus, & John F. Hawley.* 446, 529, 163-D5 (1995)

Cosmological Constraints from Observed Cluster X-Ray Morphologies. *Joseph J. Mohr, August E. Evrard, Daniel G. Fabricant, & Margaret J. Geller.* 447, 8, 172-C12 (1995)

The Mass Function of Cosmic Structures with Nonspherical Collapse. *Pierluigi Monaco.* 447, 23, 172-E2 (1995)

Where is the Dark Matter? *Neta A. Bahcall, Lori M. Lubin, & Victoria Dorman.* 447, L81, 190-D8 (1995)

Two-Point Angular Correlation Function for the Green Bank 4.85 GHz Sky Survey. *Brian L. Kooiman, Jack O. Burns, & Anatoly A. Klypin.* 448, 500, 201-E10 (1995)

The Mass Distribution in a Collapsing Merging Spherical Cluster of Objects. *Nir J. Shaviv & Giora Shaviv.* 448, 514, 201-G3 (1995)

Mass of the Milky Way and Redshifts of the Nearby Galaxies. *P. J. E. Peebles.* 449, 52, 211-A1 (1995)

Velocity Bias from Merging in Clusters of Galaxies: The $\beta < 1$ Problem. *R. Fusco-Femiano & N. Menci.* 449, 431, 218-F13 (1995)

Comparison of N-Body Simulations to Statistical Observations of Galaxy Pairs. *Roger E. Bartlett & Jane C. Charlton.* 449, 497, 219-F4 (1995)

Far-Infrared Emission from Abell Clusters. *Caroline V. Cox, Joel N. Bregman, & James M. Schombert.* 99, 405, 40-F6 (1995)

The Local Galaxy Density and the Bulge-to-Disk Ratio of Disk Galaxies. *Giuliano Giuricin, Füsun Limboz Tektunali, Pierluigi Monaco, Fabio Mardirossian, & Marino Mezzetti.* 450, 41, 228-F1 (1995)

Hubble Space Telescope Images of Nearby Luminous Quasars. II. Results for Eight Quasars and Tests of the Detection Sensitivity. *John N. Bahcall, Sofia Kirhakos, & Donald P. Schneider.* 450, 486, 237-C13 (1995)

The Lens Parallax Method: Determining Redshifts of Faint Blue Galaxies through Gravitational Lensing. *Matthias Bartelmann & Ramesh Narayan.* 451, 60, 247-A7 (1995)

Substructure: Clues to the Formation of Clusters of Galaxies. *Michael J. West, Christine Jones, & William Forman.* 451, L5, 252-B5 (1995)

Problems with Cold Clouds and Cooling Flows. *G. Mark Voit & Megan Donahue.* 452, 164, 264-C9 (1995)

Quantifying the Morphologies and Dynamical Evolution of Galaxy Clusters. I. The Method. *David A. Buote & John C. Tsai.* 452, 522, 271-G11 (1995)

Contribution to the Three-Point Function of the Cosmic Microwave Background from the Rees-Sciama Effect. *Silvia Mollerach, Alejandro Gangui, Francesco Lucchin, & Sabino Matarrese.* 453, 1, 281-C1 (1995)

The Confluent System Formalism. I. The Mass Function of Objects in the Peak Model. *Alberto Manrique & Eduard Salvador-Solé.* 453, 6, 281-C9 (1995)

The Velocity Dispersion–Temperature Correlation from a Limited Cluster Sample. *Christina M. Bird, Richard F. Mushotzky, & Christopher A. Metzler.* 453, 40, 281-F13 (1995)

The Near-Infrared Fundamental Plane of Elliptical Galaxies. *Michael A. Pahre, S. G. Djorgovski, & R. R. de Carvalho.* 453, L17, 289-D8 (1995)

Galaxy Clustering Statistics of *Hubble Space Telescope* Medium Deep Survey WF/PC Images. *L. W. Neuschaefer, K. U. Ratnatunga, R. E. Griffiths, S. Casertano, & M. Im.* 453, 559, 291-E10 (1995)

Intracluster Globular Clusters. *Michael J. West, Patrick Côté, Christine Jones, William Forman, & Ronald O. Marzke.* 453, L77, 298-D1 (1995)

Action Principle Solutions for Galaxy Motions within 3000 Kilometers per Second. *Edward J. Shaya, P. J. E. Peebles, & R. Brent Tully.* 454, 15, 299-D4 (1995)

Counting Pairs of Faint Galaxies. *David Woods, Gregory G. Fahlman, & Harvey B. Richer.* 454, 32, 299-E10 (1995)

Search for Coronal Emission Lines in Cooling Flow Clusters with the Keck 10 Meter Telescope. *L. Yan & J. G. Cohen.* 454, 44, 299-F12 (1995)

On the Interpretation of Clustering from the Angular APM Galaxy Survey. *Enrique Gaztañaga.* 454, 561, 309-C3 (1995)

Dwarf Galaxies and the Origin of the Intracluster Medium. *Biman B. Nath & Masashi Chiba.* 454, 604, 309-G6 (1995)

On the Dynamical Origin of Bias in Clusters of Galaxies. *S. Colafrancesco, V. Antonuccio-Delogu, & A. Del Popolo.* 455, 32, 318-E13 (1995)

Lensing by Distant Clusters: *HST* Observations of Weak Shear in the Field of 3C 324. *Ian Smail & Mark Dickinson.* 455, L99, 333-C8 (1995)

Limits on Dust in Rich Clusters of Galaxies from the Color of Background Quasars. *Dan Maoz.* 455, L115, 333-E4 (1995)

GALAXIES: CLUSTERS: INDIVIDUAL

Messier Number: M81

H II Regions in M81 Group Dwarf Galaxies. *Bryan W. Miller & Paul Hodge.* 427, 656, 120-G11 (1994)

Name: Abell 115

The X-Ray Environment of the Dumbbell Radio Galaxy NGC 326. *D. M. Worrall, M. Birkinshaw, & R. A. Cameron.* 449, 93, 211-D13 (1995)

Name: Abell 370

Morphological Studies of the Galaxy Populations in Distant "Butcher-Oemler" Clusters with *HST*. I. AC 114 at $z = 0.31$ and Abell 370 at $z = 0.37$. *Warrick J. Couch, Richard S. Ellis, Ray M. Sharples, & Ian Smail.* 430, 121, 160-E8 (1994)

Evolution of Infrared-selected Galaxies in $z \sim 0.4$ Clusters. *S. A. Stanford, P. R. M. Eisenhardt, & Mark Dickinson.* 450, 512, 237-G4 (1995)

Name: Abell 754

An X-Ray Temperature Map of Abell 754: A Major Merger. *J. Patrick Henry & Ulrich G. Briel.* 443, L9, 102-C1 (1995)

A Collision of Subclusters in Abell 754. *Ann L. Zabludoff & Dennis Zaritsky.* 447, L21, 180-F5 (1995)

Name: Abell 780

A VLA Search for Neutral Hydrogen in Cooling Flow Clusters. *K. S. Dwarakanath, J. H. van Gorkom, & F. N. Owen.* 432, 469, 201-G1 (1994)

Name: Abell 851

Evolution of Infrared-selected Galaxies in $z \sim 0.4$ Clusters. *S. A. Stanford, P. R. M. Eisenhardt, & Mark Dickinson.* 450, 512, 237-G4 (1995)

Name: Abell 1367

Wavelet Transform Analysis of the Small-Scale X-Ray Structure of the Cluster Abell 1367. *S. A. Grebenev, W. Forman, C. Jones, & S. Murray.* 445, 607, 143-D12 (1995)

Differences in the Luminosity Functions of Faint Early-Type and Faint Late-Type Galaxies in Four Nearby Clusters of Galaxies. *Nobunari Kashikawa, Kazuhiro Shimasaku, Masafumi Yagi, Naoki Yasuda, Mamoru Doi, Sadanori Okamura, & Maki Sekiguchi.* 452, L99, 279-F9 (1995)

Name: Abell 1631

Differences in the Luminosity Functions of Faint Early-Type and Faint Late-Type Galaxies in Four Nearby Clusters of Galaxies. *Nobunari Kashikawa, Kazuhiro Shimasaku, Masafumi Yagi, Naoki Yasuda, Mamoru Doi, Sadanori Okamura, & Maki Sekiguchi.* 452, L99, 279-F9 (1995)

Name: Abell 1644

Differences in the Luminosity Functions of Faint Early-Type and Faint Late-Type Galaxies in Four Nearby Clusters of Galaxies. *Nobunari Kashikawa, Kazuhiro Shimasaku, Masafumi Yagi, Naoki Yasuda, Mamoru Doi, Sadanori Okamura, & Maki Sekiguchi.* 452, L99, 279-F9 (1995)

Name: Abell 1656

Differences in the Luminosity Functions of Faint Early-Type and Faint Late-Type Galaxies in Four Nearby Clusters of Galaxies. *Nobunari Kashikawa, Kazuhiro Shimasaku, Masafumi Yagi, Naoki Yasuda, Mamoru Doi, Sadanori Okamura, & Maki Sekiguchi.* 452, L99, 279-F9 (1995)

Name: Abell 1689

Measurement of the Mass Profile of Abell 1689. *J. Anthony Tyson & Philippe Fischer.* 446, L55, 170-D1 (1995)

Name: Abell 2050

3C 317: An Amorphous Radio Source in the Cooling Flow Cluster Abell 2052. *Jun-Hui Zhao, Dean M. Sumi, J. O. Burns, & Nebojsa Duric.* 416, 51, 201-F7 (1993)

Name: Abell 2052

3C 317: An Amorphous Radio Source in the Cooling Flow Cluster Abell 2052. *Jun-Hui Zhao, Dean M. Sumi, J. O. Burns, & Nebojsa Duric.* 416, 51, 201-F7 (1993)

Name: Abell 2199

A VLA Search for Neutral Hydrogen in Cooling Flow Clusters. *K. S. Dwarakanath, J. H. van Gorkom, & F. N. Owen.* 432, 469, 201-G1 (1994)

Name: Abell 2218

A Measurement of the Hubble Constant from the X-Ray Properties and the Sunyaev-Zel'dovich Effect of Abell 2218. *M. Birkinshaw & J. P. Hughes.* 420, 33, 1-D9 (1994)

Name: Abell 2256

VLA Observations of the Rich X-Ray Cluster Abell 2256. *H. Röttgering, I. Snellen, G. Miley, J. P. de Jong, R. J. Hanisch, & R. Perley.* 436, 654, 274-E4 (1994)

Name: Abell 2597

Detection of Extended H I Absorption toward PKS 2322−123 in Abell 2597. *Christopher P. O'Dea, Stefi A. Baum, & Jack Gallimore.* 436, 669, 274-F9 (1994)

Comparison of the Radio, Optical, and X-Ray Structures of the cD Galaxy in Abell 2597. *Craig L. Sarazin, Jack O. Burns, Kurt Roettiger, & Brian R. McNamara.* 447, 559, 183-D13 (1995)

Name: Abell 2634

The Dynamics of the Galaxy Cluster Abell 2634. *J. Pinkney, G. Rhee, J. O. Burns, J. M. Hill, W. Oegerle, D. Batuski, & P. Hintzen.* 416, 36, 201-E2 (1993)

Name: Coma

Ginga Observations of the Coma Cluster and Studies of the Spatial Distribution of Iron. *John P. Hughes, Jackie A. Butcher, Gordon C. Stewart, & Yasuo Tanaka.* 404, 611, 36-E8 (1993)

The Coma Cluster after Lunch: Has a Galaxy Group Passed through the Cluster Core? *Jack O. Burns, Kurt Roettiger, Michael Ledlow, & Anatoly Klypin.* 427, L87, 127-A5 (1994)

OSSE Search for High-Energy X-Ray Emission from the Coma Cluster. *Yoel Rephaeli, Mel Ulmer, & Duane Gruber.* 429, 554, 152-E10 (1994)

The Nature of E and S0 Galaxies: A Study of a Magnitude-limited Sample of Galaxies in the Coma Cluster. *Inger Jørgensen & Marijn Franx.* 433, 553, 217-G7 (1994)

Mass Concentrations Associated with Extended X-Ray Sources in the Core of the Coma Cluster. *A. Vikhlinin, W. Forman, & C. Jones.* 435, 162, 245-E3 (1994)

Colors, Luminosities, and Masses of Disk Galaxies. II. Environmental Dependencies. *Giuseppe Gavazzi, Isabella Randone, & Enzo Branchini.* 438, 590, 12-C10 (1995)

ROSAT Observations of Coma Cluster Galaxies. *K. L. Dow & S. D. M. White.* 439, 113, 22-F9 (1995)

Automated Software for Surface Photometry of Galaxies. *M. Doi, M. Fukugita, & S. Okamura.* 97, 59, 11-F8 (1995)

Automated Surface Photometry for the Coma Cluster Galaxies: The Catalog. *M. Doi, M. Fukugita, S. Okamura, & K. Tarusawa.* 97, 77, 12-A1 (1995)

Measurements of Globular Cluster Specific Frequencies and Luminosity Function Widths in Coma. *John P. Blakeslee & John L. Tonry.* 442, 579, 87-G8 (1995)

A Measurement of the Sunyaev-Zel'dovich Effect in the Coma Cluster of Galaxies. *T. Herbig, C. R. Lawrence, A. C. S. Readhead, & S. Gulkis.* 449, L5, 216-A9 (1995)

Name: Fornax

Planetary Nebulae as Standard Candles. IX. The Distance to the Fornax Cluster. *Russet McMillan, Robin Ciardullo, & George H. Jacoby.* 416, 62, 201-G7 (1993)

Name: Hydra A

Calcium Depletion in Cooling-Flow Nebulae and the Origin of the Line-emitting Gas. *Megan Donahue & G. Mark Voit.* 414, L17, 175-D11 (1993)

Magnetic Fields in the Hydra A Cluster. *Gregory B. Taylor & Richard A. Perley.* 416, 554, 210-C3 (1993)

Blue Lobes in the Hydra A Cluster Central Galaxy. *Brian R. McNamara.* 443, 77, 96-C8 (1995)

Name: Local Supercluster

The Local Supercluster as a Test of Cosmological Models. *Renyue Cen.* 424, 22, 62-C8 (1994)

Name: Perseus

Implications for Gravitational Lensing and the Dark Matter Content in Clusters of Galaxies from Spatially Resolved X-Ray Spectra. *M. Loewenstein.* 431, 91, 177-C9 (1994)

Energetic Proton Heating of Gas in the Core of the Perseus Cluster. *Yoel Rephaeli & Joseph Silk.* 442, 91, 78-D13 (1995)

Name: Ursa Major

The Infrared Tully-Fisher Relation in the Ursa Major Cluster. *R. F. Peletier & S. P. Willner.* 418, 626, 240-C3 (1993)

Name: Virgo

Spatial Distribution of Spiral Galaxies in the Virgo Cluster from the Tully-Fisher Relation. *M. Fukugita, S. Okamura, & N. Yasuda.* 412, L13, 148-B11 (1993)

Diffuse Hα Emission in the Virgo Cluster Associated with the 3C 273 Lyman-Alpha Clouds. *T. B. Williams & R. A. Schommer.* 419, L53, 259-B11 (1993)

The Flattening Distribution of Dwarf Elliptical Galaxies in the Virgo Cluster. *Barbara S. Ryden & Donald M. Terndrup.* 425, 43, 80-F6 (1994)

ROSAT PSPC Observations of NGC 4636: Interaction with Virgo Gas? *G. Trinchieri, D.-W. Kim, G. Fabbiano, & C. R. C. Canizares.* 428, 555, 137-B11 (1994)

The Dispersion in the Near-Infrared Surface Brightness Fluctuations in the Virgo Cluster. *Michael A. Pahre & Jeremy R. Mould.* 433, 567, 218-A9 (1994)

Surface Photometry of Spiral Galaxies in the Virgo Cluster Region. *Naoki Yasuda, Sadanori Okamura, & Masataka Fukugita.* 96, 359, 7-C6 (1995)

The Large-Scale Distribution of Late-Type Galaxies between Virgo and the Great Wall. *G. Lyle Hoffman, B. M. Lewis, & E. E. Salpeter.* 441, 28, 59-F2 (1995)

Disk Galaxies near the Line of Sight to 3C 273 and Conjectures on Lyman-Alpha Absorption. *E. E. Salpeter & G. Lyle Hoffman.* 441, 51, 60-A7 (1995)

Steps toward the Hubble Constant. X. The Distance of the Virgo Cluster Core Using Globular Clusters. *Allan Sandage & G. A. Tammann.* 446, 1, 153-C1 (1995)

Limits on the Hubble Constant from the *HST* Distance of M100. *Jeremy Mould, John P. Huchra, Fabio Bresolin, Laura Ferrarese, Holland C. Ford, Wendy L. Freedman, John Graham, Paul Harding, Robert Hill, John G. Hoessel, Shaun M. Hughes, Garth D. Illingworth, Daniel Kelson, Robert C. Kennicutt, Jr., Barry F. Madore, Randy Phelps, Peter B. Stetson, & Anne Turner.* 449, 413, 218-D8 (1995)

NGC 4654: A Virgo Cluster Spiral Interacting with the Intracluster Medium. *Bikram Phookun & Lee G. Mundy.* 453, 154, 283-C6 (1995)

Name: Virgo A

A VLA Search for Neutral Hydrogen in Cooling Flow Clusters. *K. S. Dwarakanath, J. H. van Gorkom, & F. N. Owen.* 432, 469, 201-G1 (1994)

Alphanumeric: A496

Calcium Depletion in Cooling-Flow Nebulae and the Origin of the Line-emitting Gas. *Megan Donahue & G. Mark Voit.* 414, L17, 175-D11 (1993)

Alphanumeric: A963

Imaging of "Butcher-Oemler" Blue Galaxies at a Redshift of 0.2. *Russell J. Lavery & J. Patrick Henry.* 426, 524, 104-G13 (1994)

Alphanumeric: A2052

Evidence for Steep Luminosity Functions in Clusters of Galaxies. *Roberto De Propris, Christopher J. Pritchet, William E. Harris, & Robert D. McClure.* 450, 534, 238-B3 (1995)

Alphanumeric: A2107

Evidence for Steep Luminosity Functions in Clusters of Galaxies. *Roberto De Propris, Christopher J. Pritchet, William E. Harris, & Robert D. McClure.* 450, 534, 238-B3 (1995)

Alphanumeric: A2111

Imaging of "Butcher-Oemler" Blue Galaxies at a Redshift of 0.2. *Russell J. Lavery & J. Patrick Henry.* 426, 524, 104-G13 (1994)

Alphanumeric: A2125

Imaging of "Butcher-Oemler" Blue Galaxies at a Redshift of 0.2. *Russell J. Lavery & J. Patrick Henry.* 426, 524, 104-G13 (1994)

Alphanumeric: A2163

Measurement of the Sunyaev-Zel'dovich Effect toward Abell 2163 at a Wavelength of 2.2 Millimeters. *T. M. Wilbanks, P. A. R. Ade, M. L. Fischer, W. L. Holzapfel, & A. E. Lange.* 427, L75, 126-F13 (1994)

Alphanumeric: A2199

Evidence for Steep Luminosity Functions in Clusters of Galaxies. *Roberto De Propris, Christopher J. Pritchet, William E. Harris, & Robert D. McClure.* 450, 534, 238-B3 (1995)

Alphanumeric: A2218

The Gravitational Lens Hypothesis for the Ring in A2218. *Aggeliki Kassiola & Israel Kovner.* 417, 474, 225-B14 (1993)

Alphanumeric: A2255

Evidence for an On-going Cluster/Group Merger in Abell 2255. *Jack O. Burns, Kurt Roettiger, Jason Pinkney, Rick A. Perley, Frazer N. Owen, & Wolfgang Voges.* 446, 583, 164-B8 (1995)

Alphanumeric: A2256

Spatially Resolved X-Ray Spectroscopy of the Merging Galaxy Cluster A2256. *T. Miyaji, R. F. Mushotzky, M. Loewenstein, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, E. A. Boldt, S. S. Holt, J. Swank, A. E. Szymkowiak, & R. Kelley.* 419, 66, 247-A2 (1993)

Implications for Gravitational Lensing and the Dark Matter Content in Clusters of Galaxies from Spatially Resolved X-Ray Spectra. *M. Loewenstein.* 431, 91, 177-C9 (1994)

Predicted Optical/Ultraviolet Line Fluxes for the Warm Absorber in Abell 2256. *Shlomi Pistinner & Craig L. Sarazin.* 433, 577, 218-B8 (1994)

On the Origin of Temperature Substructure within Merging Clusters of Galaxies: Abell 2256. *Kurt Roettiger, Jack O. Burns, & Jason Pinkney.* 453, 634, 292-E11 (1995)

Alphanumeric: A2634

The Spatial Distribution, Kinematics, and Dynamics of the Galaxies in the Region of Abell 2634 and 2666. *Marco Scodeggio, José M. Solanes, Riccardo Giovanelli, & Martha P. Haynes.* 444, 41, 113-G8 (1995)

Alphanumeric: A2666

The Spatial Distribution, Kinematics, and Dynamics of the Galaxies in the Region of Abell 2634 and 2666. *Marco Scodeggio, José M. Solanes, Riccardo Giovanelli, & Martha P. Haynes.* 444, 41, 113-G8 (1995)

Evidence for Steep Luminosity Functions in Clusters of Galaxies. *Roberto De Propris, Christopher J. Pritchet, William E. Harris, & Robert D. McClure.* 450, 534, 238-B3 (1995)

Alphanumeric: A2670

Diffuse Light in A2670: Smoothly Distributed? *Xania Scheick & Jeffrey R. Kuhn.* 423, 566, 55-E5 (1994)

Alphanumeric: 2A 0335+096

Calcium Depletion in Cooling-Flow Nebulae and the Origin of the Line-emitting Gas. *Megan Donahue & G. Mark Voit.* 414, L17, 175-D11 (1993)

Unusual Radio Structures in the Cooling Flow Cluster 2A 0335+096. *Craig L. Sarazin, Stefi A. Baum, & Christopher P. O'Dea.* 451, 125, 247-G4 (1995)

ROSAT X-Ray Observations of the 2A 0335+096 Cluster of Galaxies. *Jimmy A. Irwin & Craig L. Sarazin.* 455, 497, 328-G3 (1995)

Alphanumeric: AC 114

Morphological Studies of the Galaxy Populations in Distant "Butcher-Oemler" Clusters with *HST*. I. AC 114 at $z = 0.31$ and Abell 370 at $z = 0.37$. *Warrick J. Couch, Richard S. Ellis, Ray M. Sharples, & Ian Smail.* 430, 121, 160-E8 (1994)

Hubble Space Telescope Observations of Gravitationally Lensed Features in the Rich Cluster AC 114. *Ian Smail, Warrick J. Couch, Richard S. Ellis, & Ray M. Sharples.* 440, 501, 50-B10 (1995)

Alphanumeric: CL 0939+4713

A Cluster of Nascent Galaxies at $z = 2$? *Alan Dressler, Augustus Oemler, Jr., James E. Gunn, & Harvey Butcher.* 404, L45, 40-C1 (1993)

The Morphology of Distant Cluster Galaxies. I. *HST* Observations of CL 0939+4713. *Alan Dressler, Augustus Oemler, Jr., Harvey R. Butcher, & James E. Gunn.* 430, 107, 160-D3 (1994)

Morphology Classification of Galaxies in CL 0939+4713 Using a Ground-based Telescope Image. *M. Fukugita, M. Doi, A. Dressler, & J. E. Gunn.* 439, 584, 32-D3 (1995)

Alphanumeric: GHO 2154+0508

Observations of a High Surface Brightness Arclet Associated with the Cluster of Galaxies GHO 2154+0508. *Russell J. Lavery, Michael J. Pierce, & Robert D. McClure.* 418, 43, 231-E7 (1993)

Alphanumeric: HCG 94

The Destruction of a Compact Group of Galaxies. *Rachel A. Pildis.* 455, 492, 328-F8 (1995)

Alphanumeric: MS 0415−03

ROSAT Observations of Distant Clusters of Galaxies. *Megan Donahue & John T. Stocke.* 449, 554, 220-D8 (1995)

Alphanumeric: MS 0440+0204

The Complex, Gravitationally Lensed Arc System in the X-Ray–selected Cluster of Galaxies MS 0440+0204. *G. A. Luppino, I. M. Gioia, J. Annis, O. Le Fèvre, & F. Hammer.* 416, 444, 208-G8 (1993)

Alphanumeric: MS 0735+74

ROSAT Observations of Distant Clusters of Galaxies. *Megan Donahue & John T. Stocke.* 449, 554, 220-D8 (1995)

Alphanumeric: MS 1224+20

Lensing from the Light-Traces-Mass Map of MS 1224+20. *R. G. Carlberg, H. K. C. Yee, & E. Ellingson.* 437, 63, 284-A9 (1994)

Constraints on Cold Dark Matter Theories from Observations of Massive X-Ray–luminous Clusters of Galaxies at High Redshift. *G. A. Luppino & I. M. Gioia.* 445, L77, 150-D5 (1995)

Alphanumeric: MS 1224.7+2007

Dark Matter in MS 1224 from Distortion of Background Galaxies. *Greg Fahlman, Nick Kaiser, Gordon Squires, & David Woods.* 437, 56, 283-G13 (1994)

Alphanumeric: S1101

Calcium Depletion in Cooling-Flow Nebulae and the Origin of the Line-emitting Gas. *Megan Donahue & G. Mark Voit.* 414, L17, 175-D11 (1993)

GALAXIES: CLUSTERS OF

Imaging of 16 Distant EMSS Clusters with $z \geq 0.2$ and $L_{X,44} \geq 4$: New Arcs and First Consequences. *O. Le Fèvre, F. Hammer, M. C. Angonin, I. M. Gioia, & G. A. Luppino.* 422, L5, 36-B7 (1994)

Optical Signatures of High-Redshift Galaxy Clusters. *August E. Evrard & Stéphane Charlot.* 424, L13, 69-C1 (1994)

Possible Identification of a Cluster of Galaxies at Redshift $z = 3.4$. *Mauro Giavalisco, Charles C. Steidel, & Alexander S. Szalay.* 425, L5, 85-B7 (1994)

The Correlation Function of Flux-limited X-Ray Clusters. *Neta A. Bahcall & Renyue Cen.* 426, L15, 103-B13 (1994)

Observational and Theoretical Constraints on Singular Dark Matter Halos. *Ricardo A. Flores & Joel R. Primack.* 427, L1, 117-A8 (1994)

First Detection of a Gravitational Weak Shear at the Periphery of CL 0024+1654. *Henri Bonnet, Yannick Mellier, & Bernard Fort.* 427, L83, 126-G11 (1994)

The Coma Cluster after Lunch: Has a Galaxy Group Passed through the Cluster Core? *Jack O. Burns, Kurt Roettiger, Michael Ledlow, & Anatoly Klypin.* 427, L87, 127-A5 (1994)

Conspicuous Tangential Alignment of Faint Blue and Red Objects in Cluster 0024+1654. *Aggeliki Kassiola, Israel Kovner, Bernard Fort, & Yannick Mellier.* 429, L9, 150-B9 (1994)

A Search for X-Ray Bright Distant Clusters of Galaxies. *R. C. Nichol, M. P. Ulmer, R. G. Kron, G. D. Wirth, & D. C. Koo.* 432, 464, 201-F5 (1994)

A VLA Search for Neutral Hydrogen in Cooling Flow Clusters. *K. S. Dwarakanath, J. H. van Gorkom, & F. N. Owen.* 432, 469, 201-G1 (1994)

The Nature of E and S0 Galaxies: A Study of a Magnitude-limited Sample of Galaxies in the Coma Cluster. *Inger Jørgensen & Marijn Franx.* 433, 553, 217-G7 (1994)

The Dispersion in the Near-Infrared Surface Brightness Fluctuations in the Virgo Cluster. *Michael A. Pahre & Jeremy R. Mould.* 433, 567, 218-A9 (1994)

Abundance Gradients in Cooling Flow Clusters: *Ginga* Large Area Counters and *Einstein* Solid State Spectrometer Spectra of A496, A1795, A2142, and A2199. *Raymond E. White III, C. S. R. Day, Isamu Hatsukade, & John P. Hughes.* 433, 583, 218-C2 (1994)

Velocity Bias in MS 1224+20. *R. G. Carlberg.* 434, L51, 241-D8 (1994)

New Images of the Distant, Rich Cluster CL 0939+4713 with WFPC2. *Alan Dressler, Augustus Oemler, Jr., William B. Sparks, & Ray A. Lucas.* 435, L23, 251-E11 (1994)

Hubble Space Telescope Observations of the Distant Cluster Cl 0016+16: Quantitative Morphology of Confirmed Cluster Members. *Gregory D. Wirth, David C. Koo, & Richard G. Kron.* 435, L105, 259-F2 (1994)

Evidence from Gravitational Lensing for a Nonthermal Pressure Support in the Cluster of Galaxies Abell 2218. *Abraham Loeb & Shude Mao.* 435, L109, 259-F10 (1994)

The Motions of Clusters and Groups of Galaxies. *Neta A. Bahcall, Mirt Gramann, & Renyue Cen.* 436, 23, 261-E4 (1994)

Detections of Hard X-Ray Emissions from Bright Early-Type Galaxies with *ASCA*. *K. Matsushita, K. Makishima, H. Awaki, C. R. Canizares, A. C. Fabian, Y. Fukazawa, M. Loewenstein, H. Matsumoto, T. Mihara, R. F. Mushotzky, T. Ohashi, G. R. Ricker, P. J. Serlemitsos, T. Tsuru, Y. Tsusaka, & T. Yamazaki.* 436, L41, 269-A5 (1994)

ASCA Observations of Cooling Flows in Clusters of Galaxies. *A. C. Fabian, K. A. Arnaud, M. W. Bautz, & Y. Tawara.* 436, L63, 269-D5 (1994)

Temperature and Iron Abundance Variation of the Gas in the Perseus Cluster. *K. A. Arnaud, R. F. Mushotzky, H. Ezawa, Y. Fukazawa, T. Ohashi, M. W. Bautz, G. B. Crewe, K. C. Gendreau, K. Yamashita, Y. Kamata, & F. Akimoto.* 436, L67, 269-D13 (1994)

Velocity Correlations of Galaxy Clusters. *Renyue Cen, Neta A. Bahcall, & Mirt Gramann.* 437, L51, 292-A8 (1994)

Diffuse Hot Gas in the NGC 4261 Group of Galaxies. *David S. Davis, Richard F. Mushotzky, John S. Mulchaey, D. M. Worrall, M. Birkinshaw, & David Burstein.* 444, 582, 124-D6 (1995)

GALAXIES: CLUSTERS OF: INDIVIDUAL

Alphanumeric: A2670

Substructure in Clusters and cD Peculiar Velocities: A2670. *Christina Bird.* 422, 480, 37-G6 (1994)

GALAXIES: COMPACT

HST Images of Very Compact Blue Galaxies at $z \sim 0.2$. *David C. Koo, Matthew A. Bershady, Gregory D. Wirth, S. Adam Stanford, & Steven R. Majewski.* 427, L9, 117-B8 (1994)

The Primordial Helium Abundance from a New Sample of Metal-deficient Blue Compact Galaxies. *Yuri I. Izotov, Trinh X. Thuan, & Valentin A. Lipovetsky.* 435, 647, 255-A5 (1994)

High-Resolution Spectra of Distant Compact Narrow Emission Line Galaxies: Progenitors of Spheroidal Galaxies? *David C. Koo, Rafael Guzmán, S. M. Faber, Garth D. Illingworth, Matthew A. Bershady, Richard G. Kron, & Marianne Takamiya.* 440, L49, 57-D3 (1995)

The Spatial Distribution of Blue Compact Galaxies in the Second Byurakan Survey. *Simon A. Pustil'nik, Andrei V. Ugryumov, Valentin A. Lipovetsky, Trinh X. Thuan, & Natalia G. Guseva.* 443, 499, 104-F11 (1995)

Using X-Rays to Determine Which Compact Groups Are Illusory. *Jeremiah P. Ostriker, Lori M. Lubin, & Lars Hernquist.* 444, L61, 130-B1 (1995)

Chemical Evolution of Irregular and Blue Compact Galaxies. *Leticia Carigi, Pedro Colín, Manuel Peimbert, & Antonio Sarmiento.* 445, 98, 133-F5 (1995)

Heavy Element Abundances in a New Sample of Low-Metallicity Blue Compact Galaxies. *Trinh X. Thuan, Yuri I. Izotov, & Valentin A. Lipovetsky.* 445, 108, 133-G5 (1995)

The Massive Stars of I Zw 18 as Seen in *Hubble Space Telescope* Images. *Deidre A. Hunter & Harley A. Thronson, Jr.* 452, 238, 265-D1 (1995)

VLBI Observations of a Complete Sample of Radio Galaxies. V. 3C 346 and 4C 31.04: Two Unusual Compact Steep Spectrum Sources. *W. D. Cotton, L. Feretti, G. Giovannini, T. Venturi, L. Lara, J. Marcaide, & A. E. Wehrle.* 452, 605, 273-A6 (1995)

Faint Blue Objects at High Galactic Latitude. VII. Spectroscopy of Narrow-Line Objects and the Morphological Selection Criterion of the US Survey. *P. D. Usher, K. J. Mitchell, & K.-L. Huang.* 454, 654, 310-F4 (1995)

GALAXIES: COOLING FLOWS

Distant Cooling Flows. *Megan Donahue, John T. Stocke, & Isabella M. Gioia.* 385, 49, 12-E13 (1992)

Turbulence in Cooling Flows. *Catherine F. Westbury & R. N. Henriksen.* 388, 64, 49-G12 (1992)

Fabry-Perot Images of NGC 1275 and Its Puzzling High-Velocity System. *Adeline Caulet, Bruce E. Woodgate, Larry W. Brown, Theodore R. Gull, Paul Hintzen, James D. Lowenthal, Ronald J. Oliversen, & Michael M. Ziegler.* 388, 301, 54-A12 (1992)

X-Ray–emitting Filaments in the Cooling Flow Cluster A2029. *Craig L. Sarazin, Robert W. O'Connell, & Brian R. McNamara.* 389, L59, 73-C8 (1992)

Formation of a Giant Galactic Gaseous Halo: Metal Absorption Lines and High-Velocity Clouds. *Fan Li & Satoru Ikeuchi.* 390, 405, 80-D7 (1992)

Lyα Emission from Cooling Flows and Measures of the Dust Content of Rich Clusters of Galaxies. *Esther M. Hu.* 391, 608, 95-E7 (1992)

Color Gradients in Cooling Flows in Clusters of Galaxies. *Brian R. McNamara & Robert W. O'Connell.* 393, 579, 123-B1 (1992)

Semiempirical Limits on the Thermal Conductivity of Intracluster Gas. *Laurence P. David, John P. Hughes, & Wallace H. Tucker.* 394, 452, 135-A7 (1992)

Characteristic-based Models for the Evolution of Cooling Flows. *Stephen D. Murray & Steven A. Balbus.* 395, 99, 141-C11 (1992)
Using Electron Scattering to Probe the Environment of Cluster Cooling Flows. *Michael W. Wise & Craig L. Sarazin.* 395, 387, 147-B5 (1992)
The Influence of Dark Matter on the Chemical Evolution of Elliptical Galaxies. *Francesca Matteucci.* 397, 32, 168-D9 (1992)
First-Order Fermi Acceleration in Spherically Symmetric Flows: Solutions Including Quadratic Losses. *Peter A. Becker.* 397, 88, 169-B6 (1992)
X-Ray and Optical Emission-Line Filaments in the Cooling Flow Cluster 2A 0335+096. *Craig L. Sarazin, Robert W. O'Connell, & Brian R. McNamara.* 397, L31, 173-D10 (1992)
Mergers, Cooling Flows, and Evaporation. *W. B. Sparks.* 399, 66, 196-A5 (1992)
Numerical Simulation of X-Ray–heated Winds in Seyfert Galaxies. I. The Case of Zero Angular Momentum. *Dinshaw S. Balsara & Julian H. Krolik.* 402, 109, 2-D9 (1993)
The Insignificance of "Heating Flows" in "Cooling Flow" Clusters of Galaxies. *Claude R. Canizares, Thomas H. Markert, Sera Markoff, & John P. Hughes.* 405, L17, 47-D1 (1993)
Cooling Flows and Cluster Evolution. *Mark J. Henriksen.* 407, L13, 75-B11 (1993)
BL Lacertae Objects, Fanaroff-Riley Type I Radio Sources, and Cluster Cooling Flows. *Craig L. Sarazin & Michael W. Wise.* 411, 55, 127-F13 (1993)
Calcium Depletion in Cooling-Flow Nebulae and the Origin of the Line-emitting Gas. *Megan Donahue & G. Mark Voit.* 414, L17, 175-D11 (1993)
The X-Ray Spectra of Cluster Cooling Flows. I. Optically Thin Models. *Michael W. Wise & Craig L. Sarazin.* 415, 58, 185-F10 (1993)
Cooling Functions for Low-Density Astrophysical Plasmas. *Ralph S. Sutherland & M. A. Dopita.* 88, 253, 43-D9 (1993)
3C 317: An Amorphous Radio Source in the Cooling Flow Cluster Abell 2052. *Jun-Hui Zhao, Dean M. Sumi, J. O. Burns, & Nebojsa Duric.* 416, 51, 201-F7 (1993)
Low-Mass Star Formation in Cooling Flow Galaxies. *James M. Schombert, Mary Barsony, & Patricia C. Hanlon.* 416, L61, 216-C7 (1993)
Propagation and Stability Properties of Radio Jets in Cluster Cooling Flow Atmospheres. *Chris Loken, Jack O. Burns, Michael L. Norman, & David A. Clarke.* 417, 515, 225-F9 (1993)
Dynamics of Conductive/Cooling Fronts: Cloud Implosion and Thermal Solitons. *A. Ferrara & Yu. Shchekinov.* 417, 595, 226-F13 (1993)
Polarized Scattering in the Vicinity of Galaxies. *Brian W. Murphy & David F. Chernoff.* 418, 60, 231-G7 (1993)
NGC 4254: A Spiral Galaxy with an $m = 1$ Mode and Infalling Gas. *Bikram Phookun, Stuart N. Vogel, & Lee G. Mundy.* 418, 113, 232-D12 (1993)
Spatially Resolved X-Ray Spectroscopy of the Merging Galaxy Cluster A2256. *T. Miyaji, R. F. Mushotzky, M. Loewenstein, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, E. A. Boldt, S. S. Holt, J. Swank, A. E. Szymkowiak, & R. Kelley.* 419, 66, 247-A2 (1993)
The Velocity Dispersion of Globular Clusters in NGC 1399. *Carl J. Grillmair, K. C. Freeman, G. V. Bicknell, D. Carter, Warrick J. Couch, J. Sommer-Larsen, & K. Taylor.* 422, L9, 36-C3 (1994)
Coronal Line Emission in Cluster Cooling Flows. *Megan Donahue & John T. Stocke.* 422, 459, 37-E9 (1994)
Constraints on Molecular Gas in Cooling Flows and Powerful Radio Galaxies. *Christopher P. O'Dea, Stefi A. Baum, Philip R. Maloney, Linda J. Tacconi, & William B. Sparks.* 422, 467, 37-F5 (1994)
Reanalysis of X-Ray Emission from M87. I. The Single-Phase Medium. *John C. Tsai.* 423, 143, 47-G9 (1994)
X-Ray Emission from a Simulated Cluster of Galaxies. *John C. Tsai, Neal Katz, & Edmund Bertschinger.* 423, 553, 55-D4 (1994)
Mergers, Cooling Flows, and Evaporation Revisited. *A. C. Fabian, C. R. Canizares, & H. Böhringer.* 425, 40, 80-F1 (1994)
Probing the Galactic Disk and Halo. I. The NGC 3783 Sight Line. *Limin Lu, Blair D. Savage, & Kenneth R. Sembach.* 426, 563, 105-D7 (1994)
Mapping the Dark Matter in the NGC 5044 Group with *ROSAT*: Evidence for a Nearly Homogeneous Cooling Flow with a Cooling Wake. *Laurence P. David, Christine Jones, William Forman, & Stuart Daines.* 428, 544, 137-A11 (1994)
Models of Hot Galactic Coronae around Early-Type Galaxies. *W. Forman, C. Jones, & W. Tucker.* 429, 77, 145-B7 (1994)
Reanalysis of X-Ray Emission from M87. II. The Multiphase Medium. *John C. Tsai.* 429, 119, 145-E13 (1994)
A General Class of Self-similar Self-gravitating Fluids. *Ue-Li Pen.* 429, 759, 155-B2 (1994)
A VLA Search for Neutral Hydrogen in Cooling Flow Clusters. *K. S. Dwarakanath, J. H. van Gorkom, & F. N. Owen.* 432, 469, 201-G1 (1994)
Predicted Optical/Ultraviolet Line Fluxes for the Warm Absorber in Abell 2256. *Shlomi Pistinner & Craig L. Sarazin.* 433, 577, 218-B8 (1994)
Abundance Gradients in Cooling Flow Clusters: *Ginga* Large Area Counters and *Einstein* Solid State Spectrometer Spectra of A496, A1795, A2142, and A2199. *Raymond E. White III, C. S. R. Day, Isamu Hatsukade, & John P. Hughes.* 433, 583, 218-C2 (1994)
ASCA Observations of Cooling Flows in Clusters of Galaxies. *A. C. Fabian, K. A. Arnaud, M. W. Bautz, & Y. Tawara.* 436, L63, 269-D5 (1994)
Rotating Cooling Flows. *Wilhelm Kley & William G. Mathews.* 438, 100, 2-F4 (1995)
Gas Filaments in the Collisional Debris of NGC 4438. *Jeffrey D. P. Kenney, Vera C. Rubin, Pere Planesas, & Judith S. Young.* 438, 135, 3-B10 (1995)
Observations of the Impact of Starbursts on the Interstellar Medium in Dwarf Galaxies. *Amanda T. Marlowe, Timothy M. Heckman, Rosemary F. G. Wyse, & Robert Schommer.* 438, 563, 12-A3 (1995)
ROSAT HRI Images of Abell 85 and Abell 496: Evidence for Inhomogeneities in Cooling Flows. *Andrea H. Prestwich, Stephen J. Guimond, Christian B. Luginbuhl, & Marshall Joy.* 438, L71, 19-D11 (1995)
Far-Infrared Thermal Emission from the Inner Cooling Flow Region of NGC 1275. *D. F. Lester, E. C. Zink, G. W. Doppmann, N. I. Gaffney, P. M. Harvey, B. J. Smith, & M. Malkan.* 439, 185, 23-G1 (1995)
ROSAT PSPC Observations of the Early-Type Galaxies NGC 507 and NGC 499: Central Cooling and Mass Determination. *Dong-Woo Kim & G. Fabbiano.* 441, 182, 61-G10 (1995)
Detection of an H I Disk in Hydra A? *K. S. Dwarakanath, F. N. Owen, & J. H. van Gorkom.* 442, L1, 84-D1 (1995)
Yet Another Theory for the Origin of Halo Globular Clusters and Spheroid Stars. *Mario Vietri & Enrico Pesce.* 442, 618, 88-D8 (1995)
Blue Lobes in the Hydra A Cluster Central Galaxy. *Brian R. McNamara.* 443, 77, 96-C8 (1995)
Lyα Forests and Cooling Outflow from Dwarf Galaxies. *Boqi Wang.* 444, L17, 121-D1 (1995)
Cooling Gas Outflows from Galaxies. *Boqi Wang.* 444, 590, 124-E3 (1995)
Chemical Evolution of Irregular and Blue Compact Galaxies. *Leticia Carigi, Pedro Colín, Manuel Peimbert, & Antonio Sarmiento.* 445, 98, 133-F5 (1995)
A Possible Mechanism for the Formation of the Nebular Filaments in Cluster Cooling Flows. *Shlomi Pistinner & Giora Shaviv.* 446, L11, 160-C7 (1995)
On the Origin of Blue Lobes in Central Cooling Flow Galaxies. *David S. De Young.* 446, 521, 163-C7 (1995)
Nonlinear Evolution of Internal Gravity Waves in Cluster Cooling Flows. *Eric A. Lufkin, Steven A. Balbus, & John F. Hawley.* 446, 529, 163-D5 (1995)
Comparison of the Radio, Optical, and X-Ray Structures of the cD Galaxy in Abell 2597. *Craig L. Sarazin, Jack O. Burns, Kurt Roettiger, & Brian R. McNamara.* 447, 559, 183-D13 (1995)
Interstellar Grains in Elliptical Galaxies: Grain Evolution. *John C. Tsai & William G. Mathews.* 448, 84, 193-C12 (1995)
ROSAT Observations of Distant Clusters of Galaxies. *Megan Donahue & John T. Stocke.* 449, 554, 220-D8 (1995)
Cooling Flow Models of the X-Ray Emission and Temperature Profiles for a Sample of Elliptical Galaxies. *G. Bertin & T. Toniazzo.* 451, 111, 247-F1 (1995)
Unusual Radio Structures in the Cooling Flow Cluster 2A 0335+096. *Craig L. Sarazin, Stefi A. Baum, & Christopher P. O'Dea.* 451, 125, 247-G4 (1995)
The Distribution of Mass and Gas in the Center of Clusters of Galaxies Implied by X-Ray and Lensing Observations. *Eli Waxman & Jordi Miralda-Escudé.* 451, 451, 253-E6 (1995)
Problems with Cold Clouds and Cooling Flows. *G. Mark Voit & Megan Donahue.* 452, 164, 264-C9 (1995)
Influence of Cooling Flows and Galactic Motion on the Iron Distribution in Clusters of Galaxies. *Yutaka Fujita & Hideo Kodama.* 452, 177, 264-D11 (1995)
Search for Coronal Emission Lines in Cooling Flow Clusters with the Keck 10 Meter Telescope. *L. Yan & J. G. Cohen.* 454, 44, 299-F12 (1995)
ROSAT X-Ray Observations of the 2A 0335+096 Cluster of Galaxies. *Jimmy A. Irwin & Craig L. Sarazin.* 455, 497, 328-G3 (1995)

GALAXIES: DISTANCES

New Velocity Dispersions and Photometry for E and S0 Galaxies in the Great Attractor. *Alan Dressler, S. M. Faber, & David Burstein.* 368, 54, 23-G1 (1991)

Zero Point of the Supernova Hubble Diagram. *M. Fukugita & C. J. Hogan.* 368, L11, 28-C1 (1991)

New Cepheid Distances to Nearby Galaxies Based on *BVRI* CCD Photometry. II. The Local Group Galaxy M33. *Wendy L. Freedman, Christine D. Wilson, & Barry F. Madore.* 372, 455, 81-D9 (1991)

Surface Brightness Fluctuations: A Bridge from M31 to the Hubble Constant. *John L. Tonry.* 373, L1, 91-A8 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

The Distance to the Coma Cluster Using the *B*-Band Tully-Fisher Relation. *M. Fukugita, S. Okamura, K. Tarusawa, H. J. Rood, & B. A. Williams.* 376, 8, 125-B9 (1991)

Gravitational Lensing, Time Delay, and Angular Diameter Distance. *Ramesh Narayan.* 378, L5, 157-B1 (1991)

Properties of the SN 1987A Circumstellar Ring and the Distance to the Large Magellanic Cloud. *N. Panagia, R. Gilmozzi, F. Macchetto, H.-M. Adorf, & R. P. Kirshner.* 380, L23, 181-D1 (1991)

Systematic Bias in Cluster Galaxy Data, Affecting Galaxy Distances and Evolutionary History. *Donald H. Gudehus.* 382, 1, 200-A13 (1991)

Infrared Images, Virgo Spirals, and the Tully-Fisher Law. *R. F. Peletier & S. P. Willner.* 382, 382, 206-C13 (1991)

Planetary Nebulae as Standard Candles. VII. A Test versus Hubble Type in the NGC 1023 Group. *Robin Ciardullo, George H. Jacoby, & William E. Harris.* 383, 487, 220-D1 (1991)

GALAXIES: DISTANCES AND REDSHIFTS

Do the Redshifts of Gravitational Lens Galaxies Rule Out a Large Cosmological Constant? *Christopher S. Kochanek.* 384, 1, 1-A11 (1992)

Statistical Tests of Peaks and Periodicities in the Observed Redshift Distribution of Quasi-stellar Objects. *Debiprosad Duari, Patrick Das Gupta, & Jayant V. Narlikar.* 384, 35, 1-D9 (1992)

The Distribution of Galaxies within the "Great Wall." *Massimo Ramella, Margaret J. Geller, & John P. Huchra.* 384, 396, 7-B7 (1992)

The Distribution of Nearby Rich Clusters of Galaxies. *Marc Postman, John P. Huchra, & Margaret J. Geller.* 384, 404, 7-C1 (1992)

Velocity Differences in Binary Galaxies. I. Suggestions for a Nonmonotonic, Two-Component Distribution. *Stephen E. Schneider & Edwin E. Salpeter.* 385, 32, 12-D8 (1992)

Spectroscopy of Galaxies in Distant Clusters. IV. A Catalog of Photometry and Spectroscopy for Galaxies in Seven Clusters with $0.35 < z < 0.55$. *Alan Dressler & James E. Gunn.* 78, 1, 1-B1 (1992)

The Magnitude-Redshift Relation. *Allen I. Janis.* 385, 391, 18-B1 (1992)

A Redshift Survey of *IRAS* Galaxies. IV. The Galaxy Distribution and the Inferred Density Field. *Michael A. Strauss, Marc Davis, Amos Yahil, & John P. Huchra.* 385, 421, 18-D11 (1992)

Velocity Dipoles in Cold Dark Matter Cosmologies. *Giuseppe Tormen, Francesco Lucchin, & Sabino Matarrese.* 386, 1, 24-B1 (1992)

Gravitational Clustering of Galaxies: Comparison between Thermodynamic Theory and *N*-Body Simulations. III. Velocity Distributions for Different Mass Components. *Shogo Inagaki, Makoto Itoh, & William C. Saslaw.* 386, 9, 24-B10 (1992)

A New Tidal Model of the Magellanic Stream. *W. L. H. Shuter.* 386, 101, 25-D1 (1992)

Possible Models for the Type Ia Supernova 1990N. *Toshikazu Shigeyama, Ken'ichi Nomoto, Hitoshi Yamaoka, & Friedrich-Karl Thielemann.* 386, L13, 29-C1 (1992)

Compact Steep Spectrum Sources and Linear Size Evolution. *L. I. Onuora.* 386, 452, 31-A7 (1992)

A Study of a 21 Centimeter–selected Sample of Galaxies. I. The Survey. *P. A. Henning.* 78, 365, 7-D3 (1992)

Luminosity–Line Width Relations and the Extragalactic Distance Scale. I. Absolute Calibration. *Michael J. Pierce & R. Brent Tully.* 387, 47, 37-E8 (1992)

Line Fluorescence from the Ring around SN 1987A. *Eli Dwek & James E. Felten.* 387, 551, 45-E1 (1992)

Systematic QSO Emission-Line Velocity Shifts and New Unbiased Redshifts. *David Tytler & Xiao-Ming Fan.* 79, 1, 12-B1 (1992)

Peculiar Velocities of Field Spiral Galaxies near and beyond the Great Attractor. *Gregory D. Bothun, Robert A. Schommer, T. B. Williams, Jeremy R. Mould, & J. P. Huchra.* 388, 253, 53-D10 (1992)

Planetary Nebulae as Standard Candles. VIII. Evidence for a Change in the Luminosity Function Cutoff at Low Metallicity. *Robin Ciardullo & George H. Jacoby.* 388, 268, 53-F1 (1992)

A Theoretical Calibration of the Planetary Nebular Cosmic Distance Scale. *Michael A. Dopita, George H. Jacoby, & E. Vassiliadis.* 389, 27, 60-D1 (1992)

No Back-Side Infall into the Great Attractor. *D. S. Mathewson, V. L. Ford, & M. Buchhorn.* 389, L5, 66-B6 (1992)

Systematic Differences between the Field and Cluster Elliptical Galaxies. *R. R. de Carvalho & S. Djorgovski.* 389, L49, 73-B11 (1992)

H I Observations of Galaxies in the Hercules Supercluster. II. Additional UGC Galaxies and Galaxies in Selected CGCG Fields. *Wolfram Freudling, Martha P. Haynes, & Riccardo Giovanelli.* 79, 157, 16-B1 (1992)

Properties of the Redshift. IV. Reference Data. *W. G. Tifft.* 79, 183, 16-D13 (1992)

The Continuum Model in Astrophysics. *Richard L. Liboff.* 390, 1, 74-B1 (1992)

Relation of Redshift Surveys to Matter Distribution in Spherically Symmetric Dust Universes. *Hannu Kurki-Suonio & Edison Liang.* 390, 5, 74-B7 (1992)

The Luminosity of Supernovae of Type Ia. I. Apparent Magnitudes at Maximum Light. *Sidney van den Bergh & John Pazder.* 390, 34, 74-D13 (1992)

Linear Velocity Fields in Non-Gaussian Models for Large-Scale Structure. *Robert J. Scherrer.* 390, 330, 79-C10 (1992)

The Stromlo–APM Redshift Survey. I. The Luminosity Function and Space Density of Galaxies. *J. Loveday, B. A. Peterson, G. Efstathiou, & S. J. Maddox.* 390, 338, 79-D5 (1992)

An Absolute Calibration of Type Ia Supernovae and the Value of H_0. *Michael J. Pierce, Michael E. Ressler, & Mark S. Shure.* 390, L45, 84-D1 (1992)

Nearby Galaxy Flows Modeled by the Light Distribution. *Edward J. Shaya, R. Brent Tully, & Michael J. Pierce.* 391, 16, 86-C5 (1992)

The Structure of Southern Extragalactic Radio Sources. *Paul A. Jones & W. Bruce McAdam.* 80, 137, 24-C3 (1992)

Statistics of Pencil Beams in Voronoi Foams. *Mark U. SubbaRao & Alexander S. Szalay.* 391, 483, 93-G12 (1992)

A General Analytical Solution to the Problem of Malmquist Bias Due to Lognormal Distance Errors. *Stephen D. Landy & Alexander S. Szalay.* 391, 494, 94-A11 (1992)

Elongated Disks and the Scatter in the Tully-Fisher Relation. *Marijn Franx & Tim de Zeeuw.* 392, L47, 113-B1 (1992)

Nearby Galaxy Flows Modeled by the Light Distribution: Distances, Model, and the Local Velocity Anomaly. *R. Brent Tully, Edward J. Shaya, & Michael J. Pierce.* 80, 479, 30-B1 (1992)

Statistical Methods for Investigating Periodicities in Double-Galaxy Redshifts. *W. J. Cocke.* 393, 59, 114-G1 (1992)

High-Resolution Imaging of Virgo Cluster Galaxies. I. The Distance Based on the Brightest Stars in NGC 4571. *Michael J. Pierce, Robert D. McClure, & René Racine.* 393, 523, 122-C9 (1992)

The Tully-Fisher Relation for the CO Line. *John M. Dickey & Ilya Kazès.* 393, 530, 122-D5 (1992)

Large-Scale Radial Velocity Correlations as a Test of Gaussian Initial Conditions. *Stephen D. Landy & Alexander S. Szalay.* 394, 25, 128-D1 (1992)

On Distances and the Hubble Parameter Determination in Gravitational Lenses. *Kazuya Watanabe, Misao Sasaki, & Kenji Tomita.* 394, 38, 128-E1 (1992)

Hubble Flows in the Pisces-Perseus Region from the Giovanelli-Haynes Galaxy Sample. *T. Ichikawa & M. Fukugita.* 394, 61, 128-G5 (1992)

The Unusual Field of the Quasar 3C 336: Identification of Three Foreground Mg II Absorbing Galaxies. *Charles C. Steidel & Mark Dickinson.* 394, 81, 129-A13 (1992)

Identification and Spectroscopy of Radio Sources from the Third Bologna Survey. *D. J. Thompson, S. Djorgovski, M. Vigotti, & G. Grueff.* 81, 1, 35-B1 (1992)

Northern Dwarf and Low Surface Brightness Galaxies. II. The Green Bank Neutral Hydrogen Survey. *Stephen E. Schneider, Trinh X. Thuan, Jeffrey G. Mangum, & John Miller.* 81, 5, 35-B13 (1992)

The Large-Scale Velocity Field beyond the Local Supercluster. *Mingsheng Han.* 395, 75, 141-A9 (1992)

The Velocity-Distance Relation for Galaxies on a Bubble. *Gregory D. Bothun, Margaret J. Geller, Michael J. Kurtz, John P. Huchra, & Rudolph E. Schild.* 395, 347, 146-E5 (1992)

New Constraints and Improvements on Oscillating Physics. *Robert G. Crittenden & Paul J. Steinhardt.* 395, 360, 146-F9 (1992)

A Southern Sky Survey of the Peculiar Velocities of 1355 Spiral Galaxies. *D. S. Mathewson, V. L. Ford, & M. Buchhorn.* 81, 413, 41-B1 (1992)

Velocity Segregation in Galaxy Clusters. *A. Biviano, M. Girardi, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 396, 35, 155-E1 (1992)

New Cepheid Distances to Nearby Galaxies Based on *BVRI* CCD Photometry. III. NGC 300. *Wendy L. Freedman, Barry F. Madore, S. L. Hawley, Irwin K. Horowitz, Jeremy Mould, Mauricio Navarrete, & Shauna Sallmen.* 396, 80, 156-A13 (1992)

Peculiar Velocities of Clusters in the Perseus-Pisces Supercluster. *M. Han & J. R. Mould.* 396, 453, 163-B1 (1992)

Cold Dark Matter versus Baryon-dominated Universes: Comparison with Peculiar Velocity and Acceleration Measurements. *Paola Del Grande & Nicola Vittorio.* 397, 26, 168-D1 (1992)

Gravitational Lenses in Redshift Surveys. *Christopher S. Kochanek.* 397, 381, 175-D6 (1992)

A Redshift Survey of *IRAS* Galaxies. V. The Acceleration on the Local Group. *Michael A. Strauss, Amos Yahil, Marc Davis, John P. Huchra, & Karl Fisher.* 397, 395, 175-E11 (1992)

A Study of the Velocity Field in the Local Supercluster Based on a New Peculiar-Velocity Sample. *Kazuhiro Shimasaku & Sadanori Okamura.* 398, 441, 189-E9 (1992)

The Estimation of Absolute Magnitude and Distance from the Tully-Fisher Relation. *Geoffrey V. Bicknell.* 399, 1, 195-B1 (1992)

A Simple Test of Independence for Truncated Data with Applications to Redshift Surveys. *Bradley Efron & Vahé Petrosian.* 399, 345, 202-C1 (1992)

Dynamical Properties of Compact Groups of Galaxies. *Paul Hickson, Claudia Mendes de Oliveira, John P. Huchra, & Giorgio G. C. Palumbo.* 399, 353, 202-C11 (1992)

The Asymmetric Distribution of Satellite Galaxy Velocities. *Dennis Zaritsky.* 400, 74, 209-G12 (1992)

A Redshift Survey of *IRAS* Galaxies. VII. The Infrared and Redshift Data for the 1.936 Jansky Sample. *Michael A. Strauss, John P. Huchra, Marc Davis, Amos Yahil, Karl B. Fisher, & John Tonry.* 83, 29, 57-D3 (1992)

A Spatial, Kinematical, and Dynamical Analysis of Abell 400. *Timothy C. Beers, Karl Gebhardt, John P. Huchra, William Forman, Christine Jones, & Gregory D. Bothun.* 400, 410, 215-D6 (1992)

The CFHT North Galactic Pole Faint Galaxy Survey. *L. Infante & C. J. Pritchet.* 83, 237, 61-B1 (1992)

The Power Spectrum of *IRAS* Galaxies. *Karl B. Fisher, Marc Davis, Michael A. Strauss, Amos Yahil, & John P. Huchra.* 402, 42, 1-E8 (1993)

The Redshift-Distance and Velocity-Distance Laws. *Edward Harrison.* 403, 28, 14-D7 (1993)

A Spectroscopic Study of Damped Lyman-α Systems in the Las Campanas/Palomar Survey. *Limin Lu, Arthur M. Wolfe, David A. Turnshek, & Kenneth M. Lanzetta.* 84, 1, 1-B1 (1993)

Automated Galaxy Redshift Measurements from Very Low Dispersion Objective Prism Schmidt Plates. *Peter Schuecker.* 84, 39, 1-E11 (1993)

Probing the Statistics of Primordial Fluctuations and Their Evolution. *Enrique Gaztañaga & Jun'ichi Yokoyama.* 403, 450, 21-B9 (1993)

Velocity Dispersions in Galaxy Clusters. *M. Girardi, A. Biviano, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 404, 38, 28-E1 (1993)

Direct Construction of the Galaxy Luminosity Function as a Function of Redshift. *Stephen Eales.* 404, 51, 28-F1 (1993)

Identification of a Lyman-Alpha Radio-quiet Galaxy at Redshift $z = 3.428$: A Primeval Galaxy? *F. Macchetto, S. Lipari, M. Giavalisco, D. A. Turnshek, & W. B. Sparks.* 404, 511, 35-D1 (1993)

A Cluster of Nascent Galaxies at $z = 2$? *Alan Dressler, Augustus Oemler, Jr., James E. Gunn, & Harvey Butcher.* 404, L45, 40-C1 (1993)

Flat Spacetime Cosmology: A Unified Framework for Extragalactic Redshifts. *Jayant Narlikar & Halton Arp.* 405, 51, 41-F7 (1993)

Ω and the Initial Fluctuations from Velocity and Density Fields. *Adi Nusser & Avishai Dekel.* 405, 437, 48-E1 (1993)

Satellites of Spiral Galaxies. *Dennis Zaritsky, Rodney Smith, Carlos Frenk, & Simon D. M. White.* 405, 464, 48-G7 (1993)

A Distance to the Cepheid HV 829 in the Small Magellanic Cloud. *Thomas G. Barnes III, Thomas J. Moffett, & Wolfgang P. Gieren.* 405, L51, 54-B11 (1993)

A Revised Catalog of CfA1 Galaxy Groups in the Virgo/Great Attractor Flow Field. *Richard Nolthenius.* 85, 1, 6-B1 (1993)

Peculiar Velocities and Galaxy Clustering: Do Bulk and Shell Motions Have the Same Origin? *Daniela Calzetti & Mauro Giavalisco.* 406, 388, 62-D12 (1993)

New High-Redshift Damped Lyman-Alpha Absorption Systems and the Redshift Evolution of Damped Absorbers. *Richard L. White, A. L. Kinney, & Robert H. Becker.* 407, 456, 76-C8 (1993)

All-Sky Catalogs of Superclusters of Abell-ACO Clusters. *Elena Zucca, Giovanni Zamorani, Roberto Scaramella, & Giampaolo Vettolani.* 407, 470, 76-D10 (1993)

The Cosmic Mach Number: Direct Comparisons of Observations and Models. *Michael A. Strauss, Renyue Cen, & Jeremiah P. Ostriker.* 408, 389, 90-B1 (1993)

The Distance to Nearby Galaxy NGC 3109 Based on the Tip of the Red Giant Branch. *Myung Gyoon Lee.* 408, 409, 90-C8 (1993)

The Velocity Field of Clusters of Galaxies within 100 Megaparsecs. II. Northern Clusters. *J. R. Mould, R. L. Akeson, G. D. Bothun, M. Han, J. P. Huchra, J. Roth, & R. A. Schommer.* 409, 14, 97-C1 (1993)

The Dependence of the Brightness Fluctuation Distance Indicator on Stellar Population Age and Metallicity. *Guy Worthey.* 409, 530, 105-E3 (1993)

Infrared Surface Brightness Fluctuations: K'-Band Observations of M31, M32, and the Distance to Maffei 1. *Gerard A. Luppino & John L. Tonry.* 410, 81, 113-B3 (1993)

A Provisional RR Lyrae Distance Scale. *Norman R. Simon & Christine M. Clement.* 410, 526, 120-C1 (1993)

The Galaxy Velocity Field and Cold Dark Matter Models. *Giuseppe Tormen, Lauro Moscardini, Francesco Lucchin, & Sabino Matarrese.* 411, 16, 127-C8 (1993)

Sources of Scatter in the Fundamental Plane and the D_n-σ Relation. *Inger Jørgensen, Marijn Franx, & Per Kjærgaard.* 411, 34, 127-E1 (1993)

Peculiar Velocities of Rich Clusters in Hot and Cold Dark Matter Models. *George Rhee.* 411, 455, 135-C8 (1993)

Statistically Efficient Testing of the Hubble and Lundmark Laws on *IRAS* Galaxy Samples. *I. E. Segal, J. F. Nicoll, P. Wu, & Z. Zhou.* 411, 465, 135-D6 (1993)

The Two-Point Correlation Function in Pancake Models and the Fair Sample Hypothesis. *Thomas Buchert & Vicent J. Martínez.* 411, 485, 135-F1 (1993)

A Deep I-Band Selected Galaxy Sample: Implications for Galaxy Evolution. *Simon J. Lilly.* 411, 501, 135-G6 (1993)

The Distance to the Large Magellanic Cloud: Constraints from Cepheids in Large Magellanic Cloud Star Clusters. *Gianpaolo Bertelli, Alessandro Bressan, Cesare Chiosi, Mario Mateo, & Peter R. Wood.* 412, 160, 144-A13 (1993)

Spatial Distribution of Spiral Galaxies in the Virgo Cluster from the Tully-Fisher Relation. *M. Fukugita, S. Okamura, & N. Yasuda.* 412, L13, 148-B11 (1993)

Streaming Motions in the Local Universe: Evidence for Large-Scale, Low-Amplitude Density Fluctuations. *Stéphane Courteau, S. M. Faber, Alan Dressler, & Jeffrey A. Willick.* 412, L51, 155-B10 (1993)

Selection, Covariance, and Malmquist Bias. *Andrew Gould.* 412, L55, 155-C3 (1993)

Velocity Functions of Galaxies and Clusters of Galaxies. *Kazuhiro Shimasaku.* 413, 59, 156-G3 (1993)

A Dwarf Galaxy near the Sight Line to PKS 0454+0356: A Fading "Faint Blue Galaxy"? *Charles C. Steidel, Mark Dickinson, & David V. Bowen.* 413, L77, 168-D4 (1993)

Molecular Gas Mass and Far-Infrared Emission from Distant Luminous Galaxies. *D. Downes, P. M. Solomon, & S. J. E. Radford.* 414, L13, 175-D6 (1993)

Large-Scale Peculiar Velocity Field Due to Infinitely Long Cosmic Strings. *Tetsuya Hara, Petri Mähönen, & Shigeru Miyoshi.* 415, 445, 193-D1 (1993)

The Rotation Curves of Galaxies at Intermediate Redshift. *Nicole P. Vogt, Terry Herter, Martha P. Haynes, & Stéphane Courteau.* 415, L95, 199-G11 (1993)

The Dynamics of the Galaxy Cluster Abell 2634. *J. Pinkney, G. Rhee, J. O. Burns, J. M. Hill, W. Oegerle, D. Batuski, & P. Hintzen.* 416, 36, 201-E2 (1993)

H I 21 Centimeter Observations and I-Band CCD Surface Photometry of Spiral Galaxies behind the Virgo Cluster and toward Its Antipode. *N. Y Lu, G. L. Hoffman, T. Groff, T. Roos, & C. Lamphier.* 88, 383, 45-D1 (1993)

Moments of the Counts Distribution in the 1.2 Jansky *IRAS* Galaxy Redshift Survey. *François R. Bouchet, Michael A. Strauss, Marc Davis, Karl B. Fisher, Amos Yahil, & John P. Huchra.* 417, 36, 217-E3 (1993)

Gamma-Ray Escape in Type Ia Supernovae: The 847 keV–m_B Diagram. *P. Ruiz-Lapuente, G. G. Lichti, R. Lehoucq, R. Canal, & M. Cassé.* 417, 547, 226-B5 (1993)

The Tip of the Red Giant Branch as a Distance Indicator for Resolved Galaxies. *Myung Gyoon Lee, Wendy L. Freedman, & Barry F. Madore.* 417, 553, 226-B13 (1993)

The Distance to the Large Magellanic Cloud from SN 1987A. *Marshall L. McCall.* 417, L75, 230-D1 (1993)

The Analysis of Gravitational Lens Surveys. II. Maximum Likelihood Models and Singular Potentials. *Christopher S. Kochanek.* 419, 12, 246-C2 (1993)

Dynamics of Binary Galaxies. I. Wide Pairs. *Jayaram N. Chengalur, E. E. Salpeter, & Yervant Terzian.* 419, 30, 246-D10 (1993)

A Technique for Detecting Structure in Cluster Velocity Distributions. *Ann I. Zabludoff, Marijn Franx, & Margaret J. Geller.* 419, 47, 246-F5 (1993)

A Comparison of the Planetary Nebula Luminosity Function and Surface Brightness Fluctuation Distance Scales. *Robin Ciardullo, George H. Jacoby, & John L. Tonry.* 419, 479, 253-F9 (1993)

Topological Analysis of the CfA Redshift Survey. *Michael S. Vogeley, Changbom Park, Margaret J. Geller, John P. Huchra, & J. Richard Gott III.* 420, 525, 9-B8 (1994)

Galaxy Formation in $\Lambda > 0$ Friedmann Models: Consequences for the Number Counts versus Redshift Test. *Hugo Martel.* 421, L67, 29-D1 (1994)

Cosmological Dipoles in Depth. *Roberto Scaramella, Giampaolo Vettolani, & Giovanni Zamorani.* 422, 1, 30-B1 (1994)

Infall-related Observational Effects around Clusters: Large-Scale Structure, Transverse Motions, and Redshift-Space Artifacts. *Elizabeth A. Praton & Stephen E. Schneider.* 422, 46, 30-E13 (1994)

Substructure in Clusters and cD Peculiar Velocities: A2670. *Christina Bird.* 422, 480, 37-G6 (1994)

Peculiar Velocity Effect on Galaxy Correlation Functions in Nonlinear Clustering Regime. *Takahiko Matsubara.* 424, 30, 62-D4 (1994)

Scaling Analysis of the Distribution of Galaxies in the CfA Catalog. *R. Domínguez-Tenreiro, M. A. Gómez-Flechoso, & V. J. Martínez.* 424, 42, 62-E4 (1994)

A Complete Southern Sky Redshift Survey. *L. Nicolaci da Costa, M. J. Geller, P. S. Pellegrini, D. W. Latham, A. P. Fairall, R. O. Marzke, C. N. A. Willmer, J. P. Huchra, J. H. Calderon, M. Ramella, & M. J. Kurtz.* 424, L1, 69-A8 (1994)

Redshift Distortions of Galaxy Correlation Functions. *J. N. Fry & Enrique Gaztañaga.* 425, 1, 80-B1 (1994)

Possible Identification of a Cluster of Galaxies at Redshift $z = 3.4$. *Mauro Giavalisco, Charles C. Steidel, & Alexander S. Szalay.* 425, L5, 85-B7 (1994)

The Motion of the Local Group with Rèspect to the 15,000 Kilometer per Second Abell Cluster Inertial Frame. *Tod R. Lauer & Marc Postman.* 425, 418, 87-A1 (1994)

Power-Spectrum Analysis of Three-dimensional Redshift Surveys. *Hume A. Feldman, Nick Kaiser, & John A. Peacock.* 426, 23, 96-D2 (1994)

Measuring the Hubble Constant and Our Virgo-Infall Velocity Independently. *Nanyao Y. Lu, E. E. Salpeter, & G. Lyle Hoffman.* 426, 473, 104-C4 (1994)

Statistical Bias in Distance and Peculiar Velocity Estimation. I. The "Calibration" Problem. *Jeffrey A. Willick.* 92, 1, 31-B1 (1994)

A Redshift Survey in Quasar Fields. I. Photometric and Spectroscopic Catalog. *E. Ellingson & H. K. C. Yee.* 92, 33, 31-D8 (1994)

How Unusual is the Locally Quiet Hubble Flow? *David Schlegel, Marc Davis, Frank Summers, & Jon A. Holtzman.* 427, 527, 119-C7 (1994)

The *Hubble Space Telescope* Extragalactic Distance Scale Key Project. I. The Discovery of Cepheids and a New Distance to M81. *Wendy L. Freedman, Shaun M. Hughes, Barry F. Madore, Jeremy R. Mould, Myung Gyoon Lee, Peter Stetson, Robert C. Kennicutt, Anne Turner, Laura Ferrarese, Holland Ford, John A. Graham, Robert Hill, John G. Hoessel, John Huchra, & Garth D. Illingworth.* 427, 628, 120-E4 (1994)

Do Spirals and Ellipticals Trace the Same Velocity Field? *Tsafrir Kolatt & Avishai Dekel.* 428, 35, 128-F1 (1994)

The Luminosity Function of the CfA Redshift Survey. *R. O. Marzke, J. P. Huchra, & M. J. Geller.* 428, 43, 128-F11 (1994)

Bias Properties of Extragalactic Distance Indicators. I. The Hubble Constant Does Not Increase Outward. *Allan Sandage.* 430, 1, 159-B1 (1994)

Bias Properties of Extragalactic Distance Indicators. II. Bias Corrections to Tully-Fisher Distances for Field Galaxies. *Allan Sandage.* 430, 13, 159-C1 (1994)

Bias Properties of Extragalactic Distance Indicators. III. Analysis of Tully-Fisher Distances for the Mathewson-Ford-Buchhorn Sample of 1355 Galaxies. *Martin Federspiel, Allan Sandage, & G. A. Tammann.* 430, 29, 159-D5 (1994)

Statistically Efficient Parallel Testing of the Friedmann and Chronometric Flux-Redshift Predictions in the Radio Band. *I. E. Segal, J. F. Nicoll, & E. Blackman.* 430, 63, 159-G1 (1994)

Companion Galaxies: A Test of the Assumption That Velocities Can Be Inferred from Redshifts. *Halton Arp.* 430, 74, 160-A1 (1994)

Theoretical Expectations for Bulk Flows in Large-Scale Surveys. *Hume A. Feldman & Richard Watkins.* 430, L17, 165-C11 (1994)

Redshift Data and Statistical Inference. *William I. Newman, Martha P. Haynes, & Yervant Terzian.* 431, 147, 178-A6 (1994)

Power Spectrum, Correlation Function, and Tests for Luminosity Bias in the CfA Redshift Survey. *Changbom Park, Michael S. Vogeley, Margaret J. Geller, & John P. Huchra.* 431, 569, 185-F1 (1994)

Skewness and Kurtosis in Large-Scale Cosmic Fields. *Francis Bernardeau.* 433, 1, 208-C1 (1994)

A Direct Way to Measure the Distances of Galaxies. *W. B. Sparks.* 433, 19, 208-D7 (1994)

MEPSICRON Spectrophotometry of Seyfert Galaxies. I. Spectral Atlas. *Irene Cruz-González, Luis Carrasco, Alfonso Serrano, José Guichard, Deborah Dultzin-Hacyan, & Gian Franco Bisiacchi.* 94, 47, 52-E9 (1994)

The Ensemble Variability Properties of Faint QSOs. *Dario Trevese, Richard G. Kron, Steven R. Majewski, Matthew A. Bershady, & David C. Koo.* 433, 494, 217-B5 (1994)

Redshift and the Hubble Constant in Conformally Flat Spacetime. *Geoffrey Endean.* 434, 397, 233-C1 (1994)

Large-Scale Streaming Motions in the Local Universe. *D. S. Mathewson & V. L. Ford.* 434, L39, 241-C1 (1994)

The Θ-z Relation for *HST* Bulges and Disks out to $z \simeq 0.8$. *Steven B. Mutz, Rogier A. Windhorst, Paul C. Schmidtke, Sebastian M. Pascarelle, Richard E. Griffiths, Kavan U. Ratnatunga, Stefano Casertano, Myungshin Im, Richard S. Ellis, Karl Glazebrook, Richard F. Green, & Vicki L. Sarajedini.* 434, L55, 241-E1 (1994)

The Hawaii K-Band Galaxy Survey. III. Spectroscopy of $K < 20$ Galaxies. *A. Songaila, L. L. Cowie, E. M. Hu, & J. P. Gardner.* 94, 461, 58-C1 (1994)

First *Hubble Space Telescope* Observations of the Brightest Stars in the Virgo Galaxy M100 = NGC 4321. *Wendy L. Freedman, Barry F. Madore, Peter B. Stetson, Shaun M. G. Hughes, Jon A. Holtzman, Jeremy R. Mould, John T. Trauger, John S. Gallagher III, Gilda E. Ballester, Christopher J. Burrows, Stefano Casertano, John T. Clarke, David Crisp, Laura Ferrarese, Holland Ford, J. A. Graham, Richard E. Griffiths, J. Jeff Hester, Robert Hill, John G. Hoessel, John Huchra, Robert C. Kennicutt, Paul A. Scowen, Bill Sparks, Karl R. Stapelfeldt, Alan M. Watson, & Jim Westphal.* 435, L31, 251-G9 (1994)

Optimal Galaxy Distance Estimators. *M. A. Hendry & J. F. L. Simmons.* 435, 515, 253-C1 (1994)

Lensing from the Light-Traces-Mass Map of MS 1224+20. *R. G. Carlberg, H. K. C. Yee, & E. Ellingson.* 437, 63, 284-A9 (1994)

A Medium-deep Redshift Survey of a Minislice at the North Galactic Pole. *C. N. A. Willmer, David C. Koo, Alex S. Szalay, & Michael J. Kurtz.* 437, 560, 293-E1 (1994)

Field Galaxy Evolution Since $z \sim 1$ from a Sample of QSO Absorption–selected Galaxies. *Charles C. Steidel, Mark Dickinson, & S. E. Persson.* 437, L75, 298-E8 (1994)

Theoretical Light Curves for the Type Ic Supernova SN 1994I. *Kohichi Iwamoto, Ken'ichi Nomoto, Peter Höflich, Hitoshi Yamaoka, Shiomi Kumagai, & Toshikazu Shigeyama.* 437, L115, 299-C8 (1994)

The Circumstellar Envelope of SN 1987A. I. The Shape of the Double-lobed Nebula and Its Rings and the Distance to the Large Magellanic Cloud. *Arlin P. S. Crotts, William E. Kunkel, & Stephen R. Heathcote.* 438, 724, 14-B11 (1995)

The $z = 0.8596$ Damped Lyα Absorbing Galaxy toward PKS 0454+039. *Charles C. Steidel, David V. Bowen, J. Chris Blades, & Mark Dickinson.* 440, L45, 57-C9 (1995)

Redshifts of 165 Abell and Southern Rich Clusters of Galaxies. *H. Quintana & A. Ramírez.* 96, 343, 7-B1 (1995)

The Large-Scale Distribution of Late-Type Galaxies between Virgo and the Great Wall. *G. Lyle Hoffman, B. M. Lewis, & E. E. Salpeter.* 441, 28, 59-F2 (1995)

Disk Galaxies near the Line of Sight to 3C 273 and Conjectures on Lyman-Alpha Absorption. *E. E. Salpeter & G. Lyle Hoffman.* 441, 51, 60-A7 (1995)

Non-LTE Spectral Analysis and Model Constraints on SN 1993J. *E. Baron, P. H. Hauschildt, D. Branch, S. Austin, P. Garnavich, Hong Bae Ann, R. M. Wagner, A. V. Filippenko, T. Matheson, & James Liebert.* 441, 170, 61-F8 (1995)

Hubble Space Telescope Imaging of a Radio-quiet Galaxy at Redshift $z = 3.4$. *Mauro Giavalisco, F. Duccio Macchetto, Piero Madau, & William B. Sparks.* 441, L13, 66-D12 (1995)

Large-Scale Motions in the Universe: Using Clusters of Galaxies as Tracers. *Mirt Gramann, Neta A. Bahcall, Renyue Cen, & J. Richard Gott.* 441, 449, 68-C1 (1995)

A Test of Galaxy Evolutionary Models via Angular Sizes. *Myungshin Im, Stefano Casertano, Richard E. Griffiths, Kavan U Ratnatunga, & J. Anthony Tyson.* 441, 494, 68-G8 (1995)

Combinatorics and Companion Galaxies: Paradox Lost. *William I. Newman & Yervant Terzian.* 441, 505, 69-A8 (1995)

The Stromlo-APM Redshift Survey. II. Variation of Galaxy Clustering with Morphology and Luminosity. *J. Loveday, S. J. Maddox, G. Efstathiou, & B. A. Peterson.* 442, 457, 86-C1 (1995)

The Influence of Stellar Populations on Elliptical Galaxy Distance Estimates. *Michael D. Gregg.* 443, 527, 105-B4 (1995)

Testing the Accuracy of Redshift-Space Group-finding Algorithms. *James J. Frederic.* 97, 259, 15-D3 (1995)

The Spatial Distribution, Kinematics, and Dynamics of the Galaxies in the Region of Abell 2634 and 2666. *Marco Scodeggio, José M. Solanes, Riccardo Giovanelli, & Martha P. Haynes.* 444, 41, 113-G8 (1995)

Lyα Forests and Cooling Outflow from Dwarf Galaxies. *Boqi Wang.* 444, L17, 121-D1 (1995)

Can Standard Cosmological Models Explain the Observed Abell Cluster Bulk Flow? *Michael A. Strauss, Renyue Cen, Jeremiah P. Ostriker, Tod R. Lauer, & Marc Postman.* 444, 507, 123-D8 (1995)

Velocity Differences as a Probe of Non-Gaussian Density Fields. *Paolo Catelan & Robert J. Scherrer.* 445, 1, 132-D1 (1995)

Steps toward the Hubble Constant. X. The Distance of the Virgo Cluster Core Using Globular Clusters. *Allan Sandage & G. A. Tammann.* 446, 1, 153-C1 (1995)

Homogeneous Velocity-Distance Data for Peculiar Velocity Analysis. I. Calibration of Cluster Samples. *Jeffrey A. Willick, Stéphane Courteau, Sandra M. Faber, David Burstein, & Avishai Dekel.* 446, 12, 153-D1 (1995)

On the Discrepancy between the Cepheid and RR Lyrae Distance Scales. *Sidney van den Bergh.* 446, 39, 153-F3 (1995)

Spectrophotometric Study of SN 1993J at First Maximum Light. *A. Clocchiatti, J. C. Wheeler, E. S. Barker, A. V. Filippenko, T. Matheson, & J. W. Liebert.* 446, 167, 155-E3 (1995)

The Optical Redshift Survey: Sample Selection and the Galaxy Distribution. *Basílio X. Santiago, Michael A. Strauss, Ofer Lahav, Marc Davis, Alan Dressler, & John P. Huchra.* 446, 457, 162-D2 (1995)

A Redshift-Magnitude Relation for Nonuniform Pressure Universes. *Mariusz P. Dąbrowski.* 447, 43, 172-G2 (1995)

The Minimum Ejection Velocity of Calcium in Type Ia Supernovae and the Value of the Hubble Constant. *Adam Fisher, David Branch, Peter Höflich, & Alexei Khokhlov.* 447, L73, 190-C7 (1995)

On the Validity of the Streaming Model for the Redshift-Space Correlation Function in the Linear Regime. *Karl B. Fisher.* 448, 494, 201-E1 (1995)

Mass of the Milky Way and Redshifts of the Nearby Galaxies. *P. J. E. Peebles.* 449, 52, 211-A1 (1995)

Limits on the Hubble Constant from the *HST* Distance of M100. *Jeremy Mould, John P. Huchra, Fabio Bresolin, Laura Ferrarese, Holland C. Ford, Wendy L. Freedman, John Graham, Paul Harding, Robert Hill, John G. Hoessel, Shaun M. Hughes, Garth D. Illingworth, Daniel Kelson, Robert C. Kennicutt, Jr., Barry F. Madore, Randy Phelps, Peter B. Stetson, & Anne Turner.* 449, 413, 218-D8 (1995)

Velocity Bias from Merging in Clusters of Galaxies: The $\beta < 1$ Problem. *R. Fusco-Femiano & N. Menci.* 449, 431, 218-F13 (1995)

Large-Scale Structures in the Zone of Avoidance: The Galactic Anticenter Region. *Nanyao Y. Lu & Wolfram Freudling.* 449, 527, 220-B2 (1995)

The CfA Redshift Survey: Data for the NGP +36 Zone. *John P. Huchra, Margaret J. Geller, & Harold G. Corwin, Jr.* 99, 391, 40-D10 (1995)

The Lens Parallax Method: Determining Redshifts of Faint Blue Galaxies through Gravitational Lensing. *Matthias Bartelmann & Ramesh Narayan.* 451, 60, 247-A7 (1995)

The *IRAS* 1.2 Jy Survey: Redshift Data. *Karl B. Fisher, John P. Huchra, Michael A. Strauss, Marc Davis, Amos Yahil, & David Schlegel.* 100, 69, 46-G5 (1995)

Bias Properties of Extragalactic Distance Indicators. IV. Demonstration of the Population Incompleteness Bias Inherent in the Tully-Fisher Method Applied to Clusters. *Allan Sandage, G. A. Tammann, & Martin Federspiel.* 452, 1, 262-C2 (1995)

Measuring q_0 from the Distortion of Voids in Redshift Space. *Barbara S. Ryden.* 452, 25, 262-E4 (1995)

The Supernova Ring Revisited. II. Distance to the Large Magellanic Cloud. *Andrew Gould.* 452, 189, 264-E12 (1995)

Empirical Approach to Cepheid Period-Luminosity-Color and Period-Luminosity Relations by Surface Brightness. *G. P. Di Benedetto.* 452, 195, 264-F7 (1995)

Real-Space Cosmic Fields from Redshift-Space Distributions: A Green's Function Approach. *Max Tegmark & B. C. Bromley.* 453, 533, 291-C1 (1995)

Action Principle Solutions for Galaxy Motions within 3000 Kilometers per Second. *Edward J. Shaya, P. J. E. Peebles, & R. Brent Tully.* 454, 15, 299-D4 (1995)

The Canada-France Redshift Survey. I. Introduction to the Survey, Photometric Catalogs, and Surface Brightness Selection Effects. *S. J. Lilly, O. Le Fèvre, David Crampton, F. Hammer, & L. Tresse.* 455, 50, 318-G12 (1995)

The Canada-France Redshift Survey. II. Spectroscopic Program: Data for the 0000−00 and 1000+25 Fields. *Olivier Le Fèvre, David Crampton, Simon J. Lilly, Francois Hammer, & Laurence Tresse.* 455, 60, 319-A12 (1995)

The Canada-France Redshift Survey. III. "Single Emission-Line" Objects, Analysis of Repeat Observations, and Spectroscopic Identifications in the 1415+52 and 2215+00 Fields. *S. J. Lilly, F. Hammer, O. Le Fèvre, & David Crampton.* 455, 75, 319-C6 (1995)

The Canada-France Redshift Survey. IV. Spectroscopic Selection Effects and 0300+00 Field Spectroscopic Data. *Francois Hammer, David Crampton, Olivier Le Fèvre, & Simon J. Lilly.* 455, 88, 319-D10 (1995)

The Canada-France Redshift Survey. V. Global Properties of the Sample. *David Crampton, O. Le Fèvre, S. J. Lilly, & F. Hammer.* 455, 96, 319-E8 (1995)

The Canada-France Redshift Survey. VI. Evolution of the Galaxy Luminosity Function to $z \sim 1$. *S. J. Lilly, L. Tresse, F. Hammer, David Crampton, & O. Le Fèvre.* 455, 108, 319-F9 (1995)

A Method for Extracting Maximum Resolution Power Spectra from Galaxy Surveys. *Max Tegmark.* 455, 429, 327-G1 (1995)

Mapping the Galaxy Distribution at Large Distances. *Christèle Bellanger & Valérie de Lapparent.* 455, L103, 333-D2 (1995)

GALAXIES: ELLIPTICAL AND LENTICULAR, CD

The Formation of Globular Clusters in Merging and Interacting Galaxies. *Keith M. Ashman & Stephen E. Zepf.* 384, 50, 1-F1 (1992)

Elliptical Galaxies with Dark Matter. I. Self-consistent Models. *G. Bertin, R. P. Saglia, & M. Stiavelli.* 384, 423, 7-D9 (1992)

Elliptical Galaxies with Dark Matter. II. Optimal Luminous–Dark Matter Decomposition for a Sample of Bright Objects. *R. P. Saglia, G. Bertin, & M. Stiavelli.* 384, 433, 7-E7 (1992)

The Evolution of High-Metallicity Horizontal-Branch Stars and the Origin of the Ultraviolet Light in Elliptical Galaxies. *E. Horch, P. Demarque, & M. Pinsonneault.* 388, L53, 59-B7 (1992)

The Contribution of Advanced Post-Hayashi Track Evolutionary Phases to the Ultraviolet Light of Elliptical Galaxies. *Marco Castellani, Marco Limongi, & Amedeo Tornambè.* 389, 227, 62-G1 (1992)

Ultraluminous *IRAS* Galaxies: Formation of Elliptical Galaxies by Merger-induced Dissipative Collapse. *John Kormendy & David B. Sanders.* 390, L53, 84-E1 (1992)

On the Origin of Globular Clusters in Elliptical Galaxies. *S. Djorgovski & Basilio X. Santiago.* 391, L85, 99-F13 (1992)

The X-Ray Spectra of Galaxies. II. Average Spectral Properties and Emission Mechanisms. *D.-W. Kim, G. Fabbiano, & G. Trinchieri.* 393, 134, 115-F12 (1992)

Evidence for a Supermassive Black Hole in NGC 3115. *John Kormendy & Douglas Richstone.* 393, 559, 122-G1 (1992)

Cospatial Counterrotating Stellar Disks in the Virgo E7/S0 Galaxy NGC 4550. *Vera C. Rubin, J. A. Graham, & Jeffrey D. P. Kenney.* 394, L9, 133-B7 (1992)

The Intrinsic Shapes of Elliptical Galaxies. *Barbara S. Ryden.* 396, 445, 163-A5 (1992)

Cold Dark Matter versus Baryon-dominated Universes: Comparison with Peculiar Velocity and Acceleration Measurements. *Paola Del Grande & Nicola Vittorio.* 397, 26, 168-D1 (1992)

The Influence of Dark Matter on the Chemical Evolution of Elliptical Galaxies. *Francesca Matteucci.* 397, 32, 168-D9 (1992)

Dwarf Spheroidal Galaxies and Non-Newtonian Gravity. *Ortwin E. Gerhard & David N. Spergel.* 397, 38, 168-E1 (1992)

X-Ray and Optical Emission-Line Filaments in the Cooling Flow Cluster 2A 0335+096. *Craig L. Sarazin, Robert W. O'Connell, & Brian R. McNamara.* 397, L31, 173-D10 (1992)

The Distribution and Age of Asymptotic Giant Branch Stars in NGC 205. *T. J. Davidge.* 397, 457, 176-D5 (1992)

Mg and Fe Absorption Features in Elliptical Galaxies. *Guy Worthey, S. M. Faber, & J. Jesús Gonzalez.* 398, 69, 182-G9 (1992)

Mergers, Cooling Flows, and Evaporation. *W. B. Sparks.* 399, 66, 196-A5 (1992)

Infrared Emission and Mass Loss from Evolved Stars in Elliptical Galaxies. *G. R. Knapp, J. E. Gunn, & C. G. Wynn-Williams.* 399, 76, 196-B3 (1992)

Nuclear Molecular Gas in the Virgo Cluster S0 Galaxy NGC 4710. *J. M. Wrobel & Jeffrey D. P. Kenney.* 399, 94, 196-C10 (1992)

Stellar Population Gradients in Early-Type Galaxies. *Jeffrey A. Munn.* 399, 444, 203-E1 (1992)

Dynamically Hot Galaxies. I. Structural Properties. *Ralf Bender, David Burstein, & S. M. Faber.* 399, 462, 203-F1 (1992)

Cold Dissipationless Collapse of Spherical Systems: Sensitivity to the Initial Density Law. *John K. Cannizzo & Timothy C. Hollister.* 400, 58, 209-F6 (1992)

The Stellar Content of Central Dominant Galaxies. II. Colors of cD Envelopes. *Glen Mackie.* 400, 65, 209-G1 (1992)

Structure of Merger Remnants. I. Bulgeless Progenitors. *Lars Hernquist.* 400, 460, 216-A9 (1992)

Are Cluster Ellipticals the Products of Mergers? *Gary A. Mamon.* 401, L3, 227-A10 (1992)

The External Origin of the Gas in S0 Galaxies. *F. Bertola, L. M. Buson, & W. W. Zeilinger.* 401, L79, 233-A12 (1992)

Stellar Dynamical Evidence for Dark Halos in Elliptical Galaxies: The Case of NGC 4472, IC 4296, and NGC 7144. *R. P. Saglia, G. Bertin, F. Bertola, J. Danziger, H. Dejonghe, E. M. Sadler, M. Stiavelli, P. T. de Zeeuw, & W. W. Zeilinger.* 403, 567, 22-F1 (1993)

NGC 5018: A Metal-poor Giant Elliptical. *Francesco Bertola, David Burstein, & Lucio M. Buson.* 403, 573, 22-F10 (1993)

An *IUE* Search for Star Formation in Ellipticals with Gaseous Disks. *Francesco Bertola, David Burstein, Lucio M. Buson, & Alvio Renzini.* 403, 577, 22-G1 (1993)

Diffuse X-Ray Emission from the NGC 2300 Group of Galaxies: Implications for Dark Matter and Galaxy Evolution in Small Groups. *John S. Mulchaey, David S. Davis, Richard F. Mushotzky, & David Burstein.* 404, L9, 33-D7 (1993)

Segregation of Gas and Stars in Shell Galaxies. *Melinda L. Weil & Lars Hernquist.* 405, 142, 42-G1 (1993)

A New Method for the Identification of Non-Gaussian Line Profiles in Elliptical Galaxies. *Roeland P. van der Marel & Marijn Franx.* 407, 525, 77-B5 (1993)

Ram Pressure Stripping from Elliptical Galaxies. I. The Mass Contained in the Galaxy. *D. Portnoy, S. Pistinner, & G. Shaviv.* 86, 95, 15-B3 (1993)

The Dependence of the Brightness Fluctuation Distance Indicator on Stellar Population Age and Metallicity. *Guy Worthey.* 409, 530, 105-E3 (1993)

Evolution of Elliptical Galaxies. I. The Multiphase Model. *Federico Ferrini & Bianca Maria Poggianti.* 410, 44, 112-F4 (1993)

Infrared Surface Brightness Fluctuations: K'-Band Observations of M31, M32, and the Distance to Maffei 1. *Gerard A. Luppino & John L. Tonry.* 410, 81, 113-B3 (1993)

The Shapes of Brightest Cluster Galaxies. *Barbara S. Ryden, Tod R. Lauer, & Marc Postman.* 410, 515, 120-B1 (1993)

Sources of Scatter in the Fundamental Plane and the D_n-σ Relation. *Inger Jørgensen, Marijn Franx, & Per Kjærgaard.* 411, 34, 127-E1 (1993)

Nuclear Winds in Active Elliptical Galaxies. I. Interaction. *Steven J. Smith, C. F. Kennel, & F. V. Coroniti.* 411, 581, 136-G9 (1993)

Nuclear Winds in Active Elliptical Galaxies. II. Observational Signatures. *Steven J. Smith, C. F. Kennel, & F. V. Coroniti.* 412, 82, 143-A13 (1993)

The Angular Momentum Behavior in the Dissipationless Collapse of Triaxial Systems. *Anna Curir, Antonaldo Diaferio, & Fernando de Felice.* 413, 70, 157-A6 (1993)

The Radial Velocities of Planetary Nebulae in NGC 3379. *Robin Ciardullo, George H. Jacoby, & Herwig B. Dejonghe.* 414, 454, 176-G3 (1993)

Specific Frequencies of Globular Clusters in Elliptical Galaxies: A New Test of the Extragalactic Distance Scale. *G. de Vaucouleurs.* 415, 33, 185-D9 (1993)

Millimeter and Submillimeter Continuum Emission from Early-Type Galaxies. *Michel Fich & Paul Hodge.* 415, 75, 186-A1 (1993)

The Highly Polarized Hidden Quasar IRAS 09104+4109: A Double-lobed Radio Source in a Rich Cluster. *Dean C. Hines & Beverley J. Wills.* 415, 82, 186-A10 (1993)

A Method for Quantitative Detection of Hot Horizontal Branches in Early-Type Galaxies. *Guy Worthey.* 415, L91, 199-G6 (1993)

Stellar Mass Loss in Elliptical Galaxies and the Fueling of Active Galactic Nuclei. *Paolo Padovani & Francesca Matteucci.* 416, 26, 201-D2 (1993)

The Dynamics of the Galaxy Cluster Abell 2634. *J. Pinkney, G. Rhee, J. O. Burns, J. M. Hill, W. Oegerle, D. Batuski, & P. Hintzen.* 416, 36, 201-E2 (1993)

Bending Instabilities in Galaxy Merger Remnants. *Lars Hernquist, Jeremy S. Heyl, & David N. Spergel.* 416, L9, 207-B13 (1993)

Dark Matter Halos in Elliptical Galaxies. *Francesco Bertola, Alessandro Pizzella, Massimo Persic, & Paolo Salucci.* 416, L45, 216-B1 (1993)

Transverse Dissections of the Fundamental Planes of Elliptical Galaxies and Clusters of Galaxies. *Alvio Renzini & Luca Ciotti.* 416, L49, 216-B6 (1993)

The Planetary Nebula System and Dynamics of NGC 5128. II. A Planetary Nebula Catalog. *Xiaohui Hui, Holland C. Ford, Robin Ciardullo, & George H. Jacoby.* 88, 423, 46-B1 (1993)

The Structure and Dynamics of Elliptical Galaxies in Compact Groups. *Stephen E. Zepf & Bradley C. Whitmore.* 418, 72, 232-A7 (1993)

The Fundamental Plane and the Surface Brightness Test for the Expansion of the Universe. *Per Kjærgaard, Inger Jørgensen, & Mariano Moles.* 418, 617, 240-B6 (1993)

Production and Circulation of Iron in Elliptical Galaxies and Clusters of Galaxies. *Alvio Renzini, Luca Ciotti, Annibale D'Ercole, & Silvia Pellegrini.* 419, 52, 246-F12 (1993)

Chemical Evolution of Galaxies and Quasar Metallicities. *Francesca Matteucci & Paolo Padovani.* 419, 485, 253-G1 (1993)

Evolution in Dust Lane Ellipticals: Detection of Accreted Molecular Gas. *Leslie J. Sage & Giuseppe Galletta.* 419, 544, 254-E5 (1993)

Models for the Evolution of the Spectral Energy Distribution of Elliptical Galaxies for Ultraviolet to Far-Infrared Wavelengths. *P. Mazzei, G. De Zotti, & C. Xu.* 422, 81, 31-A13 (1994)

The Velocity Dispersion of Globular Clusters in NGC 1399. *Carl J. Grillmair, K. C. Freeman, G. V. Bicknell, D. Carter, Warrick J. Couch, J. Sommer-Larsen, & K. Taylor.* 422, L9, 36-C3 (1994)

Substructure in Clusters and cD Peculiar Velocities: A2670. *Christina Bird.* 422, 480, 37-G6 (1994)

The Spatial Structure of the M87 Globular Cluster System. *Dean E. McLaughlin, William E. Harris, & David A. Hanes.* 422, 486, 38-A1 (1994)

On the Progenitors of Type Ia Supernovae in Early-Type and Late-Type Galaxies. *Massimo Della Valle & Mario Livio.* 423, L31, 53-E3 (1994)

Diffuse Light in A2670: Smoothly Distributed? *Xania Scheick & Jeffrey R. Kuhn.* 423, 566, 55-E5 (1994)

Discovery of Neutral Hydrogen Associated with the Diffuse Shells of NGC 5128 (Centaurus A). *D. Schiminovich, J. H. van Gorkom, J. M. van der Hulst, & S. Kasow.* 423, L101, 60-D13 (1994)

Dust and Ionized Gas in NGC 3607. *K. P. Singh, T. P. Prabhu, A. K. Kembhavi, & P. N. Bhat.* 424, 638, 72-G2 (1994)

Mergers, Cooling Flows, and Evaporation Revisited. *A. C. Fabian, C. R. Canizares, & H. Böhringer.* 425, 40, 80-F1 (1994)

The Flattening Distribution of Dwarf Elliptical Galaxies in the Virgo Cluster. *Barbara S. Ryden & Donald M. Terndrup.* 425, 43, 80-F6 (1994)

Uncovering the Intrinsic Shapes of Elliptical Galaxies. I. Theoretical Velocity Field Models. *Thomas S. Statler.* 425, 458, 87-D7 (1994)

Uncovering the Intrinsic Shapes of Elliptical Galaxies. II. Approximate Kinematic Shape Indicators. *Thomas S. Statler & Anne M. Fry.* 425, 481, 87-F7 (1994)

Uncovering the Intrinsic Shapes of Elliptical Galaxies. III. Practical Modeling. *Thomas S. Statler.* 425, 500, 88-A1 (1994)

Far-Infrared Properties of Early-Type Galaxies. *P. Mazzei & G. De Zotti.* 426, 97, 97-C5 (1994)

Geometrical Evidence for Dark Matter: X-Ray Constraints on the Mass of the Elliptical Galaxy NGC 720. *David A. Buote & Claude R. Canizares.* 427, 86, 111-A12 (1994)

Induced Population Gradients in Galaxy Merger Remnants. *J. Christopher Mihos & Lars Hernquist.* 427, 112, 111-C12 (1994)

A Study of Molecular Gas in the Center of the S0 Galaxy NGC 4710. *G. A. Welch & G. F. Mitchell.* 427, 770, 122-C3 (1994)

Do Spirals and Ellipticals Trace the Same Velocity Field? *Tsafrir Kolatt & Avishai Dekel.* 428, 35, 128-F1 (1994)

The Stability of Perfect Elliptic Disks. I. The Maximum Streaming Case. *Stephen E. Levine & Linda S. Sparke.* 428, 493, 136-D1 (1994)

Probing Radial Age/Metallicity Degeneracy in Early-Type Galaxies. *David R. Silva & Richard Elston.* 428, 511, 136-E7 (1994)

Ellipticals with Kinematically Distinct Cores: *HST* Imaging of the Nuclear Structure of IC 1459. *Duncan A. Forbes, Marijn Franx, & Garth D. Illingworth.* 428, L49, 142-D8 (1994)

ROSAT PSPC Observations of Two X-Ray–faint Early-Type Galaxies: NGC 4365 and NGC 4382. *G. Fabbiano, D.-W. Kim, & G. Trinchieri.* 429, 94, 145-C12 (1994)

The Very Soft X-Ray Emission of X-Ray–faint Early-Type Galaxies. *S. Pellegrini & G. Fabbiano.* 429, 105, 145-D11 (1994)

Modes of Elliptical Galaxies. *Ue-Li Pen.* 431, 104, 177-D10 (1994)

The Effect of Dissipation on the Shapes of Dark Halos. *John Dubinski.* 431, 617, 186-C3 (1994)

Globular Cluster Systems Associated with cD Galaxies in Poor Clusters. *Terry J. Bridges & David A. Hanes.* 431, 625, 186-C13 (1994)

Are Globular Clusters the Nuclei of Cannibalized Dwarf Galaxies? *Lilia P. Bassino, Juan C. Muzzio, & Mónica Rabolli.* 431, 634, 186-D10 (1994)

Kinematic Misalignments in Remnants of Multiple Mergers. *Melinda L. Weil & Lars Hernquist.* 431, L79, 191-D3 (1994)

Evolution of Galaxies in Clusters. *Stéphane Charlot & Joseph Silk.* 432, 453, 201-E6 (1994)

Spectrophotometric Evolution of Elliptical Galaxies. I. Ultraviolet Excess and Color-Magnitude-Redshift Relations. *Alessandro Bressan, Cesare Chiosi, & Franco Fagotto.* 94, 63, 53-G4 (1994)

The Nature of E and S0 Galaxies: A Study of a Magnitude-limited Sample of Galaxies in the Coma Cluster. *Inger Jørgensen & Marijn Franx.* 433, 553, 217-G7 (1994)

Linear Stability of Spherical Collisionless Stellar Systems. *G. Bertin, F. Pegoraro, F. Rubini, & E. Vesperini.* 434, 94, 226-D8 (1994)

H I and CO in the Nuclear Disk of NGC 4261. *Walter Jaffe & Brian R. McNamara.* 434, 110, 226-E13 (1994)

The Richness of the Globular Cluster System of NGC 3923: Clues to Elliptical Galaxy Formation. *Stephen E. Zepf, Doug Geisler, & Keith M. Ashman.* 435, L117, 259-G10 (1994)

The Dynamics of Luminous Galaxies in Isothermal Halos. *Christopher S. Kochanek.* 436, 56, 262-A8 (1994)

Detections of Hard X-Ray Emissions from Bright Early-Type Galaxies with *ASCA*. *K. Matsushita, K. Makishima, H. Awaki, C. R. Canizares, A. C. Fabian, Y. Fukazawa, M. Loewenstein, H. Matsumoto, T. Mihara, R. F. Mushotzky, T. Ohashi, G. R. Ricker, P. J. Serlemitsos, T. Tsuru, Y. Tsusaka, & T. Yamazaki.* 436, L41, 269-A5 (1994)

Comprehensive Stellar Population Models and the Disentanglement of Age and Metallicity Effects. *Guy Worthey.* 95, 107, 65-E2 (1994)

Detection of Extended H I Absorption toward PKS 2322−123 in Abell 2597. *Christopher P. O'Dea, Stefi A. Baum, & Jack Gallimore.* 436, 669, 274-F9 (1994)

Dense Stellar Cores in Merger Remnants. *J. Christopher Mihos & Lars Hernquist.* 437, L47, 292-A1 (1994)

Dark Matter in X-Ray–emitting Elliptical Galaxies. *F. De Paolis, G. Ingrosso, & F. Strafella.* 438, 83, 2-D11 (1995)

Rotating Cooling Flows. *Wilhelm Kley & William G. Mathews.* 438, 100, 2-F4 (1995)

Gravitational Lensing by a Cluster of Galaxies and the Central cD Galaxy: Measuring the Mass Profile. *Jordi Miralda-Escudé.* 438, 514, 11-C11 (1995)

Kinematics of 13 Brightest Cluster Galaxies. *David Fisher, Garth Illingworth, & Marijn Franx.* 438, 539, 11-F1 (1995)

Globular Cluster Systems in Three cD Galaxies within Rich Abell Clusters. *William E. Harris, Christopher J. Pritchet, & Robert D. McClure.* 441, 120, 61-A8 (1995)

Dark Matter in Elliptical Galaxies. *C. M. Carollo, P. T. de Zeeuw, R. P. van der Marel, I. J. Danziger, & E. E. Qian.* 441, L25, 66-F9 (1995)

Ultraviolet Radiation from Evolved Stellar Populations. II. The Ultraviolet Upturn Phenomenon in Elliptical Galaxies. *Ben Dorman, Robert W. O'Connell, & Robert T. Rood.* 442, 105, 78-F6 (1995)

A Multiparametric Analysis of the *Einstein* Sample of Early-Type Galaxies. I. Luminosity and ISM Parameters. *Paul B. Eskridge, Giuseppina Fabbiano, & Dong-Woo Kim.* 97, 141, 12-G6 (1995)

A Multiparametric Analysis of the *Einstein* Sample of Early-Type Galaxies. II. Galaxy Formation History and Properties of the Interstellar Medium. *Paul B. Eskridge, Giuseppina Fabbiano, & Dong-Woo Kim.* 442, 523, 87-B8 (1995)

Blue Lobes in the Hydra A Cluster Central Galaxy. *Brian R. McNamara.* 443, 77, 96-C8 (1995)

Planetary Nebulae as Probes of Dark Matter in NGC 3384. *Benoit Tremblay, David Merritt, & T. B. Williams.* 443, L5, 102-B8 (1995)

The Influence of Stellar Populations on Elliptical Galaxy Distance Estimates. *Michael D. Gregg.* 443, 527, 105-B4 (1995)

Constraints on the Formation History of the Elliptical Galaxy NGC 3923 from the Colors of Its Globular Clusters. *Stephen E. Zepf, Keith M. Ashman, & Doug Geisler.* 443, 570, 105-F7 (1995)

Neutral Hydrogen Associated with Shells and Other Fine Structure in NGC 2865: A Dynamically Young Elliptical? *D. Schiminovich, J. H. van Gorkom, J. M. van der Hulst, & D. F. Malin.* 444, L77, 130-D1 (1995)

Small Deviations from the $R^{1/4}$ Law, the Fundamental Plane, and Phase Densities of Elliptical Galaxies. *Jens Hjorth & Jes Madsen.* 445, 55, 133-B6 (1995)

Oxygen Abundances in Diffuse Ellipticals and the Metallicity-Luminosity Relations for Dwarf Galaxies. *Michael G. Richer & Marshall L. McCall.* 445, 642, 144-A1 (1995)

New Age Indicators for Old Stellar Populations. *Lewis A. Jones & Guy Worthey.* 446, L31, 160-E13 (1995)

Comparison of the Radio, Optical, and X-Ray Structures of the cD Galaxy in Abell 2597. *Craig L. Sarazin, Jack O. Burns, Kurt Roettiger, & Brian R. McNamara.* 447, 559, 183-D13 (1995)

ROSAT PSPC Observations of Two Dynamically Young Elliptical Galaxies: NGC 4125 and NGC 3610. *G. Fabbiano & François Schweizer.* 447, 572, 183-F7 (1995)

Type Ia Supernova Scenarios and the Hubble Sequence. *P. Ruiz-Lapuente, A. Burkert, & R. Canal.* 447, L69, 190-C1 (1995)

Inferring Galaxy Viewing Angles. *Jeremy S. Heyl, Lars Hernquist, & David N. Spergel.* 448, 64, 193-A13 (1995)

A Multiparametric Analysis of the *Einstein* Sample of Early-Type Galaxies. III. Comparisons with the κ-Parameters. *Paul B. Eskridge, Giuseppina Fabbiano, & Dong-Woo Kim.* 448, 70, 193-B9 (1995)

Interstellar Grains in Elliptical Galaxies: Grain Evolution. *John C. Tsai & William G. Mathews.* 448, 84, 193-C12 (1995)

Line Strength Gradients in Elliptical and Brightest Cluster Galaxies. *David Fisher, Marijn Franx, & Garth Illingworth.* 448, 119, 193-G2 (1995)

Pressure-supported Ionized Gas in S0 Galaxies. *Francesco Bertola, Pieratonio Cinzano, Enrico Maria Corsini, Hans-Walter Rix, & Werner W. Zeilinger.* 448, L13, 199-C11 (1995)

Collisions of Ellipticals and the Onset of Fanaroff-Riley Type I Radio Sources. *Luis Colina & Lourdes de Juan.* 448, 548, 202-C4 (1995)

The Morphological Mix of Field Galaxies to $m_i = 24.25$ mag ($b_J \sim 26$ mag) From a Deep Hubble Space Telescope WFRC2 Image. *Simon P. Driver, Rogier A. Windhorst, Eric J. Ostrander, William C. Keel, Richard E. Griffiths, & Kavan U. Ratnatunga.* 449, L23, 216-C11 (1995)

Far-Infrared Emission from Abell Clusters. *Caroline V. Cox, Joel N. Bregman, & James M. Schombert.* 99, 405, 40-F6 (1995)

Cooling Flow Models of the X-Ray Emission and Temperature Profiles for a Sample of Elliptical Galaxies. *G. Bertin & T. Toniazzo.* 451, 111, 247-F1 (1995)

Unusual Radio Structures in the Cooling Flow Cluster 2A 0335+096. *Craig L. Sarazin, Stefi A. Baum, & Christopher P. O'Dea.* 451, 125, 247-G4 (1995)

Mergers of Dissipationless Systems: Clues about the Fundamental Plane. *H. V. Capelato, R. R. de Carvalho, & R. G. Carlberg.* 451, 525, 254-E1 (1995)

The Near-Infrared Fundamental Plane of Elliptical Galaxies. *Michael A. Pahre, S. G. Djorgovski, & R. R. de Carvalho.* 453, L17, 289-D8 (1995)

Observational Tests for Ultraviolet Sources in Elliptical Galaxies. *Sukyoung Yi, Ehsan Afshari, Pierre Demarque, & Augustus Oemler, Jr.* 453, L69, 298-C1 (1995)

Intracluster Globular Clusters. *Michael J. West, Patrick Côté, Christine Jones, William Forman, & Ronald O. Marzke.* 453, L77, 298-D1 (1995)

Mergers, Accretions, and the Globular Cluster Mean Metallicity-Number per Unit Mass Relation. *Jean-Marc Perelmuter.* 454, 762, 312-C1 (1995)

An Alignment between Optical Continuum and Emission-Line Structures in the Circumnuclear Regions of Seyfert Galaxies. *John S. Mulchaey & Andrew S. Wilson.* 455, L17, 324-E1 (1995)

The Destruction of a Compact Group of Galaxies. *Rachel A. Pildis.* 455, 492, 328-F8 (1995)

GALAXIES: EVOLUTION

Stellar Population Synthesis Revisited. *Stéphane Charlot & Gustavo Bruzual A.* 367, 126, 13-E5 (1991)

The Number Counts and Infrared Backgrounds from Infrared-bright Galaxies. *P. B. Hacking & B. T. Soifer.* 367, L49, 22-B7 (1991)

Chemical Evolution with Bursts of Star Formation: Element Ratios in Dwarf Galaxies. *Gerard Gilmore & Rosemary F. G. Wyse.* 367, L55, 22-C1 (1991)

Hydrodynamic Constraints on the Radial Structure of Late-Type Galaxy Disks. *Curtis Struck-Marcell.* 368, 348, 29-D5 (1991)

BL Lacertae Objects and Radio-loud Quasars within an Evolutionary Unified Scheme. *F. Vagnetti, E. Giallongo, & A. Cavaliere.* 368, 366, 29-E11 (1991)

A Deep Imaging and Spectroscopic Survey of Faint Galaxies. *S. J. Lilly, L. L. Cowie, & J. P. Gardner.* 369, 79, 37-A1 (1991)

Relics of an Eruptive Starburst in NGC 1569. *William H. Waller.* 370, 144, 48-G12 (1991)

Fueling Starburst Galaxies with Gas-rich Mergers. *Joshua E. Barnes & Lars E. Hernquist.* 370, L65, 59-B7 (1991)

High Chemical Abundances in Virgo Spiral Galaxies? *Gregory A. Shields, Evan D. Skillman, & Robert C. Kennicutt, Jr.* 371, 82, 61-B1 (1991)

Discovery of a Normal Galaxy at $z = 1.018$. *D. J. Thompson & S. Djorgovski.* 371, L55, 73-B6 (1991)

Faint Galaxies: Bounds on the Epoch of Galaxy Formation and the Cosmological Deceleration Parameter. *Yuzuru Yoshii & Bruce A. Peterson.* 372, 8, 74-B6 (1991)

H I Deficiency in Cluster Spiral Galaxies: Dependence on Galaxy Size. *Monica Valluri & Chanda J. Jog.* 374, 103, 99-C7 (1991)

Evolution of High-Redshift Lyman-Limit Absorption Systems. *Kenneth M. Lanzetta.* 375, 1, 111-A11 (1991)

Dynamical Segregation of Direct and Retrograde Orbits in Binary Disk Galaxies. *William C. Keel.* 375, L5, 117-A13 (1991)

The Properties of NGC 2777: Are Companion Galaxies Young? *Halton Arp & Jack W. Sulentic.* 375, 569, 119-G1 (1991)

Winds, Outflows, and Inflows in X-Ray Elliptical Galaxies. I. *Luca Ciotti, Annibale D'Ercole, Silvia Pellegrini, & Alvio Renzini.* 376, 380, 131-B12 (1991)

Inhomogeneous Halo Collapse and Early Galactic Chemical Evolution: Globular Cluster Metallicities. *G. Malinie, D. H. Hartmann, & G. J. Mathews.* 376, 520, 132-G9 (1991)

The Origin of the Quasi-stellar Object Absorption Lines. *S. M. Viegas & R. B. Gruenwald.* 377, 39, 138-E5 (1991)

Narrow-Band Photometry and the Evolution of Galaxies. III. The Intermediate-Redshift Sample. *Karl D. Rakos, James M. Schombert, & Tobias J. Kreidl.* 377, 382, 144-E7 (1991)

Attenuation of Lyman-Alpha Emission by Dust in Damped Lyman-Alpha Systems. *Stéphane Charlot & S. Michael Fall.* 378, 471, 158-C7 (1991)

A New Spectroscopic Survey for Damped Lyα Absorption Lines from High-Redshift Galaxies. *Kenneth M. Lanzetta, Arthur M. Wolfe, David A. Turnshek, Limin Lu, Richard G. McMahon, & Cyril Hazard.* 77, 1, 43-B1 (1991)

NGC 4286 and NGC 3377A: Galaxies with Mixed Morphologies between the Dwarf Im and dE/dSO Types. *Allan Sandage & G. Lyle Hoffman.* 379, L45, 175-A11 (1991)

The Discovery of a Young Radio Galaxy at $z = 2.390$: Probing Initial Star Formation at $z \leq 3.0$. *Rogier A. Windhorst, David Burstein, Doug F. Mathis, Lyman W. Neuschaefer, F. Bertola, L. M. Buson, David C. Koo, Keith Matthews, Peter D. Barthel, & K. C. Chambers.* 380, 362, 182-G1 (1991)

Discovery of a Low-Redshift Ultraluminous "E+A" Galaxy. *William R. Oegerle, John M. Hill, & John G. Hoessel.* 381, L9, 194-B7 (1991)

Systematic Bias in Cluster Galaxy Data, Affecting Galaxy Distances and Evolutionary History. *Donald H. Gudehus.* 382, 1, 200-A13 (1991)

A Radio-quiet Galaxy at Redshift $z = 3.409$. *D. A. Turnshek, F. Macchetto, M. V. Bencke, C. Hazard, W. B. Sparks, & R. G. McMahon.* 382, 26, 200-D1 (1991)

The Galaxy Two-Point Correlation Function Down to $V = 26$ Magnitudes on 0.5° Scales. *Lyman W. Neuschaefer, Rogier A. Windhorst, & Alan Dressler.* 382, 32, 200-D12 (1991)

Effects of Internal Absorption on Galaxy Number Count and Redshift Distribution. *Boqi Wang.* 383, L37, 226-B6 (1991)

Infrared and Optical Morphologies of Distant Radio Galaxies. *M. A. Rigler, S. J. Lilly, A. Stockton, F. Hammer, & O. Le Fèvre.* 385, 61, 12-G1 (1992)

Production of Li, Be, and B in the Early Galaxy. *Gary Steigman & Terry P. Walker.* 385, L13, 17-B11 (1992)

Inverse Compton Scattering and the Alignments Observed in High-Redshift Radio Galaxies. *Ruth A. Daly.* 386, L9, 29-B9 (1992)

The Extended Medium Sensitivity Survey Distant Cluster Sample: X-Ray Data and Interpretation of the Luminosity Evolution. *J. P. Henry, I. M. Gioia, T. Maccacaro, S. L. Morris, J. T. Stocke, & A. Wolter.* 386, 408, 30-D13 (1992)

On the Dynamical Evolution of Rich Galaxy Clusters. *G. Yepes & R. Domínguez-Tenreiro.* 387,.27, 37-D1 (1992)

Evolution of Spiral Galaxies. I. Halo-Disk Connection for the Evolution of the Solar Neighborhood. *Federico Ferrini, Francesca Matteucci, Chiara Pardi, & Umberto Penco.* 387, 138, 38-F5 (1992)

The Density Evolution of *IRAS* Galaxies. *Karl B. Fisher, Michael A. Strauss, Marc Davis, Amos Yahil, & John P. Huchra.* 389, 188, 62-C11 (1992)

The Properties of X-Ray Selected Active Galactic Nuclei. II. A Deeper Look at the Cosmological Evolution. *Roberto Della Ceca, Tommaso Maccacaro, Isabella M. Gioia, Anna Wolter, & John T. Stocke.* 389, 491, 67-E8 (1992)

Systematic Differences between the Field and Cluster Elliptical Galaxies. *R. R. de Carvalho & S. Djorgovski.* 389, L49, 73-B11 (1992)

The Radial Distribution of Oxygen in Disk Galaxies. *Dennis Zaritsky.* 390, L73, 84-G7 (1992)

Asymptotic Giant Branch Stars in the Central Regions of M32. *T. J. Davidge & J.-L. Nieto.* 391, L13, 92-A1 (1992)

Mg II Absorption in the Spectra of 103 QSOs: Implications for the Evolution of Gas in High-Redshift Galaxies. *Charles C. Steidel & Wallace L. W. Sargent.* 80, 1, 22-B1 (1992)

Emission-Line Objects near Quasi-stellar Object Absorbers. III. Clustering and Colors of Moderate-Redshift H II Regions. *Brian Yanny & Donald G. York.* 391, 569, 95-A8 (1992)

Dynamical Evolution of Highly Inclined Rings. *Dimitris M. Christodoulou, Neal Katz, Hans-Walter Rix, & Asao Habe.* 395, 113, 141-E1 (1992)

Gravitational Wave Burst Produced by Merging of Central Black Holes of Galaxies. *Toshiyuki Fukushige, Toshikazu Ebisuzaki, & Junichiro Makino.* 396, L61, 166-G7 (1992)

Faint Galaxy Evolution via Interactions. *R. G. Carlberg & Stéphane Charlot.* 397, 5, 168-B6 (1992)

The Influence of Dark Matter on the Chemical Evolution of Elliptical Galaxies. *Francesca Matteucci.* 397, 32, 168-D9 (1992)

The Distribution and Age of Asymptotic Giant Branch Stars in NGC 205. *T. J. Davidge.* 397, 457, 176-D5 (1992)

Mg and Fe Absorption Features in Elliptical Galaxies. *Guy Worthey, S. M. Faber, & J. Jesús Gonzalez.* 398, 69, 182-G9 (1992)

Gamma-Ray Bursts from Extragalactic Radio Pulsars. *Fulvio Melia & Marco Fatuzzo.* 398, L85, 194-B10 (1992)

Merging and Fast Galaxy Evolution. *R. G. Carlberg.* 399, L31, 200-C7 (1992)

Angular Correlation Function of Faint Galaxies. *C. J. Pritchet & L. Infante.* 399, L35, 200-C13 (1992)

Lyman-Alpha Emission in Star-forming Galaxies: Low-Redshift Counterparts of Primeval Galaxies? *D. Calzetti & A. L. Kinney.* 399, L39, 200-D5 (1992)

How Old Is the $z = 3.4$ Radio Galaxy B2 0902+34. *Peter Eisenhardt & Mark Dickinson.* 399, L47, 200-E4 (1992)

Morphological Peculiarities of High-Redshift Radio Galaxies: The Role of Relativistic Electrons. *Ruth A. Daly.* 399, 426, 203-C9 (1992)

Stellar Population Gradients in Early-Type Galaxies. *Jeffrey A. Munn.* 399, 444, 203-E1 (1992)

Observations of Zn II, Cr II, Fe II, and Ca II in the Damped Lyman-Alpha Absorber at $z = 0.692$ toward 3C 286. *David M. Meyer & Donald G. York.* 399, L121, 207-G7 (1992)

Deep *Hubble Space Telescope* Imaging of a Compact Radio Galaxy at $z = 2.390$. *Rogier Windhorst, Douglas F. Mathis, & William C. Keel.* 400, L1, 214-A8 (1992)

NGC 4550: A Laboratory for Testing Galaxy Formation. *Hans-Walter Rix, Marijn Franx, David Fisher, & Garth Illingworth.* 400, L5, 214-B1 (1992)

UGC 7636 and NGC 4472: Tidal Interaction between a Stripped Dwarf Irregular and a Giant Elliptical Galaxy. *Richard J. Patterson & Trinh X. Thuan.* 400, L55, 220-C7 (1992)

Chemical Evolution of Irregular Galaxies and the Primordial ^{4}He Abundance. *G. J. Mathews, R. N. Boyd, & G. M. Fuller.* 403, 65, 14-G7 (1993)

Statistics of Highly Magnified Gravitational Images in Clusters of Galaxies. II. Implications for the Sources. *Jordi Miralda-Escudé.* 403, 509, 21-G12 (1993)

Diffuse X-Ray Emission from the NGC 2300 Group of Galaxies: Implications for Dark Matter and Galaxy Evolution in Small Groups. *John S. Mulchaey, David S. Davis, Richard F. Mushotzky, & David Burstein.* 404, L9, 33-D7 (1993)

Protogalactic Mergers and Cosmochronology. *G. J. Mathews & D. N. Schramm.* 404, 468, 34-G1 (1993)

Damped Lyman-Alpha Absorption by Disk Galaxies with Large Redshifts. IV. More Intermediate-Resolution Spectroscopy. *Arthur M. Wolfe, David A. Turnshek, Kenneth M. Lanzetta, & Limin Lu.* 404, 480, 35-A1 (1993)

The Evolution of Galaxies in Radio-selected Groups. *Jeremy R. Allington-Smith, Richard S. Ellis, Esther L. Zirbel, & Augustus Oemler, Jr.* 404, 521, 35-E1 (1993)

Evolution of the Luminosity-Color Distribution of Quasar Accretion Disks. *David Caditz.* 404, 539, 35-F7 (1993)

A Cluster of Nascent Galaxies at $z = 2$? *Alan Dressler, Augustus Oemler, Jr., James E. Gunn, & Harvey Butcher.* 404, L45, 40-C1 (1993)

Microjansky Source Counts and Spectral Indices at 8.44 GHz. *Rogier A. Windhorst, Edward B. Fomalont, R. Bruce Partridge, & James D. Lowenthal.* 405, 498, 49-C5 (1993)

Kinematics of an "E+A" Galaxy in Abell 665 at $z = 0.18$. *Marijn Franx.* 407, L5, 75-B1 (1993)

Binary Merging: The Other Mode of Galaxy Evolution. *A. Cavaliere & N. Menci.* 407, L9, 75-B6 (1993)

New High-Redshift Damped Lyman-Alpha Absorption Systems and the Redshift Evolution of Damped Absorbers. *Richard L. White, A. L. Kinney, & Robert H. Becker.* 407, 456, 76-C8 (1993)

Chemical and Luminosity Evolution, and Counts of Galaxies in a Merger Model. *P. Colín & D. N. Schramm.* 407, 510, 77-A1 (1993)

Evolution of Cosmic Rays in the Early Galaxy. *R. A. Malaney & M. N. Butler.* 407, L73, 82-D11 (1993)

Compressive Tidal Heating of a Disk Galaxy in a Rich Cluster. *Monica Valluri.* 408, 57, 83-G1 (1993)

X-Ray Spectra of 12 Distant Clusters of Galaxies. *Qingde Wang & John T. Stocke.* 408, 71, 84-A4 (1993)

Deep Galaxy Count Predictions in the Radio, Infrared, and X-Ray Spectral Bands. *Marie-Agnes Treyer & Joseph Silk.* 408, L1, 88-E1 (1993)

Understanding Soft Gamma-Ray Repeaters in the Context of the Extragalactic Radio Pulsar Origin of Gamma-Ray Bursts. *Fulvio Melia & Marco Fatuzzo.* 408, L9, 88-F1 (1993)

Galactic Bars with Central Mass Concentrations: Three-dimensional Dynamics. *Hashima Hasan, Daniel Pfenniger, & Colin Norman.* 409, 91, 98-B1 (1993)

21 Centimeter Study of Spiral Galaxies in Clusters. III. Neutral Gas Content, Star Formation, and Radio Continuum Properties. *Marco Scodeggio & Giuseppe Gavazzi.* 409, 110, 98-C8 (1993)

Structure of Merger Remnants. II. Progenitors with Rotating Bulges. *Lars Hernquist.* 409, 548, 105-F12 (1993)

An Optically Luminous Radio Galaxy at $z = 3.22$ and the K-z Diagram at High Redshift. *Stephen A. Eales, Steve Rawlings, Mark Dickinson, Hyron Spinrad, Gary J. Hill, & Mark Lacy.* 409, 578, 106-B7 (1993)

Evolution of Elliptical Galaxies. I. The Multiphase Model. *Federico Ferrini & Bianca Maria Poggianti.* 410, 44, 112-F4 (1993)

Quasars and Active Galactic Nuclei in Rich Environments. III. The Rapid Evolution of Active Galactic Nucleus Activity in Rich Clusters. *H. K. C. Yee & E. Ellingson.* 411, 43, 127-E13 (1993)

A Deep I-Band Selected Galaxy Sample: Implications for Galaxy Evolution. *Simon J. Lilly.* 411, 501, 135-G6 (1993)

CO Emission from the $z = 2.14$ Damped Lyman-Alpha System toward 0528−250. *Robert L. Brown & P. A. Vanden Bout.* 412, L21, 148-C6 (1993)

A Dwarf Galaxy near the Sight Line to PKS 0454+0356: A Fading "Faint Blue Galaxy"? *Charles C. Steidel, Mark Dickinson, & David V. Bowen.* 413, L77, 168-D4 (1993)

On the Angular Correlation Function of Faint Galaxies. *Yuzuru Yoshii, Bruce A. Peterson, & Fumio Takahara.* 414, 431, 176-E1 (1993)

Effects of Gas on the Global Stability of Galactic Disks: Radial Flows. *Isaac Shlosman & Masafumi Noguchi.* 414, 474, 177-B2 (1993)

Focusing of Alfvénic Wave Power in the Context of Gamma-Ray Burst Emissivity. *Marco Fatuzzo & Fulvio Melia.* 414, L89, 185-F7 (1993)

Galaxy Number Counts from $K = 10$ to $K = 23$. *J. P. Gardner, L. L. Cowie, & R. J. Wainscoat.* 415, L9, 191-F7 (1993)

Counter-Evolution of Faint Field Galaxies. *David C. Koo, Caryl Gronwall, & Gustavo Bruzual A.* 415, L21, 191-G10 (1993)

On ^{26}Al and Other Short-lived Interstellar Radioactivity. *Donald D. Clayton, Dieter H. Hartmann, & Mark D. Leising.* 415, L25, 192-A1 (1993)

Lyman-Alpha Emission from Galaxies. *Stéphane Charlot & S. Michael Fall.* 415, 580, 195-A13 (1993)

An Argument against Mergers of the Faint Blue Galaxies. *Julianne J. Dalcanton.* 415, L87, 199-F13 (1993)

The Rotation Curves of Galaxies at Intermediate Redshift. *Nicole P. Vogt, Terry Herter, Martha P. Haynes, & Stéphane Courteau.* 415, L95, 199-G11 (1993)

Stellar Mass Loss in Elliptical Galaxies and the Fueling of Active Galactic Nuclei. *Paolo Padovani & Francesca Matteucci.* 416, 26, 201-D2 (1993)

Population Synthesis and the Ultraviolet Spectrum of Elliptical Galaxies. *Gladis Magris C., & Gustavo Bruzual A.* 417, 102, 218-E6 (1993)

Gravitational Lensing Pairs in Clusters of Galaxies: A New Probe to the High-Redshift Universe. *Jordi Miralda-Escudé & Bernard Fort.* 417, L5, 222-F7 (1993)

Reconciliation of the Disparate Gamma-Ray Burst Catalogs in the Context of a Cosmological Source Distribution. *Peter Tamblyn & Fulvio Melia.* 417, L21, 223-A3 (1993)

The Chemical Evolution of QSOs and the Implications for Cosmology and Galaxy Formation. *Fred Hamann & Gary Ferland.* 418, 11, 231-B13 (1993)

High-Resolution CO and H I Observations of the Interacting Galaxy NGC 3627. *Xiaolei Zhang, Melvyn Wright, & Paul Alexander.* 418, 100, 232-C11 (1993)

The Failure of Simple Merging Models to Save a Flat, $\Omega_0 = 1$ Universe. *Boudewijn F. Roukema & Yuzuru Yoshii.* 418, L1, 238-A8 (1993)

On the Lyman-Alpha Emission of Starburst Galaxies. *David Valls-Gabaud.* 419, 7, 246-B9 (1993)

Production and Circulation of Iron in Elliptical Galaxies and Clusters of Galaxies. *Alvio Renzini, Luca Ciotti, Annibale D'Ercole, & Silvia Pellegrini.* 419, 52, 246-F12 (1993)

Chemical Evolution of Galaxies and Quasar Metallicities. *Francesca Matteucci & Paolo Padovani.* 419, 485, 253-G1 (1993)

Neutral Hydrogen in Galaxies at the Present Epoch. *Sandhya Rao & Frank Briggs.* 419, 515, 254-B12 (1993)

Truncated Initial Mass Function in Starburst Galaxies. *Stéphane Charlot, Frank Ferrari, G. J. Mathews, & Joseph Silk.* 419, L57, 259-C1 (1993)

The Nature of Distant Galaxies Producing Multiple C IV Absorption Lines in the Spectra of High-Redshift Quasars. *A. Aragón-Salamanca, R. S. Ellis, J.-M. Schwartzenberg, & J. A. Bergeron.* 421, 27, 16-D5 (1994)

The Sunyaev-Zel'dovich Effect and Cluster Evolution. *James G. Bartlett & Joseph Silk.* 423, 12, 46-C1 (1994)

A Large Structure of Galaxies at a Redshift $z = 0.985$. *O. Le Fèvre, D. Crampton, F. Hammer, S. J. Lilly, & L. Tresse.* 423, L89, 60-C5 (1994)

Fueling Nuclear Activity in Disk Galaxies: Starbursts and Monsters. *Clayton H. Heller & Isaac Shlosman.* 424, 84, 63-B1 (1994)

Optical Signatures of High-Redshift Galaxy Clusters. *August E. Evrard & Stéphane Charlot.* 424, L13, 69-C1 (1994)

Simulations of Deep Galaxy Fields. I. Monte Carlo Simulations of Optical and Near-Infrared Counts. *Arati Chokshi, Carol J. Lonsdale, Paola Mazzei, & Gianfranco De Zotti.* 424, 578, 71-G9 (1994)

The Detection of X-Ray Emission from the Highest Redshift Galaxy Clusters. *Francisco J. Castander, Richard S. Ellis, Carlos S. Frenk, Alan Dressler, & James E. Gunn.* 424, L79, 78-F9 (1994)

Asymptotic Giant Branch Stars in NGC 6822: Probes of Star Formation History. *C. Gallart, A. Aparicio, C. Chiosi, G. Bertelli, & J. M. Vílchez.* 425, L9, 85-B13 (1994)

Triggering of Starbursts in Galaxies by Minor Mergers. *J. Christopher Mihos & Lars Hernquist.* 425, L13, 85-C5 (1994)

Instabilities of Counterrotating Stellar Disks. *J. A. Sellwood & David Merritt.* 425, 530, 88-C5 (1994)

Bending Instabilities in Stellar Systems. *David Merritt & J. A. Sellwood.* 425, 551, 88-E5 (1994)

Metal Enrichment, Dust, and Star Formation in Galaxies at High Redshifts. III. Zn and Cr Abundances for 17 Damped Lyman-Alpha Systems. *Max Pettini, Linda J. Smith, Richard W. Hunstead, & David L. King.* 426, 79, 97-A12 (1994)

Counts of Galaxies in a Merger Model. *P. Colín, D. N. Schramm, & M. Peimbert.* 426, 459, 104-B1 (1994)

Correlations of Galaxies at $z = 0.3$. *G. M. Bernstein, J. A. Tyson, W. R. Brown, & J. F. Jarvis.* 426, 516, 104-G3 (1994)

Imaging of "Butcher-Oemler" Blue Galaxies at a Redshift of 0.2. *Russell J. Lavery & J. Patrick Henry.* 426, 524, 104-G13 (1994)

Luminosity Evolution and Dust Effects in Distant Galaxies: Implications for the Observability of the Early Evolutionary Phases. *Alberto Franceschini, Paola Mazzei, Gianfranco De Zotti, & Luigi Danese.* 427, 140, 111-F4 (1994)

HST Images of Very Compact Blue Galaxies at $z \sim 0.2$. *David C. Koo, Matthew A. Bershady, Gregory D. Wirth, S. Adam Stanford, & Steven R. Majewski.* 427, L9, 117-B8 (1994)

Evolution of Lyman-Limit Absorption Systems over the Redshift Range $0.40 < z < 4.69$. *L. J. Storrie-Lombardi, R. G. McMahon, M. J. Irwin, & C. Hazard.* 427, L13, 117-C1 (1994)

Evolution of Spiral Galaxies. III. Application of the Multiphase Model to the Galactic Disk. *Federico Ferrini, Mercedes Mollá, Maria Chiara Pardi, & Angeles I. Díaz.* 427, 745, 122-A3 (1994)

Gravitational Instability and Disk Star Formation. *Boqi Wang & Joseph Silk.* 427, 759, 122-B4 (1994)

Infrared Surface Photometry of 3C 65: Stellar Evolution and the Tolman Signal. *M. A. Rigler & S. J. Lilly.* 427, L79, 126-G5 (1994)

The Luminosity Function of the CfA Redshift Survey. *R. O. Marzke, J. P. Huchra, & M. J. Geller.* 428, 43, 128-F11 (1994)

On the Sensitivity of the N-Body Problem toward Small Changes in Initial Conditions. IV. *Henry E. Kandrup, M. Elaine Mahon, & Haywood Smith, Jr.* 428, 458, 135-G12 (1994)

Time Evolution of Galactic Warps. *Peter Hofner & Linda S. Sparke.* 428, 466, 136-A8 (1994)

Probing Radial Age/Metallicity Degeneracy in Early-Type Galaxies. *David R. Silva & Richard Elston.* 428, 511, 136-E7 (1994)

The Evolutionary History of Low-Luminosity Local Group Dwarf Galaxies. *Sidney van den Bergh.* 428, 617, 137-G13 (1994)

X-Ray Clusters in a Cold Dark Matter + Λ Universe: A Direct, Large-Scale, High-Resolution, Hydrodynamic Simulation. *Renyue Cen & Jeremiah P. Ostriker.* 429, 4, 144-C6 (1994)

Models of Hot Galactic Coronae around Early-Type Galaxies. *W. Forman, C. Jones, & W. Tucker.* 429, 77, 145-B7 (1994)

Galaxy Pairs in Deep *HST* Images: Evidence for Evolution in the Galaxy Merger Rate. *Jordan M. Burkey, William C. Keel, Rogier A. Windhorst, & Barbara E. Franklin.* 429, L13, 150-C3 (1994)

Ultraviolet to Near-Infrared Spectral Distributions of Star-forming Galaxies: Metallicity and Age Effects. *Thaisa Storchi-Bergmann, Daniela Calzetti, & Anne L. Kinney.* 429, 572, 152-G5 (1994)

Statistically Efficient Parallel Testing of the Friedmann and Chronometric Flux-Redshift Predictions in the Radio Band. *I. E. Segal, J. F. Nicoll, & E. Blackman.* 430, 63, 159-G1 (1994)

On the Law of Star Formation in Disk Galaxies. *Michael A. Dopita & Stuart D. Ryder.* 430, 163, 161-B3 (1994)

The Properties of X-Ray–selected Active Galactic Nuclei. III. The Radio-quiet versus Radio-loud Samples. *Roberto Della Ceca, Giovanni Zamorani, Tommaso Maccacaro, Anna Wolter, Richard Griffiths, John T. Stocke, & Giancarlo Setti.* 430, 533, 168-D1 (1994)

Constraints on Models of Galaxy Formation from the Evolution of Damped Lyman-Alpha Absorption Systems. *Guinevere Kauffmann & Stéphane Charlot.* 430, L97, 174-E5 (1994)

On the Influence of Bars and Star Formation on Galactic Abundance Gradients. *D. Friedli, W. Benz, & R. Kennicutt.* 430, L105, 174-F3 (1994)

Misdirected Quasars and Evolved Stars in Distant Radio Galaxies. *Sperello di Serego Alighieri, Andrea Cimatti, & Robert A. E. Fosbury.* 431, 123, 177-F5 (1994)

Ultraluminous Starbursts in Major Mergers. *J. Christopher Mihos & Lars Hernquist.* 431, L9, 182-C13 (1994)

The Effect of Central Starbursts on the Interstellar Medium of Dwarf Galaxies. *David S. De Young & Timothy M. Heckman.* 431, 598, 186-A6 (1994)

Temperatures of Distant Clusters of Galaxies. *J. P. Henry, L. Jiao, & I. M. Gioia.* 432, 49, 193-G3 (1994)

Compton Scattering of the Microwave Background by Quasar-blown Bubbles. *G. Mark Voit.* 432, L19, 199-C13 (1994)

Abundance of Moderate-Redshift Clusters in the Cold Plus Hot Dark Matter Model. *Yi-Peng Jing & Li-Zhi Fang.* 432, 438, 201-D1 (1994)

Evolution of Galaxies in Clusters. *Stéphane Charlot & Joseph Silk.* 432, 453, 201-E6 (1994)

A Possible Solution to the Problem of the Galactic Evolution of D and ^{3}He. *Daniele Galli, Francesco Palla, Oscar Straniero, & Federico Ferrini.* 432, L101, 206-G1 (1994)

CO Emission from the $z = 3.137$ Damped Lyα System toward PC 1643+4631A. *David T. Frayer, Robert L. Brown, & P. A. Vanden Bout.* 433, L5, 214-D9 (1994)

Spectrophotometric Evolution of Elliptical Galaxies. I. Ultraviolet Excess and Color-Magnitude-Redshift Relations. *Alessandro Bressan, Cesare Chiosi, & Franco Fagotto.* 94, 63, 53-G4 (1994)

Linear Stability of Spherical Collisionless Stellar Systems. *G. Bertin, F. Pegoraro, F. Rubini, & E. Vesperini.* 434, 94, 226-D8 (1994)

The Hawaii K-Band Galaxy Survey. I. Deep K-Band Imaging. *L. L. Cowie, J. P. Gardner, E. M. Hu, A. Songaila, K.-W. Hodapp, & R. J. Wainscoat.* 434, 114, 226-F6 (1994)

The Θ-z Relation for *HST* Bulges and Disks out to $z \simeq 0.8$. *Steven B. Mutz, Rogier A. Windhorst, Paul C. Schmidtke, Sebastian M. Pascarelle, Richard E. Griffiths, Kavan U. Ratnatunga, Stefano Casertano, Myungshin Im, Richard S. Ellis, Karl Glazebrook, Richard F. Green, & Vicki L. Sarajedini.* 434, L55, 241-E1 (1994)

The Hawaii K-Band Galaxy Survey. III. Spectroscopy of $K < 20$ Galaxies. *A. Songaila, L. L. Cowie, E. M. Hu, & J. P. Gardner.* 94, 461, 58-C1 (1994)

Past and Future Star Formation in Disk Galaxies. *Robert C. Kennicutt, Jr., Peter Tamblyn, & Charles W. Congdon.* 435, 22, 243-E5 (1994)

The Morphology of Faint Galaxies in Medium Deep Survey Images Using WFPC2. *R. E. Griffiths, S. Casertano, K. U. Ratnatunga, L. W. Neuschaefer, R. S. Ellis, G. F. Gilmore, K. Glazebrook, B. Santiago, J. P. Huchra, R. A. Windhorst, S. M. Pascarelle, R. F. Green, G. D. Illingworth, D. C. Koo, & A. J. Tyson.* 435, L19, 251-E1 (1994)

A Survey of Faint Galaxy Pairs. *R. G. Carlberg, C. J. Pritchet, & L. Infante.* 435, 540, 253-E9 (1994)

Deep *HST* Imaging of Distant Weak Radio and Field Galaxies. *R. A. Windhorst, J. M. Gordon, S. M. Pascarelle, P. C. Schmidtke, William C. Keel, J. M. Burkey, & James S. Dunlop.* 435, 577, 254-B2 (1994)

The Primordial Helium Abundance from a New Sample of Metal-deficient Blue Compact Galaxies. *Yuri I. Izotov, Trinh X. Thuan, & Valentin A. Lipovetsky.* 435, 647, 255-A5 (1994)

Multiphase Gas in Quasar Absorption-Line Systems. *Mark L. Giroux, Ralph S. Sutherland, & J. Michael Shull.* 435, L97, 259-E2 (1994)

Hubble Space Telescope Observations of the Distant Cluster Cl 0016+16: Quantitative Morphology of Confirmed Cluster Members. *Gregory D. Wirth, David C. Koo, & Richard G. Kron.* 435, L105, 259-F2 (1994)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. VI. Properties of the Metal-rich Systems. *Jacqueline Bergeron, Patrick Petitjean, W. L. W. Sargent, John N. Bahcall, Alec Boksenberg, George F. Hartig, Buell T. Jannuzi, Sofia Kirhakos, Blair D. Savage, Donald P. Schneider, David A. Turnshek, Ray J. Weymann, & Arthur M. Wolfe.* 436, 33, 261-F4 (1994)

The Evolutionary Unified Scheme. I. Quasars and Radio Galaxies in the Viewing Angle–Redshift Plane. *F. Vagnetti & R. Spera.* 436, 611, 274-A4 (1994)

The Faint End of the Galaxy Luminosity Function. *Marie A. Treyer & Joseph Silk.* 436, L143, 281-D3 (1994)

The Nuclear Colors and Morphology of Field Galaxies at Moderate Redshift. *Duncan A. Forbes, Rebecca A. W. Elson, Andrew C. Phillips, Garth D. Illingworth, & David C. Koo.* 437, L17, 291-D1 (1994)

Dense Stellar Cores in Merger Remnants. *J. Christopher Mihos & Lars Hernquist.* 437, L47, 292-A1 (1994)

Star-forming Galaxy Models: Blending Star Formation into TREESPH. *J. Christopher Mihos & Lars Hernquist.* 437, 611, 294-B9 (1994)

Field Galaxy Evolution Since $z \sim 1$ from a Sample of QSO Absorption–selected Galaxies. *Charles C. Steidel, Mark Dickinson, & S. E. Persson.* 437, L75, 298-E8 (1994)

The Form of Abundance Gradients in Three Nearby Spiral Galaxies: M33, M81, and M101. *R. B. C. Henry & J. W. Howard.* 438, 170, 3-F1 (1995)

Deep Galaxy Counts in the *K* Band with the Keck Telescope. *S. Djorgovski, B. T. Soifer, M. A. Pahre, J. E. Larkin, J. D. Smith, G. Neugebauer, I. Smail, K. Matthews, D. W. Hogg, R. D. Blandford, J. Cohen, W. Harrison, & J. Nelson.* 438, L13, 9-F13 (1995)

Keck Observations of the Most Distant Galaxy: 8C 1435+63 at $z = 4.25$. *Hyron Spinrad, Arjun Dey, & James R. Graham.* 438, L51, 19-B1 (1995)

Morphology of Galaxy Mergers at Intermediate Redshift. *J. Christopher Mihos.* 438, L75, 19-E8 (1995)

The Angular Two-Point Correlation Function of Galaxies Down to $B_J \leq$ Magnitude on $\leq 10'$ Scales. *Lyman W. Neuschaefer & Rogier A. Windhorst.* 439, 14, 21-D7 (1995)

A Bowl-shaped Mode of Galactic Disks. *Linda S. Sparke.* 439, 42, 21-F13 (1995)

Color Evolution from $z = 0$ to $z = 1$. *Karl D. Rakos & James M. Schombert.* 439, 47, 21-G7 (1995)

Synthetic Properties of Starburst Galaxies. *Claus Leitherer & Timothy M. Heckman.* 96, 9, 1-B12 (1995)

Radial Orbit Instability in a Hubble-expanding Universe. *Daniel D. Carpintero & Juan C. Muzzio.* 440, 5, 41-C8 (1995)

Resurrection of Traditional Luminosity Evolution Models to Explain Faint Field Galaxies. *Caryl Gronwall & David C. Koo.* 440, L1, 48-B1 (1995)

The *IUE* Survey for Damped Lyman-α and Lyman-Limit Absorption Systems: Evolution of the Gaseous Content of the Universe. *Kenneth M. Lanzetta, Arthur M. Wolfe, & David A. Turnshek.* 440, 435, 49-C8 (1995)

The $z = 0.8596$ Damped Lyα Absorbing Galaxy toward PKS 0454+039. *Charles C. Steidel, David V. Bowen, J. Chris Blades, & Mark Dickinson.* 440, L45, 57-C9 (1995)

High-Resolution Spectra of Distant Compact Narrow Emission Line Galaxies: Progenitors of Spheroidal Galaxies? *David C. Koo, Rafael Guzmán, S. M. Faber, Garth D. Illingworth, Matthew A. Bershady, Richard G. Kron, & Marianne Takamiya.* 440, L49, 57-D3 (1995)

Observation and Reduction Methods of Deep Palomar 200 Inch 4-Shooter Mosaics. *Lyman W. Neuschaefer & Rogier A. Windhorst.* 96, 371, 7-D9 (1995)

Radiative Transfer in a Clumpy Universe: The Colors of High-Redshift Galaxies. *Piero Madau.* 441, 18, 59-D13 (1995)

Cosmological and Astrophysical Consequences of a High Primordial Deuterium Abundance. *Elisabeth Vangioni-Flam & Michel Cassé.* 441, 471, 68-E4 (1995)

A Test of Galaxy Evolutionary Models via Angular Sizes. *Myungshin Im, Stefano Casertano, Richard E. Griffiths, Kavan U Ratnatunga, & J. Anthony Tyson.* 441, 494, 68-G8 (1995)

The Gaseous Extent of Galaxies and the Origin of Lyman-Alpha Absorption Systems: A Survey of Galaxies in the Fields of *Hubble Space Telescope* Spectroscopic Target QSOs. *Kenneth M. Lanzetta, David V. Bowen, David Tytler, & John K. Webb.* 442, 538, 87-D1 (1995)

Infrared Line Emission from High-Redshift Galaxies. I. Calculations. *Filippo Mannucci & Steven V. W. Beckwith.* 442, 569, 87-F8 (1995)

The Evolution of C/O in Dwarf Galaxies from *Hubble Space Telescope* FOS Observations. *Donald R. Garnett, Evan D. Skillman, Reginald J. Dufour, Manuel Peimbert, Silvia Torres-Peimbert, Roberto Terlevich, Elena Terlevich, & Gregory A. Shields.* 443, 64, 96-B6 (1995)

The Spatial Distribution of Blue Compact Galaxies in the Second Byurakan Survey. *Simon A. Pustil'nik, Andrei V. Ugryumov, Valentin A. Lipovetsky, Trinh X. Thuan, & Natalia G. Guseva.* 443, 499, 104-F11 (1995)

Galactic Evolution of D and ^{3}He. *Daniele Galli, Francesco Palla, Federico Ferrini, & Umberto Penco.* 443, 536, 105-C3 (1995)

The Striking Near-Infrared Morphology of the Inner Region in M100. *J. H. Knapen, J. E. Beckman, I. Shlosman, R. F. Peletier, C. H. Heller, & R. S. de Jong.* 443, L73, 111-G3 (1995)

Interpretation of the Faint Galaxy Number Counts in the *K* Band. *Yuzuru Yoshii & Bruce A. Peterson.* 444, 15, 113-D5 (1995)

Chemical Evolution of Irregular and Blue Compact Galaxies. *Leticia Carigi, Pedro Colín, Manuel Peimbert, & Antonio Sarmiento.* 445, 98, 133-F5 (1995)

Signatures of White Dwarf Galaxy Halos. *Stéphane Charlot & Joseph Silk.* 445, 124, 134-A12 (1995)

A Critical Analysis of Interstellar Zn and Cr as Galactic Abundance Benchmarks for Quasar Absorbers. *Kenneth R. Sembach, Charles C. Steidel, Robert J. Macke, & David M. Meyer.* 445, L27, 140-E10 (1995)

Evolutionary Population Synthesis in Stellar Systems. II. Early-Type Galaxies. *Alberto Buzzoni.* 98, 69, 21-G7 (1995)

A Faraday Rotation Search for Magnetic Fields in Quasar-damped Lyα Absorption Systems. *Abraham L. Oren & Arthur M. Wolfe.* 445, 624, 143-F7 (1995)

New Age Indicators for Old Stellar Populations. *Lewis A. Jones & Guy Worthey.* 446, L31, 160-E13 (1995)

A Near-Infrared Faint Galaxy Survey: The Catalog. *J. P. Gardner.* 98, 441, 29-B6 (1995)

Observations of the Galactic and Extragalactic Background with the Far-Ultraviolet Space Telescope (FAUST). *T. P. Sasseen, M. Lampton, S. Bowyer, & X. Wu.* 447, 630, 184-G3 (1995)

A Merger Origin for X Structures in S0 Galaxies. *J. Christopher Mihos, Ian R. Walker, Lars Hernquist, Claudia Mendes de Oliveira, & Michael Bolte.* 447, L87, 190-E1 (1995)

Excitation of Activity in Galaxies by Minor Mergers. *Lars Hernquist & J. Christopher Mihos.* 448, 41, 192-G1 (1995)

An Emission-Line Protogalaxy Candidate at $z = 2.5$. *M. Malkan, H. Teplitz, & I. McLean.* 448, L5, 199-B9 (1995)

Evidence for Recent Accretion in Nearby Galaxies. *Dennis Zaritsky.* 448, L17, 199-D6 (1995)

The Morphological Mix of Field Galaxies to $m_i = 24.25$ mag ($b_J \sim 26$ mag) From a Deep Hubble Space Telescope WFRC2 Image. *Simon P. Driver, Rogier A. Windhorst, Eric J. Ostrander, William C. Keel, Richard E. Griffiths, & Kavan U. Ratnatunga.* 449, L23, 216-C11 (1995)

The Incidence of Damped Lyα Systems in the Redshift Interval $0 < z < 4$. *Sandhya M. Rao, David A. Turnshek, & Franklin H. Briggs.* 449, 488, 219-E6 (1995)

Deep Optical Galaxy Counts with the Keck Telescope. *Ian Smail, David W. Hogg, Lin Yan, & Judith G. Cohen.* 449, L105, 226-F8 (1995)

Supernovae, Globular Clusters, and Galaxy Mergers. *Sidney van den Bergh.* 450, 27, 228-D9 (1995)

The Onset of the Cold H I Phase in Disks of Protogalaxies. *Edvige Corbelli & Edwin E. Salpeter.* 450, 32, 228-E3 (1995)

Evolution of Infrared-selected Galaxies in $z \sim 0.4$ Clusters. *S. A. Stanford, P. R. M. Eisenhardt, & Mark Dickinson.* 450, 512, 237-G4 (1995)

Deuterium in the Universe. *Francesco Palla, Daniele Galli, & Joseph Silk.* 451, 44, 246-F11 (1995)

The Linear-Size Evolution of Classical Double Radio Sources. *Mark J. Neeser, Stephen A. Eales, J. Duncan Law-Green, J. Patrick Leahy, & Steve Rawlings.* 451, 76, 247-B12 (1995)

Canada-France Redshift Survey: *Hubble Space Telescope* Imaging of High-Redshift Field Galaxies. *David Schade, S. J. Lilly, David Crampton, F. Hammer, O. Le Fèvre, & L. Tresse.* 451, L1, 252-A9 (1995)

The Iron Group Abundance Pattern of the Damped Lyman-Alpha Absorber at $z = 1.3726$ toward the QSO 0935+417. *David M. Meyer, Kenneth M. Lanzetta, & Arthur M. Wolfe.* 451, L13, 252-C4 (1995)

A Century of Galaxy Spectroscopy. *Vera C. Rubin.* 451, 419, 253-B1 (1995)

Abundance Histories for QSO Absorption-Line Systems. *F. X. Timmes, J. T. Lauroesch, & J. W. Truran.* 451, 468, 253-F12 (1995)

Intergalactic Helium Absorption toward High-Redshift Quasars. *Mark L. Giroux, Mark A. Fardal, & J. Michael Shull.* 451, 477, 253-G10 (1995)

The Disruption of the Sagittarius Dwarf Galaxy. *Kathryn V. Johnston, David N. Spergel, & Lars Hernquist.* 451, 598, 255-D13 (1995)

Are Galaxies Optically Thin to Their Own Lyman-Continuum Radiation? I. M33. *Kanan Patel & Christine D. Wilson.* 451, 607, 255-E11 (1995)

A Near-Infrared Faint Galaxy Survey. *J. P. Gardner.* 452, 538, 272-B2 (1995)

The Contribution of Late-Type/Irregulars to the Faint Galaxy Counts from *Hubble Space Telescope* Medium-Deep Survey Images. *Simon P. Driver, Rogier A. Windhorst, & Richard E. Griffiths.* 453, 48, 281-G10 (1995)

Structural Parameters of Faint Galaxies from Prerefurbishment *Hubble Space Telescope* Medium Deep Survey Observations. *S. Casertano, K. U.*

Ratnatunga, R. E. Griffiths, M. Im, L. W. Neuschaefer, E. J. Ostrander, & R. A. Windhorst. 453, 599, 292-B9 (1995)

Observational Tests for Ultraviolet Sources in Elliptical Galaxies. *Sukyoung Yi, Ehsan Afshari, Pierre Demarque, & Augustus Oemler, Jr.* 453, L69, 298-C1 (1995)

Cosmic Chemical Evolution. *Yichuan C. Pei & S. Michael Fall.* 454, 69, 300-B10 (1995)

Hopkins Ultraviolet Telescope Observations of Six Elliptical and S0 Galaxies. *Thomas H. Brown, Henry C. Ferguson, & Arthur F. Davidsen.* 454, L15, 307-D11 (1995)

Dwarf Galaxies and the Origin of the Intracluster Medium. *Biman B. Nath & Masashi Chiba.* 454, 604, 309-G6 (1995)

The Central Region in M100: Observations and Modeling. *J. H. Knapen, J. E. Beckman, C. H. Heller, I. Shlosman, & R. S. de Jong.* 454, 623, 310-B4 (1995)

The Large Bright QSO Survey for Damped Lyα Absorption Systems. *Arthur M. Wolfe, Kenneth M. Lanzetta, Craig B. Foltz, & Frederic H. Chaffee.* 454, 698, 311-C9 (1995)

Evolution of Spiral Galaxies. V. The Galactic Bulge. *Mercedes Mollá & Federico Ferrini.* 454, 726, 311-F9 (1995)

Detection of Extended Polarized Ultraviolet Radiation from the $z = 1.82$ Radio Galaxy 3C 256. *Buell T. Jannuzi, Richard Elston, Gary D. Schmidt, Paul S. Smith, & H. S. Stockman.* 454, L111, 316-A1 (1995)

Lensing by Distant Clusters: *HST* Observations of Weak Shear in the Field of 3C 324. *Ian Smail & Mark Dickinson.* 455, L99, 333-C8 (1995)

GALAXIES: FORMATION

Modeling Galaxy Formation in Evolving Dark Matter Halos. *Shaun Cole.* 367, 45, 12-E7 (1991)

Dissipationless Collapse in an Expanding Universe. *Neal Katz.* 368, 325, 29-B4 (1991)

A Deep Imaging and Spectroscopic Survey of Faint Galaxies. *S. J. Lilly, L. L. Cowie, & J. P. Gardner.* 369, 79, 37-A1 (1991)

Filamentary Superclustering in a Universe Dominated by Cold Dark Matter. *Michael J. West, Jens V. Villumsen, & Avishai Dekel.* 369, 287, 41-C7 (1991)

Redshift-Space Correlation Functions in the Cold Dark Matter Scenario. *Yasushi Suto & Tatsushi Suginohara.* 370, L15, 53-C7 (1991)

Fueling Starburst Galaxies with Gas-rich Mergers. *Joshua E. Barnes & Lars E. Hernquist.* 370, L65, 59-B7 (1991)

Statistics of Peaks in Cosmological Nonlinear Density Fields. *Tatsushi Suginohara & Yasushi Suto.* 371, 470, 67-D1 (1991)

Bosons: Hot Dark Matter with Small-Scale Power. *Jes Madsen.* 371, L47, 73-A11 (1991)

Discovery of a Normal Galaxy at $z = 1.018$. *D. J. Thompson & S. Djorgovski.* 371, L55, 73-B6 (1991)

The Formation of Galaxies and Quasars in a Texture-seeded Cold Dark Matter Cosmogony. *Andrew K. Gooding, David N. Spergel, & Neil Turok.* 372, L5, 79-A13 (1991)

Type Ia Supernovae: Constraints on Baryonic Dark Matter. *Tammy Á. Smecker & Rosemary F. G. Wyse.* 372, 448, 81-D1 (1991)

Perturbations of the Robertson-Walker Space: Multicomponent Sources and Generalized Gravity. *Jai-chan Hwang.* 375, 443, 118-C7 (1991)

What Determines the Physical Quantities of Galaxies? A Two-Component Gas Model for Protogalaxies with Energy Input from Supernovae. *Satoru Ikeuchi & Colin A. Norman.* 375, 479, 118-F9 (1991)

Global Stability of Self-similar Newtonian Gaseous Disks against Axisymmetric Perturbations. *José P. S. Lemos, Agris J. Kalnajs, & Donald Lynden-Bell.* 375, 484, 118-G1 (1991)

Gravitational Clustering of Gaussian Density Fluctuations and the Origin of Hierarchy Correlations. *A. Kashlinsky.* 376, L5, 130-B1 (1991)

Formation of Galactic Halos from Seeded Hot Dark Matter. *Anthony van Dalen & Jens Verner Villumsen.* 376, 371, 131-B1 (1991)

The Fragmentation of "Pancakes" in a Dark Matter–dominated Universe. *Wenbo Yuan, Joan M. Centrella, & Michael L. Norman.* 376, L29, 137-A11 (1991)

Dissipational Galaxy Formation. I. Effects of Gasdynamics. *Neal Katz & James E. Gunn.* 377, 365, 144-D1 (1991)

A Search for Redshifted Neutral Hydrogen from Protoclusters of Galaxies. *Juan M. Uson, Durgadas S. Bagri, & Timothy J. Cornwell.* 377, L65, 150-B1 (1991)

Discovery of a Lyα Galaxy near a Damped Lyα Absorber at $z = 2.3$. *James D. Lowenthal, Craig J. Hogan, Richard F. Green, Adeline Caulet, Bruce E. Woodgate, Larry Brown, & Craig B. Foltz.* 377, L73, 150-C1 (1991)

Abundance Gradients and Galaxy Formation. *M. Stiavelli & F. Matteucci.* 377, L79, 150-C9 (1991)

Fluctuations of the Microwave Background Radiation on Large and Intermediate Angular Scales. *F. Atrio-Barandela, A. G. Doroshkevich, & A. A. Klypin.* 378, 1, 151-A11 (1991)

Attenuation of Lyman-Alpha Emission by Dust in Damped Lyman-Alpha Systems. *Stéphane Charlot & S. Michael Fall.* 378, 471, 158-C7 (1991)

Cosmological Velocity-Density Relation in the Quasi-linear Regime. *Adi Nusser, Avishai Dekel, Edmund Bertschinger, & George R. Blumenthal.* 379, 6, 163-B7 (1991)

Superclustering at High Redshifts. *Michael J. West.* 379, 19, 163-C7 (1991)

Galaxy Formation through Hierarchical Clustering. *Simon D. M. White & Carlos S. Frenk.* 379, 52, 163-F3 (1991)

A New Spectroscopic Survey for Damped Lyα Absorption Lines from High-Redshift Galaxies. *Kenneth M. Lanzetta, Arthur M. Wolfe, David A. Turnshek, Limin Lu, Richard G. McMahon, & Cyril Hazard.* 77, 1, 43-B1 (1991)

Baryon Isocurvature Scenario in Inflationary Cosmology: A Particle Physics Model and Its Astrophysical Implications. *Jun'ichi Yokoyama & Yasushi Suto.* 379, 427, 170-B1 (1991)

Collapse of Population III Objects Induced by Cold Collisionless Dark Matter. *J. C. N. de Araujo & R. Opher.* 379, 461, 170-D10 (1991)

Large-Scale Evolution of a Perturbed Universe. *Jai-chan Hwang.* 380, 307, 182-B6 (1991)

The Scale Dependence of Galaxy Distribution Functions. *William C. Saslaw & Philippe Crane.* 380, 315, 182-C1 (1991)

Dynamics of Cooling Gas in Galactic Dark Halos. *Julio F. Navarro & Willy Benz.* 380, 320, 182-C7 (1991)

The Clustering of Faint Galaxies. *G. Efstathiou, G. Bernstein, N. Katz, J. A. Tyson, & P. Guhathakurta.* 380, L47, 188-B1 (1991)

Tidally Triggered Galaxy Formation. I. Evolution of the Galaxy Luminosity Function. *Cedric Lacey & Joseph Silk.* 381, 14, 189-C1 (1991)

Spectroscopy of Spatially Extended Material around High-Redshift Radio-loud Quasars. *Timothy M. Heckman, Matthew D. Lehnert, George K. Miley, & Wil van Breugel.* 381, 373, 195-D1 (1991)

Near-Infrared Observations of the $z \sim 2.3$ *IRAS* Source FSC 10214+4724. *B. T. Soifer, G. Neugebauer, J. R. Graham, K. Matthews, J. M. Mazzarella, C. J. Lonsdale, M. Rowan-Robinson, T. Broadhurst, A. Lawrence, & R. McMahon.* 381, L55, 199-D1 (1991)

A Radio-quiet Galaxy at Redshift $z = 3.409$. *D. A. Turnshek, F. Macchetto, M. V. Bencke, C. Hazard, W. B. Sparks, & R. G. McMahon.* 382, 26, 200-D1 (1991)

Gauge-invariant Joining Conditions for Cosmological Perturbations. *Jai-chan Hwang & Ethan T. Vishniac.* 382, 363, 206-B1 (1991)

Precollapse Scale Invariance in Gravitational Instability. *F. Moutarde, J.-M. Alimi, F. R. Bouchet, R. Pellat, & A. Ramani.* 382, 377, 206-C5 (1991)

A Hydrodynamic Approach to Cosmology: Texture-seeded Cold Dark Matter and Hot Dark Matter Cosmogonies. *R. Y. Cen, J. P. Ostriker, D. N. Spergel, & N. Turok.* 383, 1, 212-B1 (1991)

The Ordered Nature of Elliptical Galaxies: Implications for Their Intrinsic Angular Momenta and Shapes. *Marijn Franx, Garth Illingworth, & Tim de Zeeuw.* 383, 112, 213-D7 (1991)

Microwave Background Anisotropies Implied by Large-Scale Galaxy Correlations: The Minimum of $C(0)$ and Cosmological Parameters. *A. Kashlinsky.* 383, L1, 219-A7 (1991)

The Formation of Globular Clusters in Merging and Interacting Galaxies. *Keith M. Ashman & Stephen E. Zepf.* 384, 50, 1-F1 (1992)

Radiative Shocks and Hydrogen Molecules in Pregalactic Gas: The Effects of Postshock Radiation. *Hyesung Kang & Paul R. Shapiro.* 386, 432, 30-F13 (1992)

The Coherence Length of the Peculiar Velocity Field in the Universe and the Large-Scale Galaxy Correlation Data. *A. Kashlinsky.* 386, L37, 36-B6 (1992)

On the Dynamical Evolution of Rich Galaxy Clusters. *G. Yepes & R. Domínguez-Tenreiro.* 387, 27, 37-D1 (1992)

Constraints on the Power Spectrum of the Primordial Density Field from Large-Scale Data: Microwave Background and Predictions of Inflation. *A. Kashlinsky.* 387, L1, 43-A8 (1992)

The Formation of Giant Low Surface Brightness Galaxies. *Yehuda Hoffman, Joseph Silk, & Rosemary F. G. Wyse.* 388, L13, 52-B6 (1992)

Magnetic Fields and Radiative Shocks in Protogalaxies and the Origin of Globular Clusters. *Paul R. Shapiro, Alejandro Clocchiatti, & Hyesung Kang.* 389, 269, 63-C11 (1992)
The Efficiency of Galaxy Formation in Clusters. *Laurence P. David & George R. Blumenthal.* 389, 510, 67-G1 (1992)
Systematic Differences between the Field and Cluster Elliptical Galaxies. *R. R. de Carvalho & S. Djorgovski.* 389, L49, 73-B11 (1992)
Cooling and the Longevity of Polar Rings. *Neal Katz & Hans-Walter Rix.* 389, L55, 73-C3 (1992)
The Great Wall in the CfA Survey: Its Origin and Imprint on the Microwave Background Radiation. *F. Atrio-Barandela & A. Kashlinsky.* 390, 322, 79-C1 (1992)
Ultraluminous *IRAS* Galaxies: Formation of Elliptical Galaxies by Merger-induced Dissipative Collapse. *John Kormendy & David B. Sanders.* 390, L53, 84-E1 (1992)
The Rate of Gravitational Galaxy Clustering. *William C. Saslaw.* 391, 423, 93-B4 (1992)
Dissipational Galaxy Formation. II. Effects of Star Formation. *Neal Katz.* 391, 502, 94-B7 (1992)
Emission-Line Objects near Quasi-stellar Object Absorbers. III. Clustering and Colors of Moderate-Redshift H II Regions. *Brian Yanny & Donald G. York.* 391, 569, 95-A8 (1992)
On the Origin of Globular Clusters in Elliptical Galaxies. *S. Djorgovski & Basilio X. Santiago.* 391, L85, 99-F13 (1992)
On the Origin of Cosmic Structure. *David Layzer.* 392, L5, 106-B1 (1992)
Cosmic Curvature and Condensation. *Martin Harwit.* 392, 394, 107-C1 (1992)
Gravitational Field Fluctuations in Weakly Clustered Systems. *V. Antonuccio-Delogu & F. Atrio-Barandela.* 392, 403, 107-C12 (1992)
Transformations of Galaxies. I. Mergers of Equal-Mass Stellar Disks. *Joshua E. Barnes.* 393, 484, 121-G9 (1992)
Models for Galaxy Halos in an Open Universe. *Simon D. M. White & Dennis Zaritsky.* 394, 1, 128-B1 (1992)
Weakly Nonlinear Gravitational Instability for Arbitrary Ω. *F. R. Bouchet, R. Juszkiewicz, S. Colombi, & R. Pellat.* 394, L5, 133-B1 (1992)
QSO Absorbers: Evidence for a Primeval Galaxy Population. *Arati Chokshi.* 395, 21, 140-D5 (1992)
Cosmological Perturbations and the Physical Meaning of Gauge-invariant Variables. *Marco Bruni, Peter K. S. Dunsby, & George F. R. Ellis.* 395, 34, 140-E7 (1992)
Covariant Perturbations in a Multifluid Cosmological Medium. *Peter K. S. Dunsby, Marco Bruni, & George F. R. Ellis.* 395, 54, 140-G1 (1992)
Mg II Absorption by Previously Known Galaxies at $z \approx 0.5$. *Jill Bechtold & Erica Ellingson.* 396, 20, 155-C13 (1992)
Properties of Galactic Halos in Spatially Flat Universes Dominated by Cold Dark Matter: Effects of Nonvanishing Cosmological Constant. *Tatsushi Suginohara & Yasushi Suto.* 396, 395, 162-C11 (1992)
Testing the Isotropy of the Cosmic Microwave Background: The ULISSE Experiment. *P. de Bernardis, S. Masi, F. Melchiorri, B. Melchiorri, & N. Vittorio.* 396, L57, 166-G1 (1992)
String-induced Density Perturbations in Hot Dark Matter. *Dan N. Vollick.* 397, 14, 168-C1 (1992)
The Ultraviolet Absorption Spectrum of the Quasar H1821+643 ($z = 0.297$). *John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, George F. Hartig, & Richard F. Green.* 397, 68, 168-G10 (1992)
[C I] Emission at $z = 2.286$ in the Protogalaxy IRAS F10214+4724. *Robert L. Brown & Paul A. Vanden Bout.* 397, L11, 173-B10 (1992)
IRAS F10214+4724: An Extended CO Emission Source at $z = 2.2867$. *Robert L. Brown & Paul A. Vanden Bout.* 397, L19, 173-C6 (1992)
Aperture Synthesis CO ($J = 3$–2) Observations of a Protogalaxy Candidate IRAS F10214+4724. *R. Kawabe, K. Sakamoto, S. Ishizuki, & M. Ishiguro.* 397, L23, 173-C12 (1992)
Molecular Gas Distribution in a Protogalaxy Candidate IRAS F10214+4724: A Dense Compact Nucleus and Nondetected Extra Components. *Kazushi Sakamoto, Sumio Ishizuki, Ryohei Kawabe, & Masato Ishiguro.* 397, L27, 173-D4 (1992)
Statistical Mechanics of Violent Relaxation. *David N. Spergel & Lars Hernquist.* 397, L75, 180-G7 (1992)
Mg and Fe Absorption Features in Elliptical Galaxies. *Guy Worthey, S. M. Faber, & J. Jesús Gonzalez.* 398, 69, 182-G9 (1992)
Submillimeter Spectrum and Dust Mass of the Primeval Galaxy IRAS 10214+4724. *D. Downes, S. J. E. Radford, A. Greve, C. Thum, P. M. Solomon, & J. E. Wink.* 398, L25, 187-D7 (1992)
Warm Molecular Gas in the Primeval Galaxy IRAS 10214+4724. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 398, L29, 187-E1 (1992)
How Old Is the $z = 3.4$ Radio Galaxy B2 0902+34. *Peter Eisenhardt & Mark Dickinson.* 399, L47, 200-E4 (1992)
High Spatial Resolution Continuum and Hα Imaging of the High-Redshift *IRAS* Source FSC 10214+4724. *B. T. Soifer, G. Neugebauer, K. Matthews, C. Lawrence, & J. Mazzarella.* 399, L55, 200-F1 (1992)
Filamentary and Hierarchical Pictures: Kinetic Energy Criterion. *Anatoly A. Klypin & Adrian L. Melott.* 399, 397, 203-A1 (1992)
Dark Halos Formed via Dissipationless Collapse. I. Shapes and Alignment of Angular Momentum. *Michael S. Warren, Peter J. Quinn, John K. Salmon, & Wojciech H. Zurek.* 399, 405, 203-A11 (1992)
Galaxies and Gas in a Cold Dark Matter Universe. *Neal Katz, Lars Hernquist, & David H. Weinberg.* 399, L109, 207-F1 (1992)
Galaxy Formation and Physical Bias. *Renyue Cen & Jeremiah P. Ostriker.* 399, L113, 207-F7 (1992)
Formation of Shells in Major Mergers. *Lars Hernquist & David N. Spergel.* 399, L117, 207-G1 (1992)
Newton's Laws in a Cosmological Model. *Mark Israelit & Nathan Rosen.* 400, 21, 209-C7 (1992)
Gravity and Count Probabilities in an Expanding Universe. *François R. Bouchet & Lars Hernquist.* 400, 25, 209-C13 (1992)
Cold Dissipationless Collapse of Spherical Systems: Sensitivity to the Initial Density Law. *John K. Cannizzo & Timothy C. Hollister.* 400, 58, 209-F6 (1992)
Deep *Hubble Space Telescope* Imaging of a Compact Radio Galaxy at $z = 2.390$. *Rogier Windhorst, Douglas F. Mathis, & William C. Keel.* 400, L1, 214-A8 (1992)
NGC 4550: A Laboratory for Testing Galaxy Formation. *Hans-Walter Rix, Marijn Franx, David Fisher, & Garth Illingworth.* 400, L5, 214-B1 (1992)
Structure of Merger Remnants. I. Bulgeless Progenitors. *Lars Hernquist.* 400, 460, 216-A9 (1992)
The Gravitational Wave Contribution to Cosmic Microwave Background Anisotropies and the Amplitude of Mass Fluctuations from *COBE* Results. *Francesco Lucchin, Sabino Matarrese, & Silvia Mollerach.* 401, L49, 232-E4 (1992)
Hubble Space Telescope Imaging of Distant Galaxies: 4C 41.17 at $z = 3.8$. *G. K. Miley, K. C. Chambers, W. J. M. van Breugel, & F. Macchetto.* 401, L69, 232-G10 (1992)
Tidally Triggered Galaxy Formation. II. Galaxy Number Counts. *Cedric Lacey, Bruno Guiderdoni, Brigitte Rocca-Volmerange, & Joseph Silk.* 402, 15, 1-C6 (1993)
Small-Scale Microwave Background Anisotropies Implied by Large-Scale Data. *A. Kashlinsky.* 402, 369, 7-C1 (1993)
Clustering of Galaxies near Damped Lyman-Alpha Systems with $\langle z \rangle = 2.6$. *A. M. Wolfe.* 402, 411, 7-F11 (1993)
Large- and Small-Scale Constraints on Power Spectra in $\Omega = 1$ Universes. *James M. Gelb, Ben-Ami Gradwohl, & Joshua A. Frieman.* 403, L5, 20-A11 (1993)
Multiple Equilibria and Free Energy for Rotating, Self-gravitating Fluid Bodies. *Elizabeth A. Pratton & Jennie Traschen.* 404, 63, 28-G1 (1993)
Three-Point Correlation Functions and the Hierarchical Clustering *Ansatz* in Low-Density Cold Dark Matter Universes. *Yasushi Suto.* 404, L1, 33-C7 (1993)
Damped Lyman-Alpha Absorption by Disk Galaxies with Large Redshifts. IV. More Intermediate-Resolution Spectroscopy. *Arthur M. Wolfe, David A. Turnshek, Kenneth M. Lanzetta, & Limin Lu.* 404, 480, 35-A1 (1993)
Identification of a Lyman-Alpha Radio-quiet Galaxy at Redshift $z = 3.428$: A Primeval Galaxy? *F. Macchetto, S. Lipari, M. Giavalisco, D. A. Turnshek, & W. B. Sparks.* 404, 511, 35-D1 (1993)
Finding Protoquasars at High Redshifts. *Abraham Loeb.* 404, L37, 40-B6 (1993)
A Cluster of Nascent Galaxies at $z = 2$? *Alan Dressler, Augustus Oemler, Jr., James E. Gunn, & Harvey Butcher.* 404, L45, 40-C1 (1993)
Limits on the Anisotropy of the Microwave Background Radiation on Arcminute Scales. II. The Ring Experiment. *S. T. Myers, A. C. S. Readhead, & C. R. Lawrence.* 405, 8, 41-B11 (1993)
Cooperative Galaxy Formation and Large-Scale Structure. *Richard G. Bower, Peter Coles, Carlos S. Frenk, & Simon D. M. White.* 405, 403, 48-B1 (1993)

Deep Imaging Search for Lyman-Alpha Emission Associated with an H I Cloud at $z = 3.4$. *George Rhee, Chris Loken, & Oliver Le Fèvre.* 406, 26, 55-D1 (1993)

High-z Objects and Cold Dark Matter Cosmogonies: Constraints on the Primordial Power Spectrum on Small Scales. *A. Kashlinsky.* 406, L1, 60-E1 (1993)

Three-dimensional Hydrodynamical Calculations on the Fragmentation of Pancakes and Galaxy Formation. *Masayuki Umemura.* 406, 361, 62-B5 (1993)

Metal Enrichment of the Intracluster Medium from Protogalaxies and the Gamma-Ray Bursters. *Makoto Hattori & Nobuo Terasawa.* 406, L55, 68-C5 (1993)

Binary Merging: The Other Mode of Galaxy Evolution. *A. Cavaliere & N. Menci.* 407, L9, 75-B6 (1993)

Cooling Flows and Cluster Evolution. *Mark J. Henriksen.* 407, L13, 75-B11 (1993)

Clusters and Groups of Galaxies as Cosmological Probes. *Haruhiko Ueda, Makoto Itoh, & Yasushi Suto.* 408, 3, 83-B5 (1993)

Globular Clusters and cD Formation: The Case of M87. *Dean E. McLaughlin, William E. Harris, & David A. Hanes.* 409, L45, 111-C8 (1993)

Small-Scale Substructure in Relaxed Clusters. I. Statistical Characterization. *Eduard Salvador-Solé, Guillermo González-Casado, & José María Solanes.* 410, 1, 112-B1 (1993)

Small-Scale Substructure in Relaxed Clusters. II. Clustering Model. *Guillermo González-Casado, José María Solanes, & Eduard Salvador-Solé.* 410, 15, 112-C8 (1993)

Tilted Cold Dark Matter Models Confront the Cosmic Microwave Background and the Galaxy Peculiar Velocity Field. *Pio Francesco Muciaccia, Simona Mei, Giancarlo de Gasperis, & Nicola Vittorio.* 410, L61, 125-E7 (1993)

Inflationary Stochastic Dynamics and the Statistics of Large-Scale Structure. *Insu Yi & Ethan T. Vishniac.* 86, 333, 19-B1 (1993)

Infrared Spectroscopy of 11 Radio Galaxies at $2 < z < 4$: Evidence That Some High-Redshift Radio Galaxies May Be Protogalaxies. *Stephen A. Eales & Steve Rawlings.* 411, 67, 127-G13 (1993)

Hydrodynamic Models of the Cartwheel Ring Galaxy. *Curtis Struck-Marcell & James L. Higdon.* 411, 108, 128-D7 (1993)

The Two-Point Correlation Function in Pancake Models and the Fair Sample Hypothesis. *Thomas Buchert & Vicent J. Martínez.* 411, 485, 135-F1 (1993)

A Deep I-Band Selected Galaxy Sample: Implications for Galaxy Evolution. *Simon J. Lilly.* 411, 501, 135-G6 (1993)

CO Emission from the $z = 2.14$ Damped Lyman-Alpha System toward 0528−250. *Robert L. Brown & P. A. Vanden Bout.* 412, L21, 148-C6 (1993)

Rotation Curves from Baryonic Infall: Dependence on Disk-to-Halo Ratio, Initial Angular Momentum, and Core Radius, and Comparison with Data. *Ricardo Flores, Joel R. Primack, George R. Blumenthal, & S. M. Faber.* 412, 443, 149-B1 (1993)

Hierarchical Galaxy Formation: Overmerging and the Formation of an X-Ray Cluster. *Neal Katz & Simon D. M. White.* 412, 455, 149-C1 (1993)

The Angular Momentum Behavior in the Dissipationless Collapse of Triaxial Systems. *Anna Curir, Antonaldo Diaferio, & Fernando de Felice.* 413, 70, 157-A6 (1993)

Large-Scale Angular Correlations in Cold Dark Matter Models. *Lauro Moscardini, Stefano Borgani, Peter Coles, Francesco Lucchin, Sabino Matarrese, Antonio Messina, & Manolis Plionis.* 413, L55, 168-B1 (1993)

Large-Scale Structure in Biased Cold Dark Matter Cosmologies. *D. G. Lambas, M. G. Abadi, M. A. Nicotra, & P. B. Tissera.* 414, 30, 170-D6 (1993)

Threshold Star-Formation Effects in the Peculiar Galaxy Arp 10 (= VV 362). *V. Charmandaris, P. N. Appleton, & A. P. Marston.* 414, 154, 172-A1 (1993)

A Hydrodynamic Approach to Cosmology: The Primeval Baryon Isocurvature Model. *Renyue Cen, Jeremiah P. Ostriker, & P. J. E. Peebles.* 415, 423, 193-B5 (1993)

Evolution of Ideal-Fluid Cosmological Perturbations. *Jai-chan Hwang.* 415, 486, 193-G12 (1993)

Structure Formation with Cold plus Hot Dark Matter. *Anatoly Klypin, Jon Holtzman, Joel Primack, & Enikő Regős.* 416, 1, 201-B1 (1993)

Bending Instabilities in Galaxy Merger Remnants. *Lars Hernquist, Jeremy S. Heyl, & David N. Spergel.* 416, L9, 207-B13 (1993)

Gravitational Collapse in an Expanding Universe: Asymptotic Self-similar Solutions. *Saleem Zaroubi & Yehuda Hoffman.* 416, 410, 208-D12 (1993)

Formation of Globular Clusters and Galactic Environments. *Yasuki Kumai, Yuichi Hashi, & Mitsuaki Fujimoto.* 416, 576, 210-E5 (1993)

Dark Matter Halos in Elliptical Galaxies. *Francesco Bertola, Alessandro Pizzella, Massimo Persic, & Paolo Salucci.* 416, L45, 216-B1 (1993)

Transverse Dissections of the Fundamental Planes of Elliptical Galaxies and Clusters of Galaxies. *Alvio Renzini & Luca Ciotti.* 416, L49, 216-B6 (1993)

Spectra of Two Luminous Young Globular Clusters in the Merger Remnant NGC 7252. *François Schweizer & Patrick Seitzer.* 417, L29, 223-B1 (1993)

A Hydrodynamic Treatment of the Cold Dark Matter Cosmological Scenario with a Cosmological Constant. *Renyue Cen, Nickolay Y. Gnedin, & Jeremiah P. Ostriker.* 417, 387, 224-B5 (1993)

Cold Dark Matter Cosmology with Hydrodynamics and Galaxy Formation: The Evolution of the Intergalactic Medium and Background Radiation Fields. *Renyue Cen & Jeremiah P. Ostriker.* 417, 404, 224-C10 (1993)

Cold Dark Matter Cosmogony with Hydrodynamics and Galaxy Formation: Galaxy Properties at Redshift Zero. *Renyue Cen & Jeremiah P. Ostriker.* 417, 415, 224-E1 (1993)

Dynamical Instabilities in Hollow Halo Models. *Joshua E. Barnes.* 419, L17, 252-C11 (1993)

Correlation Functions from the Perseus-Pisces Redshift Survey. *S. A. Bonometto, A. Iovino, L. Guzzo, R. Giovanelli, & M. Haynes.* 419, 451, 253-D4 (1993)

Early Cosmic Formation of Massive Black Holes. *Masayuki Umemura, Abraham Loeb, & Edwin L. Turner.* 419, 459, 253-D13 (1993)

Colors, Luminosities, and Masses of Disk Galaxies. *Giuseppe Gavazzi.* 419, 469, 253-E11 (1993)

Truncated Initial Mass Function in Starburst Galaxies. *Stéphane Charlot, Frank Ferrari, G. J. Mathews, & Joseph Silk.* 419, L57, 259-C1 (1993)

Infrared Observations of the $z = 3.8$ Radio Galaxy 4C 41.17, with the W. M. Keck Telescope. *James R. Graham, K. Matthews, B. T. Soifer, J. E. Nelson, W. Harrison, J. G. Jernigan, S. Lin, G. Neugebauer, G. Smith, & C. Ziomkowski.* 420, L5, 7-B1 (1994)

Perturbing Friedmann Equations: An Introduction to Lifshitz Instability. *Jai-chan Hwang & Jong June Hyun.* 420, 512, 9-A7 (1994)

Separatrix Crossing and the Enigma of NGC 4550. *N. W. Evans & J. L. Collett.* 420, L67, 15-C13 (1994)

Galaxy Formation in $\Lambda > 0$ Friedmann Models: Consequences for the Number Counts versus Redshift Test. *Hugo Martel.* 421, L67, 29-D1 (1994)

Two-Fluid Simulations of Galaxy Formation. *August E. Evrard, F. J. Summers, & Marc Davis.* 422, 11, 30-B14 (1994)

Ω from Velocities in Voids. *Avishai Dekel & Martin J. Rees.* 422, L1, 36-B1 (1994)

Higher Order Moments of the Matter Distribution in Scale-free Cosmological Simulations with Large Dynamic Range. *Francesco Lucchin, Sabino Matarrese, Adrian L. Melott, & Lauro Moscardini.* 422, 430, 37-C4 (1994)

Optical Signatures of High-Redshift Galaxy Clusters. *August E. Evrard & Stéphane Charlot.* 424, L13, 69-C1 (1994)

Possible Identification of a Cluster of Galaxies at Redshift $z = 3.4$. *Mauro Giavalisco, Charles C. Steidel, & Alexander S. Szalay.* 425, L5, 85-B7 (1994)

Shear Fields and the Evolution of Galactic Scale Density Peaks. *Rien van de Weygaert & Arif Babul.* 425, L59, 94-B1 (1994)

Reionization in a Cold Dark Matter Universe: The Feedback of Galaxy Formation on the Intergalactic Medium. *Paul R. Shapiro, Mark L. Giroux, & Arif Babul.* 427, 25, 110-D1 (1994)

The Nonlinear Evolution of Rare Events. *Francis Bernardeau.* 427, 51, 110-F1 (1994)

Dynamical Friction, Secondary Infall, and the Evolution of Clusters of Galaxies. *V. Antonuccio-Delogu & S. Colafrancesco.* 427, 72, 110-G10 (1994)

Induced Population Gradients in Galaxy Merger Remnants. *J. Christopher Mihos & Lars Hernquist.* 427, 112, 111-C12 (1994)

A Test of the Adhesion Approximation for Gravitational Clustering. *Adrian L. Melott, Sergei F. Shandarin, & David H. Weinberg.* 428, 28, 128-E6 (1994)

Evolution of Systems of Galaxies in Cold Dark Matter Models. *Patricia B. Tissera, Diego G. Lambas, & Mario G. Abadi.* 429, 29, 144-E7 (1994)

Supergiant Molecular Clouds and the Formation of Globular Cluster Systems. *William E. Harris & Ralph E. Pudritz.* 429, 177, 146-C9 (1994)

Damped Lyman-Alpha Systems and Galaxy Formation. *H. J. Mo & J. Miralda-Escudé.* 430, L25, 165-D7 (1994)

Constraints on Models of Galaxy Formation from the Evolution of Damped Lyman-Alpha Absorption Systems. *Guinevere Kauffmann & Stéphane Charlot.* 430, L97, 174-E5 (1994)

The Global Second Parameter Phenomenon and the Origin of the Ultraviolet Radiation from Elliptical Galaxies. *Young-Wook Lee.* 430, L113, 174-G3 (1994)

Gauge-invariant Cosmological Perturbations in Generalized Einstein Theories. *T. Hirai & K. Maeda.* 431, 6, 176-C8 (1994)

A Hydrodynamic Approach to Cosmology: The Mixed Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah P. Ostriker.* 431, 451, 184-C1 (1994)

On the Evolution of Clustering and the Biased Galaxy Formation Scenario. *Tereasa G. Brainerd & Jens V. Villumsen.* 431, 477, 184-E1 (1994)

Second-Order Power Spectrum and Nonlinear Evolution at High Redshift. *Bhuvnesh Jain & Edmund Bertschinger.* 431, 495, 184-F9 (1994)

Large-Scale Structure after *COBE*: Peculiar Velocities and Correlations of Cold Dark Matter Halos. *Wojciech H. Zurek, Peter J. Quinn, John K. Salmon, & Michael S. Warren.* 431, 559, 185-E1 (1994)

Kinematic Misalignments in Remnants of Multiple Mergers. *Melinda L. Weil & Lars Hernquist.* 431, L79, 191-D3 (1994)

Origin of Cluster-Cluster Correlation Functions in Biased Structure Formation Scenarios. *Takuya Watanabe, Takahiko Matsubara, & Yasushi Suto.* 432, 17, 193-D7 (1994)

Collapse of Primordial Gas Clouds and the Formation of Quasar Black Holes. *Abraham Loeb & Frederic A. Rasio.* 432, 52, 193-G8 (1994)

Semiempirical Seeded Isocurvature Cosmogonies. *P. J. E. Peebles.* 432, L1, 199-B1 (1994)

Cold Dark Matter Cosmogony in an Open Universe. *Bharat Ratra & P. J. E. Peebles.* 432, L5, 199-B7 (1994)

On the Thermochemical Stability of the Pregalactic Gas. I. The Equilibrium States. *Patricia Rosenzweig, Antonio Parravano, Miguel H. Ibáñez S., & Yu. I. Izotov.* 432, 485, 202-A7 (1994)

Detection of Cosmic Microwave Background Anisotropy at 1.8: Theoretical Implications on Inflationary Models. *Paolo de Bernardis, Giancarlo de Gasperis, Silvia Masi, & Nicola Vittorio.* 433, L1, 214-D1 (1994)

CO Emission from the $z = 3.137$ Damped Lyα System toward PC 1643+4631A. *David T. Frayer, Robert L. Brown, & P. A. Vanden Bout.* 433, L5, 214-D9 (1994)

Cosmic Background Radiation Anisotropy in an Open Inflation, Cold Dark Matter Cosmogony. *Marc Kamionkowski, Bharat Ratra, David N. Spergel, & Naoshi Sugiyama.* 434, L1, 232-B1 (1994)

Do Galactic Systems Form too Late in Cold + Hot Dark Matter Models? *Chung-Pei Ma & Edmund Bertschinger.* 434, L5, 232-B7 (1994)

The Cosmological Mass Distribution from Cayley Trees with Disorder. *A. Cavaliere & N. Menci.* 435, 528, 253-D3 (1994)

A Survey of Faint Galaxy Pairs. *R. G. Carlberg, C. J. Pritchet, & L. Infante.* 435, 540, 253-E9 (1994)

Metal Abundances and Kinematics of a High-Redshift Galaxy Obtained with the Keck Telescope. *Arthur M. Wolfe, Xiao-Ming Fan, David Tytler, Steven S. Vogt, Michael J. Keane, & Kenneth M. Lanzetta.* 435, L101, 259-E9 (1994)

The Richness of the Globular Cluster System of NGC 3923: Clues to Elliptical Galaxy Formation. *Stephen E. Zepf, Doug Geisler, & Keith M. Ashman.* 435, L117, 259-G10 (1994)

Hierarchical Numerical Cosmology with Hydrodynamics: Methods and Code Tests. *Peter Anninos, Michael L. Norman, & David A. Clarke.* 436, 11, 261-D3 (1994)

Discovery and Implications of Very Low Metal Abundances in NGC 1404 and NGC 4374. *M. Loewenstein, R. F. Mushotzky, T. Tamura, Y. Ikebe, K. Makishima, K. Matsushita, H. Awaki, & P. J. Serlemitsos.* 436, L75, 269-F1 (1994)

ASCA Observation of NGC 4636: Dark Matter and Metallicity Gradient. *R. F. Mushotzky, M. Loewenstein, H. Awaki, K. Makishima, K. Matsushita, & H. Matsumoto.* 436, L79, 269-F9 (1994)

Effects of Photoionization on Galaxy Formation. *Masashi Chiba & Biman B. Nath.* 436, 618, 274-B1 (1994)

The Nuclear Colors and Morphology of Field Galaxies at Moderate Redshift. *Duncan A. Forbes, Rebecca A. W. Elson, Andrew C. Phillips, Garth D. Illingworth, & David C. Koo.* 437, L17, 291-D1 (1994)

Correlations and Scaling in the QDOT Redshift Survey. *Vicent J. Martínez & Peter Coles.* 437, 550, 293-C13 (1994)

Formation of Galaxies in the Early Universe. *J. C. N. de Araujo & R. Opher.* 437, 556, 293-D8 (1994)

Sizes of Voids as a Test for Dark Matter Models. *Sebastiano Ghigna, Stefano Borgani, Silvio A. Bonometto, Luigi Guzzo, Anatoly Klypin, Joel R. Primack, Riccardo Giovanelli, & Martha P. Haynes.* 437, L71, 298-E1 (1994)

Possible Detection of a CO Emission Line from a Quasar at $z = 2.88$. *Toru Yamada, Kentaro Aoki, Akihiko Tomita, Tadafumi Takata, Kouji Ohta, & Michitoshi Yoshida.* 438, L5, 9-E9 (1995)

A Theory for the Initial Mass Function. *Joseph Silk.* 438, L41, 10-C13 (1995)

Collisions of the First Clouds. *J. C. N. de Araujo & R. Opher.* 439, 11, 21-D1 (1995)

A Bowl-shaped Mode of Galactic Disks. *Linda S. Sparke.* 439, 42, 21-F13 (1995)

Radial Orbit Instability in a Hubble-expanding Universe. *Daniel D. Carpintero & Juan C. Muzzio.* 440, 5, 41-C8 (1995)

A Comparison of Two Algorithms for Simulating Collisionless Systems. *Shunsuke Hozumi & Lars Hernquist.* 440, 60, 42-A10 (1995)

The *IUE* Survey for Damped Lyman-α and Lyman-Limit Absorption Systems: Evolution of the Gaseous Content of the Universe. *Kenneth M. Lanzetta, Arthur M. Wolfe, & David A. Turnshek.* 440, 435, 49-C8 (1995)

High-Resolution Spectra of Distant Compact Narrow Emission Line Galaxies: Progenitors of Spheroidal Galaxies? *David C. Koo, Rafael Guzmán, S. M. Faber, Garth D. Illingworth, Matthew A. Bershady, Richard G. Kron, & Marianne Takamiya.* 440, L49, 57-D3 (1995)

Scale Invariance and Self-Similar Behavior of Dark Matter Halos. *F. Moutarde, J.-M. Alimi, F. R. Bouchet, & R. Pellat.* 441, 10, 59-D1 (1995)

Hubble Space Telescope Imaging of a Radio-quiet Galaxy at Redshift $z = 3.4$. *Mauro Giavalisco, F. Duccio Macchetto, Piero Madau, & William B. Sparks.* 441, L13, 66-D12 (1995)

Hydrodynamic Simulations of Galaxy Formation. I. Dissipation and the Maximum Mass of Galaxies. *Anne A. Thoul & David H. Weinberg.* 442, 480, 86-E5 (1995)

The Settling of Warped Disks in Oblate Dark Halos. *John Dubinski & Konrad Kuijken.* 442, 492, 86-F7 (1995)

The Least-Action Method, Cold Dark Matter, and Ω. *A. M. Dunn & R. Laflamme.* 443, L1, 102-B1 (1995)

A New Criterion for Bar-forming Instability in Rapidly Rotating Gaseous and Stellar Systems. I. Axisymmetric Form. *Dimitris M. Christodoulou, Isaac Shlosman, & Joel E. Tohline.* 443, 551, 105-D8 (1995)

A New Criterion for Bar-forming Instability in Rapidly Rotating Gaseous and Stellar Systems. II. Nonaxisymmetric Form. *Dimitris M. Christodoulou, Isaac Shlosman, & Joel E. Tohline.* 443, 563, 105-E10 (1995)

Constraints on the Formation History of the Elliptical Galaxy NGC 3923 from the Colors of Its Globular Clusters. *Stephen E. Zepf, Keith M. Ashman, & Doug Geisler.* 443, 570, 105-F7 (1995)

Damped Lyman-Alpha Systems versus Cold + Hot Dark Matter. *Anatoly Klypin, Stefano Borgani, Jon Holtzman, & Joel Primack.* 444, 1, 113-C1 (1995)

A Search for "Failed Clusters" of Galaxies. *W. H. Tucker, H. Tananbaum, & R. A. Remillard.* 444, 532, 123-F11 (1995)

COBE DMR–normalized Open Inflation, Cold Dark Matter Cosmology. *Krzysztof M. Górski, Bharat Ratra, Naoshi Sugiyama, & Anthony J. Banday.* 444, L65, 130-B8 (1995)

Spectroscopy of Candidate Young Globular Clusters in NGC 1275. *Stephen E. Zepf, Dave Carter, Ray M. Sharples, & Keith M. Ashman.* 445, L19, 140-D6 (1995)

New Age Indicators for Old Stellar Populations. *Lewis A. Jones & Guy Worthey.* 446, L31, 160-E13 (1995)

Phase-Transition Theory of Instabilities. I. Second-Harmonic Instability and Bifurcation Points. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 472, 162-E12 (1995)

Phase-Transition Theory of Instabilities. III. The Third-Harmonic Bifurcation on the Jacobi Sequence and the Fission Problem. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 500, 163-A8 (1995)

Phase-Transition Theory of Instabilities. IV. Critical Points on the Maclaurin Sequence and Nonlinear Fission Processes. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 510, 163-B7 (1995)

The Mass Distribution in a Collapsing Merging Spherical Cluster of Objects. *Nir J. Shaviv & Giora Shaviv.* 448, 514, 201-G3 (1995)

A Near-Infrared Search for Line Emission from Protogalaxies Using the W. M. Keck Telescope. *Michael A. Pahre & S. G. Djorgovski.* 449, L1, 216-A1 (1995)

A Method for Weak Lensing Observations. *Nick Kaiser, Gordon Squires, & Tom Broadhurst.* 449, 460, 219-B10 (1995)

Nonlinear Hydrodynamics of Cosmological Sheets. II. Fragmentation and the Gravitational, Cooling, and Thin-Shell Instabilities. *Wenbo Y. Anninos, Michael L. Norman, & Peter Anninos.* 450, 1, 228-B1 (1995)

Supernovae, Globular Clusters, and Galaxy Mergers. *Sidney van den Bergh.* 450, 27, 228-D9 (1995)

The Onset of the Cold H I Phase in Disks of Protogalaxies. *Edvige Corbelli & Edwin E. Salpeter.* 450, 32, 228-E3 (1995)

The Confluent System Formalism. I. The Mass Function of Objects in the Peak Model. *Alberto Manrique & Eduard Salvador-Solé.* 453, 6, 281-C9 (1995)

Diagrammatic Methods in Statistics and Biasing in the Large-Scale Structure of the Universe. *Takahiko Matsubara.* 101, 1, 53-B1 (1995)

The Large Bright QSO Survey for Damped Lyα Absorption Systems. *Arthur M. Wolfe, Kenneth M. Lanzetta, Craig B. Foltz, & Frederic H. Chaffee.* 454, 698, 311-C9 (1995)

GALAXIES: FUNDAMENTAL PARAMETERS

Elliptical Galaxies with Dark Matter. I. Self-consistent Models. *G. Bertin, R. P. Saglia, & M. Stiavelli.* 384, 423, 7-D9 (1992)

Elliptical Galaxies with Dark Matter. II. Optimal Luminous–Dark Matter Decomposition for a Sample of Bright Objects. *R. P. Saglia, G. Bertin, & M. Stiavelli.* 384, 433, 7-E7 (1992)

Large-Scale Morphological Segregation in the Center for Astrophysics Redshift Survey. *Basílio X. Santiago & Michael A. Strauss.* 387, 9, 37-B7 (1992)

Luminosity Functions, Relativistic Beaming, and Unified Theories of High-Luminosity Radio Sources. *P. Padovani & C. M. Urry.* 387, 449, 44-C9 (1992)

Interstellar Matter in Early-Type Galaxies. II. The Relationship between Gaseous Components and Galaxy Types. *Joel N. Bregman, David E. Hogg, & Morton S. Roberts.* 387, 484, 44-F9 (1992)

The Formation of Giant Low Surface Brightness Galaxies. *Yehuda Hoffman, Joseph Silk, & Rosemary F. G. Wyse.* 388, L13, 52-B6 (1992)

Far-Infrared Luminosity Functions of Normal Galaxies. *Takashi Isobe & Eric D. Feigelson.* 79, 197, 16-F3 (1992)

The Stromlo–APM Redshift Survey. I. The Luminosity Function and Space Density of Galaxies. *J. Loveday, B. A. Peterson, G. Efstathiou, & S. J. Maddox.* 390, 338, 79-D5 (1992)

Ultraluminous *IRAS* Galaxies: Formation of Elliptical Galaxies by Merger-induced Dissipative Collapse. *John Kormendy & David B. Sanders.* 390, L53, 84-E1 (1992)

Biasing and Distribution Functions for Different Galaxy Types in Optical and *IRAS* Catalogs. *Ofer Lahav & William C. Saslaw.* 396, 430, 162-G1 (1992)

The Intrinsic Shapes of Elliptical Galaxies. *Barbara S. Ryden.* 396, 445, 163-A5 (1992)

The Compactness of Far-Infrared Bright Galaxies. *Zhong Wang & George Helou.* 398, L33, 187-E7 (1992)

Mean Galaxy Luminosity Classifications. *S. C. Odewahn & G. de Vaucouleurs.* 83, 65, 57-G1 (1992)

The Spatial Correlation Properties of Galaxy Halos in a Cold Dark Matter Universe. *T. G. Brainerd & J. V. Villumsen.* 400, 398, 215-C5 (1992)

The Hubble Flow from Brightest Cluster Galaxies. *Tod R. Lauer & Marc Postman.* 400, L47, 220-B8 (1992)

On the Uncertainties in the Properties of Quasar Host Galaxies. *R. G. Abraham, C. S. Crawford, & I. M. McHardy.* 401, 474, 228-E9 (1992)

$H_0 = 43 \pm 11$ km s^{-1} Mpc^{-1} Based on Angular Diameters of High-Luminosity Field Spiral Galaxies. *Allan Sandage.* 402, 3, 1-B5 (1993)

Tidally Triggered Galaxy Formation. II. Galaxy Number Counts. *Cedric Lacey, Bruno Guiderdoni, Brigitte Rocca-Volmerange, & Joseph Silk.* 402, 15, 1-C6 (1993)

The Influence of Core Radius on Gravitational Lensing by Elliptical Lenses. *Sylvanie Wallington & Ramesh Narayan.* 403, 517, 22-A9 (1993)

Direct Construction of the Galaxy Luminosity Function as a Function of Redshift. *Stephen Eales.* 404, 51, 28-F1 (1993)

H_0 Found by Comparing Linear Diameters of M31 with Similar Field Galaxies. *Allan Sandage.* 404, 419, 34-B6 (1993)

Satellites of Spiral Galaxies. *Dennis Zaritsky, Rodney Smith, Carlos Frenk, & Simon D. M. White.* 405, 464, 48-G7 (1993)

Orientation of Galaxies in Galaxy Triplets. *Piotr Flin.* 406, 395, 62-E8 (1993)

The Im/dE,N Mixed Morphology Dwarf ESO 359-G29 as a Probe of a Massive Halo in NGC 1532. *Allan Sandage & Edward Fomalont.* 407, 14, 69-C1 (1993)

What Determines the Morphological Fractions in Clusters of Galaxies? *Bradley C. Whitmore, Diane M. Gilmore, & Christine Jones.* 407, 489, 76-F8 (1993)

Surface Photometry of the Hydra I Cluster of Galaxies. I. Photometric Data. *Masaru Hamabe.* 85, 249, 10-D5 (1993)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. IV. Intensity Variations of the Optical Emission Lines of NGC 5548. *M. Dietrich, W. Kollatschny, B. M. Peterson, J. Bechtold, R. Bertram, N. G. Bochkarev, T. A Boroson, T. E. Carone, M. Elvis, A. V. Filippenko, C. M. Gaskell, J. P. Huchra, J. B. Hutchings, A. P. Koratkar, K. T. Korista, N. J. Lame, A. Laor, G. M. MacAlpine, M. A. Malkan, C. Mendes de Oliveira, H. Netzer, J. Penfold, M. V. Penston, E. Pérez, R. W. Pogge, M. W. Richmond, E. I. Rosenblatt, A. I. Shapovalova, J. C. Shields, H. A. Smith, P. S. Smith, W.-H. Sun, U. Thiele, S. Veilleux, R. M. Wagner, B. J. Wilkes, B. J. Wills, & D. Wills.* 408, 416, 90-D1 (1993)

The Dependence of the Brightness Fluctuation Distance Indicator on Stellar Population Age and Metallicity. *Guy Worthey.* 409, 530, 105-E3 (1993)

Sources of Scatter in the Fundamental Plane and the D_n-σ Relation. *Inger Jørgensen, Marijn Franx, & Per Kjærgaard.* 411, 34, 127-E1 (1993)

The Radial Velocities of Planetary Nebulae in NGC 3379. *Robin Ciardullo, George H. Jacoby, & Herwig B. Dejonghe.* 414, 454, 176-G3 (1993)

Dark Matter Halos in Elliptical Galaxies. *Francesco Bertola, Alessandro Pizzella, Massimo Persic, & Paolo Salucci.* 416, L45, 216-B1 (1993)

Transverse Dissections of the Fundamental Planes of Elliptical Galaxies and Clusters of Galaxies. *Alvio Renzini & Luca Ciotti.* 416, L49, 216-B6 (1993)

Scaling Analysis of the Distribution of Galaxies in the CfA Catalog. *R. Domínguez-Tenreiro, M. A. Gómez-Flechoso, & V. J. Martínez.* 424, 42, 62-E4 (1994)

Simulations of Deep Galaxy Fields. I. Monte Carlo Simulations of Optical and Near-Infrared Counts. *Arati Chokshi, Carol J. Lonsdale, Paola Mazzei, & Gianfranco De Zotti.* 424, 578, 71-G9 (1994)

Uncovering the Intrinsic Shapes of Elliptical Galaxies. I. Theoretical Velocity Field Models. *Thomas S. Statler.* 425, 458, 87-D7 (1994)

Uncovering the Intrinsic Shapes of Elliptical Galaxies. II. Approximate Kinematic Shape Indicators. *Thomas S. Statler & Anne M. Fry.* 425, 481, 87-F7 (1994)

Uncovering the Intrinsic Shapes of Elliptical Galaxies. III. Practical Modeling. *Thomas S. Statler.* 425, 500, 88-A1 (1994)

Infrared Surface Photometry of 3C 65: Stellar Evolution and the Tolman Signal. *M. A. Rigler & S. J. Lilly.* 427, L79, 126-G5 (1994)

The Far-Infrared Properties of the CfA Galaxy Sample. II. Gas, Dust, and Star Formation along the Hubble Sequence. *Marc Sauvage & Trinh X. Thuan.* 429, 153, 146-A9 (1994)

Modified Dynamics Predictions Agree with Observations of the H I Kinematics in Faint Dwarf Galaxies Contrary to the Conclusions of Lo, Sargent, and Young. *Mordehai Milgrom.* 429, 540, 152-D5 (1994)

The Morphologies of Distant Galaxies. I. An Automated Classification System. *Roberto G. Abraham, Francisco Valdes, H. K. C. Yee, & Sidney van den Bergh.* 432, 75, 194-B7 (1994)

The Nature of E and S0 Galaxies: A Study of a Magnitude-limited Sample of Galaxies in the Coma Cluster. *Inger Jørgensen & Marijn Franx.* 433, 553, 217-G7 (1994)

Mass Concentrations Associated with Extended X-Ray Sources in the Core of the Coma Cluster. *A. Vikhlinin, W. Forman, & C. Jones.* 435, 162, 245-E3 (1994)

The Dynamics of Luminous Galaxies in Isothermal Halos. *Christopher S. Kochanek.* 436, 56, 262-A8 (1994)

Scaling Analysis of the Galaxy Distribution in the SSRS Catalog. *A. Campos, R. Domínguez-Tenreiro, & G. Yepes.* 436, 565, 273-C10 (1994)

Lensing from the Light-Traces-Mass Map of MS 1224+20. *R. G. Carlberg, H. K. C. Yee, & E. Ellingson.* 437, 63, 284-A9 (1994)

The *Hubble Space Telescope* Medium Deep Survey with the Wide Field and Planetary Camera. I. Methodology and Results on the Field near 3C 273.

R. E. Griffiths, K. U. Ratnatunga, L. W. Neuschaefer, S. Casertano, M. Im, E. W. Wyckoff, R. S. Ellis, G. F. Gilmore, R. A. W. Elson, K. Glazebrook, D. J. Schade, R. A. Windhorst, P. C. Schmidtke, J. M. Gordon, S. M. Pascarelle, G. D. Illingworth, D. C. Koo, M. A. Bershady, D. A. Forbes, A. C. Phillips, R. F. Green, V. Sarajedini, J. P. Huchra, & A. J. Tyson. 437, 67, 284-B3 (1994)

Formation of Galaxies in the Early Universe. *J. C. N. de Araujo & R. Opher.* 437, 556, 293-D8 (1994)

Position Angles and Alignments of Clusters of Galaxies. *Manolis Plionis.* 95, 401, 69-G1 (1994)

The Mass-to-Light Ratios of Low Surface Brightness Spiral Galaxies: Clues from the Tully-Fisher Relation. *D. Sprayberry, G. M. Bernstein, C. D. Impey, & G. D. Bothun.* 438, 72, 2-C10 (1995)

Colors, Luminosities, and Masses of Disk Galaxies. II. Environmental Dependencies. *Giuseppe Gavazzi, Isabella Randone, & Enzo Branchini.* 438, 590, 12-C10 (1995)

The Relation between Dynamical Perturbations, Morphology, and Nuclear Activity in Spiral Galaxies. *Mariano Moles, Isabel Márquez, & Enrique Pérez.* 438, 604, 12-D13 (1995)

Synthetic Properties of Starburst Galaxies. *Claus Leitherer & Timothy M. Heckman.* 96, 9, 1-B12 (1995)

The Catalog of Southern Ringed Galaxies. *R. Buta.* 96, 39, 1-E4 (1995)

Morphology Classification of Galaxies in CL 0939+4713 Using a Ground-based Telescope Image. *M. Fukugita, M. Doi, A. Dressler, & J. E. Gunn.* 439, 584, 32-D3 (1995)

High-Resolution Spectra of Distant Compact Narrow Emission Line Galaxies: Progenitors of Spheroidal Galaxies? *David C. Koo, Rafael Guzmán, S. M. Faber, Garth D. Illingworth, Matthew A. Bershady, Richard G. Kron, & Marianne Takamiya.* 440, L49, 57-D3 (1995)

Hubble Space Telescope Imaging of a Radio-quiet Galaxy at Redshift $z = 3.4$. *Mauro Giavalisco, F. Duccio Macchetto, Piero Madau, & William B. Sparks.* 441, L13, 66-D12 (1995)

Automated Surface Photometry for the Coma Cluster Galaxies: The Catalog. *M. Doi, M. Fukugita, S. Okamura, & K. Tarusawa.* 97, 77, 12-A1 (1995)

Ionized Gas in the Halos of Edge-on, Starburst Galaxies: Data and Results. *Matthew D. Lehnert & Timothy M. Heckman.* 97, 89, 12-B3 (1995)

The Stromlo-APM Redshift Survey. II. Variation of Galaxy Clustering with Morphology and Luminosity. *J. Loveday, S. J. Maddox, G. Efstathiou, & B. A. Peterson.* 442, 457, 86-C1 (1995)

The Luminosity Structure and Objective Classification of Galaxies. *Mingsheng Han.* 442, 504, 86-G12 (1995)

Planetary Nebulae as Probes of Dark Matter in NGC 3384. *Benoit Tremblay, David Merritt, & T. B. Williams.* 443, L5, 102-B8 (1995)

Structure and Photometry of an $I < 20.5$ Galaxy Sample from the *Hubble Space Telescope* Medium Deep Survey. *Andrew C. Phillips, Matthew A. Bershady, Duncan A. Forbes, David C. Koo, Garth D. Illingworth, David B. Reitzel, Richard E. Griffiths, & Rogier A. Windhorst.* 444, 21, 113-E2 (1995)

The Orientation of Spin Vectors of Galaxies in the Ursa Major Filament. *Cheongho Han, Andrew Gould, & Penny D. Sackett.* 445, 46, 133-A8 (1995)

Small Deviations from the $R^{1/4}$ Law, the Fundamental Plane, and Phase Densities of Elliptical Galaxies. *Jens Hjorth & Jes Madsen.* 445, 55, 133-B6 (1995)

The Case Low-Dispersion Northern Sky Survey. XV. A Region in Ursa Major and Canes Venatici. *Peter Pesch, C. B. Stephenson, & D. Jack MacConnell.* 98, 41, 21-E5 (1995)

Cosmological Implications of *ROSAT* Observations of Groups and Clusters of Galaxies. *Laurence P. David, Christine Jones, & William Forman.* 445, 578, 143-A8 (1995)

Where is the Dark Matter? *Neta A. Bahcall, Lori M. Lubin, & Victoria Dorman.* 447, L81, 190-D8 (1995)

On the FR I/FR II Dichotomy in Powerful Radio Sources: Analysis of Their Emission-Line and Radio Luminosities. *Esther L. Zirbel & Stefi A. Baum.* 448, 548, 202-A1 (1995)

The CfA Redshift Survey: Data for the NGP +36 Zone. *John P. Huchra, Margaret J. Geller, & Harold G. Corwin, Jr.* 99, 391, 40-D10 (1995)

An H I/Optical Atlas of H II Galaxies and Their Companions. *Christopher L. Taylor, Elias Brinks, Randy M. Grashuis, & Evan D. Skillman.* 99, 427, 41-A2 (1995)

Canada-France Redshift Survey: *Hubble Space Telescope* Imaging of High-Redshift Field Galaxies. *David Schade, S. J. Lilly, David Crampton, F. Hammer, O. Le Fèvre, & L. Tresse.* 451, L1, 252-A9 (1995)

The Contribution of Late-Type/Irregulars to the Faint Galaxy Counts from *Hubble Space Telescope* Medium-Deep Survey Images. *Simon P. Driver, Rogier A. Windhorst, & Richard E. Griffiths.* 453, 48, 281-G10 (1995)

The Near-Infrared Fundamental Plane of Elliptical Galaxies. *Michael A. Pahre, S. G. Djorgovski, & R. R. de Carvalho.* 453, L17, 289-D8 (1995)

Mergers, Accretions, and the Globular Cluster Mean Metallicity-Number per Unit Mass Relation. *Jean-Marc Perelmuter.* 454, 762, 312-C1 (1995)

The Current Star Formation Rate of the Local Universe. *J. Gallego, J. Zamorano, A. Aragón-Salamanca, & M. Rego.* 455, L1, 324-C1 (1995)

GALAXIES: GENERAL

Statistical-Mechanical Selection of the Shapes of Disk Galaxies. *David Montgomery & Y. C. Lee.* 368, 380, 29-G1 (1991)

First Results from the Faint Object Camera: Images of the Gravitational Lens System G2237+0305. *P. Crane, R. Albrecht, C. Barbieri, J. C. Blades, A. Bokensenberg, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 369, L59, 46-A7 (1991)

What *COBE* Might See: The Far-Infrared Cosmological Background. *C. A. Beichman & G. Helou.* 370, L1, 53-B1 (1991)

Voids in a Neutrino-dominated Universe. *Ning Zeng & Simon D. M. White.* 374, 1, 98-B1 (1991)

High Angular Resolution Broad-Band Imaging in the Mid-Infrared: The Infrared-bright Galaxy NGC 34. *Eric Keto, Garrett Jernigan, Roger Ball, John Arens, & Margaret Meixner.* 374, L29, 110-B1 (1991)

The Case Low-Dispersion Northern Sky Survey. XII. A Region in Southern Canes Venatici. *Peter Pesch, N. Sanduleak, & C. B. Stephenson.* 76, 1043, 40-B1 (1991)

Surface Photometry of a Sample of Elliptical and S0 Galaxies. *R. R. de Carvalho, S. Djorgovski, & L. N. da Costa.* 76, 1067, 40-E1 (1991)

Type II-L Supernovae—Standard Bombs. *C. Martin Gaskell.* 389, L17, 66-C6 (1992)

Systematic Differences between the Field and Cluster Elliptical Galaxies. *R. R. de Carvalho & S. Djorgovski.* 389, L49, 73-B11 (1992)

A Model of the Galactic Dark Halo. *E. R. Wollman.* 392, 80, 102-A8 (1992)

Lyman-Alpha Emission in Star-forming Galaxies: Low-Redshift Counterparts of Primeval Galaxies? *D. Calzetti & A. L. Kinney.* 399, L39, 200-D5 (1992)

Ultraviolet Photometry of OB Associations in M31. *Jesse K. Hill, Joan E. Isensee, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 414, L9, 175-C11 (1993)

The Einsteinian Gravitational Field of the Rigidly Rotating Disk of Dust. *G. Neugebauer & R. Meinel.* 414, L97, 185-G5 (1993)

Deep Imaging of the Field of the $z = 4.9$ Quasar PC 1247+3406, and Faint Galaxy Counts in the K Band with the Keck Telescope. *B. T. Soifer, K. Matthews, S. Djorgovski, J. Larkin, J. R. Graham, W. Harrison, G. Jernigan, S. Lin, J. Nelson, G. Neugebauer, G. Smith, J. D. Smith, & C. Ziomkowski.* 420, L1, 7-A7 (1994)

A Study of M31, M87, NGC 253, and M82 in High-Energy Gamma Rays. *P. Sreekumar, D. L. Bertsch, B. L. Dingus, J. A. Esposito, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. J. Schneid, & D. J. Thompson.* 426, 105, 97-D1 (1994)

Conspicuous Tangential Alignment of Faint Blue and Red Objects in Cluster 0024+1654. *Aggeliki Kassiola, Israel Kovner, Bernard Fort, & Yannick Mellier.* 429, L9, 150-B9 (1994)

Hawaii 167: A Compact Absorption-Line Object at $z = 2.35$. *L. L. Cowie, A. Songaila, E. M. Hu, E. Egami, J.-S. Huang, A. J. Pickles, S. E. Ridgway, R. J. Wainscoat, & R. J. Weymann.* 432, L83, 206-E1 (1994)

The Morphology of Faint Galaxies in Medium Deep Survey Images Using WFPC2. *R. E. Griffiths, S. Casertano, K. U. Ratnatunga, L. W. Neuschaefer, R. S. Ellis, G. F. Gilmore, K. Glazebrook, B. Santiago, J. P. Huchra, R. A. Windhorst, S. M. Pascarelle, R. F. Green, G. D. Illingworth, D. C. Koo, & A. J. Tyson.* 435, L19, 251-E1 (1994)

Stellar Velocity Dispersion in Arp 220 and NGC 6240: Elliptical Galaxies in Formation. *René Doyon, M. Wells, G. S. Wright, R. D. Joseph, D. Nadeau, & P. A. James.* 437, L23, 291-D13 (1994)

Survey of Emission-Line Galaxies: Universidad Complutense de Madrid List 1. *J. Zamorano, M. Rego, J. Gallego, A. G. Vitores, R. González-Riestra, & G. Rodríguez-Caderot.* 95, 387, 69-E10 (1994)

Morphology of Galaxy Mergers at Intermediate Redshift. *J. Christopher Mihos.* 438, L75, 19-E8 (1995)

K-Band Galaxy Counts. *B. A. McLeod, G. M. Bernstein, M. J. Rieke, E. V. Tollestrup, & G. G. Fazio.* 96, 117, 3-B13 (1995)

A Multiparametric Analysis of the *Einstein* Sample of Early-Type Galaxies. I. Luminosity and ISM Parameters. *Paul B. Eskridge, Giuseppina Fabbiano, & Dong-Woo Kim.* 97, 141, 12-G6 (1995)

Interpretation of the Faint Galaxy Number Counts in the *K* Band. *Yuzuru Yoshii & Bruce A. Peterson.* 444, 15, 113-D5 (1995)

Empirical Constraints on Source Properties and Host Galaxies of Cosmological Gamma-Ray Bursts. *Eric Woods & Abraham Loeb.* 453, 583, 292-A1 (1995)

Structural Parameters of Faint Galaxies from Prerefurbishment *Hubble Space Telescope* Medium Deep Survey Observations. *S. Casertano, K. U. Ratnatunga, R. E. Griffiths, M. Im, L. W. Neuschaefer, E. J. Ostrander, & R. A. Windhorst.* 453, 599, 292-B9 (1995)

GALAXIES: HALOS

Cooling Gas Outflows from Galaxies. *Boqi Wang.* 444, 590, 124-E3 (1995)

An X-Ray and Optical Study of the Dwarf Galaxy NGC 1569: Evidence for a Starburst-driven Outflow. *Timothy M. Heckman, Michael Dahlem, Matthew D. Lehnert, Giuseppina Fabbiano, Diane Gilmore, & William H. Waller.* 448, 98, 193-E1 (1995)

A Photometric and Spectroscopic Survey for Young Stars in the Halo of M31. *N. C. Hambly, A. Fitzsimmons, F. P. Keenan, P. L. Dufton, P. J. F. Brown, M. J. Irwin, & W. R. J. Rolleston.* 448, 628, 203-D9 (1995)

Interstellar Mg II Absorption Lines from Low-Redshift Galaxies. *David V. Bowen, J. Chris Blades, & Max Pettini.* 448, 634, 203-E5 (1995)

Theory of Exploring the Dark Halo with Microlensing. I. Power-Law Models. *C. Alcock, R. A. Allsman, T. S. Axelrod, D. P. Bennett, K. H. Cook, N. W. Evans, K. C. Freeman, K. Griest, J. Jijina, M. Lehner, S. L. Marshall, S. Perlmutter, B. A. Peterson, M. R. Pratt, P. J. Quinn, A. W. Rodgers, C. W. Stubbs, & W. Sutherland (The MACHO Collaboration).* 449, 28, 210-E10 (1995)

A Search for Far-Ultraviolet Emission Lines from Diffuse Hot Gas in the Halo of NGC 4631. *Henry C. Ferguson, W. Van Dyke Dixon, Arthur F. Davidsen, & Ralf-Juergen Dettmar.* 454, L23, 307-E13 (1995)

Production of Milky Way Structure by the Magellanic Clouds. *Martin D. Weinberg.* 455, L31, 324-F9 (1995)

GALAXIES: INDIVIDUAL

Messier Number: M31

Extragalactic Globular Clusters. II. The M31 Globular Cluster System. *John P. Huchra, Jean P. Brodie, & Stephen M. Kent.* 370, 495, 54-E5 (1991)

The Distribution and Kinematics of Neutral Gas in M31. *Robert Braun.* 372, 54, 74-F6 (1991)

Massive Black Holes in the Nuclei of Spiral Galaxies: M31 and the Problem of the Initial Conditions. *M. Bradley, A. Curir, & F. de Felice.* 381, 72, 189-G11 (1991)

The Discrete X-Ray Source Population in M31. *G. Trinchieri & G. Fabbiano.* 382, 82, 201-B6 (1991)

Physical Properties of Neutral Gas in M31 and the Galaxy. *Robert Braun & René A. M. Walterbos.* 386, 120, 25-E10 (1992)

Rare Thermonuclear Explosions in Short-Period Cataclysmic Variables, with Possible Application to the Nova-like Red Variable in the Galaxy M31. *Icko Iben, Jr., & Alexander V. Tutukov.* 389, 369, 64-E1 (1992)

Detection of an Unresolved Nuclear Radio Source in M31. *Patrick C. Crane, John R. Dickel, & John J. Cowan.* 390, L9, 78-B7 (1992)

Ultraviolet Imaging Telescope Photometry of Massive Stars: The OB Association NGC 206 in M31. *Jesse K. Hill, Barbara B. Pfarr, Ralph C. Bohlin, Joan E. Isensee, Robert W. O'Connell, Susan G. Neff, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L33, 145-B1 (1992)

Ultraviolet Imaging of Old Populations in Nearby Galaxies. *Robert W. O'Connell, Ralph C. Bohlin, Nicholas R. Collins, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Wayne B. Landsman, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L45, 145-D1 (1992)

The Spectroscopic and Photometric Evolution of Novae in the Bulge of M31. *Austin B. Tomaney & Allen W. Shafter.* 81, 683, 45-C11 (1992)

Preliminary Analysis of an Ultraviolet *Hubble Space Telescope* Faint Object Camera Image of the Center of M31. *I. R. King, J. M. Deharveng, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, M. J. Disney, P. Jakobsen, T. M. Kamperman, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, & S. A. Stanford.* 397, L35, 173-E5 (1992)

The Nucleus of M31. *Fulvio Melia.* 398, L95, 194-C8 (1992)

M31: A Unique Laboratory for Gravitational Microlensing. *Arlin P. S. Crotts.* 399, L43, 200-D11 (1992)

Hubble Space Telescope Spectroscopy of OB Stars in M31. *J. B. Hutchings, L. Bianchi, H. J. G. L. M. Lamers, P. Massey, & S. C. Morris.* 400, L35, 214-E1 (1992)

X-Ray Flashes from M31 Based on Extended Halo Models of Gamma-Ray Bursts. *Hui Li & Edison P. Liang.* 400, L59, 220-D3 (1992)

H_0 Found by Comparing Linear Diameters of M31 with Similar Field Galaxies. *Allan Sandage.* 404, 419, 34-B6 (1993)

An H I Absorption Survey of M31 and M33: The Mixture of Warm and Cool Phases in the Interstellar Media of Spiral Galaxies. *John M. Dickey & Elias Brinks.* 405, 153, 43-A1 (1993)

Interferometric Observations of Three Giant Molecular Clouds in M31. *Christine D. Wilson & Alexander L. Rudolph.* 406, 477, 63-F6 (1993)

The Hot Stellar Component in Elliptical Galaxies and Spiral Bulges. I. The Far-Ultraviolet Spectrum of the Bulge of M31. *Henry C. Ferguson & Arthur F. Davidsen.* 408, 92, 84-C4 (1993)

Imaging of Fields in the Inner Halo and Outer Disk of M31. *T. J. Davidge.* 409, 190, 99-C8 (1993)

The First Detection of a Collapsed Core Globular Cluster in M31. *O. Bendinelli, C. Cacciari, S. Djorgovski, L. Federici, F. R. Ferraro, F. Fusi Pecci, G. Parmeggiani, N. Weir, & F. Zavatti.* 409, L17, 104-C7 (1993)

Detection of CO Emission from Massive Molecular Clouds in the Inner Disk of M31. *Ronald J. Allen & J. Lequeux.* 410, L15, 117-G7 (1993)

High-Resolution X-Ray Observations of the Central Region of M31 with the *ROSAT* Satellite. *F. A. Primini, W. Forman, & C. Jones.* 410, 615, 121-C12 (1993)

The Physical Properties of a Slow Nova in the Bulge of M31. *Austin B. Tomaney & Allen W. Shafter.* 411, 640, 137-F3 (1993)

A Search for Young Stars in the Halo of M31. *R. J. H. McCausland, E. S. Conlon, P. L. Dufton, A. Fitzsimmons, M. J. Irwin, & F. P. Keenan.* 411, 650, 137-G1 (1993)

Ultraviolet Photometry of OB Associations in M31. *Jesse K. Hill, Joan E. Isensee, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 414, L9, 175-C11 (1993)

On the Specific Frequencies of Globular Clusters in the Galaxy and in Messier 31. *G. de Vaucouleurs.* 415, 40, 185-E3 (1993)

The Evolution of the Globular Cluster System in a Triaxial Galaxy: Can a Galactic Nucleus Form by Globular Cluster Capture? *Roberto Capuzzo-Dolcetta.* 415, 616, 195-D13 (1993)

Ultraviolet Imaging Telescope: Globular Clusters in M31. *Ralph C. Bohlin, Eric W. Deutsch, Kerry A. McQuade, Jesse K. Hill, Wayne B. Landsman, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 417, 127, 218-G11 (1993)

Variability of the Nuclear Radio Source in M31. *Patrick C. Crane, John J. Cowan, John R. Dickel, & Douglas A. Roberts.* 417, L61, 230-B8 (1993)

CO Emission from Molecular Clouds in the Central Region of M31. *Yoshiaki Sofue & Shigeomi Yoshida.* 417, L63, 230-B12 (1993)

A Complete CO Survey of M31. I. Distribution and Kinematics. *T. M. Dame, E. Koper, F. P. Israel, & P. Thaddeus.* 418, 730, 241-E8 (1993)

Ram-Pressure Stripping of Gas from Companions and Accretion onto a Spiral Galaxy: A Gaseous Merger. *Yoshiaki Sofue.* 423, 207, 48-F3 (1994)

IRAS Colors within M31: Evidence for Deficiency of Very Small Grains? *Cong Xu & George Helou.* 426, 109, 97-D7 (1994)

Bar-induced Velocities in the Bulge of M31. *Antony A. Stark & James Binney.* 426, L31, 103-D9 (1994)

The Metallicity Dependence of Inferred Cepheid Distances. *Andrew Gould.* 426, 542, 105-B7 (1994)

Diffuse Ionized Gas in the Spiral Galaxy M31. *René A. M. Walterbos & Robert Braun.* 431, 156, 178-B3 (1994)

A Comparison of the Intrinsic Shapes of Globular Clusters in Four Different Galaxies. *Cheongho Han & Barbara S. Ryden.* 433, 80, 209-C4 (1994)

Microlensing by Stars in the Disk of M31. *Andrew Gould.* 435, 573, 254-A9 (1994)

Galactic Magnetism and the Rotation Curves of M31 and the Milky Way. *J. P. Vallée.* 437, 179, 285-F1 (1994)

Hubble Space Telescope Far-Ultraviolet Imaging of M31, M32, and NGC 205. *F. Bertola, A. Bressan, D. Burstein, L. M. Buson, C. Chiosi, & S. di Serego Alighieri.* 438, 680, 13-E4 (1995)

Stellar Photometry in the Inner Bulge of M31 Using the *Hubble Space Telescope* Wide Field Camera. *R. M. Rich & K. J. Mighell.* 439, 145, 23-B12 (1995)

Physical Properties of Molecular Clouds in the Inner Disk of M31. *R. J. Allen, J. Le Bourlot, J. Lequeux, G. Pineau des Forêts, & E. Roueff.* 444, 157, 115-E1 (1995)

Ultraviolet and Optical Observations of OB Associations in M31. *Jesse K. Hill, Joan E. Isensee, Ralph C. Bohlin, K. P. Cheng, P. M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 98, 595, 31-F10 (1995)

A Photometric and Spectroscopic Survey for Young Stars in the Halo of M31. *N. C. Hambly, A. Fitzsimmons, F. P. Keenan, P. L. Dufton, P. J. F. Brown, M. J. Irwin, & W. R. J. Rolleston.* 448, 628, 203-D9 (1995)

The Metallicity Dependence of the CO-to-H_2 Conversion Factor from Observations of Local Group Galaxies. *Christine D. Wilson.* 448, L97, 209-C1 (1995)

The Massive Star Populations in Ionized Gas Shells in M33 and M31. *Deidre A. Hunter, Danielle M. Boyd, & Walter N. Hawley.* 99, 551, 42-F9 (1995)

Messier Number: M32

Asymptotic Giant Branch Stars in the Central Regions of M32. *T. J. Davidge & J.-L. Nieto.* 391, L13, 92-A1 (1992)

Ultraviolet Imaging of Old Populations in Nearby Galaxies. *Robert W. O'Connell, Ralph C. Bohlin, Nicholas R. Collins, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Wayne B. Landsman, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L45, 145-D1 (1992)

The Hot Stellar Component in Elliptical Galaxies and Spiral Bulges. I. The Far-Ultraviolet Spectrum of the Bulge of M31. *Henry C. Ferguson & Arthur F. Davidsen.* 408, 92, 84-C4 (1993)

Ram-Pressure Stripping of Gas from Companions and Accretion onto a Spiral Galaxy: A Gaseous Merger. *Yoshiaki Sofue.* 423, 207, 48-F3 (1994)

Hubble Space Telescope Far-Ultraviolet Imaging of M31, M32, and NGC 205. *F. Bertola, A. Bressan, D. Burstein, L. M. Buson, C. Chiosi, & S. di Serego Alighieri.* 438, 680, 13-E4 (1995)

Messier Number: M33

OB Star Formation and H I Production in Molecular Clouds in M33. *Christine D. Wilson & Nick Scoville.* 370, 184, 49-D11 (1991)

New Cepheid Distances to Nearby Galaxies Based on *BVRI* CCD Photometry. II. The Local Group Galaxy M33. *Wendy L. Freedman, Christine D. Wilson, & Barry F. Madore.* 372, 455, 81-D9 (1991)

Galactic Disk Warps. *Konrad Kuijken.* 376, 467, 132-C4 (1991)

A Comparison of the Properties of an Unbiased Sample of OB Associations in the Local Group Galaxies M33 and NGC 6822. *Christine D. Wilson.* 384, L29, 11-B1 (1992)

The Molecular Interstellar Medium in Two Giant H II Regions in M33: NGC 604 and NGC 595. *Christine D. Wilson & Nick Scoville.* 385, 512, 19-E5 (1992)

The Ultraviolet Color Gradient in the Late-Type Spiral Galaxy M33. *Wayne B. Landsman, Morton S. Roberts, Ralph C. Bohlin, Robert W. O'Connell, Andrew M. Smith, & Theodore P. Stecher.* 401, L83, 233-B3 (1992)

An H I Absorption Survey of M31 and M33: The Mixture of Warm and Cool Phases in the Interstellar Media of Spiral Galaxies. *John M. Dickey & Elias Brinks.* 405, 153, 43-A1 (1993)

Microarcsecond Proper Motions of Extragalactic Water Vapor Masers in M33. *L. J. Greenhill, J. M. Moran, M. J. Reid, K. M. Menten, & H. Hirabayashi.* 406, 482, 63-F13 (1993)

Optical Emission-Line Properties of M33 Supernova Remnants. *R. Chris Smith, Robert P. Kirshner, William P. Blair, Knox S. Long, & P. Frank Winkler.* 407, 564, 77-E9 (1993)

A Catalog of Blue and Red Supergiants in M33. *Georgi R. Ivanov, Wendy L. Freedman, & Barry F. Madore.* 89, 85, 50-A9 (1993)

The Discovery of a Supernova Remnant Embedded in a Giant H II Region of M33. *Shawn M. Gordon, Robert P. Kirshner, Nebojsa Duric, & Knox S. Long.* 418, 743, 241-F10 (1993)

Accurate Period Determination of an Eclipsing Binary X-Ray Source in M33. *Eric Schulman, Joel N. Bregman, Alfonso Collura, Fabio Reale, & Giovanni Peres.* 418, L67, 245-C6 (1993)

Constraining the Influence of Star Formation on the Lowest ^{12}CO Line Ratios in M33. *Michele D. Thornley & Christine D. Wilson.* 421, 458, 23-G9 (1994)

O Star Giant Bubbles in M33. *M. S. Oey & Philip Massey.* 425, 635, 89-E1 (1994)

Diffuse Molecular Clouds and the Molecular Interstellar Medium from ^{13}CO Observations of M33. *Christine D. Wilson & Constance E. Walker.* 432, 148, 195-A13 (1994)

The Near-Infrared Structure of M33. *Michael W. Regan & Stuart N. Vogel.* 434, 536, 235-B8 (1994)

Properties of M33 X-8, the Nuclear Source in the Nearby Spiral Galaxy. *M. Takano, K. Mitsuda, Y. Fukazawa, & F. Nagase.* 436, L47, 269-B1 (1994)

The Form of Abundance Gradients in Three Nearby Spiral Galaxies: M33, M81, and M101. *R. B. C. Henry & J. W. Howard.* 438, 170, 3-F1 (1995)

High-Resolution X-Ray Imaging of M33. *Eric Schulman & Joel N. Bregman.* 441, 568, 69-G6 (1995)

On the Supersonic Turbulence of NGC 604. *Nanci S. P. Sabalisck, Guillermo Tenorio-Tagle, Héctor O. Castañeda, & Casiana Muñoz-Tuñón.* 444, 200, 116-B8 (1995)

The Relativistic ISM in M33: Role of the Supernova Remnants. *N. Duric, S. M. Gordon, W. M. Goss, F. Viallefond, & C. Lacey.* 445, 173, 134-G8 (1995)

The Metallicity Dependence of the CO-to-H_2 Conversion Factor from Observations of Local Group Galaxies. *Christine D. Wilson.* 448, L97, 209-C1 (1995)

The Massive Star Populations in Ionized Gas Shells in M33 and M31. *Deidre A. Hunter, Danielle M. Boyd, & Walter N. Hawley.* 99, 551, 42-F9 (1995)

Are Galaxies Optically Thin to Their Own Lyman-Continuum Radiation? I. M33. *Kanan Patel & Christine D. Wilson.* 451, 607, 255-E11 (1995)

The Star Formation Histories and Efficiencies of Two Giant H II Regions in M33. *Christine D. Wilson & Brenda C. Matthews.* 455, 125, 320-A1 (1995)

Messier Number: M51

Star Formation Efficiency Patterns in the Spiral Arms of M51. *Johan H. Knapen, John E. Beckman, Jordi Cepa, Thijs van der Hulst, & Richard J. Rand.* 385, L37, 23-B7 (1992)

Star Formation and the Distribution of H I and Infrared Emission in M51. *Richard J. Rand, Shrinivas R. Kulkarni, & W. Rice.* 390, 66, 74-G9 (1992)

A Completely Sampled Aperture Synthesis Map of the CO Emission in M51. *David S. Adler, K. Y. Lo, Melvyn C. H. Wright, Gustav Rydbeck, Raymond L. Plante, & Ronald J. Allen.* 392, 497, 108-D11 (1992)

A Molecular Spiral Arm Segment of M51 at 3.5 Arcsecond Resolution. *Richard J. Rand.* 404, 593, 36-C14 (1993)

Density Wave Kinematics and Giant Molecular Association Formation in M51. *Richard J. Rand.* 410, 68, 113-A3 (1993)

Tracing the Stellar Mass in M51. *Hans-Walter Rix & Marcia J. Rieke.* 418, 123, 232-E10 (1993)

ROSAT Observations of the Luminous X-Ray Sources in M51. *A. P. Marston, D. Elmegreen, B. Elmegreen, W. Forman, C. Jones, & K. Flanagan.* 438, 663, 13-C9 (1995)

Messier Number: M81

Ultraviolet Imaging Telescope Ultraviolet Images: Large-Scale Structure, H II Regions, and Extinction in M81. *Jesse K. Hill, Ralph C. Bohlin, Kwang-Ping Cheng, Paul M. N. Hintzen, Wayne B. Landsman, Susan G. Neff, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L37, 145-B9 (1992)

Ultraviolet Imaging of Old Populations in Nearby Galaxies. *Robert W. O'Connell, Ralph C. Bohlin, Nicholas R. Collins, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Wayne B. Landsman, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L45, 145-D1 (1992)

Models for the Magnetic Field of M81. *David Moss, Axel Brandenburg, Karl Johan Donner, & Magnus Thomasson.* 409, 179, 99-B10 (1993)

H I Streamers around M82: Tidally Disrupted Outer Gas Disk. *Min S. Yun, Paul T. P. Ho, & K. Y. Lo.* 411, L17, 133-F1 (1993)

Early Observations of SN 1993J in M81 at McDonald Observatory. *J. C. Wheeler, E. Barker, R. Benjamin, J. Boisseau, A. Clocchiatti, G. de Vaucouleurs, N. Gaffney, R. P. Harkness, A. M. Khokhlov, D. F. Lester, B. J. Smith, V. V. Smith, & J. Tomkin.* 417, L71, 230-C9 (1993)

The Broad-Band X-Ray Spectrum of the Nucleus of M81. *R. Petre, R. F. Mushotzky, P. J. Serlemitsos, K. Jahoda, & F. E. Marshall.* 418, 644, 240-E1 (1993)

Radio-Size Estimates of SN 1993J. *J. M. Marcaide, A. Alberdi, P. Elósegui, J. C. Guirado, F. Mantovani, E. Pérez, M. I. Ratner, A. Rius, A. E. E. Rogers, B. P. Schmidt, I. I. Shapiro, & A. R. Whitney.* 424, L25, 69-D6 (1994)

Modal Approach to the Morphology of Spiral Galaxies. III. Application to the Galaxy M81. *S. A. Lowe, W. W. Roberts, J. Yang, G. Bertin, & C. C. Lin.* 427, 184, 112-C11 (1994)

The *Hubble Space Telescope* Extragalactic Distance Scale Key Project. I. The Discovery of Cepheids and a New Distance to M81. *Wendy L. Freedman, Shaun M. Hughes, Barry F. Madore, Jeremy R. Mould, Myung Gyoon Lee, Peter Stetson, Robert C. Kennicutt, Anne Turner, Laura Ferrarese, Holland Ford, John A. Graham, Robert Hill, John G. Hoessel, John Huchra, & Garth D. Illingworth.* 427, 628, 120-E4 (1994)

The *Hubble Space Telescope* Extragalactic Distance Scale Key Project. II. Photometry of WFC Images of M81. *Shaun M. G. Hughes, Peter B. Stetson, Anne Turner, Robert C. Kennicutt, Jr., Robert Hill, Myung Gyoon Lee, Wendy L. Freedman, Jeremy R. Mould, Barry F. Madore, Laura Ferrarese, Holland C. Ford, John A. Graham, John G. Hoessel, & Garth D. Illingworth.* 428, 143, 130-A5 (1994)

SN 1993J: A Type IIb Supernova. *S. E. Woosley, Ronald G. Eastman, Thomas A. Weaver, & Philip A. Pinto.* 429, 300, 147-F13 (1994)

The Form of Abundance Gradients in Three Nearby Spiral Galaxies: M33, M81, and M101. *R. B. C. Henry & J. W. Howard.* 438, 170, 3-F1 (1995)

Ultraviolet Imaging Telescope and Optical Emission-Line Observations of H II Regions in M81. *Jesse K. Hill, K. P. Cheng, Ralph C. Bohlin, Robert H. Cornett, P. M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 438, 181, 3-G2 (1995)

Non-LTE Spectral Analysis and Model Constraints on SN 1993J. *E. Baron, P. H. Hauschildt, D. Branch, S. Austin, P. Garnavich, Hong Bae Ann, R. M. Wagner, A. V. Filippenko, T. Matheson, & James Liebert.* 441, 170, 61-F8 (1995)

Spectrophotometric Study of SN 1993J at First Maximum Light. *A. Clocchiatti, J. C. Wheeler, E. S. Barker, A. V. Filippenko, T. Matheson, & J. W. Liebert.* 446, 167, 155-E3 (1995)

The Optical Counterpart to the Extremely Luminous X-Ray Source near Holmberg IX: A Possible Supershell in a Tidal Tail. *Bryan W. Miller.* 446, L75, 170-G4 (1995)

Messier Number: M82

H II Regions in M82: High-Resolution Millimeter Continuum Observations. *J. E. Carlstrom & Philipp P. Kronberg.* 366, 422, 8-B1 (1991)

Infrared Mapping of M82: A Starburst in an Edge-on Barred Galaxy. *C. M. Telesco, H. Campins, M. Joy, K. Dietz, & R. Decher.* 369, 135, 37-E11 (1991)

A Nonthermal Radio Halo Surrounding M82. *E. R. Seaquist & Nils Odegard.* 369, 320, 41-F13 (1991)

CO (3→2) Mapping and Gas Excitation in the Core of M82. *R. P. J. Tilanus, L. J. Tacconi, E. C. Sutton, S. Zhou, D. B. Sanders, C. G. Wynn-Williams, K. Y. Lo, & S. A. Stephens.* 376, 500, 132-E13 (1991)

First Observations of the CO $J = 6$–5 Transition in Starburst Galaxies. *A. I. Harris, R. E. Hills, J. Stutzki, U. U. Graf, A. P. G. Russell, & R. Genzel.* 382, L75, 211-C7 (1991)

Near-Infrared [Fe II] Emission of M82 Supernova Remnants: Implications for Tracing the Supernova Content of Galaxies. *Matthew A. Greenhouse, Charles E. Woodward, Harley A. Thronson, Jr., Richard J. Rudy, George S. Rossano, Peter Erwin, & R. C. Puetter.* 383, 164, 214-B1 (1991)

SO in Starburst Galaxies. *S. J. Petuchowski & C. L. Bennett.* 391, 137, 87-F5 (1992)

A 2.18 to 2.28 Micron Study of the Stellar Population in the Nucleus of M82. *Niall I. Gaffney & Dan F. Lester.* 394, 139, 129-F9 (1992)

Peculiar Rotations of Molecular Gas in M82: Keplerian Disk and Slowly Rotating Halo. *Y. Sofue, H.-P. Reuter, M. Krause, R. Wielebinski, & N. Nakai.* 395, 126, 141-F5 (1992)

High-Resolution 12.4 Micron Images of the Starburst Region in M82. *C. M. Telesco & D. Y. Gezari.* 395, 461, 148-B11 (1992)

The Stellar Velocity Dispersion in the Nucleus of M82. *Niall I. Gaffney, Dan F. Lester, & C. M. Telesco.* 407, L57, 82-C6 (1993)

H I Streamers around M82: Tidally Disrupted Outer Gas Disk. *Min S. Yun, Paul T. P. Ho, & K. Y. Lo.* 411, L17, 133-F1 (1993)

Starburst Modeling of M82: Test Case for a Biased Initial Mass Function. *G. H. Rieke, K. Loken, M. J. Rieke, & P. Tamblyn.* 412, 99, 143-C9 (1993)

M82: The Saga Continues. *K. K. McLeod, G. H. Rieke, M. J. Rieke, & D. M. Kelly.* 412, 111, 143-D10 (1993)

Cosmic-Ray–dominated Dense Molecular Gas in Normal and Starburst Galaxies. *Anatoly Suchkov, Ronald J. Allen, & Timothy M. Heckman.* 413, 542, 163-C1 (1993)

Atomic Carbon in M82. *Peter Schilke, John E. Carlstrom, Jocelyn Keene, & T. G. Phillips.* 417, L67, 230-C3 (1993)

Stellar Evolution in the Starburst Galaxy M82: Evidence for a Top-heavy Initial Mass Function. *Jay S. Doane & William G. Mathews.* 419, 573, 254-G9 (1993)

High-Resolution Continuum and Brγ Imaging Observations of M82. *J. E. Larkin, J. R. Graham, K. Matthews, B. T. Soifer, S. Beckwith, T. M. Herbst, & A. C. Quillen.* 420, 159, 3-A1 (1994)

Two Very Luminous Variable X-Ray Sources in M82. *A. Collura, Fabio Reale, Eric Schulman, & Joel N. Bregman.* 420, L63, 15-C6 (1994)

Compact Radio Sources in the Starburst Galaxy M82 and the $\Sigma - D$ Relation for Supernova Remnants. *Z. P. Huang, T. X. Thuan, R. A. Chevalier, J. J. Condon, & Q. F. Yin.* 424, 114, 63-D7 (1994)

The [N II] 205 Micron Line in M82: The Warm Ionized Medium. *S. J. Petuchowski, C. L. Bennett, Michael R. Haas, Edwin F. Erickson, Steven D. Lord, Robert H. Rubin, Sean W. J. Colgan, & D. J. Hollenbach.* 427, L17, 117-C8 (1994)

Millimeter Recombination Lines and the State of Ionized Gas in M82. *E. R. Seaquist, C. R. Kerton, & M. B. Bell.* 429, 612. 153-C13 (1994)

The Peculiar Dust Distribution of M82. *T. Ichikawa, W. van Driel, T. Aoki, T. Soyano, K. Tarusawa, & S. Yoshida.* 433, 645, 219-A11 (1994)

Gamma-Ray Observations of NGC 253 and M82 with OSSE. *D. Bhattacharya, L.-S. The, J. D. Kurfess, D. D. Clayton, N. Gehrels, M. D. Leising, D. A. Grabelsky, W. N. Johnson, G. V. Jung, R. L. Kinzer, W. R. Purcell, M. S. Strickman, & M. P. Ulmer.* 437, 173, 285-E6 (1994)

High-Resolution X-Ray Imaging of the Starburst Galaxy M82. *Joel N. Bregman, Eric Schulman, & Kohji Tomisaka.* 439, 155, 23-C13 (1995)

Structure and Kinematics within the Starburst Nucleus of M82: Searching for a Bar. *J. M. Achtermann & J. H. Lacy.* 439, 163, 23-D10 (1995)

Locations of Starbursts in M82. *Jianjun Shen & K. Y. Lo.* 445, L99, 150-G5 (1995)

Toward Extragalactic Chemistry: Detections of N_2H^+ and SiO in Nearby Galaxies. *Leslie J. Sage & L. M. Ziurys.* 447, 625, 184-F9 (1995)

High Spatial Resolution Fabry-Perot Imaging of M82: Near-Infrared Recombination Line Observations. *Shobita Satyapal, Dan M. Watson, Judith L. Pipher, William J. Forrest, Diana Coppenbarger, S. Nicholas Raines, Scott Libonate, François Piché, Matthew A. Greenhouse, Howard A. Smith, Keith L. Thompson, Jacqueline Fischer, Charles E. Woodward, & Tracy Hodge.* 448, 611, 203-B10 (1995)

Messier Number: M83

Orbit Crowding of Molecular Gas at a Bar-Spiral Arm Transition Zone in M83. *Jeffrey D. P. Kenney & Steven D. Lord.* 381, 118, 190-D13 (1991)

A Molecular Gas Ridge Offset from the Dust Lane in a Spiral Arm of M83. *Steven D. Lord & Jeffrey D. P. Kenney.* 381, 130, 190-E13 (1991)

Radio Observations of M83 and Its Supernova Remnants. *John J. Cowan, Douglas A. Roberts, & David Branch.* 434, 128, 226-G10 (1994)

Messier Number: M86

Ram-Pressure Stripping of the Multiphase Interstellar Medium of the Virgo Cluster Elliptical Galaxy M86 (NGC 4406). *David A. White, A. C. Fabian, W. Forman, C. Jones, & C. Stern.* 375, 35, 111-D9 (1991)

Messier Number: M87

Turbulence in Cooling Flows. *Catherine F. Westbury & R. N. Henriksen.* 388, 64, 49-G12 (1992)

The Nonthermal Nucleus of M87. *John Kormendy.* 388, L9, 52-B1 (1992)

Globular Clusters and cD Formation: The Case of M87. *Dean E. McLaughlin, William E. Harris, & David A. Hanes.* 409, L45, 111-C8 (1993)

The Dusty Emission Filaments of M87. *W. B. Sparks, H. C. Ford, & A. L. Kinney.* 413, 531, 163-B1 (1993)

An Application of the Narrow-Jet Model: The M87 Jet. *Theodoros Koupelis.* 419, 117, 247-E10 (1993)

The Spatial Structure of the M87 Globular Cluster System. *Dean E. McLaughlin, William E. Harris, & David A. Hanes.* 422, 486, 38-A1 (1994)

Reanalysis of X-Ray Emission from M87. I. The Single-Phase Medium. *John C. Tsai.* 423, 143, 47-G9 (1994)

Reanalysis of X-Ray Emission from M87. II. The Multiphase Medium. *John C. Tsai.* 429, 119, 145-E13 (1994)

Are Globular Clusters the Nuclei of Cannibalized Dwarf Galaxies? *Lilia P. Bassino, Juan C. Muzzio, & Mónica Rabolli.* 431, 634, 186-D10 (1994)

On the Stellar Kinematical Evidence for Massive Black Holes in Galactic Nuclei Expected with the *Hubble Space Telescope*. *Roeland P. van der Marel.* 432, L91, 206-F1 (1994)

Narrowband *HST* Images of M87: Evidence for a Disk of Ionized Gas around a Massive Black Hole. *Holland C. Ford, Richard J. Harms, Zlatan I.*

Tsvetanov, George F. Hartig, Linda L. Dressel, Gerard A. Kriss, Ralph C. Bohlin, Arthur F. Davidsen, Bruce Margon, & Ajay K. Kochhar. 435, L27, 251-F11 (1994)

HST FOS Spectroscopy of M87: Evidence for a Disk of Ionized Gas around a Massive Black Hole. *Richard J. Harms, Holland C. Ford, Zlatan I. Tsvetanov, George F. Hartig, Linda L. Dressel, Gerard A. Kriss, Ralph Bohlin, Arthur F. Davidsen, Bruce Margon, & Ajay K. Kochhar.* 435, L35, 252-A3 (1994)

Velocity Profile of the Ionized Disk and the Mass of the Black Hole in M87. *Sandip K. Chakrabarti.* 441, 576, 70-A6 (1995)

Hubble Space Telescope Imaging of Super Star Clusters in M82. *Robert W. O'Connell, John S. Gallagher III, Deidre A. Hunter, & Wesley N. Colley.* 446, L1, 160-B2 (1995)

Detection of Proper Motions in the M87 Jet. *J. A. Biretta, F. Zhou, & F. N. Owen.* 447, 582, 183-G6 (1995)

Destabilization of Strongly Magnetized Jets. *Philip E. Hardee & David A. Clarke.* 449, 119, 211-G4 (1995)

Hubble Space Telescope Observations of Globular Clusters in M87 and an Estimate of H_0. *Bradley C. Whitmore, William B. Sparks, Ray A. Lucas, F. Duccio Macchetto, & John A. Biretta.* 454, L73, 315-C1 (1995)

Search for Intracluster MACHOs by Pixel Lensing of M87. *Andrew Gould.* 455, 44, 318-G3 (1995)

Messier Number: M94

The Far-Infrared Morphology of the Double-ringed Galaxy NGC 4736 (M94): A Ring Surrounding an Extended Nucleus. *Beverly J. Smith, D. F. Lester, P. M. Harvey, & R. W. Pogge.* 373, 66, 86-G5 (1991)

Messier Number: M100

First *Hubble Space Telescope* Observations of the Brightest Stars in the Virgo Galaxy M100 = NGC 4321. *Wendy L. Freedman, Barry F. Madore, Peter B. Stetson, Shaun M. G. Hughes, Jon A. Holtzman, Jeremy R. Mould, John T. Trauger, John S. Gallagher III, Gilda E. Ballester, Christopher J. Burrows, Stefano Casertano, John T. Clarke, David Crisp, Laura Ferrarese, Holland Ford, J. A. Graham, Richard E. Griffiths, J. Jeff Hester, Robert Hill, John G. Hoessel, John Huchra, Robert C. Kennicutt, Paul A. Scowen, Bill Sparks, Karl R. Stapelfeldt, Alan M. Watson, & Jim Westphal.* 435, L31, 251-G9 (1994)

The Striking Near-Infrared Morphology of the Inner Region in M100. *J. H. Knapen, J. E. Beckman, I. Shlosman, R. F. Peletier, C. H. Heller, & R. S. de Jong.* 443, L73, 111-G3 (1995)

Limits on the Hubble Constant from the *HST* Distance of M100. *Jeremy Mould, John P. Huchra, Fabio Bresolin, Laura Ferrarese, Holland C. Ford, Wendy L. Freedman, John Graham, Paul Harding, Robert Hill, John G. Hoessel, Shaun M. Hughes, Garth D. Illingworth, Daniel Kelson, Robert C. Kennicutt, Jr., Barry F. Madore, Randy Phelps, Peter B. Stetson, & Anne Turner.* 449, 413, 218-D8 (1995)

The Central Region in M100: Observations and Modeling. *J. H. Knapen, J. E. Beckman, C. H. Heller, I. Shlosman, & R. S. de Jong.* 454, 623, 310-B4 (1995)

Messier Number: M101

The Star-forming Disk and CO Bar in M101. *Jeffrey D. P. Kenney, Nick Z. Scoville, & Christine D. Wilson.* 366, 432, 8-C1 (1991)

A Very Metal poor H II Region in the Outer Disk of M101. *Donald R. Garnett & Robert C. Kennicutt, Jr.* 426, 123, 97-F1 (1994)

The Form of Abundance Gradients in Three Nearby Spiral Galaxies: M33, M81, and M101. *R. B. C. Henry & J. W. Howard.* 438, 170, 3-F1 (1995)

X-Ray Emission from Giant H II Regions in M101. *Rosa Murphy Williams & You-Hua Chu.* 439, 132, 23-A9 (1995)

Diffuse X-Ray Emission from M101. *S. L. Snowden & W. Pietsch.* 452, 627, 273-C12 (1995)

NGC Number: NGC 34

High Angular Resolution Broad-Band Imaging in the Mid-Infrared: The Infrared-bright Galaxy NGC 34. *Eric Keto, Garrett Jernigan, Roger Ball, John Arens, & Margaret Meixner.* 374, L29, 110-B1 (1991)

NGC Number: NGC 55

The Distance to the Large Magellanic Cloud from SN 1987A. *Marshall L. McCall.* 417, L75, 230-D1 (1993)

NGC Number: NGC 205

Continuum Emission at 1 Millimeter from the Elliptical Galaxy NGC 205. *Michel Fich & Paul Hodge.* 374, L17, 103-D7 (1991)

The Distribution and Age of Asymptotic Giant Branch Stars in NGC 205. *T. J. Davidge.* 397, 457, 176-D5 (1992)

Ram-Pressure Stripping of Gas from Companions and Accretion onto a Spiral Galaxy: A Gaseous Merger. *Yoshiaki Sofue.* 423, 207, 48-F3 (1994)

Hubble Space Telescope Far-Ultraviolet Imaging of M31, M32, and NGC 205. *F. Bertola, A. Bressan, D. Burstein, L. M. Buson, C. Chiosi, & S. di Serego Alighieri.* 438, 680, 13-E4 (1995)

NGC Number: NGC 247

An Improved Method to Derive H I Absorption Spectra through the Disks of Galaxies: Application to the Sculptor Group. *John M. Dickey, Elias Brinks, & Daniel Puche.* 385, 501, 19-D6 (1992)

NGC Number: NGC 253

Multicolor CCD Imaging of Supergiants in the Disk of NGC 253. *T. J. Davidge, O. Le Fèvre, & C. C. Clark.* 370, 559, 55-D7 (1991)

Molecular Gas Excitation in NGC 253. *W. F. Wall, D. T. Jaffe, F. P. Israel, & F. N. Bash.* 380, 384, 183-A11 (1991)

Infrared Hot Spots in the Nucleus of NGC 253. *Duncan A. Forbes, Martin J. Ward, & D. L. DePoy.* 380, L63, 188-C6 (1991)

First Observations of the CO $J = 6$–5 Transition in Starburst Galaxies. *A. I. Harris, R. E. Hills, J. Stutzki, U. U. Graf, A. P. G. Russell, & R. Genzel.* 382, L75, 211-C7 (1991)

An Improved Method to Derive H I Absorption Spectra through the Disks of Galaxies: Application to the Sculptor Group. *John M. Dickey, Elias Brinks, & Daniel Puche.* 385, 501, 19-D6 (1992)

SO in Starburst Galaxies. *S. J. Petuchowski & C. L. Bennett.* 391, 137, 87-F5 (1992)

Discovery of a Synchrotron-emitting Halo around NGC 253. *C. L. Carilli, M. A. Holdaway, P. T. P. Ho, & C. G. De Pree.* 399, L59, 200-F8 (1992)

12 and 20 Micron Imaging of the Starburst Galaxy NGC 253. *R. K. Piña, B. Jones, R. C. Puetter, & W. A. Stein.* 401, L75, 233-A5 (1992)

High-Resolution Imaging of [Fe II 1.64 Microns, Brackett-γ, and H_2 1–0 $S(1)$ Emission in the Starburst Galaxy NGC 253. *Duncan A. Forbes, Martin J. Ward, V. Rotaciuc, M. Blietz, R. Genzel, S. Drapatz, Paul P. van der Werf, & A. Krabbe.* 406, L11, 60-F1 (1993)

The Mid-Infrared Radio Correlation at High Angular Resolution: NGC 253. *Eric Keto, Roger Ball, John Arens, Garrett Jernigan, Margaret Meixner, Christopher Skinner, & James Graham.* 413, L23, 162-D7 (1993)

The Interstellar Medium in the Starburst Regions of NGC 253 and NGC 3256. *P. Carral, D. J. Hollenbach, S. D. Lord, S. W. J. Colgan, Michael R. Haas, R. H. Rubin, & E. F. Erickson.* 423, 223, 48-G7 (1994)

Do the Compact Radio Sources in NGC 253 and M82 Fade over Time? *James S. Ulvestad & Robert R. J. Antonucci.* 424, L29, 69-D10 (1994)

The True Nucleus of NGC 253 Revealed by High-Resolution Near-Infrared Imaging. *Bruce J. Sams III, R. Genzel, A. Eckart, L. Tacconi-Garman, & R. Hofmann.* 430, L33, 165-E5 (1994)

The 3.28 Micron Emission Feature in NGC 253. *Paul Kalas & C. G. Wynn-Williams.* 434, 546, 235-C13 (1994)

Gamma-Ray Observations of NGC 253 and M82 with OSSE. *D. Bhattacharya, L.-S. The, J. D. Kurfess, D. D. Clayton, N. Gehrels, M. D. Leising, D. A. Grabelsky, W. N. Johnson, G. V. Jung, R. L. Kinzer, W. R. Purcell, M. S. Strickman, & M. P. Ulmer.* 437, 173, 285-E6 (1994)

Submillimeter HCN and HCO^+ Emission from Galaxies. *James M. Jackson, Timothy A. D. Paglione, John E. Carlstrom, & Nguyen-Q- Rieu.* 438, 695, 13-F11 (1995)

Compton X-Ray Emission from NGC 253. *Oleg Goldshmidt & Yoel Rephaeli.* 444, 113, 114-G8 (1995)

The Distribution of the Dense Clouds in the Starburst Nucleus of NGC 253. *Timothy A. D. Paglione, Tomoka Tosaki, & James M. Jackson.* 454, L117, 316-A10 (1995)

NGC Number: NGC 300

New Cepheid Distances to Nearby Galaxies Based on *BVRI* CCD Photometry. III. NGC 300. *Wendy L. Freedman, Barry F. Madore, S. L. Hawley, Irwin K. Horowitz, Jeremy Mould, Mauricio Navarrete, & Shauna Sallmen.* 396, 80, 156-A13 (1992)

NGC Number: NGC 315

VLBI Observations of a Complete Sample of Radio Galaxies. II. The Parsec-Scale Structure of NGC 315. *T. Venturi, G. Giovannini, L. Feretti, G. Comoretto, & A. E. Wehrle.* 408, 81, 84-B4 (1993)

On the Relationship between BL Lacertae Objects and Fanaroff-Riley I Radio Galaxies. *Geoffrey V. Bicknell.* 422, 542, 38-E8 (1994)

NGC Number: NGC 326

The X-Ray Environment of the Dumbbell Radio Galaxy NGC 326. *D. M. Worrall, M. Birkinshaw, & R. A. Cameron.* 449, 93, 211-D13 (1995)

NGC Number: NGC 450

Testing for Interaction between the Galaxies NGC 450 and UGC 807. *Mariano Moles, Isabel Márquez, Josefa Masegosa, Ascensión del Olmo, Jaime Perea, & Halton Arp.* 432, 135, 194-G12 (1994)

NGC Number: NGC 499

ROSAT PSPC Observations of the Early-Type Galaxies NGC 507 and NGC 499: Central Cooling and Mass Determination. *Dong-Woo Kim & G. Fabbiano.* 441, 182, 61-G10 (1995)

NGC Number: NGC 507

ROSAT PSPC Observations of the Early-Type Galaxies NGC 507 and NGC 499: Central Cooling and Mass Determination. *Dong-Woo Kim & G. Fabbiano.* 441, 182, 61-G10 (1995)

NGC Number: NGC 520

Dynamical Simulations of the Interacting Galaxies in the NGC 520/UGC 957 System. *S. A. Stanford & Marc Balcells.* 370, 118, 48-E5 (1991)

Recent Star Formation in the Interacting Galaxy System NGC 520. *S. A. Stanford.* 381, 409, 195-G1 (1991)

Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)

NGC Number: NGC 628

The Abundance Gradients across the Spiral Galaxies NGC 628 and NGC 6946. *Julien Belley & Jean-René Roy.* 78, 61, 2-C7 (1992)

Ultraviolet Imaging Telescope Observations of the ScI Galaxy NGC 628 (M74). *Peter C. Chen, Robert H. Cornett, Morton S. Roberts, Ralph C. Bohlin, Susan G. Neff, Robert W. O'Connell, Ronald A. Parise, Andrew M. Smith, & Theodore P. Stecher.* 395, L41, 145-C5 (1992)

UIT: Ultraviolet Surface Photometry of the Spiral Galaxy M74 (NGC 628). *Robert H. Cornett, Robert W. O'Connell, Michael R. Greason, Joel D. Offenberg, Ronald J. Angione, Ralph C. Bohlin, K. P. Cheng, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, Fred D. Talbert, & Theodore P. Stecher.* 426, 553, 105-C7 (1994)

NGC Number: NGC 660

OH and H I Absorption at the Nucleus of NGC 660. *Willem A. Baan, James Rhoads, & Aubrey D. Haschick.* 401, 508, 229-A6 (1992)

NGC Number: NGC 720

Geometrical Evidence for Dark Matter: X-Ray Constraints on the Mass of the Elliptical Galaxy NGC 720. *David A. Buote & Claude R. Canizares.* 427, 86, 111-A12 (1994)

NGC Number: NGC 828

Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)

NGC Number: NGC 891

Extraplanar Ionized Gas and Kinematics in the Edge-on Galaxy NGC 891. *Jean W. Keppel, Ralf-Jürgen Dettmar, John S. Gallagher III, & Morton S. Roberts.* 374, 507, 105-D6 (1991)

Polarized Radio Emission from the Edge-on Spiral Galaxies NGC 891 and NGC 4565. *S. Sukumar & R. J. Allen.* 382, 100, 201-D1 (1991)

Planetary Nebulae as Standard Candles. VII. A Test versus Hubble Type in the NGC 1023 Group. *Robin Ciardullo, George H. Jacoby, & William E. Harris.* 383, 487, 220-D1 (1991)

X-Ray–emitting Gas Surrounding the Spiral Galaxy NGC 891. *Joel N. Bregman & Rachel A. Pildis.* 420, 570, 9-F7 (1994)

Extraplanar Emission-Line Gas in NGC 891. *Rachel A. Pildis, Joel N. Bregman, & James M. Schombert.* 423, 190, 48-D7 (1994)

Star Formation Activity in Spiral Galaxy Disks and the Properties of Radio Halos: Observational Evidence for a Direct Dependence. *Michael Dahlem, Ute Lisenfeld, & Götz Golla.* 444, 119, 115-A3 (1995)

NGC Number: NGC 985

Modeling an Accretion Disk in NGC 985. *R. M. Stanga, J. M. Rodríguez Espinosa, & F. Mannucci.* 379, 592, 172-A9 (1991)

Infrared Observations of the Seyfert Ring Galaxy NGC 985. *P. N. Appleton & P. M. Marcum.* 417, 90, 218-C9 (1993)

NGC Number: NGC 1023

Planetary Nebulae as Standard Candles. VII. A Test versus Hubble Type in the NGC 1023 Group. *Robin Ciardullo, George H. Jacoby, & William E. Harris.* 383, 487, 220-D1 (1991)

NGC Number: NGC 1068

High-Resolution Aperture Synthesis of Molecular Gas in NGC 1068. *P. Planesas, N. Scoville, & S. T. Myers.* 369, 364, 42-C9 (1991)

HST Imaging of the Inner 3 Arcseconds of NGC 1068 in the Light of [O III] λ5007. *I. N. Evans, H. C. Ford, A. L. Kinney, R. R. J. Antonucci, L. Armus, & S. Caganoff.* 369, L27, 45-C9 (1991)

NGC 1068: Resolution of Nuclear Structure in the Optical Continuum. *Roger Lynds, S. M. Faber, Edward J. Groth, Jon A. Holtzman, Robert M. Light, Earl J. O'Neil, Jr., William A. Baum, Douglas G. Currie, S. P. Ewald, J. Jeff Hester, Jerome A. Kristian, P. Kenneth Seidelmann, Edward J. Shaya, & James A. Westphal.* 369, L31, 45-D1 (1991)

High-Resolution Imaging of Brackett-γ and H_2 1-0 $S(1)$ Emission in the Seyfert Galaxy NGC 1068. *V. Rotaciuc, A. Krabbe, M. Cameron, S. Drapatz, R. Genzel, A. Sternberg, & J. W. V. Storey.* 370, L23, 53-D6 (1991)

Near-Infrared Long-Slit Spectra of NGC 1068. *M. Tamura, S. G. Kleinmann, N. Z. Scoville, & R. R. Joyce.* 371, 131, 61-F3 (1991)

Imaging Spectrophotometry of Ionized Gas in NGC 1068. II. Global Ionization of the Inner Disk. *Jonathan Bland-Hawthorn, James Sokolowski, & Gerald Cecil.* 375, 78, 112-A1 (1991)

Imaging Spectrophotometry of Ionized Gas in NGC 1068. III. Anisotropic Excitation of the Large-Scale Disk by Scattering of Nuclear Continuum. *James Sokolowski, Jonathan Bland-Hawthorn, & Gerald Cecil.* 375, 583, 120-A1 (1991)

Faint Object Spectrograph Spectroscopy of Resolved Structure in the Nucleus of NGC 1068. *S. Caganoff, R. R. J. Antonucci, H. C. Ford, G. A. Kriss, G. Hartig, L. Armus, I. N. Evans, E. Rosenblatt, R. C. Bohlin, & A. L. Kinney.* 377, L9, 143-B11 (1991)

Multidirectional Views of the Active Nucleus of NGC 1068. *J. S. Miller, K. W. Goodrich, & William G. Mathews.* 378, 47, 151-E13 (1991)

IUE Observations of NGC 1068: The Extremely Luminous Starburst Knots. *F. C. Bruhweiler, K. Q. Truong, & B. Altner.* 379, 596, 172-B1 (1991)

IUE Observations of NGC 1068: The Extended High-Ionization Emission Region. *K. Q. Truong & F. C. Bruhweiler.* 379, 609, 172-C1 (1991)

An X-Ray Image of the Seyfert Galaxy NGC 1068. *A. S. Wilson, M. Elvis, A. Lawrence, & J. Bland-Hawthorn.* 391, L75, 99-E11 (1992)

Evidence for Shock-heated Gas in the Hopkins Ultraviolet Telescope Spectrum of NGC 1068. *Gerard A. Kriss, Arthur F. Davidsen, William P. Blair, Henry C. Ferguson, & Knox S. Long.* 394, L37, 139-B7 (1992)

The First Ultraviolet Spectropolarimetric Study of NGC 1068. *Arthur D. Code, Marilyn R. Meade, Christopher M. Anderson, Kenneth H. Nordsieck, Geoffrey C. Clayton, Barbara A. Whitney, Antonio Mario Magalhães, Brian Babler, Karen S. Bjorkman, Regina E. Schulte-Ladbeck, & MaryJane Taylor.* 403, L63, 27-C8 (1993)

A New X-Ray Spectral Observation of NGC 1068. *F. E. Marshall, H. Netzer, K. A. Arnaud, E. A. Boldt, S. S. Holt, K. M. Jahoda, R. Kelley, R. F. Mushotzky, R. Petre, P. J. Serlemitsos, A. P. Smale, J. H. Swank, A. E. Szymkowiak, & K. A. Weaver.* 405, 168, 43-B7 (1993)

High-Resolution Mid-Infrared Imaging and Astrometry of the Nucleus of the Seyfert Galaxy NGC 1068. *J. A. Braatz, A. S. Wilson, D. Y. Gezari, F. Varosi, & C. A. Beichman.* 409, L5, 104-B1 (1993)

Dense Molecular Gas toward the Nucleus of the Seyfert Galaxy NGC 1068. *James M. Jackson, Timothy A. D. Paglione, Sumio Ishizuki, & Nguyen-Q-Rieu.* 418, L13, 238-B11 (1993)

Subarcsecond Mid-Infrared Imaging of Warm Dust in the Narrow-Line Region of NGC 1068. *Murray Cameron, John W. V. Storey, Valentin Rotaciuc, Reinhard Genzel, Laurent Verstraete, Siegfried Drapatz, Ralf Siebenmorgen, & Terry J. Lee.* 419, 136, 247-G5 (1993)

Near-Infrared Spectroscopic Imaging of the Circumnuclear Environment of NGC 1068. *M. Blietz, M. Cameron, S. Drapatz, R. Genzel, A. Krabbe, P. van der Werf, A. Sternberg, & M. Ward.* 421, 92, 17-B13 (1994)

Neutral Hydrogen Absorption in NGC 1068 and NGC 3079. *J. F. Gallimore, S. A. Baum, C. P. O'Dea, E. Brinks, & A. Pedlar.* 422, L13, 36-C9 (1994)

The Nature of the Dense Obscuring Material in the Nucleus of NGC 1068. *L. J. Tacconi, R. Genzel, M. Blietz, M. Cameron, A. I. Harris, & S. Madden.* 426, L77, 109-D11 (1994)

The Intrinsic Nuclear Spectrum of NGC 1068. *Edward A. Pier, Robert Antonucci, Todd Hurt, Gerard Kriss, & Julian Krolik.* 428, 124, 129-F8 (1994)

HST Ultraviolet Spectropolarimetry of NGC 1068. *Robert Antonucci, Todd Hurt, & Joseph Miller.* 430, 210, 161-F5 (1994)

Ultraviolet Imaging of the AGN + Starburst Galaxy NGC 1068. *Susan G. Neff, Michael N. Fanelli, Laura J. Roberts, Robert W. O'Connell, Ralph Bohlin, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 430, 545, 168-E1 (1994)

HST/FOC Imaging of the Narrow-Line Region of NGC 1068. *F. Macchetto, A. Capetti, W. B. Sparks, D. J. Axon, & A. Boksenberg.* 435, L15, 251-D2 (1994)

HCN and CO in the Nucleus of NGC 1068. *A. Sternberg, R. Genzel, & L. Tacconi.* 436, L131, 281-B7 (1994)

The Origin of N III λ990 and C III λ977 Emission in AGN Narrow-Line Region Gas. *J. W. Ferguson, G. J. Ferland, & A. K. Pradhan.* 438, L55, 19-B11 (1995)

HST Imaging Polarimetry of NGC 1068. *A. Capetti, D. J. Axon, F. Macchetto, W. B. Sparks, & A. Boksenberg.* 446, 155, 155-C9 (1995)

High-Resolution Berkeley-Illinois-Maryland Association Observations of CO, HCN, and ^{13}CO in NGC 1068. *Tamara T. Helfer & Leo Blitz.* 450, 90, 229-C10 (1995)

Hubble Space Telescope Imaging Polarimetry of the Inner Nuclear Region of NGC 1068. *A. Capetti, F. Macchetto, D. J. Axon, W. B. Sparks, & A. Boksenberg.* 452, L87, 279-D9 (1995)

NGC Number: NGC 1097

Double-peaked Broad Line Emission from the LINER Nucleus of NGC 1097. *Thaisa Storchi-Bergmann, Jack A. Baldwin, & Andrew S. Wilson.* 410, L11, 117-G1 (1993)

The Variability of the Double-peaked Balmer Lines in the Active Nucleus of NGC 1097. *Thaisa Storchi-Bergmann, Michael Eracleous, Mario Livio, Andrew S. Wilson, Alexei V. Filippenko, & Jules P. Halpern.* 443, 617, 106-D2 (1995)

NGC Number: NGC 1218

Discovery of an Optical Synchrotron Jet in 3C 78. *William B. Sparks, Daniel Golombek, Stefi A. Baum, John Biretta, Sigrid de Koff, Ferdinando Macchetto, Patrick McCarthy, & George K. Miley.* 450, L55, 244-F1 (1995)

NGC Number: NGC 1232

On the Distribution of Pitch Angles in External Galactic Spirals NGC 1232 and NGC 5457. *William S. Russell & William W. Roberts, Jr.* 398, 94, 183-B9 (1992)

NGC Number: NGC 1265

Three-dimensional Hydrodynamic Simulations of Narrow-Angle–Tail Radio Sources. I. The Begelman, Rees, and Blandford Model. *Dinshaw S. Balsara & Michael L. Norman.* 393, 631, 123-F3 (1992)

NGC Number: NGC 1275

Fabry-Perot Images of NGC 1275 and Its Puzzling High-Velocity System. *Adeline Caulet, Bruce E. Woodgate, Larry W. Brown, Theodore R. Gull, Paul Hintzen, James D. Lowenthal, Ronald J. Oliversen, & Michael M. Ziegler.* 388, 301, 54-A12 (1992)

Implications of Ultraviolet Imaging Telescope Observations for Star Formation Histories in NGC 1275. *Eric P. Smith, Robert W. O'Connell, Ralph C. Bohlin, Kwang-Ping Cheng, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Paul Hintzen, Wayne B. Landsman, Susan G. Neff, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L49, 145-D9 (1992)

Near-Infrared Spectroscopy of the Peculiar Giant Elliptical NGC 1275. *Kimiaki Kawara & Yoshiaki Taniguchi.* 410, L19, 117-G13 (1993)

Strong [Fe II] Emission from NGC 1275. *Richard J. Rudy, Ross D. Cohen, George S. Rossano, Peter Erwin, R. C. Puetter, Matthew A. Greenhouse, & Charles E. Woodward.* 414, 527, 177-F13 (1993)

Discovery of a Nuclear Counterjet in NGC 1275: A New Way to Probe the Parsec-Scale Environment. *R. C. Vermeulen, A. C. S. Readhead, & D. C. Backer.* 430, L41, 165-F7 (1994)

Detection of a VLBI Counterjet in NGC 1275: A Possible Probe of the Parsec-Scale Accretion Region. *R. C. Walker, J. D. Romney, & J. M. Benson.* 430, L45, 165-F13 (1994)

OSSE Observations of NGC 1275 in the 0.05–10.0 MeV Range. *C. Y. Osako, M. P. Ulmer, D. A. Grabelsky, W. R. Purcell, M. S. Strickman, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, & G. V. Jung.* 435, 181, 245-G1 (1994)

Far-Infrared Thermal Emission from the Inner Cooling Flow Region of NGC 1275. *D. F. Lester, E. C. Zink, G. W. Doppmann, N. I. Gaffney, P. M. Harvey, B. J. Smith, & M. Malkan.* 439, 185, 23-G1 (1995)

Energetic Proton Heating of Gas in the Core of the Perseus Cluster. *Yoel Rephaeli & Joseph Silk.* 442, 91, 78-D13 (1995)

Spectroscopy of Candidate Young Globular Clusters in NGC 1275. *Stephen E. Zepf, Dave Carter, Ray M. Sharples, & Keith M. Ashman.* 445, L19, 140-D6 (1995)

Constraints on the Parsec-Scale Environment in NGC 1275. *A. Levinson, A. Laor, & R. C. Vermeulen.* 448, 589, 202-G4 (1995)

NGC Number: NGC 1291

The Interaction between Hot and Cold Gas in Early-Type Galaxies. *Joel N. Bregman, David E. Hogg, & Morton S. Roberts.* 441, 561, 69-F9 (1995)

NGC Number: NGC 1313

SN 1978K: An Extraordinary Supernova in the Nearby Galaxy NGC 1313. *Stuart Ryder, Lister Staveley-Smith, Michael Dopita, Robert Petre, Edward Colbert, David Malin, & Eric Schlegel.* 416, 167, 203-B6 (1993)

Soft X-Ray Emission from the Spiral Galaxy NGC 1313. *Edward J. M. Colbert, Robert Petre, Eric M. Schlegel, & Stuart D. Ryder.* 446, 177, 155-F2 (1995)

NGC Number: NGC 1316

High-Resolution Optical and UV Observations of the Centers of NGC 1316 and NGC 3998 with the *Hubble Space Telescope*. *G. Fabbiano, C. Fassnacht, & G. Trinchieri.* 434, 67, 226-B1 (1994)

NGC Number: NGC 1365

Detection of H92α Recombination Line from the Galaxies NGC 3628, IC 694, and NGC 1365. *K. R. Anantharamaiah, Jun-Hui Zhao, W. M. Goss, & F. Viallefond.* 419, 585, 255-A9 (1993)

NGC Number: NGC 1380

SN 1992A: Ultraviolet and Optical Studies Based on *HST*, *IUE*, and CTIO Observations. *Robert P. Kirshner, David J. Jeffery, Bruno Leibundgut, Peter M. Challis, George Sonneborn, M. M. Phillips, N. B. Suntzeff, R. Chris Smith, P. Frank Winkler, Cláudia Winge, Mario Hamuy, Deidre A. Hunter, Katherine C. Roth, J. C. Blades, David Branch, Roger A. Chevalier, Claes Fransson, Nino Panagia, Robert V. Wagoner, J. Craig Wheeler, & Robert P. Harkness.* 415, 589, 195-B10 (1993)

NGC Number: NGC 1386

Kinematics and Ionization of Extended Gas in Active Galaxies. VI. The Seyfert 2 Galaxy NGC 1386. *K. A. Weaver, A. S. Wilson, & J. A. Baldwin.* 366, 50, 1-F5 (1991)

NGC Number: NGC 1398

The Barred Spiral Galaxy NGC 1398 and Its Pattern Speed. *E. M. Moore & S. T. Gottesman.* 447, 159, 174-C8 (1995)

NGC Number: NGC 1399

Constraints on the Origin of the Ultraviolet Upturn in Elliptical Galaxies from Hopkins Ultraviolet Telescope Observations of NGC 1399. *Henry C. Ferguson, Arthur F. Davidsen, Gerard A. Kriss, William P. Blair, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Richard C. Henry, Jeffrey W. Kruk, H. Warren Moos, Olaf Vancura, Knox S. Long, & Randy A. Kimble.* 382, L69, 211-C1 (1991)

X-Ray Study of NGC 1399 in the Fornax Cluster of Galaxies. *Y. Ikebe, T. Ohashi, K. Makishima, T. Tsuru, G. Fabbiano, D.-W. Kim, G. Trinchieri, I. Hatsukade, K. Yamashita, & H. Kondo.* 384, L5, 6-B1 (1992)

Ultraviolet Imaging of Old Populations in Nearby Galaxies. *Robert W. O'Connell, Ralph C. Bohlin, Nicholas R. Collins, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Wayne B. Landsman, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L45, 145-D1 (1992)

The Hot Stellar Component in Elliptical Galaxies and Spiral Bulges. I. The Far-Ultraviolet Spectrum of the Bulge of M31. *Henry C. Ferguson & Arthur F. Davidsen.* 408, 92, 84-C4 (1993)

Broad-Band X-Ray Telescope Observations of the Hot Interstellar Media in NGC 1399 and NGC 4472. *P. J. Serlemitsos, M. Loewenstein, R. F. Mushotzky, F. E. Marshall, & R. Petre.* 413, 518, 163-A1 (1993)

The Velocity Dispersion of Globular Clusters in NGC 1399. *Carl J. Grillmair, K. C. Freeman, G. V. Bicknell, D. Carter, Warrick J. Couch, J. Sommer-Larsen, & K. Taylor.* 422, L9, 36-C3 (1994)

Structural Parameters of Globular Clusters in the Fornax Cluster. *Rebecca A. W. Elson & David J. Schade.* 437, 625, 294-C12 (1994)

NGC Number: NGC 1400

NGC 1407: Center of a Dark, Massive Cluster? *Andrew Gould.* 403, 37, 14-E4 (1993)

NGC Number: NGC 1404

Discovery and Implications of Very Low Metal Abundances in NGC 1404 and NGC 4374. *M. Loewenstein, R. F. Mushotzky, T. Tamura, Y. Ikebe, K. Makishima, K. Matsushita, H. Awaki, & P. J. Serlemitsos.* 436, L75, 269-F1 (1994)

NGC Number: NGC 1407

NGC 1407: Center of a Dark, Massive Cluster? *Andrew Gould.* 403, 37, 14-E4 (1993)

NGC Number: NGC 1530

Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)

Dust and Molecular Gas in the Barred Spiral Galaxy NGC 1530. *Michael W. Regan, Stuart N. Vogel, & Peter J. Teuben.* 449, 576, 220-F10 (1995)

NGC Number: NGC 1566

Faint Object Spectrograph Observations of the Low-Luminosity Seyfert Galaxy NGC 1566. *G. A. Kriss, G. F. Hartig, L. Armus, William P. Blair, S. Caganoff, & L. Dressel.* 377, L13, 143-C1 (1991)

NGC Number: NGC 1569

Relics of an Eruptive Starburst in NGC 1569. *William H. Waller.* 370, 144, 48-G12 (1991)

Hubble Space Telescope Imaging of Super–Star Clusters in NGC 1569 and NGC 1705. *Robert W. O'Connell, John S. Gallagher III, & Deidre A. Hunter.* 433, 65, 209-A13 (1994)

An X-Ray and Optical Study of the Dwarf Galaxy NGC 1569: Evidence for a Starburst-driven Outflow. *Timothy M. Heckman, Michael Dahlem, Matthew D. Lehnert, Giuseppina Fabbiano, Diane Gilmore, & William H. Waller.* 448, 98, 193-E1 (1995)

NGC Number: NGC 1614

Subarcsecond Mid-Infrared Imaging of the Nuclei of the Infrared Bright Galaxies NGC 1614 and NGC 7469. *Eric Keto, Roger Ball, John Arens, Garrett Jernigan, & Margaret Meixner.* 389, 223, 62-F9 (1992)

NGC Number: NGC 1620

A Supergiant Supernova-blown Bubble in the Spiral Galaxy NGC 1620. *J. Patricia Vader & Brian Chaboyer.* 445, 691, 144-F1 (1995)

NGC Number: NGC 1705

Hubble Space Telescope Imaging of Super–Star Clusters in NGC 1569 and NGC 1705. *Robert W. O'Connell, John S. Gallagher III, & Deidre A. Hunter.* 433, 65, 209-A13 (1994)

NGC Number: NGC 1792

The Distribution and Nature of Star Formation Regions in NGC 1792. *Michael Dahlem, Dominik J. Bomans, & Jean-Marie Will.* 432, 590, 203-C10 (1994)

Soft X-Ray Observations of the Interacting Galaxies NGC 1808 and NGC 1792. *Michael Dahlem, Gisela D. Hartner, & Norbert Junkes.* 432, 598, 203-D7 (1994)

NGC Number: NGC 1808

Fast Rotation in the Nuclear Region of the Galaxy NGC 1808. *Bärbel Koribalski, John M. Dickey, & Ulrich Mebold.* 402, L41, 12-D9 (1993)

Near-Infrared Spectral Imaging of NGC 1808: Probing the Starburst. *A. Krabbe, A. Sternberg, & R. Genzel.* 425, 72, 81-B2 (1994)

Soft X-Ray Observations of the Interacting Galaxies NGC 1808 and NGC 1792. *Michael Dahlem, Gisela D. Hartner, & Norbert Junkes.* 432, 598, 203-D7 (1994)

NGC Number: NGC 2110

High-Excitation Extranuclear Gas in Seyfert Galaxies. *Christopher A. Haniff, Martin J. Ward, & Andrew S. Wilson.* 368, 167, 25-B5 (1991)

Hubble Space Telescope Imaging of the Seyfert 2 Galaxy NGC 2110. *John S. Mulchaey, Andrew S. Wilson, Gary A. Bower, Timothy M. Heckman, Julian H. Krolik, & George K. Miley.* 433, 625, 218-F10 (1994)

The Origin of the Soft X-Ray Excess in the Seyfert 2 Galaxy NGC 2110. *K. A. Weaver, R. F. Mushotzky, P. J. Serlemitsos, A. S. Wilson, M. Elvis, & U. Briel.* 442, 597, 88-B7 (1995)

NGC Number: NGC 2146

A ^{12}CO, ^{13}CO, and CS Study of NGC 2146 and IC 342. *Shuding Xie, Judith Young, & F. Peter Schloerb.* 421, 434, 23-E7 (1994)

Wavelength-dependent Kinematics in the Dusty Inclined Galaxy NGC 2146. *F. Prada, J. E. Beckman, C. D. McKeith, J. Castles, & A. Greve.* 423, L35, 53-E8 (1994)

The Distribution of Far-Infrared Light in the "Dusty Hand" Galaxy NGC 2146. *Beverly J. Smith, P. M. Harvey, & D. F. Lester.* 442, 610, 88-C10 (1995)

ROSAT Observations of NGC 2146: Evidence for a Starburst-driven Superwind. *L. Armus, T. M. Heckman, K. A. Weaver, & M. D. Lehnert.* 445, 666, 144-C8 (1995)

NGC Number: NGC 2207

The Interaction between Spiral Galaxies IC 2163 and NGC 2207. I. Observations. *Debra Meloy Elmegreen, Michele Kaufman, Elias Brinks, Bruce G. Elmegreen, & Maria Sundin.* 453, 100, 282-E8 (1995)

The Interaction between Spiral Galaxies IC 2163 and NGC 2207. II. Models. *Bruce G. Elmegreen, Maria Sundin, Michele Kaufman, Elias Brinks, & Debra Meloy Elmegreen.* 453, 139, 283-B2 (1995)

NGC Number: NGC 2276

Diffuse X-Ray Emission from the NGC 2300 Group of Galaxies: Implications for Dark Matter and Galaxy Evolution in Small Groups. *John S. Mulchaey, David S. Davis, Richard F. Mushotzky, & David Burstein.* 404, L9, 33-D7 (1993)

Interaction of NGC 2276 with the NGC 2300 Group: Fabry-Perot Observations of the Hα Velocity Field. *Robert A. Gruendl, Stuart N. Vogel, David S. Davis, & John S. Mulchaey.* 413, L81, 168-D10 (1993)

NGC Number: NGC 2300

Diffuse X-Ray Emission from the NGC 2300 Group of Galaxies: Implications for Dark Matter and Galaxy Evolution in Small Groups. *John S. Mulchaey, David S. Davis, Richard F. Mushotzky, & David Burstein.* 404, L9, 33-D7 (1993)

NGC Number: NGC 2366

Superbubble Blowout in the Giant H II Region NGC 2363? *Jean-René Roy, J. Boulesteix, Gilles Joncas, & B. Grundseth.* 367, 141, 13-F8 (1991)

The Origin of Broad Emission Lines in the Extragalactic Giant H II Region NGC 2363. *Jean-René Roy, Martin Aubé, Marshall L. McCall, & R. J. Dufour.* 386, 498, 31-E7 (1992)

NGC Number: NGC 2403

Molecular Gas in the Inner 3.2 Kiloparsecs of NGC 2403: Star Formation at Subcritical Gas Surface Densities. *Michele D. Thornley & Christine D. Wilson.* 447, 616, 184-E10 (1995)

NGC Number: NGC 2434

Dark Matter in Elliptical Galaxies. *C. M. Carollo, P. T. de Zeeuw, R. P. van der Marel, I. J. Danziger, & E. E. Qian.* 441, L25, 66-F9 (1995)

NGC Number: NGC 2444

A Multiwavelength Study of the Peculiar Interacting Galaxies Arp 143 = VV 117: Evidence for an Emerging Ring Galaxy? *P. N. Appleton, J. M. Schombert, & E. I. Robson.* 385, 491, 19-C8 (1992)

NGC Number: NGC 2445

A Multiwavelength Study of the Peculiar Interacting Galaxies Arp 143 = VV 117: Evidence for an Emerging Ring Galaxy? *P. N. Appleton, J. M. Schombert, & E. I. Robson.* 385, 491, 19-C8 (1992)

NGC Number: NGC 2613

A Search for Dead Quasars among Nearby Luminous Galaxies. I. The Stellar Kinematics in the Nuclei of NGC 2613, NGC 4699, NGC 5746, and NGC 7331. *Gary A. Bower, Douglas O. Richstone, Gregory D. Bothun, & Timothy M. Heckman.* 402, 76, 2-A12 (1993)

NGC Number: NGC 2639

The H_2O Megamasers in NGC 2639—Evidence for an Accretion Disk in a LINER Nucleus. *A. S. Wilson, J. A. Braatz, & C. Henkel.* 455, L127, 333-F12 (1995)

NGC Number: NGC 2663

Dark Matter in Elliptical Galaxies. *C. M. Carollo, P. T. de Zeeuw, R. P. van der Marel, I. J. Danziger, & E. E. Qian.* 441, L25, 66-F9 (1995)

NGC Number: NGC 2685

Detection of CO $J = 2 \rightarrow 1$ Emission from the Polar Rings of NGC 2685 and NGC 4650A. *Dan M. Watson, Matthew T. Guptill, & Leah M. Buchholz.* 420, L21, 7-D1 (1994)

NGC Number: NGC 2775

The Properties of NGC 2777: Are Companion Galaxies Young? *Halton Arp & Jack W. Sulentic.* 375, 569, 119-G1 (1991)

NGC Number: NGC 2777

The Properties of NGC 2777: Are Companion Galaxies Young? *Halton Arp & Jack W. Sulentic.* 375, 569, 119-G1 (1991)

NGC Number: NGC 2782

The Discovery of a Long H I Plume near the Peculiar Galaxy NGC 2782 (Arp 215). *Beverly J. Smith.* 378, 39, 151-E1 (1991)

NGC Number: NGC 2841

Galactic Disk Warps. *Konrad Kuijken.* 376, 467, 132-C4 (1991)

NGC Number: NGC 2865

Neutral Hydrogen Associated with Shells and Other Fine Structure in NGC 2865: A Dynamically Young Elliptical? *D. Schiminovich, J. H. van Gorkom, J. M. van der Hulst, & D. F. Malin.* 444, L77, 130-D1 (1995)

NGC Number: NGC 2903

The Interstellar Medium of the Hot-Spot Galaxy NGC 2903. *James M. Jackson, Andreas Eckart, Murray Cameron, Wolfgang Wild, Paul T. P. Ho, Richard W. Pogge, & Andrew I. Harris.* 375, 105, 112-C9 (1991)

NGC Number: NGC 3031

Radio-Size Estimates of SN 1993J. *J. M. Marcaide, A. Alberdi, P. Elósegui, J. C. Guirado, F. Mantovani, E. Pérez, M. I. Ratner, A. Rius, A. E. E. Rogers, B. P. Schmidt, I. I. Shapiro, & A. R. Whitney.* 424, L25, 69-D6 (1994)

SN 1993J: The Early Radio Emission and Evidence for a Changing Presupernova Mass-Loss Rate. *Schuyler D. Van Dyk, Kurt W. Weiler, Richard A. Sramek, Michael P. Rupen, & Nino Panagia.* 432, L115, 207-A9 (1994)

NGC Number: NGC 3034

Near-Infrared [Fe II] Emission of M82 Supernova Remnants: Implications for Tracing the Supernova Content of Galaxies. *Matthew A. Greenhouse, Charles E. Woodward, Harley A. Thronson, Jr., Richard J. Rudy, George S. Rossano, Peter Erwin, & R. C. Puetter.* 383, 164, 214-B1 (1991)

NGC Number: NGC 3067

New Observations of the Gas Cloud Associated with the Quasar-Galaxy Pair 3C 232/NGC 3067. *John T. Stocke, James Case, Megan Donahue, J. Michael Shull, & Theodore P. Snow.* 374, 72, 98-G7 (1991)

NGC Number: NGC 3079

The Neutral Hydrogen Distribution of NGC 3079. *Judith A. Irwin & E. R. Seaquist.* 371, 111, 61-D9 (1991)

Detection of Ca II Absorption in the QSO 0958+559 Due to a Heiles Shell in NGC 3079. *Donna S. Womble, Vesa T. Junkkarinen, & E. Margaret Burbidge.* 388, 55, 49-G1 (1992)

Outflowing Molecular Gas in NGC 3079. *Judith A. Irwin & Yoshiaki Sofue.* 396, L75, 167-B1 (1992)

Neutral Hydrogen Absorption in NGC 1068 and NGC 3079. *J. F. Gallimore, S. A. Baum, C. P. O'Dea, E. Brinks, & A. Pedlar.* 422, L13, 36-C9 (1994)

The Nuclear Superbubble of NGC 3079. *S. Veilleux, G. Cecil, J. Bland-Hawthorn, R. B. Tully, A. V. Filippenko, & W. L. W. Sargent.* 433, 48, 208-G2 (1994)

The Interstellar Disk–Halo Connection in the Spiral Galaxy NGC 3079. *Sylvain Veilleux, Gerald Cecil, & J. Blañd-Hawthorn.* 445, 152, 134-D11 (1995)

The Nuclear Structure of NGC 3079. *Willem A. Baan & Judith A. Irwin.* 446, 602, 164-D9 (1995)

NGC Number: NGC 3109

The Distance to Nearby Galaxy NGC 3109 Based on the Tip of the Red Giant Branch. *Myung Gyoon Lee.* 408, 409, 90-C8 (1993)

NGC Number: NGC 3115

Evidence for a Supermassive Black Hole in NGC 3115. *John Kormendy & Douglas Richstone.* 393, 559, 122-G1 (1992)

NGC Number: NGC 3147

Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)

NGC Number: NGC 3198

Sharp Edges to Neutral Hydrogen Disks in Galaxies and the Extragalactic Radiation Field. *Philip Maloney.* 414, 41, 170-E8 (1993)

Photoionization of Disk Galaxies: An Explanation of the Sharp Edges in the H I Distribution. *James B. Dove & J. Michael Shull.* 423, 196, 48-E3 (1994)

NGC Number: NGC 3227

Rapid X-Ray Spectral Variability in NGC 3227. *A. Ptak, T. Yaqoob, P. J. Serlemitsos, R. Mushotzky, & C. Otani.* 436, L31, 268-G2 (1994)

Complex Ionization Structure and Kinematics in the Circumnuclear Region of NGC 3227. *S. Arribas & E. Mediavilla.* 437, 149, 285-C4 (1994)

Spectroscopic Monitoring of Active Galactic Nuclei from CTIO. I. NGC 3227. *Cláudia Winge, Bradley M. Peterson, Keith Horne, Richard W. Pogge, Miriani G. Pastoriza, & Thaísa Storchi-Bergmann.* 445, 680, 144-E1 (1995)

NGC Number: NGC 3256

A Near-Infrared Spectroscopic Study of the Luminous Merger NGC 3256. I. Constraints on the Initial Mass Function of the Starburst. *René Doyon, R. D. Joseph, & G. S. Wright.* 421, 101, 17-C10 (1994)

A Near-Infrared Spectroscopic Study of the Luminous Merger NGC 3256. II. Evidence for Fluorescent Molecular Hydrogen Emission. *René Doyon, G. S. Wright, & R. D. Joseph.* 421, 115, 17-D12 (1994)

The Interstellar Medium in the Starburst Regions of NGC 253 and NGC 3256. *P. Carral, D. J. Hollenbach, S. D. Lord, S. W. J. Colgan, Michael R. Haas, R. H. Rubin, & E. F. Erickson.* 423, 223, 48-G7 (1994)

Extended Infrared Line Emission Excited by Starburst and Seyfert Activity in NGC 3256 and NGC 4945. *A. F. M. Moorwood & E. Oliva.* 429, 602, 153-B9 (1994)

Radio Detection of a Double Nucleus in the Merging Galaxy NGC 3256. *R. P. Norris & Duncan A. Forbes.* 446, 594, 164-C8 (1995)

NGC Number: NGC 3265

Detection of CO Emission in the Elliptical Galaxies NGC 3265 and NGC 5666. *M. A. Gordon.* 371, 563, 68-E1 (1991)

NGC Number: NGC 3281

The Ionization Cone, Obscured Nucleus, and Gaseous Outflow in NGC 3281: A Prototypical Seyfert 2 Galaxy? *Thaisa Storchi-Bergmann, Andrew S. Wilson, & Jack A. Baldwin.* 396, 45, 155-F1 (1992)

NGC Number: NGC 3359

A Dynamical Analysis of the Barred Spiral Galaxy NGC 3359. *Roger Ball.* 395, 418, 147-E5 (1992)

The Oxygen Distribution in NGC 3359 or a Disk Galaxy in the Early Phase of Bar Formation. *Pierre Martin & Jean-René Roy.* 445, 161, 134-F3 (1995)

NGC Number: NGC 3377A

NGC 4286 and NGC 3377A: Galaxies with Mixed Morphologies between the Dwarf Im and dE/dSO Types. *Allan Sandage & G. Lyle Hoffman.* 379, L45, 175-A11 (1991)

NGC Number: NGC 3379

Is the Standard Elliptical NGC 3379 a Triaxial Disk Galaxy? *M. Capaccioli, M. Vietri, E. V. Held, & H. Lorenz.* 371, 535, 68-B12 (1991)

The Radial Velocities of Planetary Nebulae in NGC 3379. *Robin Ciardullo, George H. Jacoby, & Herwig B. Dejonghe.* 414, 454, 176-G3 (1993)

The Dispersion in the Near-Infrared Surface Brightness Fluctuations in the Virgo Cluster. *Michael A. Pahre & Jeremy R. Mould.* 433, 567, 218-A9 (1994)

NGC Number: NGC 3384

Planetary Nebulae as Probes of Dark Matter in NGC 3384. *Benoit Tremblay, David Merritt, & T. B. Williams.* 443, L5, 102-B8 (1995)

NGC Number: NGC 3395

Complex Radio Structure in the Peculiar Pair of Interacting Starburst Galaxies NGC 3395 and NGC 3396. *Zhen-Ping Huang, Qi-Feng Yin, William C. Saslaw, & David S. Heeschen.* 423, 614, 56-B5 (1994)

NGC Number: NGC 3396

Complex Radio Structure in the Peculiar Pair of Interacting Starburst Galaxies NGC 3395 and NGC 3396. *Zhen-Ping Huang, Qi-Feng Yin, William C. Saslaw, & David S. Heeschen.* 423, 614, 56-B5 (1994)

NGC Number: NGC 3504

Molecular Gasdynamics of the Young Nuclear Starburst in the Barred Galaxy NGC 3504. *Jeffrey D. P. Kenney, John E. Carlstrom, & Judith S. Young.* 418, 687, 241-A13 (1993)

NGC Number: NGC 3516

EXOSAT Observations of the Seyfert 1 Galaxy NGC 3516. *K. K. Ghosh & S. Soundararajaperumal.* 383, 574, 221-D1 (1991)

The Radio Source and Bipolar Nebulosity in the Seyfert Galaxy NGC 3516. *Takamitsu Miyaji, Andrew S. Wilson, & Ismael Pérez-Fournon.* 385, 137, 13-F1 (1992)

The Kinematics of the Extended Gas in the Seyfert Galaxy NGC 3516. *John S. Mulchaey, Zlatan Tsvetanov, Andrew S. Wilson, & Ismael Pérez-Fournon.* 394, 91, 129-B11 (1992)

Simultaneous *Ginga* and *IUE* Observations of the Seyfert Galaxy NGC 3516. *Michiel Kolman, Jules P. Halpern, Christopher Martin, Hisamitsu Awaki, & Katsuji Koyama.* 403, 592, 23-A8 (1993)

NGC Number: NGC 3593

Extended Soft X-Ray Emission in Seyfert Galaxies: *ROSAT* HRI Observations of NGC 3516, NGC 4151, and Markarian 3. *Jon A. Morse, Andrew S. Wilson, Martin Elvis, & Kimberly A. Weaver.* 439, 121, 22-G6 (1995)

NGC Number: NGC 3607

Dust and Ionized Gas in NGC 3607. *K. P. Singh, T. P. Prabhu, A. K. Kembhavi, & P. N. Bhat.* 424, 638, 72-G2 (1994)

NGC Number: NGC 3610

ROSAT PSPC Observations of Two Dynamically Young Elliptical Galaxies: NGC 4125 and NGC 3610. *G. Fabbiano & François Schweizer.* 447, 572, 183-F7 (1995)

NGC Number: NGC 3623

Far-Infrared Counterpart to the Optical and H I Plume in the Leo Triplet of Galaxies: NGC 3623, NGC 3627, and NGC 3628. *D. H. Hughes, P. N. Appleton, & J. M. Schombert.* 370, 176, 49-C11 (1991)

NGC Number: NGC 3627

Far-Infrared Counterpart to the Optical and H I Plume in the Leo Triplet of Galaxies: NGC 3623, NGC 3627, and NGC 3628. *D. H. Hughes, P. N. Appleton, & J. M. Schombert.* 370, 176, 49-C11 (1991)

Formaldehyde Absorption in the Nucleus of NGC 3628. *Willem A. Baan & W. M. Goss.* 385, 188, 14-C10 (1992)

High-Resolution CO and H I Observations of the Interacting Galaxy NGC 3627. *Xiaolei Zhang, Melvyn Wright, & Paul Alexander.* 418, 100, 232-C11 (1993)

Far-Infrared Emission from the Bulges of Early-Type Spirals: KAO Observations of NGC 4736 (M94) and NGC 3627 (M66). *Beverly J. Smith, P. M. Harvey, C. Colomé, C. Y. Zhang, J. DiFrancesco, & R. W. Pogge.* 425, 91, 81-C9 (1994)

NGC Number: NGC 3628

Far-Infrared Counterpart to the Optical and H I Plume in the Leo Triplet of Galaxies: NGC 3623, NGC 3627, and NGC 3628. *D. H. Hughes, P. N. Appleton, & J. M. Schombert.* 370, 176, 49-C11 (1991)

Formaldehyde Absorption in the Nucleus of NGC 3628. *Willem A. Baan & W. M. Goss.* 385, 188, 14-C10 (1992)

Detection of H92α Recombination Line from the Galaxies NGC 3628, IC 694, and NGC 1365. *K. R. Anantharamaiah, Jun-Hui Zhao, W. M. Goss, & F. Viallefond.* 419, 585, 255-A9 (1993)

The Nuclear X-Ray Source in NGC 3628: A Strange Active Galactic Nucleus or the Most Luminous High-Mass X-Ray Binary Known? *Michael Dahlem, Timothy M. Heckman, & Giuseppina Fabbiano.* 442, L49, 94-C9 (1995)

The Hard X-Ray Emission of NGC 3628 and the Contribution of Low-Luminosity Spiral Galaxies to the Cosmic X-Ray Background. *Tahir Yaqoob, Peter J. Serlemitsos, Andy Ptak, Richard Mushotzky, Hideyo Kunieda, & Yuichi Terashima.* 455, 508, 329-A4 (1995)

NGC Number: NGC 3690

Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)

The 8–13 Micron Spectrum of Arp 299C. *C. C. Dudley & C. G. Wynn-Williams.* 407, L65, 82-D1 (1993)

NGC Number: NGC 3706

Dark Matter in Elliptical Galaxies. *C. M. Carollo, P. T. de Zeeuw, R. P. van der Marel, I. J. Danziger, & E. E. Qian.* 441, L25, 66-F9 (1995)

NGC Number: NGC 3783

Optical Spectroscopy and Narrow-Band Images of the Variable Seyfert 1 Galaxy NGC 3783. *Claudia Winge, M. G. Pastoriza, T. Storchi-Bergmann, & S. Lípari.* 393, 98, 115-C11 (1992)

Seyfert Galaxy Ultraviolet Emission-Line Intensities and Variability: A Self-consistent Photoionization Analysis Applied to Broad-Line-emitting Gas in NGC 3783. *Anuradha P. Koratkar & Gordon M. MacAlpine.* 401, 110, 222-D3 (1992)

X-Ray Observations of the Warm Absorber in NGC 3783. *T. J. Turner, K. Nandra, I. M. George, A. C. Fabian, & K. A. Pounds.* 419, 127, 247-F8 (1993)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. V. Variability of the Ultraviolet Continuum and Emission Lines of NGC 3783. *G. A. Reichert, P. M. Rodríguez-Pascual, D. Alloin, J. Clavel, D. M. Crenshaw, G. A. Kriss, J. H. Krolik, M. A. Malkan, H. Netzer, B. M. Peterson, W. Wamsteker, A. Altamore, B. Altieri, K. S. Anderson, J. H. Blackwell, Jr., C. Boisson, N. Brosch, T. E. Carone, M. Dietrich, M .N. England, I. N. Evans, A. V. Filippenko, C. M. Gaskell, M. Goad, P. M. Gondhalekar, K. Horne, D. Kazanas, W. Kollatschny, A. P. Koratkar, K. T. Korista, G. M. MacAlpine, D. Maoz, T. Mazeh, B. McCollum, H. R. Miller, C. Mendes de Oliveira, P. T. O'Brien, M. G. Pastoriza, D. Pelat, E. Pérez, G. C. Perola, R. W. Pogge, R. L. Ptak, M. C. Recondo-González, J. Rodríguez-Espinosa, E. I. Rosenblatt, A. C. Sadun, M. Santos-Lleó, J. C. Shields, C. R. Shrader, J. M. Shull, S. M. Simkin, M. L. Sitko, M. A. J. Snijders, L. S. Sparke, G. M. Stirpe, R. Stoner, T. Storchi-Bergmann, W.-H. Sun, T. Wang, W. F. Welsh, R. J. White, C. Winge, & W. Zheng.* 425, 582, 89-A1 (1994)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VI. Variability of NGC 3783 from Ground-based Data. *G. M. Stirpe, C. Winge, B. Altieri, D. Alloin, E. L. Aguero, G. C. Anupama, R. Ashley, R. Bertram, J. H. Calderon, R. M. Catchpole, R. L. M. Corradi, E. Covino, H. A. Dottori, M. W. Feast, K. K. Ghosh, R. Gil Hutton, I. S. Glass, E. K. Grebel, L. Jorda, C. Koen, C. D. Laney, M. Maia, F. Marang, Y. D. Mayya, N. Morrell, Y. Nakada, M. G. Pastoriza, A. K. Pati, D. Pelat, B. M. Peterson, T. P. Prabhu, G. Roberts, R. Sagar, I. Salamanca, K. Sekiguchi, T. Storchi-Bergmann, A. Subramaniam, H. van Winckel, F. van Wyk, M. Villada, R. M. Wagner, P. A. Whitelock, H. Winkler, J. Clavel, M. Dietrich, W. Kollatschny, P. T. O'Brien, G. C. Perola, M. C. Recondo-González, P. Rodríguez-Pascual, & M. Santos-Lleo.* 425, 609, 89-C1 (1994)

Probing the Galactic Disk and Halo. I. The NGC 3783 Sight Line. *Limin Lu, Blair D. Savage, & Kenneth R. Sembach.* 426, 563, 105-D7 (1994)

The Discovery of an O VII Emission Line in the *ASCA* Spectrum of the Seyfert Galaxy NGC 3783. *I. M. George, T. J. Turner, & H. Netzer.* 438, L67, 19-D4 (1995)

NGC Number: NGC 3862

Discovery of an Optical Synchrotron Jet in 3C 264. *P. Crane, R. Peletier, D. Baxter, W. B. Sparks, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, P. Greenfield, R. Jedrzejewski, & A. Nota.* 402, L37, 12-D1 (1993)

NGC Number: NGC 3923

Constraints on the Formation History of the Elliptical Galaxy NGC 3923 from the Colors of Its Globular Clusters. *Stephen E. Zepf, Keith M. Ashman, & Doug Geisler.* 443, 570, 105-F7 (1995)

NGC Number: NGC 3928

Molecular Gas in the Early-Type Starburst Galaxy NGC 3928. *Jonathan G. Li, E. R. Seaquist, & L. J. Sage.* 411, L71, 142-C11 (1993)

NGC Number: NGC 3998

Spatially Resolved Ultraviolet Spectroscopy of the Liner Galaxy NGC 3998. *G. A. Reichert, G. Branduardi-Raymont, A. V. Filippenko, K. O. Mason, E. M. Puchnarewicz, & C.-C. Wu.* 387, 536, 45-C11 (1992)

High-Resolution Optical and UV Observations of the Centers of NGC 1316 and NGC 3998 with the *Hubble Space Telescope*. *G. Fabbiano, C. Fassnacht, & G. Trinchieri.* 434, 67, 226-B1 (1994)

NGC Number: NGC 4027

NGC 4027: An Interacting One-armed Spiral Galaxy with a Warped Ring. *Bikram Phookun, Lee G. Mundy, Peter J. Teuben, & Richard J. Wainscoat.* 400, 516, 216-F10 (1992)

NGC Number: NGC 4051

X-Ray Spectral Variability of the Seyfert I Galaxy NGC 4051. *Hideyo Kunieda, Satio Hayakawa, Yuzuru Tawara, Katsuji Koyama, Sachiko Tsuruta, & Karen Leighly.* 384, 482, 8-B5 (1992)

The "Drop-off" Frequency in the X-Ray Variability Power Spectrum of Active Galactic Nuclei: A Possible Characteristic Timescale in X-Ray Emission of NGC 4051. *G. Bao & E. Østgaard.* 422, L51, 44-G1 (1994)

NGC Number: NGC 4125

ROSAT PSPC Observations of Two Dynamically Young Elliptical Galaxies: NGC 4125 and NGC 3610. *G. Fabbiano & François Schweizer.* 447, 572, 183-F7 (1995)

NGC Number: NGC 4151

High-Rate Active Galaxy Monitoring at the Wise Observatory. III. The Broad-Line Region of NGC 4151. *D. Maoz, H. Netzer, T. Mazeh, S. Beck, E. Almoznino, E. Leibowitz, N. Brosch, H. Mendelson, & A. Laor.* 367, 493, 19-E1 (1991)

C IV Line Profile Correlations in NGC 4151. *R. P. Fahey, A. G. Michalitsianos, & D. Kazanas.* 371, 136, 61-F9 (1991)

Hard X-Ray Variability of NGC 4151. *F. Perotti, P. Maggioli, E. Quadrini, A. Bazzano, P. Ubertini, L. Bassani, J. B. Stephen, A. J. Court, A. J. Dean, N. A. Dipper, & R. A. Lewis.* 373, 75, 87-A1 (1991)

The Ultraviolet Spectrum of NGC 4151 from 1978 to 1990: General Characteristics and Evolution. *M.-H. Ulrich, A. Boksenberg, G. E.*

Bromage, J. Clavel, A. Elvius, M. V. Penston, G. C. Perola, & M. A. J. Snijders. 382, 483, 207-E7 (1991)

Variability of Near-Infrared Emission Lines in NGC 4151: Implications for Nuclear Star Formation. *Andrea H. Prestwich, Gillian S. Wright, & Robert D. Joseph.* 80, 205, 25-A5 (1992)

Hopkins Ultraviolet Telescope Observations of the Far-Ultraviolet Spectrum of NGC 4151. *G. A. Kriss, A. F. Davidsen, William P. Blair, C. W. Bowers, W. V. Dixon, S. T. Durrance, P. D. Feldman, H. C. Ferguson, R. C. Henry, R. A. Kimble, J. W. Kruk, Knox S. Long, H. W. Moos, & O. Vancura.* 392, 485, 108-C10 (1992)

Bidimensional Spectroscopy of the Central Kiloparsec of NGC 4151. *E. Mediavilla, S. Arribas, & J. L. Rasilla.* 396, 517, 164-A1 (1992)

Nonthermal Electron-Positron Pairs and the Break in the Hard X-Ray Spectrum of NGC 4151. *Paolo S. Coppi & Andrzej A. Zdziarski.* 398, L37, 187-F1 (1992)

Broad Band X-Ray Telescope Observations of NGC 4151: Iron Line Diagnostics. *K. A. Weaver, R. F. Mushotzky, K. A. Arnaud, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, E. A. Boldt, S. S. Holt, J. Swank, A. E. Szymkowiak, R. Kelley, A. P. Smale, & C. Done.* 401, L11, 227-B9 (1992)

OSSE Observations of NGC 4151. *M. Maisack, W. N. Johnson, R. L. Kinzer, M. S. Strickman, J. D. Kurfess, R. A. Cameron, G. V. Jung, D. A. Grabelsky, W. R. Purcell, & M. P. Ulmer.* 407, L61, 82-C10 (1993)

Acceleration Efficiency in Nonthermal Sources and the Soft Gamma Rays from NGC 4151 Observed by OSSE and SIGMA. *Andrzej A. Zdziarski, Alan P. Lightman, & Andrzej Maciołek-Niedźwiecki.* 414, L93, 185-F13 (1993)

SMM Observations of Gamma-Ray Transients. I. A Search for Variable Emission at MeV Energies from Five Galactic and Extragalactic Sources. *M. J. Harris, G. H. Share, M. D. Leising, & J. E. Grove.* 416, 601, 210-G8 (1993)

Hubble Space Telescope Imaging of the Narrow-Line Region of NGC 4151. *I. N. Evans, Z. Tsvetanov, G. A. Kriss, H. C. Ford, S. Caganoff, & A. P. Koratkar.* 417, 82, 218-B1 (1993)

The Complex Soft X-Ray Excess in NGC 4151. *K. A. Weaver, R. F. Mushotzky, K. A. Arnaud, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, A. P. Smale, & H. Netzer.* 423, 621, 56-C1 (1994)

The Nonthermal Pair Model for the X-Ray and Gamma-Ray Spectra from Active Galactic Nuclei. *Roland Svensson.* 92, 585, 39-E12 (1994)

New X-Ray Spectral Observations of NGC 4151 with *ASCA*. *K. A. Weaver, T. Yaqoob, S. S. Holt, R. F. Mushotzky, M. Matsuoka, & M. Yamauchi.* 436, L27, 268-F8 (1994)

Faint Object Camera Imaging and Spectroscopy of NGC 4151. *A. Boksenberg, R. M. Catchpole, F. Macchetto, R. Albrecht, C. Barbieri, J. C. Blades, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kampermann, I. R. King, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 440, 151, 43-C6 (1995)

High-Resolution Near-Infrared Spectra of NGC 4151: Line and Continuum Analysis. *Rodger I. Thompson.* 445, 700, 144-G5 (1995)

The Iron Kα Line Profile in NGC 4151. *T. Yaqoob, R. Edelson, K. A. Weaver, R. S. Warwick, R. F. Mushotzky, P. J. Serlemitsos, & S. S. Holt.* 453, L81, 298-D8 (1995)

The Far-Ultraviolet Spectrum of NGC 4151 as Observed with the Hopkins Ultraviolet Telescope on Astro-2. *Gerard A. Kriss, Arthur F. Davidsen, Wei Zheng, Jeffrey W. Kruk, & Brian R. Espey.* 454, L7, 307-C11 (1995)

NGC Number: NGC 4203

The Interaction between Hot and Cold Gas in Early-Type Galaxies. *Joel N. Bregman, David E. Hogg, & Morton S. Roberts.* 441, 561, 69-F9 (1995)

NGC Number: NGC 4214

Extended Soft X-Ray Emission in Seyfert Galaxies: *ROSAT* HRI Observations of NGC 3516, NGC 4151, and Markarian 3. *Jon A. Morse, Andrew S. Wilson, Martin Elvis, & Kimberly A. Weaver.* 439, 121, 22-G6 (1995)

NGC Number: NGC 4254

NGC 4254: A Spiral Galaxy with an $m = 1$ Mode and Infalling Gas. *Bikram Phookun, Stuart N. Vogel, & Lee G. Mundy.* 418, 113, 232-D12 (1993)

NGC Number: NGC 4258

Possible Deflection of a Jet by Molecular Clouds in NGC 4258. *R. L. Plante, K. Y. Lo, Jean-René Roy, Pierre Martin, & Louis Noreau.* 381, 110, 190-D4 (1991)

The Braided Jets in the Spiral Galaxy NGC 4258. *Gerald Cecil, Andrew S. Wilson, & R. Brent Tully.* 390, 365, 79-G1 (1992)

Evidence from Masers for a Rapidly Rotating Disk at the Nucleus of NGC 4258. *William D. Watson & Bradley K. Wallin.* 432, L35, 199-E8 (1994)

The Masering Torus in NGC 4258. *Aubrey D. Haschick, Willem A. Baan, & Eric W. Peng.* 437, L35, 291-F6 (1994)

Hot Shocked Gas along the Jets of NGC 4258 (M106). *G. Cecil, A. S. Wilson, & C. De Pree.* 440, 181, 43-F3 (1995)

Detection of a Subparsec Diameter Disk in the Nucleus of NGC 4258. *L. J. Greenhill, D. R. Jiang, J. M. Moran, M. J. Reid, K. Y. Lo, & M. J. Claussen.* 440, 619, 51-F8 (1995)

Optical Continuum Signature of the Jet in the Spiral Galaxy NGC 4258. *Yvan Dutil, Dominique Beauchamp, & Jean-René Roy.* 444, L85, 130-E8 (1995)

A Stringent Constraint on Alternatives to a Massive Black Hole at the Center of NGC 4258. *Eyal Maoz.* 447, L91, 190-F1 (1995)

Spectral Evidence for Shock-ionized Gas along the Jets of NGC 4258. *Gerald Cecil, Jon A. Morse, & Sylvain Veilleux.* 452, 613, 273-B4 (1995)

Optical Detection of the Hidden Nuclear Engine in NGC 4258. *Belinda J. Wilkes, Gary D. Schmidt, Paul S. Smith, Smita Mathur, & Kim K. McLeod.* 455, L13, 324-D8 (1995)

Spiral Structure in the Circumnuclear Disk at the Center of NGC 4258. *Eyal Maoz.* 455, L131, 333-G4 (1995)

NGC Number: NGC 4261

H I and CO in the Nuclear Disk of NGC 4261. *Walter Jaffe & Brian R. McNamara.* 434, 110, 226-E13 (1994)

Diffuse Hot Gas in the NGC 4261 Group of Galaxies. *David S. Davis, Richard F. Mushotzky, John S. Mulchaey, D. M. Worrall, M. Birkinshaw, & David Burstein.* 444, 582, 124-D6 (1995)

NGC Number: NGC 4264

Diffuse Hot Gas in the NGC 4261 Group of Galaxies. *David S. Davis, Richard F. Mushotzky, John S. Mulchaey, D. M. Worrall, M. Birkinshaw, & David Burstein.* 444, 582, 124-D6 (1995)

NGC Number: NGC 4273

Diffuse Hot Gas in the NGC 4261 Group of Galaxies. *David S. Davis, Richard F. Mushotzky, John S. Mulchaey, D. M. Worrall, M. Birkinshaw, & David Burstein.* 444, 582, 124-D6 (1995)

NGC Number: NGC 4286

NGC 4286 and NGC 3377A: Galaxies with Mixed Morphologies between the Dwarf Im and dE/dSO Types. *Allan Sandage & G. Lyle Hoffman.* 379, L45, 175-A11 (1991)

NGC Number: NGC 4303

The Oxygen Abundance Gradient in the Barred Spiral Galaxy NGC 4303. *Pierre Martin & Jean-René Roy.* 397, 463, 176-D13 (1992)

NGC Number: NGC 4314

The Gravitational Potential of the Bar in NGC 4314. *A. C. Quillen, Jay A. Frogel, & Rosa A. González.* 437, 162, 285-D6 (1994)

NGC Number: NGC 4319

The Near-Ultraviolet Spectrum of Markarian 205. *John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, George F. Hartig, & Edward B. Jenkins.* 398, 495, 190-C7 (1992)

Interstellar Mg II and C IV Absorption toward Markarian 205 by NGC 4319: An "Optically Thick" QSO Absorption System. *David V. Bowen & J. Chris Blades.* 403, L55, 27-B8 (1993)

NGC Number: NGC 4321

The Optical Recovery of SN 1979C in NGC 4321 (M100). *Robert A. Fesen & David M. Matonick.* 407, 110, 70-D9 (1993)

Star Formation in the Spiral Arms of NGC 4321. II. H I Distribution and Kinematics. *Johan H. Knapen, Jordi Cepa, John E. Beckman, M. Soledad del Rio, & Alan Pedlar.* 416, 563, 210-D1 (1993)

First *Hubble Space Telescope* Observations of the Brightest Stars in the Virgo Galaxy M100 = NGC 4321. *Wendy L. Freedman, Barry F. Madore, Peter B. Stetson, Shaun M. G. Hughes, Jon A. Holtzman, Jeremy R. Mould, John T. Trauger, John S. Gallagher III, Gilda E. Ballester, Christopher J. Burrows, Stefano Casertano, John T. Clarke, David Crisp, Laura Ferrarese, Holland Ford, J. A. Graham, Richard E. Griffiths, J. Jeff Hester, Robert Hill, John G. Hoessel, John Huchra, Robert C. Kennicutt, Paul A. Scowen, Bill Sparks, Karl R. Stapelfeldt, Alan M. Watson, & Jim Westphal.* 435, L31, 251-G9 (1994)

The Striking Near-Infrared Morphology of the Inner Region in M100. *J. H. Knapen, J. E. Beckman, I. Shlosman, R. F. Peletier, C. H. Heller, & R. S. de Jong.* 443, L73, 111-G3 (1995)

The Central Region in M100: Observations and Modeling. *J. H. Knapen, J. E. Beckman, C. H. Heller, I. Shlosman, & R. S. de Jong.* 454, 623, 310-B4 (1995)

NGC Number: NGC 4365

ROSAT PSPC Observations of Two X-Ray–faint Early-Type Galaxies: NGC 4365 and NGC 4382. *G. Fabbiano, D.-W. Kim, & G. Trinchieri.* 429, 94, 145-C12 (1994)

NGC Number: NGC 4374

Discovery and Implications of Very Low Metal Abundances in NGC 1404 and NGC 4374. *M. Loewenstein, R. F. Mushotzky, T. Tamura, Y. Ikebe, K. Makishima, K. Matsushita, H. Awaki, & P. J. Serlemitsos.* 436, L75, 269-F1 (1994)

NGC Number: NGC 4382

ROSAT PSPC Observations of Two X-Ray–faint Early-Type Galaxies: NGC 4365 and NGC 4382. *G. Fabbiano, D.-W. Kim, & G. Trinchieri.* 429, 94, 145-C12 (1994)

NGC Number: NGC 4388

The Ionizing Radiation Field of NGC 4388 and Its Relation to the Extranuclear Emission-Line Regions. *Luis Colina.* 386, 59, 24-G5 (1992)

NGC Number: NGC 4395

HST Observations of NGC 4395, the Least Luminous Seyfert 1 Nucleus: Evidence against the Starburst Hypothesis for Broad-lined Active Galactic Nuclei. *Alexei V. Filippenko, Luis C. Ho, & Wallace L. W. Sargent.* 410, L75, 125-F11 (1993)

NGC Number: NGC 4435

Gas Filaments in the Collisional Debris of NGC 4438. *Jeffrey D. P. Kenney, Vera C. Rubin, Pere Planesas, & Judith S. Young.* 438, 135, 3-B10 (1995)

NGC Number: NGC 4438

Gas Filaments in the Collisional Debris of NGC 4438. *Jeffrey D. P. Kenney, Vera C. Rubin, Pere Planesas, & Judith S. Young.* 438, 135, 3-B10 (1995)

NGC Number: NGC 4449

Supergiant Filaments of Ionized Gas in Irregular Galaxies. *Deidre A. Hunter & John S. Gallagher III.* 391, L9, 91-G7 (1992)

Star Formation in NGC 4449: MAMA-Detector UV Imagery and Fabry-Perot Balmer-Line Imagery. *Robert S. Hill, Allen T. Home, Andrew M. Smith, Fred C. Bruhweiler, K. P. Cheng, Paul M. N. Hintzen, & Ronald J. Oliversen.* 430, 568, 168-G5 (1994)

NGC Number: NGC 4472

Multicolor CCD Photometry of Globular Clusters in Two Virgo Elliptical Galaxies. *Jean Couture, William E. Harris, & J. W. B. Allwright.* 372, 97, 75-C1 (1991)

Dark Matter in NGC 4472. *Michael Loewenstein.* 384, 474, 8-A9 (1992)

UGC 7636 and NGC 4472: Tidal Interaction between a Stripped Dwarf Irregular and a Giant Elliptical Galaxy. *Richard J. Patterson & Trinh X. Thuan.* 400, L55, 220-C7 (1992)

Stellar Dynamical Evidence for Dark Halos in Elliptical Galaxies: The Case of NGC 4472, IC 4296, and NGC 7144. *R. P. Saglia, G. Bertin, F. Bertola, J. Danziger, H. Dejonghe, E. M. Sadler, M. Stiavelli, P. T. de Zeeuw, & W. W. Zeilinger.* 403, 567, 22-F1 (1993)

Broad-Band X-Ray Telescope Observations of the Hot Interstellar Media in NGC 1399 and NGC 4472. *P. J. Serlemitsos, M. Loewenstein, R. F. Mushotzky, F. E. Marshall, & R. Petre.* 413, 518, 163-A1 (1993)

The Heavy Element Abundance in the Hot Corona of the Bright Elliptical Galaxy NGC 4472. *W. Forman, C. Jones, L. David, M. Franx, K. Makishima, & T. Ohashi.* 418, L55, 245-B1 (1993)

NGC Number: NGC 4486

Narrowband *HST* Images of M87: Evidence for a Disk of Ionized Gas around a Massive Black Hole. *Holland C. Ford, Richard J. Harms, Zlatan I. Tsvetanov, George F. Hartig, Linda L. Dressel, Gerard A. Kriss, Ralph C. Bohlin, Arthur F. Davidsen, Bruce Margon, & Ajay K. Kochhar.* 435, L27, 251-F11 (1994)

Hubble Space Telescope Observations of Globular Clusters in M87 and an Estimate of H_0. *Bradley C. Whitmore, William B. Sparks, Ray A. Lucas, F. Duccio Macchetto, & John A. Biretta.* 454, L73, 315-C1 (1995)

NGC Number: NGC 4507

Detection of Soft Gamma-Ray Emission from the Seyfert 2 Galaxy NGC 4507 by the OSSE Telescope. *L. Bassani, G. Malaguti, E. Jourdain, J. P. Roques, & W. N. Johnson.* 444, L73, 130-C8 (1995)

NGC Number: NGC 4526

Analysis of the Type Ia Supernova SN 1994D. *P. Höflich.* 443, 89, 96-D9 (1995)

Probing the Interstellar Medium along the Lines of Sight to SN 1994D and SN 1994I. *Luis C. Ho & Alexei V. Filippenko.* 444, 165, 115-E13 (1995)

NGC Number: NGC 4527

Observations of Ca II Absorption along the Nearly Parallel Lines of Sight toward 3C 273 and SN 1991T. *David M. Meyer & Katherine C. Roth.* 383, L41, 226-B11 (1991)

NGC Number: NGC 4550

NGC 4550: A Laboratory for Testing Galaxy Formation. *Hans-Walter Rix, Marijn Franx, David Fisher, & Garth Illingworth.* 400, L5, 214-B1 (1992)

Separatrix Crossing and the Enigma of NGC 4550. *N. W. Evans & J. L. Collett.* 420, L67, 15-C13 (1994)

Instabilities of Counterrotating Stellar Disks. *J. A. Sellwood & David Merritt.* 425, 530, 88-C5 (1994)

NGC Number: NGC 4565

Polarized Radio Emission from the Edge-on Spiral Galaxies NGC 891 and NGC 4565. *S. Sukumar & R. J. Allen.* 382, 100, 201-D1 (1991)

The Structure of NGC 4565 at 100, 160, and 200 Microns: Continuum Dust Emission in a Quiescent Sb Galaxy. *G. Engargiola & D. A. Harper.* 394, 104, 129-C13 (1992)

Warm Ionized Gas in the Edge-on Galaxies NGC 4565 and NGC 4631. *Richard J. Rand, Shrinivas R. Kulkarni, & J. Jeff Hester.* 396, 97, 156-C6 (1992)

NGC Number: NGC 4568

The Radio Emission from the Type Ic Supernova SN 1990B. *Schuyler D. Van Dyk, Richard A. Sramek, Kurt W. Weiler, & Nino Panagia.* 409, 162, 99-A3 (1993)

NGC Number: NGC 4571

High-Resolution Imaging of Virgo Cluster Galaxies. I. The Distance Based on the Brightest Stars in NGC 4571. *Michael J. Pierce, Robert D. McClure, & René Racine.* 393, 523, 122-C9 (1992)

NGC Number: NGC 4589

Uncovering the Intrinsic Shapes of Elliptical Galaxies. III. Practical Modeling. *Thomas S. Statler.* 425, 500, 88-A1 (1994)

NGC Number: NGC 4631

Warm Ionized Gas in the Edge-on Galaxies NGC 4565 and NGC 4631. *Richard J. Rand, Shrinivas R. Kulkarni, & J. Jeff Hester.* 396, 97, 156-C6 (1992)

ROSAT Detection of Diffuse Hot Gas in the Edge-on Galaxy NGC 4631. *Q. Daniel Wang, René A. M. Walterbos, Michael F. Steakly, Colin A. Norman, & Robert Braun.* 439, 176, 23-E13 (1995)

Star Formation Activity in Spiral Galaxy Disks and the Properties of Radio Halos: Observational Evidence for a Direct Dependence. *Michael Dahlem, Ute Lisenfeld, & Götz Golla.* 444, 119, 115-A3 (1995)

A Search for Far-Ultraviolet Emission Lines from Diffuse Hot Gas in the Halo of NGC 4631. *Henry C. Ferguson, W. Van Dyke Dixon, Arthur F. Davidsen, & Ralf-Juergen Dettmar.* 454, L23, 307-E13 (1995)

NGC Number: NGC 4636

ROSAT PSPC Observations of NGC 4636: Interaction with Virgo Gas? *G. Trinchieri, D.-W. Kim, G. Fabbiano, & C. R. C. Canizares.* 428, 555, 137-B11 (1994)

ASCA Observation of NGC 4636: Dark Matter and Metallicity Gradient. *R. F. Mushotzky, M. Loewenstein, H. Awaki, K. Makishima, K. Matsushita, & H. Matsumoto.* 436, L79, 269-F9 (1994)

NGC Number: NGC 4639

Premaximum Observations of the Type Ia SN 1990N. *Bruno Leibundgut, Robert P. Kirshner, Alexei V. Filippenko, Joseph C. Shields, Craig B. Foltz, Mark M. Phillips, & George Sonneborn.* 371, L23, 66-D1 (1991)

NGC Number: NGC 4649

Multicolor CCD Photometry of Globular Clusters in Two Virgo Elliptical Galaxies. *Jean Couture, William E. Harris, & J. W. B. Allwright.* 372, 97, 75-C1 (1991)

NGC Number: NGC 4650A

Detection of CO $J = 2 \rightarrow 1$ Emission from the Polar Rings of NGC 2685 and NGC 4650A. *Dan M. Watson, Matthew T. Guptill & Leah M. Buchholz.* 420, L21, 7-D1 (1994)

The Flattened Dark Halo of Polar Ring Galaxy NGC 4650A: A Conspiracy of Shapes? *Penny D. Sackett, Hans-Walter Rix, Brian J. Jarvis, & Kenneth C. Freeman.* 436, 629, 274-C1 (1994)

The Rotation Curves of the Polar Ring Galaxy NGC 4650A under Modified Newtonian Dynamics. *Takahiro Morishima & Hideyuki Saio.* 450, 70, 229-A12 (1995)

NGC Number: NGC 4651

Neutral Hydrogen Absorption and Emission in the Quasar/Galaxy Pair 3C 275.1/NGC 4651. *Stephen E. Schneider & Edvige Corbelli.* 414, 500, 177-D7 (1993)

NGC Number: NGC 4654

NGC 4654: A Virgo Cluster Spiral Interacting with the Intracluster Medium. *Bikram Phookun & Lee G. Mundy.* 453, 154, 283-C6 (1995)

NGC Number: NGC 4691

The Central Regions of NGC 4691: A Remarkable Structure with a Fast Outflow near the Nucleus. *J. A. García-Barreto, J. Franco, J. Guichard, & R. Carrillo.* 451, 156, 248-B13 (1995)

NGC Number: NGC 4699

A Search for Dead Quasars among Nearby Luminous Galaxies. I. The Stellar Kinematics in the Nuclei of NGC 2613, NGC 4699, NGC 5746, and NGC 7331. *Gary A. Bower, Douglas O. Richstone, Gregory D. Bothun, & Timothy M. Heckman.* 402, 76, 2-A12 (1993)

NGC Number: NGC 4710

Nuclear Molecular Gas in the Virgo Cluster S0 Galaxy NGC 4710. *J. M. Wrobel & Jeffrey D. P. Kenney.* 399, 94, 196-C10 (1992)

A Study of Molecular Gas in the Center of the S0 Galaxy NGC 4710. *G. A. Welch & G. F. Mitchell.* 427, 770, 122-C3 (1994)

NGC Number: NGC 4736

Far-Infrared Emission from the Bulges of Early-Type Spirals: KAO Observations of NGC 4736 (M94) and NGC 3627 (M66). *Beverly J. Smith, P. M. Harvey, C. Colomé, C. Y. Zhang, J. DiFrancesco, & R. W. Pogge.* 425, 91, 81-C9 (1994)

NGC Number: NGC 4782/4783

Ballistic Models for Radio Jets in Colliding Galaxies: 3C 278 (NGC 4782/4783). *Kirk D. Borne & Luis Colina.* 416, 157, 203-A8 (1993)

NGC Number: NGC 4826

Counterrotating Gaseous Disks in NGC 4826. *Robert Braun, René A. M. Walterbos, Robert C. Kennicutt, Jr., & Linda J. Tacconi.* 420, 558, 9-E6 (1994)

K'-Band Observations of the Evil Eye Galaxy: Are the Optical and Near-Infrared Dust Albedos Identical? *Adolf N. Witt, Rebecca S. Lindell, David L. Block, & Rhodri Evans.* 427, 227, 112-G1 (1994)

Placid Stars and Excited Gas in NGC 4826. *Hans-Walter R. Rix, Robert C. Kennicutt, Jr., Robert Braun, & Rene A. M. Walterbos.* 438, 155, 3-D9 (1995)

NGC Number: NGC 4874

Mass Concentrations Associated with Extended X-Ray Sources in the Core of the Coma Cluster. *A. Vikhlinin, W. Forman, & C. Jones.* 435, 162, 245-E3 (1994)

Measurements of Globular Cluster Specific Frequencies and Luminosity Function Widths in Coma. *John P. Blakeslee & John L. Tonry.* 442, 579, 87-G8 (1995)

NGC Number: NGC 4881

Mass Concentrations Associated with Extended X-Ray Sources in the Core of the Coma Cluster. *A. Vikhlinin, W. Forman, & C. Jones.* 435, 162, 245-E3 (1994)

NGC Number: NGC 4889

Measurements of Globular Cluster Specific Frequencies and Luminosity Function Widths in Coma. *John P. Blakeslee & John L. Tonry.* 442, 579, 87-G8 (1995)

NGC Number: NGC 4945

Far-Infrared Observations of NGC 4945 and the Circinus Galaxy. *S. K. Ghosh, R. S. Bisht, K. V. K. Iyengar, T. N. Rengarajan, S. N. Tandon, & R. P. Verma.* 391, 111, 87-D1 (1992)

NGC 4945: A Postburst Infrared Galaxy. *Jan Koornneef.* 403, 581, 22-G8 (1993)

X-Ray Evidence for Seyfert Activity Buried in the Infrared Galaxy NGC 4945. *K. Iwasawa, K. Koyama, H. Awaki, H. Kunieda, K. Makishima, T. Tsuru, T. Ohashi, & N. Nakai.* 409, 155, 98-G9 (1993)

Extended Infrared Line Emission Excited by Starburst and Seyfert Activity in NGC 3256 and NGC 4945. *A. F. M. Moorwood & E. Oliva.* 429, 602, 153-B9 (1994)

Submillimeter HCN and HCO^+ Emission from Galaxies. *James M. Jackson, Timothy A. D. Paglione, John E. Carlstrom, & Nguyen-Q- Rieu.* 438, 695, 13-F11 (1995)

NGC Number: NGC 5018

NGC 5018: A Metal-poor Giant Elliptical. *Francesco Bertola, David Burstein, & Lucio M. Buson.* 403, 573, 22-F10 (1993)

Dark Matter in Elliptical Galaxies. *C. M. Carollo, P. T. de Zeeuw, R. P. van der Marel, I. J. Danziger, & E. E. Qian.* 441, L25, 66-F9 (1995)

NGC Number: NGC 5077

Testing the Gravitational Field in Elliptical Galaxies: NGC 5077. *Francesco Bertola, Daniela Bettoni, John Danziger, Elaine Sadler, Linda Sparke, & Tim de Zeeuw.* 373, 369, 92-E10 (1991)

An *IUE* Search for Star Formation in Ellipticals with Gaseous Disks. *Francesco Bertola, David Burstein, Lucio M. Buson, & Alvio Renzini.* 403, 577, 22-G1 (1993)

NGC Number: NGC 5128

An Infrared Jet in Centaurus A: A Link to the Extranuclear Activity in Distant Radio Galaxies? *Marshall Joy, P. M. Harvey, E. V. Tollestrup, K. Sellgren, P. J. McGregor, & A. R. Hyland.* 366, 82, 2-A13 (1991)

The Structure and Dynamics of the Gaseous and Stellar Components in Centaurus A. *Richard A. Nicholson, Jonathan Bland-Hawthorn, & Keith Taylor.* 387, 503, 45-A1 (1992)

The Kinematics of the Molecular Gas in Centaurus A. *A. C. Quillen, P. T. de Zeeuw, E. S. Phinney, & T. G. Phillips.* 391, 121, 87-D13 (1992)

Near-Infrared Images of the Nuclear Region of NGC 5128. *Paula C. Turner, William J. Forrest, Judith L. Pipher, & Mark A. Shure.* 393, 648, 123-G7 (1992)

VLA Observations of the Inner Lobes of Centaurus A. *David A. Clarke, Jack O. Burns, & Michael L. Norman.* 395, 444, 147-G7 (1992)

The Warped Disk of Centaurus A in the Near-Infrared. *A. C. Quillen, James R. Graham, & Jay A. Frogel.* 412, 550, 150-E7 (1993)

The Planetary Nebula System and Dynamics of NGC 5128. I. Planetary Nebulae as Standard Candles. *Xiaohui Hui, Holland C. Ford, Robin Ciardullo, & George H. Jacoby.* 414, 463, 177-A1 (1993)

Shock Excitation of the Emission-Line Filaments in Centaurus A. *Ralph S. Sutherland, Geoffrey V. Bicknell, & Michael A. Dopita.* 414, 510, 177-E7 (1993)

SMM Observations of Gamma-Ray Transients. I. A Search for Variable Emission at MeV Energies from Five Galactic and Extragalactic Sources. *M. J. Harris, G. H. Share, M. D. Leising, & J. E. Grove.* 416, 601, 210-G8 (1993)

The Planetary Nebula System and Dynamics of NGC 5128. II. A Planetary Nebula Catalog. *Xiaohui Hui, Holland C. Ford, Robin Ciardullo, & George H. Jacoby.* 88, 423, 46-B1 (1993)

Discovery of Neutral Hydrogen Associated with the Diffuse Shells of NGC 5128 (Centaurus A). *D. Schiminovich, J. H. van Gorkom, J. M. van der Hulst, & S. Kasow.* 423, L101, 60-D13 (1994)

OSSE Observations of Gamma-Ray Emission from Centaurus A. *R. L. Kinzer, W. N. Johnson, C. D. Dermer, J. D. Kurfess, M. S. Strickman, J. E. Grove, R. A. Kroeger, D. A. Grabelsky, W. R. Purcell, M. P. Ulmer, G. V. Jung, & K. McNaron-Brown.* 449, 105, 211-F1 (1995)

The Planetary Nebula System and Dynamics of NGC 5128. III. Kinematics and Halo Mass Distributions. *Xiaohui Hui, Holland C. Ford, Kenneth C. Freeman, & Michael A. Dopita.* 449, 592, 221-A1 (1995)

NGC Number: NGC 5194

Probing the Interstellar Medium along the Lines of Sight to SN 1994D and SN 1994I. *Luis C. Ho & Alexei V. Filippenko.* 444, 165, 115-E13 (1995)

NGC Number: NGC 5236

The Reddening Law outside the Local Group Galaxies: The Case of NGC 7552 and NGC 5236. *Anne L. Kinney, Daniela Calzetti, Eduardo Bica, & Thaisa Storchi-Bergmann.* 429, 172, 146-C2 (1994)

NGC Number: NGC 5252

High-Excitation Extranuclear Gas in Seyfert Galaxies. *Christopher A. Haniff, Martin J. Ward, & Andrew S. Wilson.* 368, 167, 25-B5 (1991)

New Evidence for an Anisotropic Radiation Field in NGC 5252. *M. Almudena Prieto & Wolfram Freudling.* 418, 668, 240-G2 (1993)

NGC Number: NGC 5253

The Distance to the Type Ia Supernova 1972E and Its Parent Galaxy NGC 5253: A Prediction. *David Branch, Adam Fisher, Tibor J. Herczeg, Douglas L. Miller, & Peter Nugent.* 421, L87, 29-F3 (1994)

The Cepheid Distance to NGC 5253: Calibration of M(max) for the Type I Supernovae SN 1972E and SN 1895B. *Allan Sandage, A. Saha, G. A. Tammann, Lukas Labhardt, Hans Schwengler, N. Panagia, & F. D. Macchetto.* 423, L13, 53-C5 (1994)

Discovery of Cepheids in NGC 5253: Absolute Peak Brightness of SN Ia 1895B and SN Ia 1972E and the Value of H_0. *A. Saha, Allan Sandage, Lukas Labhardt, Hans Schwengeler, G. A. Tammann, N. Panagia, & F. D. Macchetto.* 438, 8, 1-C12 (1995)

Soft X-Ray Emission from NGC 5253 and the Ionized Interstellar Medium. *Crystal L. Martin & Robert C. Kennicutt, Jr.* 447, 171, 174-E2 (1995)

The Peak Brightness of SN 1895B in NGC 5253 and the Hubble Constant. *Bradley E. Schaefer.* 447, L13, 180-E3 (1995)

The Peculiar H I Kinematics of the Wolf-Rayet Starburst Galaxy NGC 5253. *Henry A. Kobulnicky & Evan D. Skillman.* 454, L121, 316-B6 (1995)

NGC Number: NGC 5457

On the Distribution of Pitch Angles in External Galactic Spirals NGC 1232 and NGC 5457. *William S. Russell & William W. Roberts, Jr.* 398, 94, 183-B9 (1992)

The Optical Recovery of SN 1970G in M101 (NGC 5457). *Robert A. Fesen.* 413, L109, 168-G13 (1993)

NGC Number: NGC 5506

Soft Variability and Reflection Features in the X-Ray Spectrum of the Seyfert Galaxy NGC 5506. *I. A. Bond, M. Matsuoka, & M. Yamauchi.* 405, 179, 43-C7 (1993)

Soft X-Ray Spectra of Seyfert 2 Galaxies. *John S. Mulchaey, Edward Colbert, Andrew S. Wilson, Richard F. Mushotzky, & Kimberly A. Weaver.* 414, 144, 171-G1 (1993)

NGC Number: NGC 5548

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. I. An 8 Month Campaign of Monitoring NGC 5548 with *IUE*. *J. Clavel, G. A. Reichert, D. Alloin, D. M. Crenshaw, G. Kriss, J. H. Krolik, M. A. Malkan, H. Netzer, B. M. Peterson, W. Wamsteker, A. Altamore, T. Baribaud, P. Barr, S. Beck, L. Binette, G. E. Bromage, N. Brosch, A. I. Diaz, A. V. Filippenko, K. Fricke, C. M. Gaskell, P. Giommi, I. S. Glass, P. Gondhalekar, R. L. Hackney, J. P. Halpern, D. J. Hutter, S. Jörsäter, A. L. Kinney, W. Kollatschny, A. Koratkar, K. T. Korista, A. Laor, J.-P. Lasota, E. Leibowitz, D. Maoz, P. G. Martin, T. Mazeh, E. J. A. Meurs, A. D. Nair, P. O'Brien, D. Pelat, E. Perez, G. C. Perola, R. L. Ptak, P. Rodríguez-Pascual, E. I. Rosenblatt, A. C. Sadun, M. Santos-Lleo, R. A. Shaw, P. S. Smith, G. M. Stirpe, R. Stoner, W. H. Sun, M.-H. Ulrich, E. van Groningen, & W. Zheng.* 366, 64, 1-G7 (1991)

Echo Mapping of Broad Hβ Emission in NGC 5548. *Keith Horne, William F. Welsh, & Bradley M. Peterson.* 367, L5, 17-B10 (1991)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. II. An Intensive Study of NGC 5548 at Optical Wavelengths. *B. M. Peterson, T. J. Balonek, E. S. Barker, J. Bechtold, R. Bertram, N. G. Bochkarev, M. J. Bolte, D. Bond, T. A. Boroson, M. T. Carini, T. E. Carone, J. A. Christensen, S. D. Clements, A. L. Cochran, R. D. Cohen, D. Crampton, M. Dietrich, M. Elvis, A. Ferguson, A. V. Filippenko, K. J. Fricke, C. M. Gaskell, J. P. Halpern, J. P. Huchra, J. B. Hutchings, W. Kollatschny, A. P. Koratkar, K. T. Korista, J. H. Krolik, N. J. Lame, A. Laor, R. J. Leacock, G. M. MacAlpine, M. A. Malkan, D. Maoz, H. R. Miller, S. L. Morris, H. Netzer, C. L. M. Oliveira, J. Penfold, M. V. Penston, E. Pérez, R. W. Pogge, M. W. Richmond, W. Romanishin, E. I. Rosenblatt, L. Saddlemyer, A. Sadun, S. R. Sawyer, J. C. Shields, A. I. Shapovalova, A. G. Smith, H. A. Smith, P. S. Smith, W.-H. Sun, U. Thiele, T. J. Turner, S. Veilleux, R. M. Wagner, R. J. Weymann, B. J. Wilkes, B. J. Wills, D. Wills, & P. F. Younger.* 368, 119, 24-E3 (1991)

Ultraviolet Variability of NGC 5548: Dynamics of the Continuum Production Region and Geometry of the Broad-Line Region. *J. H. Krolik, Keith Horne, T. R. Kallman, M. A. Malkan, R. A. Edelson, & G. A. Kriss.* 371, 541, 68-C6 (1991)

IUE Observations of NGC 5548, 1978–1988: The Sizes and Kinematics of the Broad-Line Region. *Anuradha P. Koratkar & C. Martin Gaskell.* 375, 85, 112-A13 (1991)

Anisotropic Line Emission and the Geometry of the Broad-Line Region in Active Galactic Nuclei. *G. J. Ferland, B. M. Peterson, K. Horne, W. F. Welsh, & S. N. Nahar.* 387, 95, 38-C1 (1992)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. III. Further Observations of NGC 5548 at Optical Wavelengths. *B. M. Peterson, D. Alloin, D. Axon, T. J. Balonek, R. Bertram, T. A. Boroson, J. A. Christensen, S. D. Clements, M. Dietrich, M. Elvis, A. V. Filippenko, C. M. Gaskell, C. A. Haswell, J. P. Huchra, N. Jackson, W. Kollatschny, K. T. Korista, N. J. Lame, R. J. Leacock, S.-N. Lin, M. A. Malkan, A. S. Monk, M. V. Penston, R. W. Pogge, A. Robinson, E. I. Rosenblatt, J. C. Shields, A. G. Smith, G. M. Stirpe, W.-H. Sun, T. J. Turner, R. M. Wagner, B. J. Wilkes, & B. J. Wills.* 392, 470, 108-B7 (1992)

Correlated Hard X-Ray and Ultraviolet Variability in NGC 5548. *J. Clavel, K. Nandra, F. Makino, K. A. Pounds, G. A. Reichert, C. M. Urry, W. Wamsteker, M. Peracaula-Bosch, G. C. Stewart, & C. Otani.* 393, 113, 115-E1 (1992)

Line Profile and Variability Data to Probe the Broad-Line Region Geometry: Of Disks and Nests. *F. Mannucci, M. Salvati, & R. M. Stanga.* 394, 98, 129-C6 (1992)

Does the Inner Broad-Line Region Dim Down When the Power Turns Up? *Linda S. Sparke.* 404, 570, 36-B1 (1993)

Variations of the Ultraviolet Fe II and Balmer Continuum Emission in the Seyfert Galaxy NGC 5548. *D. Maoz, H. Netzer, B. M. Peterson, J. Bechtold, R. Bertram, N. G. Bochkarev, T. E. Carone, M. Dietrich, A. V. Filippenko, W. Kollatschny, K. T. Korista, A. I. Shapovalova, J. C. Shields, P. S. Smith, U. Thiele, & R. M. Wagner.* 404, 576, 36-B8 (1993)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. IV. Intensity Variations of the Optical Emission Lines of NGC 5548. *M. Dietrich, W. Kollatschny, B. M. Peterson, J. Bechtold, R. Bertram, N. G. Bochkarev, T. A Boroson, T. E. Carone, M. Elvis, A. V. Filippenko, C. M. Gaskell, J. P. Huchra, J. B. Hutchings, A. P. Koratkar, K. T. Korista, N. J. Lame, A. Laor, G. M. MacAlpine, M. A. Malkan, C. Mendes de Oliveira, H. Netzer, J. Penfold, M. V. Penston, E. Pérez, R. W. Pogge, M. W. Richmond, E. I. Rosenblatt, A. I. Shapovalova, J. C. Shields, H. A. Smith, P. S. Smith, W.-H. Sun, U. Thiele, S. Veilleux, R. M. Wagner, B. J. Wilkes, B. J. Wills, & D. Wills.* 408, 416, 90-D1 (1993)

Variable C IV Absorption in the Seyfert Galaxy NGC 5548: A Connection to Broad Absorption Line Quasi-stellar Objects? *J. Michael Shull & Elise R. Sachs.* 416, 536, 210-A10 (1993)

Faint Object Spectrograph Spectra of the UV Emission Lines in NGC 5548: Detection of Strong Narrow Components. *D. Michael Crenshaw, Albert Boggess, & Chi-Chao Wu.* 416, L67, 216-D1 (1993)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VII. Variability of the Optical Spectrum of NGC 5548 over 4 Years. *B. M. Peterson, P. Berlind, R. Bertram, N. G. Bochkarev, D. Bond, M. S. Brotherton, J. R. Busler, K. K. Chuvaev, R. D. Cohen, M. Dietrich, M. Elvis, A. V. Filippenko, C. B. Foltz, P. M. Garnavich, I. C. Ho, E. Horine, K. Horne, J. P. Huchra, W. Kollatschny, K. T. Korista, M. A. Malkan, T. Matheson, M. Mignoli, S. L. Morris, L. Nazarova, J. Penfold, J. Peters, R. W. Pogge, V. I. Pronik, B. Rush, S. G. Sergeev, A. I. Shapovalova, J. C. Shields, G. M. Stirpe, S. Tokarz, R. M. Wagner, R. J. Weymann, R. J. White, B. J. Wilkes, D. Wills, B. J. Wills, C. Winge, & P. F. Younger.* 425, 622, 89-D1 (1994)

Reverberation Mapping by Regularized Linear Inversion. *Julian H. Krolik & Christine Done.* 440, 166, 43-D13 (1995)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VIII. An Intensive *HST*, *IUE*, and Ground-based Study of NGC 5548. *K. T. Korista, D. Alloin, P. Barr, J. Clavel, R. D. Cohen, D. M. Crenshaw, I. N. Evans, K. Horne, A. P. Koratkar, G. A. Kriss, J. H. Krolik, M. A. Malkan, S. L. Morris, H. Netzer, P. T. O'Brien, B. M. Peterson, G. A. Reichert, P. M. Rodríguez-Pascual, W. Wamsteker, K. S. J. Anderson, D. J. Axon, E. Benitez, P. Berlind, R. Bertram, J. H. Blackwell, Jr., N. G. Bochkarev, C. Boisson, M. Carini, R. Carrillo, T. E. Carone, F.-Z. Cheng, J. A. Christensen, K. K. Chuvaev, M. Dietrich, J. J. Dokter, V. Doroshenko, D. Dultzin-Hacyan, M. N. England, B. R. Espey, A. V. Filippenko, C. M. Gaskell, M. R. Goad, L. C. Ho, J. P. Huchra, X. J. Jiang, S. Kaspi, W. Kollatschny, A. Laor, J.-P. Luminet, G. M. MacAlpine, J. W. MacKenty, Yu. F. Malkov, D. Maoz, P. G. Martin, T. Matheson, B. McCollum, N. Merkulova, L. Metik, M. Mignoli, H. R. Miller, M. G. Pastoriza, D. Pelat, J. Penfold, M. Perez, G. C. Perola, J. L. Persaud, J. Peters, R. Pitts, R. W. Pogge, I. Pronik, V. I. Pronik, R. L. Ptak, L. Rawley, M. C. Recondo-González, J. M. Rodríguez-Espinosa, W. Romanishin, A. C. Sadun, I. Salamanca, M. Santos-Lleó, K. Sekiguchi, S. G. Sergeev, A. I. Shapovalova, J. C. Shields, C. Shrader, J. M. Shull, N. A. Silbermann, M. L. Sitko, D. R. Skillman, H. A. Smith, S. M. Smith,*

M. A. J. Snijders, L. S. Sparke, G. M. Stirpe, R. E. Stoner, W.-H. Sun, U. Thiele, S. Tokarz, Z. I. Tsvetanov, D. A. Turnshek, S. Veilleux, R. M. Wagner, S. J. Wagner, I. Wanders, T. Wang, W. F. Welsh, R. J. Weymann, R. J. White, B. J. Wilkes, B. J. Wills, C. Winge, H. Wu, & Z. L. Zou. 97, 285, 15-F7 (1995)

Testing Unified X-Ray/Ultraviolet Absorber Models with NGC 5548. *Smita Mathur, Martin Elvis, & Belinda Wilkes.* 452, 230, 265-C2 (1995)

The Geometry and Kinematics of the Broad-Line Region in NGC 5548 from *HST* and *IUE* Observations. *Ignaz Wanders, Mike R. Goad, Kirk T. Korista, Bradley M. Peterson, Keith Horne, Gary J. Ferland, Anuradha P. Koratkar, Richard W. Pogge, & Joseph C. Shields.* 453, L87, 298-E2 (1995)

The Galaxy Component and Nuclear Flux Measurements of NGC 5548 from Direct Imaging. *W. Romanishin, T. J. Balonek, R. Ciardullo, H. R. Miller, B. M. Peterson, A. C. Sadun, G. M. Stirpe, K. Takagishi, B. W. Taylor, & V. Zitelli.* 455, 516, 329-B1 (1995)

NGC Number: NGC 5643

Anisotropic High-Excitation Emission and Chemical Abundances in the Seyfert 2 Galaxy NGC 5643. *Henrique R. Schmitt, Thaisa Storchi-Bergmann, & Jack A. Baldwin.* 423, 237, 49-A9 (1994)

NGC Number: NGC 5666

Detection of CO Emission in the Elliptical Galaxies NGC 3265 and NGC 5666. *M. A. Gordon.* 371, 563, 68-E1 (1991)

NGC Number: NGC 5728

The Circumnuclear Region of NGC 5728. *S. Arribas & E. Mediavilla.* 410, 552, 120-E5 (1993)

The Ionization Cones in the Seyfert Galaxy NGC 5728. *A. S. Wilson, J. A. Braatz, T. M. Heckman, J. H. Krolik, & G. K. Miley.* 419, L61, 259-C7 (1993)

NGC Number: NGC 5774

Arcs and Bridges in the Interacting Galaxies NGC 5775/NGC 5774. *Judith A. Irwin.* 429, 618, 153-D7 (1994)

NGC Number: NGC 5775

Arcs and Bridges in the Interacting Galaxies NGC 5775/NGC 5774. *Judith A. Irwin.* 429, 618, 153-D7 (1994)

NGC Number: NGC 5746

A Search for Dead Quasars among Nearby Luminous Galaxies. I. The Stellar Kinematics in the Nuclei of NGC 2613, NGC 4699, NGC 5746, and NGC 7331. *Gary A. Bower, Douglas O. Richstone, Gregory D. Bothun, & Timothy M. Heckman.* 402, 76, 2-A12 (1993)

Establishing the Connection between Peanut-shaped Bulges and Galactic Bars. *Konrad Kuijken & Michael R. Merrifield.* 443, L13, 102-C11 (1995)

NGC Number: NGC 5930

Hubble Space Telescope Images of the Nuclear Star-forming Region in the Interacting Galaxy NGC 5930. *Gary A. Bower & Andrew S. Wilson.* 99, 543, 42-E11 (1995)

NGC Number: NGC 5965

Establishing the Connection between Peanut-shaped Bulges and Galactic Bars. *Konrad Kuijken & Michael R. Merrifield.* 443, L13, 102-C11 (1995)

NGC Number: NGC 5982

Is the Kinematically Distinct Core in NGC 5982 Necessarily the Remnant of an Accreted Companion? *Thomas S. Statler.* 382, L11, 205-B7 (1991)

NGC Number: NGC 6240

Infrared Fluorescence of H_2 in NGC 6240: A Starburst Origin for the H_2 Luminosity. *Masuo Tanaka, Tetsuo Hasegawa, & Ian Gatley.* 374, 516, 105-E9 (1991)

Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)

Near-Infrared Line Imaging of NGC 6240: Collision Shock and Nuclear Starburst. *Paul P. van der Werf, R. Genzel, A. Krabbe, M. Blietz, D. Lutz, S. Drapatz, Martin J. Ward, & Duncan A. Forbes.* 405, 522, 49-E7 (1993)

Stellar Kinematics in the Nucleus of NGC 6240: A Massive Galaxy Revealed. *Dan F. Lester & Niall I. Gaffney.* 431, L13, 182-D7 (1994)

The Radio Emission from the Ultraluminous Far-Infrared Galaxy NGC 6240. *Edward J. M. Colbert, Andrew S. Wilson, & Jonathan Bland-Hawthorn.* 436, 89, 262-D12 (1994)

The H_2 Excitation by Formation Pumping in the Merging Galaxy NGC 6240? *Hideaki Mouri & Yoshiaki Taniguchi.* 449, 134, 212-A8 (1995)

NGC Number: NGC 6251

The X-Ray Structure and Spectrum of NGC 6251. *M. Birkinshaw & D. M. Worrall.* 412, 568, 150-G4 (1993)

On the Relationship between BL Lacertae Objects and Fanaroff-Riley I Radio Galaxies. *Geoffrey V. Bicknell.* 422, 542, 38-E8 (1994)

Morphological Changes in the NGC 6251 Jet. *Dayton L. Jones & Ann E. Wehrle.* 427, 221, 112-F9 (1994)

NGC Number: NGC 6764

The Molecular Interstellar Medium and the Near-Infrared Continuum of the Barred LINER NGC 6764. *A. Eckart, M. Cameron, J. M. Jackson, R. Genzel, A. I. Harris, W. Wild, & H. Zinnecker.* 372, 67, 74-G9 (1991)

NGC Number: NGC 6814

Evidence for an Ionized Reprocessor in NGC 6814. *T. Jane Turner, Christine Done, Richard Mushotzky, Greg Madejski, & Hideyo Kunieda.* 391, 102, 87-C4 (1992)

X-Ray Spectral Structure of the Seyfert Galaxy NGC 6814. *M. Yamauchi, M. Matsuoka, N. Kawai, & A. Yoshida.* 395, 453, 148-A13 (1992)

The X-Ray Variability of NGC 6814: Power Spectrum. *C. Done, G. M. Madejski, R. F. Mushotzky, T. J. Turner, K. Koyama, & H. Kunieda.* 400, 138, 210-F1 (1992)

A Stochastic Model for the Variability of NGC 6814. *R. Vio, R. Turolla, S. Cristiani, & C. Barbieri.* 405, 163, 43-A13 (1993)

Features of the Fluorescent Iron Line from Highly Inclined Disks: Some Possible Examples for NGC 6814. *G. Bao.* 409, L41, 111-C1 (1993)

Optical Caustics in a Kerr Spacetime and the Origin of Rapid X-Ray Variability in Active Galactic Nuclei. *Kevin P. Rauch & Roger D. Blandford.* 421, 46, 16-F1 (1994)

Evidence for X-Ray Flux and Spectral Modulation by Absorption in NGC 6814. I. The Nature of the Most Rapid Variability. *Karen Leighly, Hideyo Kunieda, Yoshiyuki Tsusaka, Hisamitsu Awaki, & Sachiko Tsuruta.* 421, 69, 16-G12 (1994)

NGC Number: NGC 6822

Far-Infrared Properties of NGC 6822. *John S. Gallagher III, Deidre A. Hunter, Fred C. Gillett, & Walter L. Rice.* 371, 142, 61-G1 (1991)

A COSMOS Study of the Structure and Content of NGC 6822. *Paul Hodge, Toby Smith, Paul Eskridge, Harvey MacGillivray, & Steven Beard.* 379, 621, 172-D1 (1991)

A Comparison of the Properties of an Unbiased Sample of OB Associations in the Local Group Galaxies M33 and NGC 6822. *Christine D. Wilson.* 384, L29, 11-B1 (1992)

CO Emission from the Dwarf Irregular Galaxy NGC 6822. *Christine D. Wilson.* 391, 144, 87-G1 (1992)

Asymptotic Giant Branch Stars in NGC 6822: Probes of Star Formation History. *C. Gallart, A. Aparicio, C. Chiosi, G. Bertelli, & J. M. Vílchez.* 425, L9, 85-B13 (1994)

The H II Regions of NGC 6822. III. A Photometric Atlas. *John Collier & Paul Hodge.* 92, 119, 32-G10 (1994)

First Observations of Individual Molecular Clouds in the Irregular Galaxy NGC 6822. *Christine D. Wilson.* 434, L11, 232-C1 (1994)

The Metallicity Dependence of the CO-to-H_2 Conversion Factor from Observations of Local Group Galaxies. *Christine D. Wilson.* 448, L97, 209-C1 (1995)

Are Galaxies Optically Thin to Their Own Lyman-Continuum Radiation? II. NGC 6822. *Kanan Patel & Christine D. Wilson.* 453, 162, 283-D13 (1995)

NGC Number: NGC 6860

High-Resolution Study of Luminous Infrared Galaxies. I. The Composite Nature of the Seyfert 1 Galaxy IRAS 20044−6114 (NGC 6860). *Sebastian Lípari, Zlatan Tsvetanov, & F. Macchetto.* 405, 186, 43-D3 (1993)

NGC Number: NGC 6946

Origins of the 12–200 Micron Flux in NGC 6946: Starlight and Continuum Dust Emission from an Sc Galaxy. *G. Engargiola.* 76, 875, 36-G5 (1991)

First Observations of the CO $J = 6$–5 Transition in Starburst Galaxies. *A. I. Harris, R. E. Hills, J. Stutzki, U. U. Graf, A. P. G. Russell, & R. Genzel.* 382, L75, 211-C7 (1991)

The Abundance Gradients across the Spiral Galaxies NGC 628 and NGC 6946. *Julien Belley & Jean-René Roy.* 78, 61, 2-C7 (1992)

The Ionized Gas in the Center and in the Bar of the Spiral Galaxy NGC 6946. *Jean-René Roy & Julien Belley.* 406, 60, 55-G1 (1993)

158 Micron [C II] Mapping of NGC 6946: Probing the Atomic Medium. *S. C. Madden, N. Geis, R. Genzel, F. Herrmann, J. Jackson, A. Poglitsch, G. J. Stacey, & C. H. Townes.* 407, 579, 77-F12 (1993)

The Very Luminous Supernova Remnant in NGC 6946. *Eric M. Schlegel.* 424, L99, 79-B3 (1994)

The Optical Counterpart to the Luminous X-Ray Supernova Remnant in NGC 6946. *William P. Blair & Robert A. Fesen.* 424, L103, 79-B9 (1994)

The Radio Counterpart to the Luminous X-Ray Supernova Remnant in NGC 6946. *Schuyler D. Van Dyk, Richard A. Sramek, Kurt W. Weiler, Scott D. Hyman, & Rachel E. Virden.* 425, L77, 94-D1 (1994)

The Late-Time Optical Spectrum of SN 1980K. *Robert A. Fesen & David M. Matonick.* 428, 157, 130-B7 (1994)

A *ROSAT* Observation of the Nearby Spiral Galaxy NGC 6946. *Eric M. Schlegel.* 434, 523, 235-A4 (1994)

NGC 6946: Molecular Spiral Arms Masquerading as a Bar? *Michael W. Regan & Stuart N. Vogel.* 452, L21, 269-E11 (1995)

NGC Number: NGC 7144

Stellar Dynamical Evidence for Dark Halos in Elliptical Galaxies: The Case of NGC 4472, IC 4296, and NGC 7144. *R. P. Saglia, G. Bertin, F. Bertola, J. Danziger, H. Dejonghe, E. M. Sadler, M. Stiavelli, P. T. de Zeeuw, & W. W. Zeilinger.* 403, 567, 22-F1 (1993)

NGC Number: NGC 7217

Counterrotating Stars in the Disk of the Sab Galaxy NGC 7217. *Michael R. Merrifield & Konrad Kuijken.* 432, 575, 203-B6 (1994)

NGC 7217: A Spheroid-dominated, Early-Type Resonance Ring Spiral Galaxy. *R. Buta, W. van Driel, J. Braine, F. Combes, K. Wakamatsu, Y. Sofue, & A. Tomita.* 450, 593, 238-G13 (1995)

NGC Number: NGC 7236

The Extraordinary Radio Source 3C 442. *Neil F. Comins & Frazer N. Owen.* 382, 108, 201-E1 (1991)

NGC Number: NGC 7237

The Extraordinary Radio Source 3C 442. *Neil F. Comins & Frazer N. Owen.* 382, 108, 201-E1 (1991)

NGC Number: NGC 7252

A Merger Scenario for NGC 7252: A Tale of Two Tails. *Kirk D. Borne & Douglas O. Richstone.* 369, 111, 37-C11 (1991)

High-Resolution CO Observations of NGC 7252: A Counterrotating Central Molecular Gas Disk. *Zhong Wang, François Schweizer, & Nicholas Z. Scoville.* 396, 510, 163-G5 (1992)

Spectra of Two Luminous Young Globular Clusters in the Merger Remnant NGC 7252. *François Schweizer & Patrick Seitzer.* 417, L29, 223-B1 (1993)

NGC Number: NGC 7331

A Search for Dead Quasars among Nearby Luminous Galaxies. I. The Stellar Kinematics in the Nuclei of NGC 2613, NGC 4699, NGC 5746, and NGC 7331. *Gary A. Bower, Douglas O. Richstone, Gregory D. Bothun, & Timothy M. Heckman.* 402, 76, 2-A12 (1993)

Detection of a Nuclear Radio Source in NGC 7331: A Relatively "Radio-quiet" Liner. *John J. Cowan, W. Romanishin, & David Branch.* 436, L139, 281-C9 (1994)

NGC Number: NGC 7469

The Starburst Ring around the Seyfert Nucleus in NGC 7469. *A. S. Wilson, T. T. Helfer, C. A. Haniff, & M. J. Ward.* 381, 79, 190-A6 (1991)

Subarcsecond Mid-Infrared Imaging of the Nuclei of the Infrared Bright Galaxies NGC 1614 and NGC 7469. *Eric Keto, Roger Ball, John Arens, Garrett Jernigan, & Margaret Meixner.* 389, 223, 62-F9 (1992)

High-Resolution Mid-Infrared Observations of NGC 7469. *J. W. Miles, J. R. Houck, & T. L. Hayward.* 425, L37, 85-E13 (1994)

Iron Line Emission and Two-Component Spectral Behavior in the *ASCA* Observation of the Seyfert 1 Galaxy NGC 7469. *Matteo Guainazzi, Masaru Matsuoka, Luigi Piro, Tatehiro Mihara, & Makoto Yamauchi.* 436, L35, 268-G10 (1994)

Infrared Imaging and Spectroscopy of NGC 7469. *R. Genzel, L. Weitzel, L. E. Tacconi-Garman, M. Blietz, M. Cameron, A. Krabbe, D. Lutz, & A. Sternberg.* 444, 129, 115-B3 (1995)

NGC Number: NGC 7479

An Estimate of the Gas Inflow Rate along the Bar in NGC 7479. *A. C. Quillen, Jay A. Frogel, Jeffrey D. P. Kenney, R. W. Pogge, & D. L. DePoy.* 441, 549, 69-E8 (1995)

NGC Number: NGC 7552

The Reddening Law outside the Local Group Galaxies: The Case of NGC 7552 and NGC 5236. *Anne L. Kinney, Daniela Calzetti, Eduardo Bica, & Thaisa Storchi-Bergmann.* 429, 172, 146-C2 (1994)

NGC 7552: A Galaxy with a Dormant Active Nucleus? *Duncan A. Forbes, Jari K. Kotilainen, & A. F. M. Moorwood.* 433, L13, 214-E10 (1994)

NGC Number: NGC 7625

The Molecular Gas and Star Formation in *IRAS* Bright Early-Type Disk Galaxies. I. NGC 7625. *Jonathan G. Li, E. R. Seaquist, J. M. Wrobel, Zhong Wang, & L. J. Sage.* 413, 150, 158-A6 (1993)

NGC Number: NGC 7674

IUE Spectra and Photoionization Models of the Seyfert 2 Galaxies NGC 7674 and I Zw 92. *Steven B. Kraemer, Chi-Chao Wu, D. Michael Crenshaw, & J. Patrick Harrington.* 435, 171, 245-F1 (1994)

NGC Number: NGC 7702

Weakly Barred Early-Type Ringed Galaxies. IV. The Double-ringed $S0^+$ Galaxy NGC 7702. *R. Buta.* 370, 130, 48-F6 (1991)

NGC Number: NGC 7714

The Starburst Galaxy NGC 7714. *Rosa González-Delgado, Enrique Pérez, Ángeles I. Díaz, María Luisa García-Vargas, Elena Terlevich, & José M. Vílchez.* 439, 604, 32-F9 (1995)

NGC Number: NGC 7753–7752

The Interacting System NGC 7753–7752 (Arp 86). I. *BVRI* Photometry. *Eija Laurikainen, Heikki Salo, & Antonio Aparicio.* 410, 574, 120-G3 (1993)

The Interacting System NGC 7753–7752 (Arp 86). II. *N*-Body Modeling. *Heikki Salo & Eija Laurikainen.* 410, 586, 121-A6 (1993)

NGC Number: NGC 7771

Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)

NGC Number: NGC 8387

The Luminous Starburst Galaxy UGC 8387. *Denise A. Smith, Terry Herter, Martha P. Haynes, C. A. Beichman, & T. N. Gautier III.* 439, 623, 33-A4 (1995)

NGC Number: NGC 771415

The Evolutionary History of the Interacting Galaxy System NGC 7714/7715 (Arp 284). *Beverly J. Smith & John F. Wallin.* 393, 544, 122-E7 (1992)

Name: Arakelian 120

On the Size of the Broad-Line Region in Arakelian 120. *Bradley M. Peterson & C. Martin Gaskell.* 368, 152, 25-A1 (1991)

The Broad Emission-Line Profiles and Profile Variability. of the Seyfert 1 Galaxy Arakelian 120. *Kirk T. Korista.* 79, 285, 18-C7 (1992)

Twin Peaks: IC 4329A and Arakelian 120. *P. Marziani, M. Calvani, & J. W. Sulentic.* 393, 658, 124-A5 (1992)

Name: Arp 10

Threshold Star-Formation Effects in the Peculiar Galaxy Arp 10 (= VV 362). *V. Charmandaris, P. N. Appleton, & A. P. Marston.* 414, 154, 172-A1 (1993)

Name: Arp 102B

Variable Emission Lines as Evidence of Spiral Shocks in Accretion Disks around Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 434, 518, 234-G9 (1994)

Name: Arp 143

The Detection of Molecular Gas in the Ring Galaxy Arp 143. *James L. Higdon, Beverly J. Smith, Steven D. Lord, & Richard J. Rand.* 438, L79, 19-F7 (1995)

Name: Arp 147

A Model for Ring Galaxies: Arp 147–like Systems. *Richard A. Gerber, Susan A. Lamb, & Dinshaw S. Balsara.* 399, L51, 200-E10 (1992)

Name: Arp 193

CO Excitation and H_2 Masses of Infrared-luminous Galaxies. *Simon J. E. Radford, P. M. Solomon, & D. Downes.* 368, L15, 28-C7 (1991)

Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)

Name: Arp 220

CO Excitation and H_2 Masses of Infrared-luminous Galaxies. *Simon J. E. Radford, P. M. Solomon, & D. Downes.* 368, L15, 28-C7 (1991)

Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)

Near-Infrared [Fe II] and Paβ Imaging and Spectroscopy of Arp 220. *L. Armus, D. L. Shupe, K. Matthews, B. T. Soifer, & G. Neugebauer.* 440, 200, 44-A3 (1995)

Near-Infrared Spectroscopy of the Arp 220 Nuclei: Measuring the Nuclear Rotation. *J. E. Larkin, L. Armus, R. A. Knop, K. Matthews, & B. T. Soifer.* 452, 599, 272-G11 (1995)

Name: Arp 299

Infrared Emission Regions in the Interacting Galaxy System Arp 299. *C. G. Wynn-Williams, S. A. Eales, E. E. Becklin, K.-W. Hodapp, R. D. Joseph, I. S. McLean, D. A. Simons, & G. S. Wright.* 377, 426, 145-A13 (1991)

Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)

The 8–13 Micron Spectrum of Arp 299C. *C. C. Dudley & C. G. Wynn-Williams.* 407, L65, 82-D1 (1993)

Name: Cartwheel

Wheels of Fire. I. Massive Star Formation in the Cartwheel Ring Galaxy. *James L. Higdon.* 455, 524, 329-B12 (1995)

Name: Centaurus A

Nebular Spectra of Type Ia Supernovae as Probes for Extragalactic Distances, Reddening, and Nucleosynthesis. *P. Ruiz-Lapuente & L. B. Lucy.* 400, 127, 210-E1 (1992)

Upper Limits on TeV Gamma-Ray Emission from Centaurus A, Vela X-1, Centaurus X-3, and Circinus X-1. *W. H. Allen, I. A. Bond, E. Budding, M. J. Conway, A. Daniel, K. B. Fenton, H. Fujii, Z. Fujii, N. Hayashida, K. Hibino, M. Honda, J. E. Humble, S. Kabe, K. Kasahara, T. Kifune, G. D. Lythe, A. Masaike, Y. Matsubara, K. Mitsui, Y. Miura, M. Mori, Y. Muraki, M. Nagano, T. Nakamura, M. Nishizawa, P. M. Norris, S. Ogio, To. Saito, M. Sakata, H. Sato, H. M. Shimizu, M. Spencer, J. R. Storey, T. Tanimori, M. Teshima, S. Torii, A. Wadsworth, Y. Watase, M. D. Woodhams, Y. Yamamoto, P. C. M. Yock, & T. Yuda (The JANZOS Collaboration).* 405, 554, 50-A1 (1993)

On the Hard X-Ray Variability of Centaurus A. *E. Jourdain, L. Bassani, J. P. Roques, P. Mandrou, J. Ballet, A. Claret, P. Laurent, F. Lebrun, A. Finogenov, E. Churazov, M. Gilfanov, R. Sunyaev, A. Dyachkov, N. Khavenson, K. Sukhanov, & R. Kremnev.* 412, 586, 151-A11 (1993)

Is the High-Energy Emission from Centaurus A Compton-scattered Jet Radiation? *J. G. Skibo, C. D. Dermer, & R. L. Kinzer.* 426, L23, 103-C11 (1994)

Anomalously Excited OH and Competition between Maser Transitions toward Centaurus A. *Huib Jan van Langevelde, Ewine F. van Dishoeck, Maartje N. Sevenster, & Frank P. Israel.* 448, L123, 209-F2 (1995)

Radio Observations of the Type Ia SN 1986G as a Test of a Symbiotic-Star Progenitor. *Christopher R. Eck, John J. Cowan, Douglas A. Roberts, Francesca R. Boffi, & David Branch.* 451, L53, 260-D6 (1995)

Name: Circinus

Far-Infrared Observations of NGC 4945 and the Circinus Galaxy. *S. K. Ghosh, R. S. Bisht, K. V. K. Iyengar, T. N. Rengarajan, S. N. Tandon, & R. P. Verma.* 391, 111, 87-D1 (1992)

Name: Cygnus A

Discovery of an Infrared Nucleus in Cygnus A: An Obscured Quasar Revealed? *S. Djorgovski, N. Weir, K. Matthews, & J. R. Graham.* 372, L67, 85-C5 (1991)

Infrared Spectroscopy of Cygnus A: Implications for the Obscured Active Nucleus. *Martin J. Ward, Philip R. Blanco, Andrew S. Wilson, & Minoru Nishida.* 382, 115, 201-E11 (1991)

Multifrequency Radio Observations of Cygnus A: Spectral Aging in Powerful Radio Galaxies. *C. L. Carilli, R. A. Perley, J. W. Dreher, & J. P. Leahy.* 383, 554, 221-B9 (1991)

Mapping Cygnus A at 3 Millimeter Wavelength with the MIRIAD System. *M. C. H. Wright & R. J. Sault.* 402, 546, 9-C11 (1993)

Do Relativistic Electrons either Gain or Lose Energy, outside of Extragalactic Nuclei? *Lawrence Rudnick, Debora M. Katz-Stone, & Martha C. Anderson.* 90, 955, 15-F6 (1994)

Isolating the Physical Parameters of Synchrotron Sources. *Debora M. Katz-Stone & Lawrence Rudnick.* 426, 116, 97-E2 (1994)

X-Ray Observations of Cygnus A Using the *Ginga* Satellite. *Shiro Ueno, Katsuji Koyama, Minoru Nishida, Shigeo Yamauchi, & Martin J. Ward.* 431, L1, 182-C1 (1994)

Radiative Excitation of Molecules near Powerful Compact Radio Sources. *Philip R. Maloney, Mitchell C. Begelman, & Martin J. Rees.* 432, 606, 203-E3 (1994)

H I Absorption Toward the Nucleus of the Powerful Radio Galaxy Cygnus A: Evidence for an Atomic Obscuring Torus? *J. E. Conway & P. R. Blanco.* 449, L131, 227-C1 (1995)

Name: Draco

Abundances for Giant Stars in the Draco Dwarf Galaxy. *Matthew D. Lehnert, R. A. Bell, James E. Hesser, & J. B. Oke.* 395, 466, 148-C9 (1992)

Name: Fairall 9

From Fairall 9 to High-z Objects: Pattern of Change in Ionization Structure. *Wei Zheng, Li-Zhi Fang, & Luc Binette.* 392, 74, 102-A1 (1992)

Probing the Galactic Disk and Halo: Metal Abundances in the Magellanic Stream. *Limin Lu, Blair D. Savage, & Kenneth R. Sembach.* 437, L119, 299-D1 (1994)

Far-Ultraviolet Spectrum of Fairall 9 with the Hopkins Ultraviolet Telescope. *Wei Zheng, Gerard A. Kriss, Arthur F. Davidsen, & Jeffrey W. Kruk.* 454, L11, 307-D4 (1995)

Name: Fornax

Core Velocity Dispersions and Metallicities of Three Globular Clusters Belonging to the Fornax Dwarf Spheroidal Galaxy. *P. Dubath, G. Meylan, & M. Mayor.* 400, 510, 216-F1 (1992)

Name: Hercules A

Heavy, Overpressured Jets and the Radio Source Hercules A. *David L. Meier, Alberto C. Sadun, & Kevin R. Lind.* 379, 141, 164-F9 (1991)

Name: Holmberg IX

Ultraviolet Imaging Telescope Images: Limits on Recent Star Formation in Holmberg IX. *Jesse K. Hill, Susan E. Gessner, Ralph C. Bohlin, Kwang-Ping Cheng, Paul M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 402, L45, 12-E1 (1993)

The Optical Counterpart to the Extremely Luminous X-Ray Source near Holmberg IX: A Possible Supershell in a Tidal Tail. *Bryan W. Miller.* 446, L75, 170-G4 (1995)

Name: Hydra A

Detection of an H I Disk in Hydra A? *K. S. Dwarakanath, F. N. Owen, & J. H. van Gorkom.* 442, L1, 84-D1 (1995)

Name: Large Magellanic Cloud

The Distance to the Large Magellanic Cloud from SN 1987A. *Marshall L. McCall.* 417, L75, 230-D1 (1993)

Hubble Space Telescope Imaging of Super–Star Clusters in NGC 1569 and NGC 1705. *Robert W. O'Connell, John S. Gallagher III, & Deidre A. Hunter.* 433, 65, 209-A13 (1994)

ASCA Observations of the Large Magellanic Cloud Supernova Remnant Sample: Typing Supernovae from Their Remnants. *John P. Hughes, Ichizo Hayashi, David Helfand, Una Hwang, Masayuki Itoh, Robert Kirshner, Katsuji Koyama, Thomas Markert, Hiroshi Tsunemi, & Jonathan Woo.* 444, L81, 130-E1 (1995)

Name: Maffei 1

Infrared Surface Brightness Fluctuations: K'-Band Observations of M31, M32, and the Distance to Maffei 1. *Gerard A. Luppino & John L. Tonry.* 410, 81, 113-B3 (1993)

Name: Maffei 2

The Molecular Structure of a Starburst: ^{13}CO in the Nucleus of Maffei 2. *Robert L. Hurt & Jean L. Turner.* 377, 434, 145-B8 (1991)

Warm Molecular Gas in a Starburst: CO (3–2) Observations of Maffei 2. *Robert L. Hurt, Jean L. Turner, Paul T. P. Ho, & Robert N. Martin.* 404, 602, 36-D11 (1993)

Name: Markarian 3

Extended Soft X-Ray Emission in Seyfert Galaxies: *ROSAT* HRI Observations of NGC 3516, NGC 4151, and Markarian 3. *Jon A. Morse, Andrew S. Wilson, Martin Elvis, & Kimberly A. Weaver.* 439, 121, 22-G6 (1995)

The Morphology of the Narrow-Line Region of Markarian 3. *A. Capetti, F. Macchetto, D. J. Axon, W. B. Sparks, & A. Boksenberg.* 448, 600, 203-A4 (1995)

Name: Markarian 6

The Emission-Line Jet in Markarian 6. *A. Capetti, D. J. Axon, M. Kukula, F. Macchetto, A. Pedlar, W. B. Sparks, & A. Boksenberg.* 454, L85, 315-D9 (1995)

Name: Markarian 78

HST Observations of the [O III] Emission-Line Region in Markarian 78. *A. Capetti, F. Macchetto, W. B. Sparks, & A. Boksenberg.* 421, 87, 17-B4 (1994)

Name: Markarian 171

The 8–13 Micron Spectrum of Arp 299C. *C. C. Dudley & C. G. Wynn-Williams.* 407, L65, 82-D1 (1993)

Name: Markarian 205

The Near-Ultraviolet Spectrum of Markarian 205. *John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, George F. Hartig, & Edward B. Jenkins.* 398, 495, 190-C7 (1992)

Name: Markarian 231

CO Excitation and H_2 Masses of Infrared-luminous Galaxies. *Simon J. E. Radford, P. M. Solomon, & D. Downes.* 368, L15, 28-C7 (1991)

The Appearance of a New Redshift System in Markarian 231. *Todd A. Boroson, Karie A. Meyers, Simon L. Morris, & S. E. Persson.* 370, L19, 53-D1 (1991)

Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)

Galaxies with Extreme Infrared and Fe II Emission. I. Markarian 231: The Signature of a Young Infrared QSO. *Sebastian Lípari, Luis Colina, & F. Macchetto.* 427, 174, 112-B12 (1994)

The Polarization and Ultraviolet Spectrum of Markarian 231. *Paul S. Smith, Gary D. Schmidt, Richard G. Allen, & J. R. P. Angel.* 444, 146, 115-D1 (1995)

Echelle Spectroscopy of the Na I D Absorption-Line Systems of Markarian 231. *Karl Forster, R. Michael Rich, & James K. McCarthy.* 450, 74, 229-B5 (1995)

Name: Markarian 273

An Extended Molecular Gas Distribution in Markarian 273 and Merger-Luminosity Evolution. *M. S. Yun & N. Z. Scoville.* 451, L45, 260-E2 (1995)

Name: Markarian 297

The Clumpy Galaxy Markarian 297 and Its Supernova Activity. *Q. F. Yin.* 420, 152, 2-G6 (1994)

Name: Markarian 315

Markarian 315: A Test Case for the Active Galactic Nucleus–Merger Hypothesis? *John W. MacKenty, Susan M. Simkin, Richard E. Griffiths, James S. Ulvestad, & Andrew S. Wilson.* 435, 71, 244-C3 (1994)

Name: Markarian 335

BBXRT and *Ginga* Observations of the Seyfert 1 Galaxy Markarian 335. *T. J. Turner, K. Nandra, A. A. Zdziarski, K. Jahoda, G. M. Madejski, F. Marshall, R. F. Mushotzky, R. Petre, K. A. Pounds, A. P. Smale, P. Serlemitsos, & K. Weaver.* 407, 556, 77-D13 (1993)

Astro-1 and Ground-based Observations of Markarian 335: Evidence for an Accretion Disk. *W. Zheng, G. A. Kriss, A. F. Davidsen, G. Lee, A. D. Code, K. S. Bjorkman, P. S. Smith, D. Weistrop, M. A. Malkan, F. K. Baganoff, & B. M. Peterson.* 444, 632, 125-A10 (1995)

Name: Markarian 348

Soft X-Ray Spectra of Seyfert 2 Galaxies. *John S. Mulchaey, Edward Colbert, Andrew S. Wilson, Richard F. Mushotzky, & Kimberly A. Weaver.* 414, 144, 171-G1 (1993)

WFPC2 Images of Multiple Nuclei in Nearby Active Galactic Nuclei. *Varoujan Gorjian.* 450, L51, 244-E3 (1995)

Name: Markarian 359

The Line-emitting Regions of the Exceptional Seyfert Galaxy Markarian 359. *Sylvain Veilleux.* 368, 158, 25-A9 (1991)

Name: Markarian 464

X-Ray Observations of the Seyfert 1 Galaxy Markarian 464. *L. Piro, G. Matt, E. Costa, D. Dal Fiume, F. Frontera, & E. Morelli.* 380, 357, 182-F9 (1991)

Name: Markarian 509

Discovery of Highly Ionized High-Velocity Clouds toward Markarian 509. *Kenneth R. Sembach, Blair D. Savage, Limin Lu, & Edward M. Murphy.* 451, 616, 255-F12 (1995)

Name: Markarian 516

WFPC2 Images of Multiple Nuclei in Nearby Active Galactic Nuclei. *Varoujan Gorjian.* 450, L51, 244-E3 (1995)

Name: Markarian 573

High-Excitation Extranuclear Gas in Seyfert Galaxies. *Christopher A. Haniff, Martin J. Ward, & Andrew S. Wilson.* 368, 167, 25-B5 (1991)

Anisotropic Ionizing Radiation in Seyfert Galaxies. I. The Extended Narrow-Line Region in Markarian 573. *Zlatan Tsvetanov & J. R. Walsh.* 386, 485, 31-D5 (1992)

Imaging Spectrophotometry of Markarian 573. *Richard W. Pogge & Michael M. De Robertis.* 451, 585, 255-C11 (1995)

Name: Markarian 590

The Structure of the Broad-Line Region in the Seyfert Galaxy Markarian 590. *Bradley M. Peterson, Babar Ali, Keith Horne, Ray Bertram, Nancy J. Lame, Richard W. Pogge, & R. Mark Wagner.* 402, 469, 8-D7 (1993)

Name: Markarian 789

WFPC2 Images of Multiple Nuclei in Nearby Active Galactic Nuclei. *Varoujan Gorjian.* 450, L51, 244-E3 (1995)

Name: Markarian 984

Multiple High-Velocity Emission-Line Systems in the E+S Pair CPG 29. *P. Marziani, W. C. Keel, D. Dultzin-Hacyan, & J. W. Sulentic.* 435, 668, 255-C5 (1994)

Name: Markarian 1066

Radio and Emission-Line Jets in the Type 2 Seyfert Galaxy Markarian 1066 (UGC 2456). *Gary Bower, Andrew Wilson, Jon A. Morse, Richard Gelderman, Mark Whittle, & John Mulchaey.* 454, 106, 300-F4 (1995)

Name: Pegasus Dwarf Irregular Galaxy

The Distance to the Pegasus Dwarf Irregular Galaxy: An Open Question. *A. Aparicio.* 437, L27, 291-E6 (1994)

Name: Pictor A

Emergence of Double-peaked Emission Lines in the Broad-Line Radio Galaxy Pictor A. *Jules P. Halpern & Michael Eracleous.* 433, L17, 214-F5 (1994)

Optical Structure and Polarization of the Western Hot Spot of Pictor A. *R. C. Thomson, P. Crane, & C. D. Mackay.* 446, L93, 171-B12 (1995)

Name: Sagittarius

The Disruption of the Sagittarius Dwarf Galaxy. *Kathryn V. Johnston, David N. Spergel, & Lars Hernquist.* 451, 598, 255-D13 (1995)

Name: Sextans

Evidence for Dwarf Stars at $D \sim 100$ Kiloparsecs near the Sextans Dwarf Spheroidal Galaxy. *Andrew Gould, Puragra Guhathakurta, Douglas Richstone, & Chris Flynn.* 388, 345, 54-F1 (1992)

Name: Sextans A

Supergiant Filaments of Ionized Gas in Irregular Galaxies. *Deidre A. Hunter & John S. Gallagher III.* 391, L9, 91-G7 (1992)

Name: Ton S180

Discovery of Extreme-Ultraviolet Radiation from the Seyfert Galaxy Ton S180 (= EUVE J0057−223). *Stéphane Vennes, Elisha Polomski, Stuart Bowyer, & John R. Thorstensen.* 448, L9, 199-C3 (1995)

Alphanumeric: 0108+388

Evidence for Two Classes of Parsec-Scale Radio Double Source in Active Galactic Nuclei. *J. E. Conway, S. T. Myers, T. J. Pearson, A. C. S. Readhead, S. C. Unwin, & W. Xu.* 425, 568, 88-F10 (1994)

Alphanumeric: 0710+439

The Compact Triples 0710+439 and 2352+495: A New Morphology of Radio Galaxy Nuclei. *J. E. Conway, T. J. Pearson, A. C. S. Readhead, S. C. Unwin, W. Xu, & R. L. Mutel.* 396, 62, 155-G7 (1992)

Two-sided Ejection in Powerful Radio Sources: The Compact Symmetric Objects. *P. N. Wilkinson, A. G. Polatidis, A. C. S. Readhead, W. Xu, & T. J. Pearson.* 432, L87, 206-E4 (1994)

Alphanumeric: 1215+333

Emission from the $z = 2$ Damped Lyα Absorber toward Q1215+333. *Richard Elston, Jill Bechtold, James Lowenthal, & Marcia Rieke.* 373, L39, 97-B1 (1991)

Alphanumeric: 1226+0105

Discovery of a Third Giant Low Surface Brightness Disk Galaxy. *D. Sprayberry, C. D. Impey, M. J. Irwin, R. G. McMahon, & G. D. Bothun.* 417, 114, 218-F7 (1993)

Alphanumeric: 2352+495

The Compact Triples 0710+439 and 2352+495: A New Morphology of Radio Galaxy Nuclei. *J. E. Conway, T. J. Pearson, A. C. S. Readhead, S. C. Unwin, W. Xu, & R. L. Mutel.* 396, 62, 155-G7 (1992)

Two-sided Ejection in Powerful Radio Sources: The Compact Symmetric Objects. *P. N. Wilkinson, A. G. Polatidis, A. C. S. Readhead, W. Xu, & T. J. Pearson.* 432, L87, 206-E4 (1994)

Alphanumeric: 10214+4724

Submillimeter Spectrum and Dust Mass of the Primeval Galaxy IRAS 10214+4724. *D. Downes, S. J. E. Radford, A. Greve, C. Thum, P. M. Solomon, & J. E. Wink.* 398, L25, 187-D7 (1992)

Warm Molecular Gas in the Primeval Galaxy IRAS 10214+4724. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 398, L29, 187-E1 (1992)

Alphanumeric: A0035−324

Large Infrared and Optical Color Gradients in the Cartwheel Ring Galaxy: Evidence for the First Epoch of Star Formation in the Wake of an Expanding Ring. *P. M. Marcum, P. N. Appleton, & J. L. Higdon.* 399, 57, 195-G3 (1992)

Alphanumeric: A0035−335

Hydrodynamic Models of the Cartwheel Ring Galaxy. *Curtis Struck-Marcell & James L. Higdon.* 411, 108, 128-D7 (1993)

Alphanumeric: AM 0035−35

Star-forming Galaxy Models: Blending Star Formation into TREESPH. *J. Christopher Mihos & Lars Hernquist.* 437, 611, 294-B9 (1994)

Alphanumeric: AM 1354−250

AM 1354−250: Photometric Observations and Models of a Collisional Ring System. *John F. Wallin.* 453, 641, 292-F7 (1995)

Alphanumeric: AM 1724−622

Observations and Models of the Sacred Mushroom: AM 1724−622. *John F. Wallin & Curtis Struck-Marcell.* 433, 631, 218-G8 (1994)

Alphanumeric: B2 0836+29

VLBI Observations of a Complete Sample of Radio Galaxies. VI. The Two FR I Radio Galaxies B2 0836+29 and 3C 465. *T. Venturi, C. Castaldini, W. D. Cotton, L. Feretti, G. Giovannini, L. Lara, J. M. Marcaide, & A. E. Wehrle.* 454, 735, 311-G7 (1995)

Alphanumeric: B2 0902+34

Intermediate-Resolution Spectroscopy of the Radio Galaxy B2 0902+34 at $z \approx 3.4$. *J. M. Martín-Mirones, E. Martínez-González, J. I. González-Serrano, & J. L. Sanz.* 440, 191, 43-G2 (1995)

Alphanumeric: 3C 66B

HST Observations of 3C 66B: A Double-stranded Optical Jet. *F. Macchetto, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, & G. K. Miley.* 373, L55, 97-C10 (1991)

Alphanumeric: 3C 78

Discovery of an Optical Synchrotron Jet in 3C 78. *William B. Sparks, Daniel Golombek, Stefi A. Baum, John Biretta, Sigrid de Koff, Ferdinando Macchetto, Patrick McCarthy, & George K. Miley.* 450, L55, 244-F1 (1995)

Alphanumeric: 3C 109

Polarization in the Radio Galaxy 3C 109—An Obscured Quasar. *Robert W. Goodrich & Marshall H. Cohen.* 391, 623, 95-F12 (1992)

Alphanumeric: 3C 120

Coordinated X-Ray, Ultraviolet, and Optical Observations of 3C 120. *L. Maraschi, L. Chiappetti, R. Falomo, B. Garilli, M. Malkan, G. Tagliaferri, E. G. Tanzi, & A. Treves.* 368, 138, 24-F9 (1991)

Detection of a Faint Optical Jet in 3C 120. *Jens Hjorth, Marianne Vestergaard, Anton N. Sørensen, & Frank Grundahl.* 452, L17, 269-E3 (1995)

Alphanumeric: 3C 219

Origin of the Structures and Polarization in the Classical Double 3C 219. *David A. Clarke, Alan H. Bridle, Jack O. Burns, Richard A. Perley, & Michael L. Norman.* 385, 173, 14-B1 (1992)

Alphanumeric: 3C 220.3

Extended and Compact X-Ray Emission in Powerful Radio Galaxies. *D. M. Worrall, C. R. Lawrence, T. J. Pearson, & A. C. S. Readhead.* 420, L17, 7-C11 (1994)

Alphanumeric: 3C 256

Detection of Extended Polarized Ultraviolet Radiation from the $z = 1.82$ Radio Galaxy 3C 256. *Buell T. Jannuzi, Richard Elston, Gary D. Schmidt, Paul S. Smith, & H. S. Stockman.* 454, L111, 316-A1 (1995)

Alphanumeric: 3C 264

Discovery of an Optical Synchrotron Jet in 3C 264. *P. Crane, R. Peletier, D. Baxter, W. B. Sparks, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, P. Greenfield, R. Jedrzejewski, & A. Nota.* 402, L37, 12-D1 (1993)

Alphanumeric: 3C 265

Detection of Polarized Ultraviolet Emission from the High-Redshift Radio Galaxy 3C 265. *Buell T. Jannuzi & Richard Elston.* 366, L69, 11-C5 (1991)

Alphanumeric: 3C 273

Observations of Ca II Absorption along the Nearly Parallel Lines of Sight toward 3C 273 and SN 1991T. *David M. Meyer & Katherine C. Roth.* 383, L41, 226-B11 (1991)

Alphanumeric: 3C 279

On the Gamma-Ray Emission from 3C 279. *W. Bednarek.* 402, L29, 12-C1 (1993)

Relativistic Induced Compton Scattering in Synchrotron Self-absorbed Sources. *Mark W. Sincell & Julian H. Krolik.* 430, 550, 168-E13 (1994)

The 1993 Multiwavelength Campaign on 3C 279: The Radio to Gamma-Ray Energy Distribution in Low State. *L. Maraschi, P. Grandi, C. M. Urry, A. E. Wehrle, G. M. Madejski, H. H. Fink, G. Ghisellini, R. C. Hartman, A. P. Koratkar, C. von Montigny, E. Pian, H. C. Thomas, A. Treves, M. F. Aller, H. D. Aller, C. D. Bailyn, T. J. Balonek, H. Bock, W. Collmar, I. S. Glass, S. J. Litchfield, I. M. McHardy, R. Méndez, J. Pesce, H. P. Reuter, E. I. Robson, H. Steppe, J. A. Stevens, H. Teräsranta, & S. J. Wagner.* 435, L91, 259-D8 (1994)

Implications of Gamma-Ray Transparency Constraints in Blazars: Minimum Distances and Gamma-Ray Collimation. *Peter A. Becker & Menas Kafatos.* 453, 83, 282-C12 (1995)

Alphanumeric: 3C 280

Extended and Compact X-Ray Emission in Powerful Radio Galaxies. *D. M. Worrall, C. R. Lawrence, T. J. Pearson, & A. C. S. Readhead.* 420, L17, 7-C11 (1994)

Alphanumeric: 3C 285

Induced Star Formation in a Radio Lobe of 3C 285? *Wil J. M. van Breugel & Arjun Dey.* 414, 563, 178-C3 (1993)

Alphanumeric: 3C 338

VLBI Observations of a Complete Sample of Radio Galaxies. III. The Two-sided Milliarcsecond Structure of 3C 338. *L. Feretti, G. Comoretto, G. Giovannini, T. Venturi, & A. E. Wehrle.* 408, 446, 90-F7 (1993)

Alphanumeric: 3C 346

VLBI Observations of a Complete Sample of Radio Galaxies. V. 3C 346 and 4C 31.04: Two Unusual Compact Steep Spectrum Sources. *W. D. Cotton, L. Feretti, G. Giovannini, T. Venturi, L. Lara, J. Marcaide, & A. E. Wehrle.* 452, 605, 273-A6 (1995)

Alphanumeric: 3C 382

EXOSAT Observations of the Broad-Line Radio Galaxy 3C 382. *K. K. Ghosh & S. Soundararajaperumal.* 389, 179, 62-C1 (1992)

Alphanumeric: 3C 388

Relic Radio Emission in 3C 388. *Kurt Roettiger, Jack O. Burns, David A. Clarke, & Wayne A. Christiansen.* 421, L23, 21-F1 (1994)

Alphanumeric: 3C 390.3

Unique Broad-Line Profile Variations in the Radio Galaxy 3C 390.3. *Sylvain Veilleux & Wei Zheng.* 377, 89, 139-B7 (1991)

3C 390.3: Modeling Variable Profile Humps. *Wei Zheng, Sylvain Veilleux, & Steven A. Grandi.* 381, 418, 196-A1 (1991)

X-Ray Continuum and Iron K Emission Line from the Radio Galaxy 3C 390.3. *M. Inda, K. Makishima, Y. Kohmura, M. Tashiro, T. Ohashi, P. Barr, K. Hayashida, G. G. C. Palumbo, G. Trinchieri, M. Elvis, & G. Fabbiano.* 420, 143, 2-F9 (1994)

Variable Emission Lines as Evidence of Spiral Shocks in Accretion Disks around Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 434, 518, 234-G9 (1994)

Alphanumeric: 3C 449

On Jet Response to a Driving Frequency and the Jets in 3C 449. *Philip E. Hardee, Michael A. Cooper, & David A. Clarke.* 424, 126, 63-E7 (1994)

Alphanumeric: 3C 465

VLBI Observations of a Complete Sample of Radio Galaxies. VI. The Two FR I Radio Galaxies B2 0836+29 and 3C 465. *T. Venturi, C. Castaldini, W. D. Cotton, L. Feretti, G. Giovannini, L. Lara, J. M. Marcaide, & A. E. Wehrle.* 454, 735, 311-G7 (1995)

Alphanumeric: 4C 31.04

VLBI Observations of a Complete Sample of Radio Galaxies. V. 3C 346 and 4C 31.04: Two Unusual Compact Steep Spectrum Sources. *W. D.*

Cotton, L. Feretti, G. Giovannini, T. Venturi, L. Lara, J. Marcaide, & A. E. Wehrle. 452, 605, 273-A6 (1995)

Alphanumeric: 8C 1435+63

Keck Observations of the Most Distant Galaxy: 8C 1435+63 at $z = 4.25$. *Hyron Spinrad, Arjun Dey, & James R. Graham.* 438, L51, 19-B1 (1995)

Alphanumeric: CPG 29

Multiple High-Velocity Emission-Line Systems in the E+S Pair CPG 29. *P. Marziani, W. C. Keel, D. Dultzin-Hacyan, & J. W. Sulentic.* 435, 668, 255-C5 (1994)

Alphanumeric: ESO 359−G29

The Im/dE,N Mixed Morphology Dwarf ESO 359-G29 as a Probe of a Massive Halo in NGC 1532. *Allan Sandage & Edward Fomalont.* 407, 14, 69-C1 (1993)

Alphanumeric: F10214+4724

The Broadband Spectral Energy Distributions of the Cloverleaf Quasar and IRAS F10214+4724. *Richard Barvainis, Robert Antonucci, Todd Hurt, Paul Coleman, & H.-P. Reuter.* 451, L9, 252-B11 (1995)

Alphanumeric: FSC 10214+4724

Near-Infrared Imaging of FSC 10214+4724 with the W. M. Keck Telescope. *K. Matthews, B. T. Soifer, J. Nelson, H. Boesgaard, J. R. Graham, W. Harrison, W. Irace, G. Jernigan, J. E. Larkin, H. Lewis, S. Lin, G. Neugebauer, M. Sirota, G. Smith, & C. Ziomkowski.* 420, L13, 7-C5 (1994)

The Hidden Nuclear Spectrum of the Luminous *IRAS* Source FSC 10214+4724. *Buell T. Jannuzi, Richard Elston, Gary D. Schmidt, Paul S. Smith, & H. S. Stockman.* 429, L49, 157-G1 (1994)

Near-Infrared and Optical Spectroscopy of FSC 10214+4724. *B. T. Soifer, J. G. Cohen, L. Armus, K. Matthews, G. Neugebauer, & J. B. Oke.* 443, L65, 111-F1 (1995)

High-Resolution Infrared Imaging of FSC 10214+4724: Evidence for Gravitational Lensing. *James R. Graham & Michael C. Liu.* 449, L29, 216-D7 (1995)

Extended Molecular Gas in FSC 10214+4724. *N. Z. Scoville, M. S. Yun, R. L. Brown, & P. A. Vanden Bout.* 449, L109, 226-G2 (1995)

A Gravitational Lens Solution for the *IRAS* Galaxy FSC 10214+4724. *Tom Broadhurst & Joseph Lehár.* 450, L41, 244-D1 (1995)

Alphanumeric: GR 8

GR 8: CO-to-H_2 Conversion Factor at Extremely Low Metallicity. *Frances Verter & Paul Hodge.* 446, 616, 164-F1 (1995)

Alphanumeric: IC 10

Giant Molecular Clouds and the CO-to-H_2 Conversion Factor in IC 10. *Christine D. Wilson & I. Neill Reid.* 366, L11, 6-B7 (1991)

The Angular Structure and Intraday Variability of a Water Vapor Maser in IC 10. *A. L. Argon, L. J. Greenhill, J. M. Moran, M. J. Reid, K. M. Menten, C. Henkel, & M. Inoue.* 422, 586, 39-B7 (1994)

The Metallicity Dependence of the CO-to-H_2 Conversion Factor from Observations of Local Group Galaxies. *Christine D. Wilson.* 448, L97, 209-C1 (1995)

Alphanumeric: IC 342

Star Formation and the Molecular Content of IC 342. *Leslie J. Sage & P. M. Solomon.* 380, 392, 183-B7 (1991)

First Observations of the CO $J = 6$–5 Transition in Starburst Galaxies. *A. I. Harris, R. E. Hills, J. Stutzki, U. U. Graf, A. P. G. Russell, & R. Genzel.* 382, L75, 211-C7 (1991)

^{13}CO in IC 342: Evidence for a Spiral Density Wave in the Nucleus. *Jean L. Turner & Robert L. Hurt.* 384, 72, 1-G13 (1992)

Warm Molecular Gas in the Nucleus of IC 342: The CO ($J = 3 \rightarrow 2$) Distribution. *Judith A. Irwin & L. W. Avery.* 388, 328, 54-D7 (1992)

Submillimeter Detection of Extragalactic C I Emission: IC 342. *Thomas H. Büttgenbach, Jocelyn Keene, T. G. Phillips, & Christopher K. Walker.* 397, L15, 173-C1 (1992)

Heterogenous Array Observations of IC 342: The CO Isotopic Ratio. *M. C. H. Wright, S. Ishizuki, J. L. Turner, P. T. P. Ho, & K. Y. Lo.* 406, 470, 63-E10 (1993)

Aperture Synthesis Mapping of CO (2–1) in IC 342. *Jean L. Turner, Robert L. Hurt, & David Y. Hudson.* 413, L19, 162-D1 (1993)

X-Ray Emission from the Starburst Galaxy IC 342. *Joel N. Bregman, Caroline V. Cox, & Kohji Tomisaka.* 415, L79, 199-E13 (1993)

A ^{12}CO, ^{13}CO, and CS Study of NGC 2146 and IC 342. *Shuding Xie, Judith Young, & F. Peter Schloerb.* 421, 434, 23-E7 (1994)

Submillimeter HCN and HCO^+ Emission from Galaxies. *James M. Jackson, Timothy A. D. Paglione, John E. Carlstrom, & Nguyen-Q- Rieu.* 438, 695, 13-F11 (1995)

Alphanumeric: IC 694

The 8–13 Micron Spectrum of Arp 299C. *C. C. Dudley & C. G. Wynn-Williams.* 407, L65, 82-D1 (1993)

Detection of H92α Recombination Line from the Galaxies NGC 3628, IC 694, and NGC 1365. *K. R. Anantharamaiah, Jun-Hui Zhao, W. M. Goss, & F. Viallefond.* 419, 585, 255-A9 (1993)

Alphanumeric: IC 1459

Ellipticals with Kinematically Distinct Cores: *HST* Imaging of the Nuclear Structure of IC 1459. *Duncan A. Forbes, Marijn Franx, & Garth D. Illingworth.* 428, L49, 142-D8 (1994)

Alphanumeric: IC 1613

A Cosmos Study of IC 1613. *Paul W. Hodge, Toby R. Smith, Paul B. Eskridge, Harvey T. MacGillivray, & Steven M. Beard.* 369, 372, 42-D5 (1991)

Radio and *IRAS* Observations of Two Nebulae around WO Stars: G2.4+1.4 in the Galaxy and Sandage H II Region 3 in IC 1613. *W. M. Goss & Tatiana A. Lozinskaya.* 439, 637, 33-B8 (1995)

Alphanumeric: IC 2006

Evidence for Axisymmetric Halos: The Case of IC 2006. *Marijn Franx, J. H. van Gorkom, & Tim de Zeeuw.* 436, 642, 274-D3 (1994)

Alphanumeric: IC 2163

The Interaction between Spiral Galaxies IC 2163 and NGC 2207. I. Observations. *Debra Meloy Elmegreen, Michele Kaufman, Elias Brinks, Bruce G. Elmegreen, & Maria Sundin.* 453, 100, 282-E8 (1995)

The Interaction between Spiral Galaxies IC 2163 and NGC 2207. II. Models. *Bruce G. Elmegreen, Maria Sundin, Michele Kaufman, Elias Brinks, & Debra Meloy Elmegreen.* 453, 139, 283-B2 (1995)

Alphanumeric: IC 4182

The Cepheid Distance to IC 4182: Calibration of M_V(max) for SN Ia 1937C and the Value of H_0. *Allan Sandage, A. Saha, G. A. Tammann, Nino Panagia, & D. Macchetto.* 401, L7, 227-B1 (1992)

Are the Cepheids in IC 4182 Different from Population I Cepheids in the Galaxy? *Norman R. Simon & Christine M. Clement.* 419, L21, 252-D3 (1993)

The Distance to the Type Ia Supernova 1972E and Its Parent Galaxy NGC 5253: A Prediction. *David Branch, Adam Fisher, Tibor J. Herczeg, Douglas L. Miller, & Peter Nugent.* 421, L87, 29-F3 (1994)

Discovery of Cepheids in IC 4182: Absolute Peak Brightness of SN Ia 1937C and the Value of H_0. *A. Saha, Lukas Labhardt, Hans Schwengeler, F. D. Macchetto, N. Panagia, Allan Sandage, & G. A. Tammann.* 425, 14, 80-C6 (1994)

The Peak Brightness of SN 1937C in IC 4182 and the Hubble Constant. *Bradley E. Schaefer.* 426, 493, 104-E1 (1994)

Alphanumeric: IC 4296

Stellar Dynamical Evidence for Dark Halos in Elliptical Galaxies: The Case of NGC 4472, IC 4296, and NGC 7144. *R. P. Saglia, G. Bertin, F. Bertola, J. Danziger, H. Dejonghe, E. M. Sadler, M. Stiavelli, P. T. de Zeeuw, & W. W. Zeilinger.* 403, 567, 22-F1 (1993)

Alphanumeric: IC 4329

Joint *ROSAT–Compton GRO* Observations of the X-Ray–bright Seyfert Galaxy IC 4329A. *G. M. Madejski, A. A. Zdziarski, T. J. Turner, C. Done, R. F. Mushotzky, R. C. Hartman, N. Gehrels, A. Connors, A. C. Fabian, K. Nandra, A. Celotti, M. J. Rees, W. N. Johnson, J. E. Grove, & C. H. Starr.* 438, 672, 13-D7 (1995)

Alphanumeric: IC 4329A

X-Ray Observations of the Bright Seyfert Galaxy IC 4329A. *K. P. Singh, A. R. Rao, & M. N. Vahia.* 377, 417, 145-A1 (1991)

Twin Peaks: IC 4329A and Arakelian 120. *P. Marziani, M. Calvani, & J. W. Sulentic.* 393, 658, 124-A5 (1992)

OSSE Observations of the Bright Seyfert 1 Galaxy IC 4329A. *A. C. Fabian, K. Nandra, A. Celotti, M. J. Rees, J. E. Grove, & W. N. Johnson.* 416, L57, 216-C1 (1993)

Joint *ROSAT–Compton GRO* Observations of the X-Ray–bright Seyfert Galaxy IC 4329A. *G. M. Madejski, A. A. Zdziarski, T. J. Turner, C. Done, R. F. Mushotzky, R. C. Hartman, N. Gehrels, A. Connors, A. C. Fabian, K. Nandra, A. Celotti, M. J. Rees, W. N. Johnson, J. E. Grove, & C. H. Starr.* 438, 672, 13-D7 (1995)

Alphanumeric: IC 4553

Formaldehyde Emission in Galaxies. *Willem A. Baan, Aubrey D. Haschick, & Robert Uglesich.* 415, 140, 186-G1 (1993)

Nuclear Antics of IC 4553 (ARP 220). *Willem A. Baan & Aubrey D. Haschick.* 454, 745, 312-A6 (1995)

Alphanumeric: IC 5063

IC 5063: A Merger Remnant with a Hidden Luminous Active Nucleus. *L. Colina, W. B. Sparks, & F. Macchetto.* 370, 102, 48-C5 (1991)

Hard X-Ray Emission from a Narrow-Line Radio Galaxy IC 5063 and Obscured Active Nucleus. *Katsuji Koyama, Hisamitu Awaki, Kazushi Iwasawa, & Martin J. Ward.* 399, L129, 208-A9 (1992)

Alphanumeric: IR 14070+0525

IRAS 14070+0525: An OH Gigamaser at $z = 0.265$. *Willem A. Baan, James Rhoads, Karl Fisher, Daniel R. Altschuler, & Aubrey Haschick.* 396, L99, 167-E1 (1992)

Alphanumeric: IRAS 02366−3101

IRAS 02366−3101: An Accretion Disk Candidate among Luminous *IRAS* Galaxies. *Luis Colina, Sebastian Lípari, & F. Macchetto.* 382, L63, 211-B7 (1991)

Alphanumeric: IRAS 03202−5150

IRAS 03202−5150: A New Ring Active Galactic Nucleus with Obscured Seyfert 1 Nucleus. *Sebastian Lípari & F. Macchetto.* 397, 126, 169-E6 (1992)

Alphanumeric: IRAS 04493−6441

Coronal Lines and Starburst Features in Two New *IRAS* Active Galactic Nuclei: IRAS 04493−6441 and IRAS 22419−6049. *Sebastian Lípari & F. Macchetto.* 387, 522, 45-B9 (1992)

Alphanumeric: IRAS 07598+6508

Galaxies with Extreme Infrared and Fe II Emission. II. IRAS 07598+6508: A Starburst/Young Broad Absorption Line QSO. *Sebastian Lípari.* 436, 102, 262-F1 (1994)

Alphanumeric: IRAS 09104+4109

The Highly Polarized Hidden Quasar IRAS 09104+4109: A Double-lobed Radio Source in a Rich Cluster. *Dean C. Hines & Beverley J. Wills.* 415, 82, 186-A10 (1993)

Alphanumeric: IRAS 14348−1447

Near-Infrared Long-Slit Spectroscopy of IRAS 14348−1447. *Tadashi Nakajima, Kimiaki Kawara, Minoru Nishida, & Brooke Gregory.* 373, 452, 93-E6 (1991)

Alphanumeric: IRAS 19254−7245

Massive Star Formation and Superwinds in IRAS 19254−7245 (The "Superantennae"). *Luis Colina, Sebastian Lípari, & F. Macchetto.* 379, 113, 164-D5 (1991)

Alphanumeric: IRAS 22419−6049

Coronal Lines and Starburst Features in Two New *IRAS* Active Galactic Nuclei: IRAS 04493−6441 and IRAS 22419−6049. *Sebastian Lípari & F. Macchetto.* 387, 522, 45-B9 (1992)

Alphanumeric: IRAS 23060+0505

Optical and Near-Infrared Polarimetry of the Infrared Luminous Galaxy IRAS 23060+0505. *J. H. Hough, C. Brindle, Beverley J. Wills, D. Wills, & J. Bailey.* 372, 478, 81-F9 (1991)

Alphanumeric: IRAS F10214+4724

[C I] Emission at $z = 2.286$ in the Protogalaxy IRAS F10214+4724. *Robert L. Brown & Paul A. Vanden Bout.* 397, L11, 173-B10 (1992)

IRAS F10214+4724: An Extended CO Emission Source at $z = 2.2867$. *Robert L. Brown & Paul A. Vanden Bout.* 397, L19, 173-C6 (1992)

Aperture Synthesis CO ($J = 3$–2) Observations of a Protogalaxy Candidate IRAS F10214+4724. *R. Kawabe, K. Sakamoto, S. Ishizuki, & M. Ishiguro.* 397, L23, 173-C12 (1992)

Molecular Gas Distribution in a Protogalaxy Candidate IRAS F10214+4724: A Dense Compact Nucleus and Nondetected Extra Components. *Kazushi Sakamoto, Sumio Ishizuki, Ryohei Kawabe, & Masato Ishiguro.* 397, L27, 173-D4 (1992)

New Observations and a New Interpretation of CO(3–2) in IRAS F10214+4724. *D. Downes, P. M. Solomon, & S. J. E. Radford.* 453, L65, 298-B6 (1995)

Alphanumeric: IRAS F15307+3252

IRAS F15307+3252: A Hyperluminous Infrared Galaxy at $z = 0.93$. *Roc M. Cutri, John P. Huchra, Frank J. Low, Robert L. Brown, & Paul A. Vanden Bout.* 424, L65, 78-E1 (1994)

Near-Infrared Observations of FSC 15307+3252. *B. T. Soifer, G. Neugebauer, K. Matthews, & L. Armus.* 433, L69, 223-F5 (1994)

The Buried QSO in IRAS F15307+3252 and the Nature of Hyperluminous Infrared Galaxies. *Dean C. Hines, Gary D. Schmidt, Paul S. Smith, Roc M. Cutri, & Frank J. Low.* 450, L1, 235-D1 (1995)

Alphanumeric: IRAS FSC 10214+4724

Spectroscopic and Morphological Evidence That IRAS FSC 10214+4724 Is a Gravitational Lens. *Laird M. Close, Patrick B. Hall, Charles T. Liu, & E. Keith Hege.* 452, L9, 269-D1 (1995)

Alphanumeric: IRAS P09104+4109

Fe K Emission from the Hidden Quasar IRAS P09104+4109. *A. C. Fabian, Y. Shioya, K. Iwasawa, K. Nandra, C. Crawford, R. Johnstone, H. Kunieda, R. McMahon, K. Makishima, T. Murayama, T. Ohashi, Y. Tanaka, Y. Taniguchi, & Y. Terashima.* 436, L51, 269-B9 (1994)

Alphanumeric: MCG 2-58-22

X-Ray Observations of the Seyfert 1 Galaxy MCG 2-58-22. *K. K. Ghosh & S. Soundararajaperumal.* 398, 501, 190-D1 (1992)

Alphanumeric: MCG −2-58-22

An *ASCA* X-Ray Spectrum of a Prototype Bare Seyfert 1 Nucleus in MCG −2-58-22. *K. A. Weaver, J. Nousek, T. Yaqoob, K. Hayashida, & S. Murakami.* 451, 147, 248-B1 (1995)

Alphanumeric: MCG +03-28-022

SN 1988Z: The Most Distant Radio Supernova. *Schuyler D. Van Dyk, Kurt W. Weiler, Richard A. Sramek, & Nino Panagia.* 419, L69, 259-D6 (1993)

Alphanumeric: MCG −5-23-16

X-Ray Continuum and Line Emission of the Seyfert Galaxy MCG−5-23-16. *K. P. Singh, A. R. Rao, & M. N. Vahia.* 385, 132, 13-E10 (1992)

Soft X-Ray Spectra of Seyfert 2 Galaxies. *John S. Mulchaey, Edward Colbert, Andrew S. Wilson, Richard F. Mushotzky, & Kimberly A. Weaver.* 414, 144, 171-G1 (1993)

Alphanumeric: MG 0414+0534

Infrared Imaging of MG 0414+0534: The Red Gravitational Lens Systems as Lensed Radio Galaxies. *James Annis & Gerard A. Luppino.* 407, L69, 82-D6 (1993)

Alphanumeric: MG 1019+0535

Discovery of a $z = 2.76$ Dusty Radio Galaxy? *Arjun Dey, Hyron Spinrad, & Mark Dickinson.* 440, 515, 50-D5 (1995)

Alphanumeric: MG 1131+0456

Infrared Imaging of MG 0414+0534: The Red Gravitational Lens Systems as Lensed Radio Galaxies. *James Annis & Gerard A. Luppino.* 407, L69, 82-D6 (1993)

The Mass Distribution of the Lens Galaxy in MG 1131+0456. *G. H. Chen, C. S. Kochanek, & J. N. Hewitt.* 447, 62, 173-A13 (1995)

Alphanumeric: MRC 2025−218

Stellar and Scattered Light in a Radio Galaxy at $z = 2.63$. *Andrea Cimatti, Sperello di Serego Alighieri, George B. Field, & Robert A. E. Fosbury.* 422, 562, 38-G1 (1994)

Alphanumeric: OQ 208

The Peculiar Balmer Line Profiles of OQ 208. *P. Marziani, J. W. Sulentic, M. Calvani, E. Perez, M. Moles, & M. V. Penston.* 410, 56, 112-G4 (1993)

Alphanumeric: OX 169

OX 169: Evidence for a Recent Merger. *Alan Stockton & Tony Farnham.* 371, 525, 68-A13 (1991)

Alphanumeric: PG 2130+099

X-Ray Luminosity and Spectral Variability in the Seyfert Type I Galaxy: PG 2130+099. *K. P. Singh, A. R. Rao, & M. N. Vahia.* 372, 49, 74-E13 (1991)

Alphanumeric: PKS 0521−36

First Results from the Faint Object Camera: Observations of PKS 0521−36. *F. Macchetto, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 369, L55, 46-A1 (1991)

Alphanumeric: PKS 0634−205

Evidence for an Obscured Quasar in the Giant Radio Galaxy PKS 0634−205. *Chris Simpson, M. J. Ward, & A. S. Wilson.* 454, 683, 311-B1 (1995)

Alphanumeric: PKS 1055+018

ROSAT Observations of Blazars from a Polarized Radio-selected Sample. *L. Maraschi, G. Fossati, G. Tagliaferri, & A. Treves.* 443, 578, 105-G4 (1995)

Alphanumeric: PKS 1830−211

PKS 1830−211 as a Gravitationally Lensed System. *Sunita Nair, D. Narasimha, & A. Pramesh Rao.* 407, 46, 69-F5 (1993)

Time Delay in the Einstein Ring PKS 1830−211. *T. D. van Ommen, D. L. Jones, R. A. Preston, & D. L. Jauncey.* 444, 561, 124-B7 (1995)

Alphanumeric: PKS 2155−304

Rapid Ultraviolet Variability in the BL Lacertae Object PKS 2155−304. *R. A. Edelson, J. Saken, G. Pike, C. M. Urry, I. M. George, R. S. Warwick, H. R. Miller, M. T. Carini, & J. R. Webb.* 372, L9, 79-B5 (1991)

Short-Term X-Ray Variability of the BL Lacertae Object PKS 2155−304: Power Spectrum and Cross-Correlation Analysis. *G. Tagliaferri, L. Stella, L. Maraschi, A. Treves, & A. Celotti.* 380, 78, 177-A5 (1991)

On the Nebulosity Surrounding the BL Lacertae Object PKS 2155−304. *R. Falomo, E. Giraud, L. Maraschi, J. Melnick, E. G. Tanzi, & A. Treves.* 380, L67, 188-D1 (1991)

Optical Polarimetry of PKS 2155−304 and Constraints on Accretion Disk Models for BL Lacertae Objects. *Paul S. Smith & Michael L. Sitko.* 383, 580, 221-D9 (1991)

The Optical Variability of PKS 2155−304. *Michael T. Carini & H. Richard Miller.* 385, 146, 13-G1 (1992)

Intensive Optical Monitoring of the BL Lacertae Object PKS 2155−304. *Paul S. Smith, Patrick B. Hall, Richard G. Allen, & Michael L. Sitko.* 400, 115, 210-D1 (1992)

Extreme Ultraviolet Spectroscopy of PKS 2155−304. *Antonella Fruscione, Stuart Bowyer, Arieh Königl, & Steven M. Kahn.* 422, L55, 44-G6 (1994)

Alphanumeric: PKS 2322−123

Detection of Extended H I Absorption toward PKS 2322−123 in Abell 2597. *Christopher P. O'Dea, Stefi A. Baum, & Jack Gallimore.* 436, 669, 274-F9 (1994)

Alphanumeric: PKS 2354−350

The X-Ray Cooling Flow in the Cluster of Galaxies around PKS 2354−35. *Daniel A. Schwartz, Hale V. Bradt, Ronald A. Remillard, & I. R. Tuohy.* 376, 424, 131-F6 (1991)

Alphanumeric: UGC 807

Testing for Interaction between the Galaxies NGC 450 and UGC 807. *Mariano Moles, Isabel Márquez, Josefa Masegosa, Ascensión del Olmo, Jaime Perea, & Halton Arp.* 432, 135, 194-G12 (1994)

Alphanumeric: UGC 957

Dynamical Simulations of the Interacting Galaxies in the NGC 520/UGC 957 System. *S. A. Stanford & Marc Balcells.* 370, 118, 48-E5 (1991)

Alphanumeric: UGC 2885

Spiral Structure of the Giant Galaxy UGC 2885: Hα Kinematics. *Blaise Canzian, R. J. Allen, & R. P. J. Tilanus.* 406, 457, 63-D7 (1993)

Alphanumeric: UGC 7636

UGC 7636 and NGC 4472: Tidal Interaction between a Stripped Dwarf Irregular and a Giant Elliptical Galaxy. *Richard J. Patterson & Trinh X. Thuan.* 400, L55, 220-C7 (1992)

Alphanumeric: VV 114

VV 114: Making of an Ultraluminous Galaxy? *M. S. Yun, N. Z. Scoville, & R. A. Knop.* 430, L109, 174-F9 (1994)

Near-Infrared Imaging and Spectroscopy of the Bright *IRAS* Galaxy VV 114. *René Doyon, Daniel Nadeau, R. D. Joseph, J. D. Goldader, D. B. Sanders, & Neil Rowlands.* 450, 111, 229-E8 (1995)

Alphanumeric: HAW 167

Hawaii 167: A Compact Absorption-Line Object at $z = 2.35$. *L. L. Cowie, A. Songaila, E. M. Hu, E. Egami, J.-S. Huang, A. J. Pickles, S. E. Ridgway, R. J. Wainscoat, & R. J. Weymann.* 432, L83, 206-E1 (1994)

Alphanumeric: Zw 095−049

SN 1988Z: The Most Distant Radio Supernova. *Schuyler D. Van Dyk, Kurt W. Weiler, Richard A. Sramek, & Nino Panagia.* 419, L69, 259-D6 (1993)

Alphanumeric: I Zw 18

Ar/S. *Christopher C. Stevenson, Marshall L. McCall, & Douglas L. Welch.* 408, 460, 90-G11 (1993)

Spatially Resolved Optical and Near-Infrared Spectroscopy of I Zw 18. *Evan D. Skillman & Robert C. Kennicutt, Jr.* 411, 655, 137-G8 (1993)

The Massive Stars of I Zw 18 as Seen in *Hubble Space Telescope* Images. *Deidre A. Hunter & Harley A. Thronson, Jr.* 452, 238, 265-D1 (1995)

Alphanumeric: I Zw 92

IUE Spectra and Photoionization Models of the Seyfert 2 Galaxies NGC 7674 and I Zw 92. *Steven B. Kraemer, Chi-Chao Wu, D. Michael Crenshaw, & J. Patrick Harrington.* 435, 171, 245-F1 (1994)

Alphanumeric: II Zw 40

Ar/S. *Christopher C. Stevenson, Marshall L. McCall, & Douglas L. Welch.* 408, 460, 90-G11 (1993)

Alphanumeric: VII Zw 31

CO Excitation and H_2 Masses of Infrared-luminous Galaxies. *Simon J. E. Radford, P. M. Solomon, & D. Downes.* 368, L15, 28-C7 (1991)

GALAXIES: INTERACTIONS

Anatomy of a Merger: CO in Arp 299 (IC 694–NGC 3690). *Anneila Sargent & Nick Scoville.* 366, L1, 6-A7 (1991)

Evidence for Environmental Effects on Early-Type Galaxy X-Ray Halos. *Raymond E. White III & Craig L. Sarazin.* 367, 476, 19-C9 (1991)

Millimeter Interferometer Observations of Infrared Luminous Galaxies: NGC 828 and NGC 6240. *Z. Wang, N. Z. Scoville, & D. B. Sanders.* 368, 112, 24-D9 (1991)

Stripped Interstellar Gas in Cluster Cooling Flows. *Noam Soker, Joel N. Bregman, & Craig L. Sarazin.* 368, 341, 29-C10 (1991)

Cluster Infall with Friction. *R. G. Carlberg & John Dubinski.* 369, 13, 36-B11 (1991)

A Merger Scenario for NGC 7252: A Tale of Two Tails. *Kirk D. Borne & Douglas O. Richstone.* 369, 111, 37-C11 (1991)

IC 5063: A Merger Remnant with a Hidden Luminous Active Nucleus. *L. Colina, W. B. Sparks, & F. Macchetto.* 370, 102, 48-C5 (1991)

Dynamical Simulations of the Interacting Galaxies in the NGC 520/UGC 957 System. *S. A. Stanford & Marc Balcells.* 370, 118, 48-E5 (1991)

Far-Infrared Counterpart to the Optical and H I Plume in the Leo Triplet of Galaxies: NGC 3623, NGC 3627, and NGC 3628. *D. H. Hughes, P. N. Appleton, & J. M. Schombert.* 370, 176, 49-C11 (1991)

Fueling Starburst Galaxies with Gas-rich Mergers. *Joshua E. Barnes & Lars E. Hernquist.* 370, L65, 59-B7 (1991)

A Near-Infrared Imaging Survey of Interacting Galaxies: The Disk-Disk Merger Candidates Subset. *S. A. Stanford & H. A. Bushouse.* 371, 92, 61-C1 (1991)

A Long-lasting Compact Group. *Fabio Governato, Rajiv Bhatia, & Guido Chincarini.* 371, L15, 66-C1 (1991)

Ultramassive ($\sim 10^{11}\ M_\odot$) Dark Core in the Luminous Infrared Galaxy NGC 6240? *Jonathan Bland-Hawthorn, Andrew S. Wilson, & R. Brent Tully.* 371, L19, 66-C7 (1991)

Angular Momentum and Stripping in Tidal Interactions. *Thomas A. McGlynn & Kirk D. Borne.* 372, 31, 74-D7 (1991)

Optical Properties and Dynamics of Galaxies in the Hickson Compact Groups. *Vera C. Rubin, Deidre A. Hunter, & W. Kent Ford, Jr.* 76, 153, 26-A1 (1991)

Near-Infrared Long-Slit Spectroscopy of IRAS 14348−1447. *Tadashi Nakajima, Kimiaki Kawara, Minoru Nishida, & Brooke Gregory.* 373, 452, 93-E6 (1991)

New Observations of the Gas Cloud Associated with the Quasar-Galaxy Pair 3C 232/NGC 3067. *John T. Stocke, James Case, Megan Donahue, J. Michael Shull, & Theodore P. Snow.* 374, 72, 98-G7 (1991)

H I Deficiency in Cluster Spiral Galaxies: Dependence on Galaxy Size. *Monica Valluri & Chanda J. Jog.* 374, 103, 99-C7 (1991)

Infrared Fluorescence of H_2 in NGC 6240: A Starburst Origin for the H_2 Luminosity. *Masuo Tanaka, Tetsuo Hasegawa, & Ian Gatley.* 374, 516, 105-E9 (1991)

Dynamical Segregation of Direct and Retrograde Orbits in Binary Disk Galaxies. *William C. Keel.* 375, L5, 117-A13 (1991)

A Limit on the Cosmological Constant. *R. G. Carlberg.* 375, 429, 118-B1 (1991)

Orbital Decay in Aspherical Galaxies. II. Triaxial Systems. *Thomas S. Statler.* 375, 544, 119-E1 (1991)

Are Hypernovae Detectable? *Seok Jae Park & Ethan T. Vishniac.* 375, 565, 119-F9 (1991)

The Properties of NGC 2777: Are Companion Galaxies Young? *Halton Arp & Jack W. Sulentic.* 375, 569, 119-G1 (1991)

The Accuracy of Galaxy Masses from the Timing Argument. *T. L. Kroeker & R. G. Carlberg.* 376, 1, 125-B1 (1991)

A Numerical Study of Star Formation in Interacting Disk Galaxies. *J. Christopher Mihos, Douglas O. Richstone, & Gregory D. Bothun.* 377, 72, 139-A1 (1991)

Infrared Emission Regions in the Interacting Galaxy System Arp 299. *C. G. Wynn-Williams, S. A. Eales, E. E. Becklin, K.-W. Hodapp, R. D. Joseph, I. S. McLean, D. A. Simons, & G. S. Wright.* 377, 426, 145-A13 (1991)

The Discovery of a Long H I Plume near the Peculiar Galaxy NGC 2782 (Arp 215). *Beverly J. Smith.* 378, 39, 151-E1 (1991)

Clusters of Galaxies Associated with Quasars. II. Galaxy Cluster Dynamics. *E. Elüngson, R. F. Green, & H. K. C. Yee.* 378, 476, 158-D1 (1991)

Massive Star Formation and Superwinds in IRAS 19254−7245 (The "Superantennae"). *Luis Colina, Sebastian Lípari, & F. Macchetto.* 379, 113, 164-D5 (1991)

The Luminosity Function of Compact Groups of Galaxies. *Cláudia Mendes de Oliveira & Paul Hickson.* 380, 30, 176-D5 (1991)

Recent Star Formation in the Interacting Galaxy System NGC 520. *S. A. Stanford.* 381, 409, 195-G1 (1991)

The Extraordinary Radio Source 3C 442. *Neil F. Comins & Frazer N. Owen.* 382, 108, 201-E1 (1991)

Relaxation-driven Binary Mergers. *Sergio Gelato, David F. Chernoff, & Ira Wasserman.* 384, 15, 1-C1 (1992)

The Formation of Globular Clusters in Merging and Interacting Galaxies. *Keith M. Ashman & Stephen E. Zepf.* 384, 50, 1-F1 (1992)

A Multiwavelength Study of the Peculiar Interacting Galaxies Arp 143 = VV 117: Evidence for an Emerging Ring Galaxy? *P. N. Appleton, J. M. Schombert, & E. I. Robson.* 385, 491, 19-C8 (1992)

The Distribution of cD Galaxy Peculiar Velocities. *Eliot M. Malumuth.* 386, 420, 30-E13 (1992)

A Triggering Mechanism for Enhanced Star Formation in Colliding Galaxies. *Chanda J. Jog & P. M. Solomon.* 387, 152, 38-G6 (1992)

Fabry-Perot Images of NGC 1275 and Its Puzzling High-Velocity System. *Adeline Caulet, Bruce E. Woodgate, Larry W. Brown, Theodore R. Gull, Paul Hintzen, James D. Lowenthal, Ronald J. Oliversen, & Michael M. Ziegler.* 388, 301, 54-A12 (1992)

A Near-Infrared Imaging Survey of Interacting Galaxies: The Small Angular-Size Arp Systems. *Howard A. Bushouse & S. Adam Stanford.* 79, 213, 16-G11 (1992)

Ultraluminous *IRAS* Galaxies: Formation of Elliptical Galaxies by Merger-induced Dissipative Collapse. *John Kormendy & David B. Sanders.* 390, L53, 84-E1 (1992)

Far-Ultraviolet MAMA Detector Imagery and Emission-Line CCD Imagery of NGC 6240. *Andrew M. Smith, Robert S. Hill, Frederick J. Vrba, & J. Gethyn Timothy.* 391, L81, 99-F5 (1992)

Merging in Cosmic Structures. *A. Cavaliere, S. Colafrancesco, & N. Menci.* 392, 41, 101-E1 (1992)

Transformations of Galaxies. I. Mergers of Equal-Mass Stellar Disks. *Joshua E. Barnes.* 393, 484, 121-G9 (1992)

The Evolutionary History of the Interacting Galaxy System NGC 7714/7715 (Arp 284). *Beverly J. Smith & John F. Wallin.* 393, 544, 122-E7 (1992)

Models for Galaxy Halos in an Open Universe. *Simon D. M. White & Dennis Zaritsky.* 394, 1, 128-B1 (1992)

An Interacting Galaxy Pair in the Bootes Void. *D. Weistrop, P. Hintzen, R. C. Kennicutt, Jr., C. Liu, J. Lowenthal, K.-P. Cheng, R. Oliversen, & B. Woodgate.* 396, L23, 160-E1 (1992)

High-Resolution CO Observations of NGC 7252: A Counterrotating Central Molecular Gas Disk. *Zhong Wang, François Schweizer, & Nicholas Z. Scoville.* 396, 510, 163-G5 (1992)

Gravitational Wave Burst Produced by Merging of Central Black Holes of Galaxies. *Toshiyuki Fukushige, Toshikazu Ebisuzaki, & Junichiro Makino.* 396, L61, 166-G7 (1992)

Faint Galaxy Evolution via Interactions. *R. G. Carlberg & Stéphane Charlot.* 397, 5, 168-B6 (1992)

Statistical Mechanics of Violent Relaxation. *David N. Spergel & Lars Hernquist.* 397, L75, 180-G7 (1992)

Mass Transfer and Loss in Interacting Disk Galaxies. *J. F. Wallin & B. V. Stuart.* 399, 29, 195-D10 (1992)

Merging and Fast Galaxy Evolution. *R. G. Carlberg.* 399, L31, 200-C7 (1992)

A Model for Ring Galaxies: Arp 147–like Systems. *Richard A. Gerber, Susan A. Lamb, & Dinshaw S. Balsara.* 399, L51, 200-E10 (1992)

High Spatial Resolution Continuum and Hα Imaging of the High-Redshift *IRAS* Source FSC 10214+4724. *B. T. Soifer, G. Neugebauer, K. Matthews, C. Lawrence, & J. Mazzarella.* 399, L55, 200-F1 (1992)

Formation of Shells in Major Mergers. *Lars Hernquist & David N. Spergel.* 399, L117, 207-G1 (1992)

Models of Star Formation in Interacting and Merging Disk Galaxies. *J. Christopher Mihos, Douglas O. Richstone, & Gregory D. Bothun.* 400, 153, 210-G4 (1992)

Structure of Merger Remnants. I. Bulgeless Progenitors. *Lars Hernquist.* 400, 460, 216-A9 (1992)

Starbursts Triggered by Central Overpressure in Interacting Galaxies. *Chanda J. Jog & Mousumi Das.* 400, 476, 216-C1 (1992)

NGC 4027: An Interacting One-armed Spiral Galaxy with a Warped Ring. *Bikram Phookun, Lee G. Mundy, Peter J. Teuben, & Richard J. Wainscoat.* 400, 516, 216-F10 (1992)

UGC 7636 and NGC 4472: Tidal Interaction between a Stripped Dwarf Irregular and a Giant Elliptical Galaxy. *Richard J. Patterson & Trinh X. Thuan.* 400, L55, 220-C7 (1992)

The External Origin of the Gas in S0 Galaxies. *F. Bertola, L. M. Buson, & W. W. Zeilinger.* 401, L79, 233-A12 (1992)

Tidally Triggered Galaxy Formation. II. Galaxy Number Counts. *Cedric Lacey, Bruno Guiderdoni, Brigitte Rocca-Volmerange, & Joseph Silk.* 402, 15, 1-C6 (1993)

Subarcsecond Near-Infrared Imaging of Ultraluminous *IRAS* Galaxies. *S. R. Majewski, M. Hereld, D. C. Koo, G. D. Illingworth, & T. M. Heckman.* 402, 125, 2-E13 (1993)

Heating of Galactic Disks by Mergers. *P. J. Quinn, Lars Hernquist, & D. P. Fullagar.* 403, 74, 15-A3 (1993)

Protogalactic Mergers and Cosmochronology. *G. J. Mathews & D. N. Schramm.* 404, 468, 34-G1 (1993)

Segregation of Gas and Stars in Shell Galaxies. *Melinda L. Weil & Lars Hernquist.* 405, 142, 42-G1 (1993)

Near-Infrared Line Imaging of NGC 6240: Collision Shock and Nuclear Starburst. *Paul P. van der Werf, R. Genzel, A. Krabbe, M. Blietz, D. Lutz, S. Drapatz, Martin J. Ward, & Duncan A. Forbes.* 405, 522, 49-E7 (1993)

Optical Imaging and Long-Slit Spectroscopy of Markarian Galaxies with Multiple Nuclei. I. Basic Data. *Joseph M. Mazzarella & Todd A. Boroson.* 85, 27, 6-E1 (1993)

The Local Galaxy Density and the Bars of Spiral Galaxies. *Giuliano Giuricin, Fabio Mardirossian, Marino Mezzetti, & Pierluigi Monaco.* 407, 22, 69-D1 (1993)

An Hα Survey of Cluster Spirals: Comparison of Star Formation in Clusters and the Field. *C. Moss & M. Whittle.* 407, L17, 75-C1 (1993)

The Frequency of Mergers in Compact Groups. *Stephen E. Zepf.* 407, 448, 76-B12 (1993)

Chemical and Luminosity Evolution, and Counts of Galaxies in a Merger Model. *P. Colín & D. N. Schramm.* 407, 510, 77-A1 (1993)

The 8–13 Micron Spectrum of Arp 299C. *C. C. Dudley & C. G. Wynn-Williams.* 407, L65, 82-D1 (1993)

Compressive Tidal Heating of a Disk Galaxy in a Rich Cluster. *Monica Valluri.* 408, 57, 83-G1 (1993)

A Massive Binary Black Hole in 1928+738? *Nico Roos, Jelle S. Kaastra, & Christian A. Hummel.* 409, 130, 98-E8 (1993)

Structure of Merger Remnants. II. Progenitors with Rotating Bulges. *Lars Hernquist.* 409, 548, 105-F12 (1993)

The Shapes of Brightest Cluster Galaxies. *Barbara S. Ryden, Tod R. Lauer, & Marc Postman.* 410, 515, 120-B1 (1993)

The Interacting System NGC 7753–7752 (Arp 86). I. *BVRI* Photometry. *Eija Laurikainen, Heikki Salo, & Antonio Aparicio.* 410, 574, 120-G3 (1993)

The Interacting System NGC 7753–7752 (Arp 86). II. *N*-Body Modeling. *Heikki Salo & Eija Laurikainen.* 410, 586, 121-A6 (1993)

N-Body Realizations of Compound Galaxies. *Lars Hernquist.* 86, 389, 19-F7 (1993)

Hydrodynamic Models of the Cartwheel Ring Galaxy. *Curtis Struck-Marcell & James L. Higdon.* 411, 108, 128-D7 (1993)

Mergers and Clustering Evolution. *R. G. Carlberg.* 411, L9, 133-E1 (1993)

H I Streamers around M82: Tidally Disrupted Outer Gas Disk. *Min S. Yun, Paul T. P. Ho, & K. Y. Lo.* 411, L17, 133-F1 (1993)

An Interaction Model for the Formation of Dwarf Galaxies and 10^8 $M_\odot$ Clouds in Spiral Disks. *B. G. Elmegreen, M. Kaufman, & M. Thomasson.* 412, 90, 143-B10 (1993)

The Warped Disk of Centaurus A in the Near-Infrared. *A. C. Quillen, James R. Graham, & Jay A. Frogel.* 412, 550, 150-E7 (1993)

The Dusty Emission Filaments of M87. *W. B. Sparks, H. C. Ford, & A. L. Kinney.* 413, 531, 163-B1 (1993)

Interaction of NGC 2276 with the NGC 2300 Group: Fabry-Perot Observations of the Hα Velocity Field. *Robert A. Gruendl, Stuart N. Vogel, David S. Davis, & John S. Mulchaey.* 413, L81, 168-D10 (1993)

QSO Heavy-Element Absorption Line Systems and Large Galactic Halos by Satellite Accretion. *Boqi Wang.* 415, 174, 187-B12 (1993)

Optical CCD Imaging of GHz-peaked-Spectrum Radio Sources. *C. Stanghellini, C. P. O'Dea, S. A. Baum, & E. Laurikainen.* 88, 1, 40-B1 (1993)

CO Emission in the Radio-loud Quasar 3C 48. *N. Z. Scoville, S. Padin, D. B. Sanders, B. T. Soifer, & M. S. Yun.* 415, L75, 199-E7 (1993)

An Argument against Mergers of the Faint Blue Galaxies. *Julianne J. Dalcanton.* 415, L87, 199-F13 (1993)

Ballistic Models for Radio Jets in Colliding Galaxies: 3C 278 (NGC 4782/4783). *Kirk D. Borne & Luis Colina.* 416, 157, 203-A8 (1993)

Bending Instabilities in Galaxy Merger Remnants. *Lars Hernquist, Jeremy S. Heyl, & David N. Spergel.* 416, L9, 207-B13 (1993)

Structure of Merger Remnants. III. Phase-Space Constraints. *Lars Hernquist, David N. Spergel, & Jeremy S. Heyl.* 416, 415, 208-E4 (1993)

Formation of Globular Clusters and Galactic Environments. *Yasuki Kumai, Yuichi Hashi, & Mitsuaki Fujimoto.* 416, 576, 210-E5 (1993)

Infrared Observations of the Seyfert Ring Galaxy NGC 985. *P. N. Appleton & P. M. Marcum.* 417, 90, 218-C9 (1993)

Spectra of Two Luminous Young Globular Clusters in the Merger Remnant NGC 7252. *François Schweizer & Patrick Seitzer.* 417, L29, 223-B1 (1993)

A Simulation Atlas of Tidal Features in Galaxies. *Sethanne Howard, William C. Keel, Gene Byrd, & Jordan Burkey.* 417, 502, 225-E8 (1993)

The Structure and Dynamics of Elliptical Galaxies in Compact Groups. *Stephen E. Zepf & Bradley C. Whitmore.* 418, 72, 232-A7 (1993)

Modeling the Spatial Distribution of Star Formation in Interacting Disk Galaxies. *J. Christopher Mihos, Gregory D. Bothun, & Douglas O. Richstone.* 418, 82, 232-B5 (1993)

High-Resolution CO and H I Observations of the Interacting Galaxy NGC 3627. *Xiaolei Zhang, Melvyn Wright, & Paul Alexander.* 418, 100, 232-C11 (1993)

The Failure of Simple Merging Models to Save a Flat, $\Omega_0 = 1$ Universe. *Boudewijn F. Roukema & Yuzuru Yoshii.* 418, L1, 238-A8 (1993)

Spatially Resolved X-Ray Spectroscopy of the Merging Galaxy Cluster A2256. *T. Miyaji, R. F. Mushotzky, M. Loewenstein, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, E. A. Boldt, S. S. Holt, J. Swank, A. E. Szymkowiak, & R. Kelley.* 419, 66, 247-A2 (1993)

Near-Infrared Images of MG 1131+0456 with the W. M. Keck Telescope: Another Dusty Gravitational Lens? *J. E. Larkin, K. Matthews, C. R. Lawrence, J. R. Graham, W. Harrison, G. Jernigan, S. Lin, J. Nelson, G. Neugebauer, G. Smith, B. T. Soifer, & C. Ziomkowski.* 420, L9, 7-B10 (1994)

Near-Infrared Imaging of FSC 10214+4724 with the W. M. Keck Telescope. *K. Matthews, B. T. Soifer, J. Nelson, H. Boesgaard, J. R. Graham, W. Harrison, W. Irace, G. Jernigan, J. E. Larkin, H. Lewis, S. Lin, G. Neugebauer, M. Sirota, G. Smith, & C. Ziomkowski.* 420, L13, 7-C5 (1994)

A Near-Infrared Spectroscopic Study of the Luminous Merger NGC 3256. I. Constraints on the Initial Mass Function of the Starburst. *René Doyon, R. D. Joseph, & G. S. Wright.* 421, 101, 17-C10 (1994)

A Near-Infrared Spectroscopic Study of the Luminous Merger NGC 3256. II. Evidence for Fluorescent Molecular Hydrogen Emission. *René Doyon, G. S. Wright, & R. D. Joseph.* 421, 115, 17-D12 (1994)

Weakly Damped Modes in Star Clusters and Galaxies. *Martin D. Weinberg.* 421, 481, 24-B9 (1994)

Starburst Models of Merging Galaxies. *A. H. Prestwich, R. D. Joseph, & Gillian S. Wright.* 422, 73, 31-A3 (1994)

Clumped X-Ray Emission around Radio Galaxies in Abell Clusters. *Jack O. Burns, George Rhee, Frazer N. Owen, & Jason Pinkney.* 423, 94, 47-C9 (1994)

Ram-Pressure Stripping of Gas from Companions and Accretion onto a Spiral Galaxy: A Gaseous Merger. *Yoshiaki Sofue.* 423, 207, 48-F3 (1994)

Complex Radio Structure in the Peculiar Pair of Interacting Starburst Galaxies NGC 3395 and NGC 3396. *Zhen-Ping Huang, Qi-Feng Yin, William C. Saslaw, & David S. Heeschen.* 423, 614, 56-B5 (1994)

Discovery of Neutral Hydrogen Associated with the Diffuse Shells of NGC 5128 (Centaurus A). *D. Schiminovich, J. H. van Gorkom, J. M. van der Hulst, & S. Kasow.* 423, L101, 60-D13 (1994)

Triggering of Starbursts in Galaxies by Minor Mergers. *J. Christopher Mihos & Lars Hernquist.* 425, L13, 85-C5 (1994)

Counts of Galaxies in a Merger Model. *P. Colín, D. N. Schramm, & M. Peimbert.* 426, 459, 104-B1 (1994)

Imaging of "Butcher-Oemler" Blue Galaxies at a Redshift of 0.2. *Russell J. Lavery & J. Patrick Henry.* 426, 524, 104-G13 (1994)

Induced Population Gradients in Galaxy Merger Remnants. *J. Christopher Mihos & Lars Hernquist.* 427, 112, 111-C12 (1994)

Structure of Merger Remnants. IV. Isophotal Shapes. *Jeremy S. Heyl, Lars Hernquist, & David N. Spergel.* 427, 165, 112-B1 (1994)

Morphology of Galaxies in Compact Groups. *Cláudia Mendes de Oliveira & Paul Hickson.* 427, 684, 121-C1 (1994)

Lyman-Alpha Absorption and Tidal Debris. *Simon L. Morris & Sidney van den Bergh.* 427, 696, 121-D1 (1994)

Galaxy Pairs in Deep *HST* Images: Evidence for Evolution in the Galaxy Merger Rate. *Jordan M. Burkey, William C. Keel, Rogier A. Windhorst, & Barbara E. Franklin.* 429, L13, 150-C3 (1994)

Extended Infrared Line Emission Excited by Starburst and Seyfert Activity in NGC 3256 and NGC 4945. *A. F. M. Moorwood & E. Oliva.* 429, 602, 153-B9 (1994)

Arcs and Bridges in the Interacting Galaxies NGC 5775/NGC 5774. *Judith A. Irwin.* 429, 618, 153-D7 (1994)

The Morphology of Distant Cluster Galaxies. I. *HST* Observations of CL 0939+4713. *Alan Dressler, Augustus Oemler, Jr., Harvey R. Butcher, & James E. Gunn.* 430, 107, 160-D3 (1994)

Morphological Studies of the Galaxy Populations in Distant "Butcher-Oemler" Clusters with *HST*. I. AC 114 at $z = 0.31$ and Abell 370 at $z = 0.37$. *Warrick J. Couch, Richard S. Ellis, Ray M. Sharples, & Ian Smail.* 430, 121, 160-E8 (1994)

Interaction, Star Formation, and H I Deficiency in E + S Pairs. *A. V. Zasov & Jack W. Sulentic.* 430, 179, 161-C8 (1994)

VV 114: Making of an Ultraluminous Galaxy? *M. S. Yun, N. Z. Scoville, & R. A. Knop.* 430, L109, 174-F9 (1994)

Ultraluminous Starbursts in Major Mergers. *J. Christopher Mihos & Lars Hernquist.* 431, L9, 182-C13 (1994)

Stellar Kinematics in the Nucleus of NGC 6240: A Massive Galaxy Revealed. *Dan F. Lester & Niall I. Gaffney.* 431, L13, 182-D7 (1994)

A Model for Collisionally Induced Disturbed Structure in Disk Galaxies. *Richard A. Gerber & Susan A. Lamb.* 431, 604, 186-B1 (1994)

Globular Cluster Systems Associated with cD Galaxies in Poor Clusters. *Terry J. Bridges & David A. Hanes.* 431, 625, 186-C13 (1994)

Are Globular Clusters the Nuclei of Cannibalized Dwarf Galaxies? *Lilia P. Bassino, Juan C. Muzzio, & Mónica Rabolli.* 431, 634, 186-D10 (1994)

Kinematic Misalignments in Remnants of Multiple Mergers. *Melinda L. Weil & Lars Hernquist.* 431, L79, 191-D3 (1994)

Testing for Interaction between the Galaxies NGC 450 and UGC 807. *Mariano Moles, Isabel Márquez, Josefa Masegosa, Ascensión del Olmo, Jaime Perea, & Halton Arp.* 432, 135, 194-G12 (1994)

Velocity Bias in Clusters. *R. G. Carlberg.* 433, 468, 216-G1 (1994)

The Dynamical Evolution of Poor Clusters of Galaxies: Growth and Properties of the First-ranked Galaxy. *Paul W. Bode, Robert C. Berrington, Haldan N. Cohn, & Phyllis M. Lugger.* 433, 479, 217-A2 (1994)

Observations and Models of the Sacred Mushroom: AM 1724−622. *John F. Wallin & Curtis Struck-Marcell.* 433, 631, 218-G8 (1994)

Testing the Least Action Principle in an $\Omega_0 = 1$ Universe. *E. Branchini & R. G. Carlberg.* 434, 37, 225-F4 (1994)

Galaxy Mergers and Gravitational Lens Statistics. *Hans-Walter Rix, Dan Maoz, Edwin L. Turner, & Masataka Fukugita.* 435, 49, 243-G12 (1994)

Markarian 315: A Test Case for the Active Galactic Nucleus–Merger Hypothesis? *John W. MacKenty, Susan M. Simkin, Richard E. Griffiths, James S. Ulvestad, & Andrew S. Wilson.* 435, 71, 244-C3 (1994)

Interacting Binary Galaxies. VII. Kinematic Data for 12 Disturbed Ellipticals. *Kirk D. Borne, Marc Balcells, John G. Hoessel, & Matthew McMaster.* 435, 79, 244-D4 (1994)

New Images of the Distant, Rich Cluster CL 0939+4713 with WFPC2. *Alan Dressler, Augustus Oemler, Jr., William B. Sparks, & Ray A. Lucas.* 435, L23, 251-E11 (1994)

A Survey of Faint Galaxy Pairs. *R. G. Carlberg, C. J. Pritchet, & L. Infante.* 435, 540, 253-E9 (1994)

Multiple High-Velocity Emission-Line Systems in the E+S Pair CPG 29. *P. Marziani, W. C. Keel, D. Dultzin-Hacyan, & J. W. Sulentic.* 435, 668, 255-C5 (1994)

X-Ray Emission from Hickson's Compact Groups of Galaxies: Results from the *ROSAT* All-Sky Survey. *Harald Ebeling, Wolfgang Voges, & Hans Böhringer.* 436, 44, 261-G6 (1994)

Merging Rates inside Large-Scale Structures. *Nicola Menci & Riccardo Valdarnini.* 436, 559, 273-C1 (1994)

Environmental Effects on Local Active Galactic Nuclei. *Pierluigi Monaco, Giuliano Giuricin, Fabio Mardirossian, & Marino Mezzetti.* 436, 576, 273-D11 (1994)

Triple Black Holes in the Cores of Galaxies. *Junichiro Makino & Toshikazu Ebisuzaki.* 436, 607, 273-G10 (1994)

Galaxies in Clusters: Gas Stripping and Accretion. *Dinshaw Balsara, Mario Livio, & Christopher P. O'Dea.* 437, 83, 284-C6 (1994)

Stellar Velocity Dispersion in Arp 220 and NGC 6240: Elliptical Galaxies in Formation. *René Doyon, M. Wells, G. S. Wright, R. D. Joseph, D. Nadeau, & P. A. James.* 437, L23, 291-D13 (1994)

Dense Stellar Cores in Merger Remnants. *J. Christopher Mihos & Lars Hernquist.* 437, L47, 292-A1 (1994)

The Difference between Radio-loud and Radio-quiet Active Galaxies. *A. S. Wilson & E. J. M. Colbert.* 438, 62, 2-B10 (1995)

Gas Filaments in the Collisional Debris of NGC 4438. *Jeffrey D. P. Kenney, Vera C. Rubin, Pere Planesas, & Judith S. Young.* 438, 135, 3-B10 (1995)

The Relation between Dynamical Perturbations, Morphology, and Nuclear Activity in Spiral Galaxies. *Mariano Moles, Isabel Márquez, & Enrique Pérez.* 438, 604, 12-D13 (1995)

Morphology of Galaxy Mergers at Intermediate Redshift. *J. Christopher Mihos.* 438, L75, 19-E8 (1995)

The Detection of Molecular Gas in the Ring Galaxy Arp 143. *James L. Higdon, Beverly J. Smith, Steven D. Lord, & Richard J. Rand.* 438, L79, 19-F7 (1995)

The Luminous Starburst Galaxy UGC 8387. *Denise A. Smith, Terry Herter, Martha P. Haynes, C. A. Beichman, & T. N. Gautier III.* 439, 623, 33-A4 (1995)

The Motion of the Magellanic Clouds, Origin of the Magellanic Stream, and the Mass of the Milky Way. *D. N. C. Lin, B. F. Jones, & A. R. Klemola.* 439, 652, 33-D11 (1995)

On the Tidal Disruption of Dwarf Spheroidal Galaxies around the Galaxy. *K. S. Oh, D. N. C. Lin, & S. J. Aarseth.* 442, 142, 79-B9 (1995)

Neutral Hydrogen Associated with Shells and Other Fine Structure in NGC 2865: A Dynamically Young Elliptical? *D. Schiminovich, J. H. van Gorkom, J. M. van der Hulst, & D. F. Malin.* 444, L77, 130-D1 (1995)

Statistics of Close Galaxy Pairs from a Faint-Galaxy Redshift Survey. *H. K. C. Yee & E. Ellingson.* 445, 37, 132-G9 (1995)

Radio Jet Propagation and Wide-Angle Tailed Radio Sources in Merging Galaxy Cluster Environments. *Chris Loken, Kurt Roettiger, Jack O. Burns, & Michael Norman.* 445, 80, 133-D11 (1995)

Spectroscopy of Candidate Young Globular Clusters in NGC 1275. *Stephen E. Zepf, Dave Carter, Ray M. Sharples, & Keith M. Ashman.* 445, L19, 140-D6 (1995)

Ultra–Low-Frequency Gravitational Radiation from Massive Black Hole Binaries. *Mohan Rajagopal & Roger W. Romani.* 446, 543, 163-E11 (1995)

Evidence for an On-going Cluster/Group Merger in Abell 2255. *Jack O. Burns, Kurt Roettiger, Jason Pinkney, Rick A. Perley, Frazer N. Owen, & Wolfgang Voges.* 446, 583, 164-B8 (1995)

Radio Detection of a Double Nucleus in the Merging Galaxy NGC 3256. *R. P. Norris & Duncan A. Forbes.* 446, 594, 164-C8 (1995)

ROSAT PSPC Observations of Two Dynamically Young Elliptical Galaxies: NGC 4125 and NGC 3610. *G. Fabbiano & François Schweizer.* 447, 572, 183-F7 (1995)

A Merger Origin for X Structures in S0 Galaxies. *J. Christopher Mihos, Ian R. Walker, Lars Hernquist, Claudia Mendes de Oliveira, & Michael Bolte.* 447, L87, 190-E1 (1995)

Excitation of Activity in Galaxies by Minor Mergers. *Lars Hernquist & J. Christopher Mihos.* 448, 41, 192-G1 (1995)

Evidence for Recent Accretion in Nearby Galaxies. *Dennis Zaritsky.* 448, L17, 199-D6 (1995)

The Mass Distribution in a Collapsing Merging Spherical Cluster of Objects. *Nir J. Shaviv & Giora Shaviv.* 448, 514, 201-G3 (1995)

Collisions of Ellipticals and the Onset of Fanaroff-Riley Type I Radio Sources. *Luis Colina & Lourdes de Juan.* 448, 548, 202-C4 (1995)

The H_2 Excitation by Formation Pumping in the Merging Galaxy NGC 6240? *Hideaki Mouri & Yoshiaki Taniguchi.* 449, 134, 212-A8 (1995)

Extended Molecular Gas in FSC 10214+4724. *N. Z. Scoville, M. S. Yun, R. L. Brown, & P. A. Vanden Bout.* 449, L109, 226-G2 (1995)

Supernovae, Globular Clusters, and Galaxy Mergers. *Sidney van den Bergh.* 450, 27, 228-D9 (1995)

Near-Infrared Imaging and Spectroscopy of the Bright *IRAS* Galaxy VV 114. *René Doyon, Daniel Nadeau, R. D. Joseph, J. D. Goldader, D. B. Sanders, & Neil Rowlands.* 450, 111, 229-E8 (1995)

Spectrophotometric Properties of Merging Galaxies. *Charles T. Liu & Robert C. Kennicutt, Jr.* 450, 547, 238-C9 (1995)

Mergers of Dissipationless Systems: Clues about the Fundamental Plane. *H. V. Capelato, R. R. de Carvalho, & R. G. Carlberg.* 451, 525, 254-E1 (1995)

The Disruption of the Sagittarius Dwarf Galaxy. *Kathryn V. Johnston, David N. Spergel, & Lars Hernquist.* 451, 598, 255-D13 (1995)

An Extended Molecular Gas Distribution in Markarian 273 and Merger-Luminosity Evolution. *M. S. Yun & N. Z. Scoville.* 451, L45, 260-E2 (1995)

A Spectrophotometric Survey of Merging Galaxies. *Charles T. Liu & Robert C. Kennicutt, Jr.* 100, 325, 50-E8 (1995)

The Interaction between Spiral Galaxies IC 2163 and NGC 2207. I. Observations. *Debra Meloy Elmegreen, Michele Kaufman, Elias Brinks, Bruce G. Elmegreen, & Maria Sundin.* 453, 100, 282-E8 (1995)

The Interaction between Spiral Galaxies IC 2163 and NGC 2207. II. Models. *Bruce G. Elmegreen, Maria Sundin, Michele Kaufman, Elias Brinks, & Debra Meloy Elmegreen.* 453, 139, 283-B2 (1995)

AM 1354−250: Photometric Observations and Models of a Collisional Ring System. *John F. Wallin.* 453, 641, 292-F7 (1995)

Counting Pairs of Faint Galaxies. *David Woods, Gregory G. Fahlman, & Harvey B. Richer.* 454, 32, 299-E10 (1995)

The Unusual X-Ray Collision Morphology of NGC 4782/4783 (3C 278). *Luis Colina & Kirk D. Borne.* 454, L101, 315-F11 (1995)

The Peculiar H I Kinematics of the Wolf-Rayet Starburst Galaxy NGC 5253. *Henry A. Kobulnicky & Evan D. Skillman.* 454, L121, 316-B6 (1995)

The Destruction of a Compact Group of Galaxies. *Rachel A. Pildis.* 455, 492, 328-F8 (1995)

GALAXIES: INTERGALACTIC MEDIUM

The Metal Abundance and Specific Energy of Intracluster Gas. *Raymond E. White III.* 367, 69, 12-G8 (1991)

Cosmic Backgrounds from Primeval Dust. *J. R. Bond, B. J. Carr, & C. J. Hogan.* 367, 420, 18-F1 (1991)

A Study of Two Absorption-Line Complexes in the Quasar UM 402 ≡ Q0207−003. *E. Joseph Wampler.* 368, 40, 23-E11 (1991)

Expansion-cooled Lyman-Alpha Clouds. *Robert C. Duncan, Ethan T. Vishniac, & Jeremiah P. Ostriker.* 368, L1, 28-B1 (1991)

Diffuse Light in Dense Clusters of Galaxies. I. *R*-Band Observations of Abell 2029. *Juan M. Uson, Stephen P. Boughn, & Jeffrey R. Kuhn.* 369, 46, 36-E7 (1991)

Far-Infrared Counterpart to the Optical and H I Plume in the Leo Triplet of Galaxies: NGC 3623, NGC 3627, and NGC 3628. *D. H. Hughes, P. N. Appleton, & J. M. Schombert.* 370, 176, 49-C11 (1991)

The Shape of the Ultraviolet Continuum of Quasars and Intergalactic Dust. *F. H. Cheng, C. Martin Gaskell, & Anuradha P. Koratkar.* 370, 487, 54-D9 (1991)

Fueling Starburst Galaxies with Gas-rich Mergers. *Joshua E. Barnes & Lars E. Hernquist.* 370, L65, 59-B7 (1991)

Dust from Early Galaxies and the X-Ray Background Radiation. *B. Rudak & P. Mészáros.* 371, 29, 60-D5 (1991)

Statistical Analysis of Power-Size-Redshift Distributions of Extragalactic Jets. *Alexander Rosen & Paul J. Wiita.* 371, 501, 67-F10 (1991)

The Hydrodynamics of Relict Cosmological H II Regions and the Formation of Objects at High Redshift. *Piero Madau & Avery Meiksin.* 374, 6, 98-B7 (1991)

Unsaturated Comptonization of Isotropic Photon Spectra by Relativistic Electrons. *Abraham Loeb, Christopher F. McKee, & Ofer Lahav.* 374, 44, 98-E5 (1991)

Optical Coronal Emission Lines from Cooling Flows in Elliptical Galaxies and Galaxy Clusters. *Craig L. Sarazin & Christopher M. Graney.* 375, 532, 119-D3 (1991)

The Distribution of Dark Matter in the Perseus Cluster. *C. J. Eyles, M. P. Watt, D. Bertram, M. J. Church, T. J. Ponman, G. K. Skinner, & A. P. Willmore.* 376, 23, 125-C12 (1991)

Lyman-Alpha Depression of the Continuum from High-Redshift Quasars: A New Technique Applied in Search of the Gunn-Peterson Effect. *Edward B. Jenkins & Jeremiah P. Ostriker.* 376, 33, 125-D9 (1991)

The X-Ray Cooling Flow in the Cluster of Galaxies around PKS 2354−35. *Daniel A. Schwartz, Hale V. Bradt, Ronald A. Remillard, & I. R. Tuohy.* 376, 424, 131-F6 (1991)

QSO Absorption Systems and the Origin of the Ionizing Background at High Redshift. *Piero Madau.* 376, L33, 137-B4 (1991)

First Results from the Goddard High-Resolution Spectrograph: Ultraviolet Spectra of a Starburst Knot in NGC 1068. *J. B. Hutchings, F. Bruhweiler, A. Boggess, S. R. Heap, D. Ebbets, E. Beaver, E. Rosenblatt, K. Q. Truong, M. Perez, & R. Westmacott.* 377, L25, 143-D1 (1991)

Cosmic-Ray Heating of Cooling Flows: A Critical Analysis. *Michael Loewenstein, Ellen G. Zweibel, & Mitchell C. Begelman.* 377, 392, 144-F4 (1991)

A ∼10 Mpc Void in the Lyα Forest at $z = 3.17$. *Adam Dobrzycki & Jill Bechtold.* 377, L69, 150-B10 (1991)

Confirmation of Dust in Damped Lyman-Alpha Systems. *Yichuan C. Pei, S. Michael Fall, & Jill Bechtold.* 378, 6, 151-B4 (1991)

Detection of Excess Rotation Measure Due to Intracluster Magnetic Fields in Clusters of Galaxies. *K.-T. Kim, Peter C. Tribble, & P. P. Kronberg.* 379, 80, 164-A5 (1991)

The Carbon Abundance of the Lyman-Alpha Clouds. *Limin Lu.* 379, 99, 164-C1 (1991)

A Measurement of the Value of the Hubble Constant from the X-Ray Properties and the Sunyaev-Zel'dovich Effect of Abell 665. *M. Birkinshaw, J. P. Hughes, & K. A. Arnaud.* 379, 466, 170-E1 (1991)

Spectroscopic Limits to an Extragalactic Far-Ultraviolet Background. *Christopher Martin, Mark Hurwitz, & Stuart Bowyer.* 379, 549, 171-D10 (1991)

Enrichment and Heating of the Intracluster Medium through Galactic Winds. *L. P. David, W. Forman, & C. Jones.* 380, 39, 176-E1 (1991)

Turbulently Generated Magnetic Fields in Clusters of Galaxies. *Itzhak Goldman & Yoel Rephaeli.* 380, 344, 182-E8 (1991)

Bounds on Intergalactic Compact Objects from Observations of Compact Radio Sources. *Aggeliki Kassiola, Israel Kovner, & Roger D. Blandford.* 381, 6, 189-B4 (1991)

The Evolution of the Diffuse Cosmic Ultraviolet Background Constrained by *Hubble Space Telescope* Observations of 3C 273. *Satoru Ikeuchi & Edwin L. Turner.* 381, L1, 194-A9 (1991)

A Photoionization Model for the Optical Line Emission from Cooling Flows. *Megan Donahue & G. Mark Voit.* 381, 361, 195-C1 (1991)

Observations of Ca II Absorption along the Nearly Parallel Lines of Sight toward 3C 273 and SN 1991T. *David M. Meyer & Katherine C. Roth.* 383, L41, 226-B11 (1991)

X-Ray Study of NGC 1399 in the Fornax Cluster of Galaxies. *Y. Ikebe, T. Ohashi, K. Makishima, T. Tsuru, G. Fabbiano, D.-W. Kim, G. Trinchieri, I. Hatsukade, K. Yamashita, & H. Kondo.* 384, L5, 6-B1 (1992)

Numerical Simulations of Hydrodynamical Jets Crossing a Galactic Halo/Intracluster Medium Interface. *Paul J. Wiita & Michael L. Norman.* 385, 478, 19-B7 (1992)

Radiative Shocks and Hydrogen Molecules in Pregalactic Gas: The Effects of Postshock Radiation. *Hyesung Kang & Paul R. Shapiro.* 386, 432, 30-F13 (1992)

Galaxy-driven Turbulence and the Growth of Intracluster Magnetic Fields. *David S. De Young.* 386, 464, 31-B8 (1992)

Magnetic Fields in Damped Lyα Systems. *A. M. Wolfe, K. M. Lanzetta, & A. L. Oren.* 388, 17, 49-C5 (1992)

A Huge H I Cloud near a Galaxy Pair. *G. Lyle Hoffman, E. E. Salpeter, C. Lamphier, & T. Roos.* 388, L5, 52-A11 (1992)

Where Have All the Cluster Halos Gone? *Jack O. Burns, Martin E. Sulkanen, Galen R. Gisler, & Rick A. Perley.* 388, L49, 59-B1 (1992)

The Contribution of Quasars to the Ultraviolet Extragalactic Background. *Piero Madau.* 389, L1, 66-B1 (1992)

Quasar Absorption Lines with a Nonzero Cosmological Constant. *Edwin L. Turner & Satoru Ikeuchi.* 389, 478, 67-D7 (1992)

The Efficiency of Galaxy Formation in Clusters. *Laurence P. David & George R. Blumenthal.* 389, 510, 67-G1 (1992)

X-Ray–emitting Filaments in the Cooling Flow Cluster A2029. *Craig L. Sarazin, Robert W. O'Connell, & Brian R. McNamara.* 389, L59, 73-C8 (1992)

Relation of Redshift Surveys to Matter Distribution in Spherically Symmetric Dust Universes. *Hannu Kurki-Suonio & Edison Liang.* 390, 5, 74-B7 (1992)

The Lyman Forest of 0014+813. *M. Rauch, R. F. Carswell, F. H. Chaffee, C. B. Foltz, J. K. Webb, R. J. Weymann, J. Bechtold, & R. F. Green.* 390, 387, 80-B11 (1992)

Mg II Absorption in the Spectra of 103 QSOs: Implications for the Evolution of Gas in High-Redshift Galaxies. *Charles C. Steidel & Wallace L. W. Sargent.* 80, 1, 22-B1 (1992)

Lyα Emission from Cooling Flows and Measures of the Dust Content of Rich Clusters of Galaxies. *Esther M. Hu.* 391, 608, 95-E7 (1992)

Intergalactic Ionizing Flux from Active Galactic Nuclei. *Nobuo Terasawa.* 392, L15, 106-C1 (1992)

Redshift Asymmetry and Color-Velocity Correlation in Nearby Galaxy Groups: Evidence of Dust? *M. Girardi, M. Mezzetti, G. Giuricin, & F. Mardirossian.* 394, 442, 134-G9 (1992)

Semiempirical Limits on the Thermal Conductivity of Intracluster Gas. *Laurence P. David, John P. Hughes, & Wallace H. Tucker.* 394, 452, 135-A7 (1992)

Characteristic-based Models for the Evolution of Cooling Flows. *Stephen D. Murray & Steven A. Balbus.* 395, 99, 141-C11 (1992)

Interstellar Dust from the Milky Way to the Magellanic Clouds. *Yichuan C. Pei.* 395, 130, 141-G1 (1992)

X-Ray and Optical Emission-Line Filaments in the Cooling Flow Cluster 2A 0335+096. *Craig L. Sarazin, Robert W. O'Connell, & Brian R. McNamara.* 397, L31, 173-D10 (1992)

High-Energy X Emission from the Coma Cluster. *Yoel Rephaeli & Oleg Goldshmidt.* 397, 438, 176-B6 (1992)

The X-Ray Spectrum of Abell 665. *John P. Hughes & Yasuo Tanaka.* 398, 62, 182-G1 (1992)

A Direct Measure of the Gunn-Peterson Effect at $z = 3$: Limits on the Baryon Density of the Intergalactic Medium at High Redshifts. *Emanuele Giallongo, Stefano Cristiani, & Dario Trevese.* 398, L9, 187-B7 (1992)

X-Ray Constraints on the Shape of the Dark Matter in Five Abell Clusters. *David A. Buote & Claude R. Canizares.* 400, 385, 215-B3 (1992)

The Quasar Proximity Effect in an Equivalent-Width–limited Sample of the Lyman-Alpha Forest. *Victor V. Chernomordik & Leonid M. Ozernoy.* 404, L5, 33-D1 (1993)

Diffuse X-Ray Emission from the NGC 2300 Group of Galaxies: Implications for Dark Matter and Galaxy Evolution in Small Groups. *John S. Mulchaey, David S. Davis, Richard F. Mushotzky, & David Burstein.* 404, L9, 33-D7 (1993)

Ginga Observations of the Coma Cluster and Studies of the Spatial Distribution of Iron. *John P. Hughes, Jackie A. Butcher, Gordon C. Stewart, & Yasuo Tanaka.* 404, 611, 36-E8 (1993)

Far-Infrared Emission from the Intracluster Medium. *Michael W. Wise, Robert W. O'Connell, Joel N. Bregman, & Morton S. Roberts.* 405, 94, 42-B13 (1993)

The Insignificance of "Heating Flows" in "Cooling Flow" Clusters of Galaxies. *Claude R. Canizares, Thomas H. Markert, Sera Markoff, & John P. Hughes.* 405, L17, 47-D1 (1993)

Lyman-Alpha Absorption Spectrum of the Primordial Intergalactic Medium. *Hongguang Bi.* 405, 479, 49-A11 (1993)

Does the Baryon Fraction in Clusters Imply an Open Universe? *Arif Babul & Neal Katz.* 406, L51, 68-B13 (1993)

When Clusters Collide: A Numerical Hydro/N-Body Simulation of Merging Galaxy Clusters. *Kurt Roettiger, Jack Burns, & Chris Loken.* 407, L53, 82-C1 (1993)

X-Ray Spectra of 12 Distant Clusters of Galaxies. *Qingde Wang & John T. Stocke.* 408, 71, 84-A4 (1993)

On the Origin of H I Absorption Systems of Quasars. *Izumi Murakami & Satoru Ikeuchi.* 409, 42, 97-E1 (1993)

The Galactic Halo and Local Intergalactic Medium toward PKS 2155−304. *Frederick C. Bruhweiler, A. Boggess, Dara J. Norman, C. A. Grady, C. Megan Urry, & Yoji Kondo.* 409, 199, 99-D6 (1993)

BL Lacertae Objects, Fanaroff-Riley Type I Radio Sources, and Cluster Cooling Flows. *Craig L. Sarazin & Michael W. Wise.* 411, 55, 127-F13 (1993)

Turbulent Generation of Intracluster Magnetic Fields and Faraday Rotation Measurements. *Oleg Goldshmidt & Yoel Rephaeli.* 411, 518, 136-B1 (1993)

On the Photoionization of the Intergalactic Medium by Quasars at High Redshift. *Avery Meiksin & Piero Madau.* 412, 34, 142-D12 (1993)

A Comparison of the Cosmic Microwave and Cosmic X-Ray Backgrounds: Constraints on Local Sources of the Fluctuations Observed by *COBE*. *S. P. Boughn & K. Jahoda.* 412, L1, 148-A9 (1993)

A Catalog of Intracluster Gas Temperatures. *L. P. David, A. Slyz, C. Jones, W. Forman, S. D. Vrtilek, & K. A. Arnaud.* 412, 479, 149-E9 (1993)

Spartan 1 X-Ray Observations of the Perseus Cluster. III. The Distribution of Iron in the Intracluster Gas. *M. P. Kowalski, R. G. Cruddace, W. A. Snyder, G. G. Fritz, M. P. Ulmer, & E. E. Fenimore.* 412, 489, 149-F8 (1993)

Linear Evolution of Cosmic Baryonic Medium on Large Scales. *Li-Zhi Fang, Hongguang Bi, Shouping Xiang, & Gerhard Börner.* 413, 477, 162-D13 (1993)

The Proximity Effect and the Mean Intensity of Ionizing Radiation at Low Redshifts. *Varsha P. Kulkarni & S. Michael Fall.* 413, L63, 168-B13 (1993)

Interaction of NGC 2276 with the NGC 2300 Group: Fabry-Perot Observations of the Hα Velocity Field. *Robert A. Gruendl, Stuart N. Vogel, David S. Davis, & John S. Mulchaey.* 413, L81, 168-D10 (1993)

Properties of High-Redshift Lyman-Alpha Clouds. I. Statistical Analysis of the Schneider-Schmidt-Gunn Quasars. *William H. Press, George B. Rybicki, & Donald P. Schneider.* 414, 64, 170-G7 (1993)

Noncosmological Signal Contributions to the *COBE* DMR Anisotropy Maps. *C. L. Bennett, G. Hinshaw, A. Banday, A. Kogut, E. L. Wright, K. Loewenstein, & E. S. Cheng.* 414, L76, 185-D13 (1993)

The X-Ray Spectra of Cluster Cooling Flows. I. Optically Thin Models. *Michael W. Wise & Craig L. Sarazin.* 415, 58, 185-F10 (1993)

QSO Heavy-Element Absorption Line Systems and Large Galactic Halos by Satellite Accretion. *Boqi Wang.* 415, 174, 187-B12 (1993)

The Two-Point Correlation Function of Randomly Distributed Lyman-Alpha Clouds. *Mark A. Fardal & J. Michael Shull.* 415, 524, 194-D1 (1993)

The Lyman-Alpha Forest of PKS 2126−158 at High Resolution. *Emanuele Giallongo, Stefano Cristiani, Adriano Fontana, & Dario Trèvese.* 416, 137, 202-F10 (1993)

Magnetic Fields in the Hydra A Cluster. *Gregory B. Taylor & Richard A. Perley.* 416, 554, 210-C3 (1993)

Late Reionization by Supernova-driven Winds. *Max Tegmark, Joseph Silk, & August Evrard.* 417, 54, 217-F10 (1993)

Cold Dark Matter Cosmology with Hydrodynamics and Galaxy Formation: The Evolution of the Intergalactic Medium and Background Radiation Fields. *Renyue Cen & Jeremiah P. Ostriker.* 417, 404, 224-C10 (1993)

Propagation and Stability Properties of Radio Jets in Cluster Cooling Flow Atmospheres. *Chris Loken, Jack O. Burns, Michael L. Norman, & David A. Clarke.* 417, 515, 225-F9 (1993)

Faint Object Camera Far-Ultraviolet Objective Prism Observations of 12 $z > 3$ Quasars. *P. Jakobsen, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 417, 528, 225-G10 (1993)

Absorption by Discrete Intergalactic Clouds: Theory and Some Applications. *Lin Zuo & E. Sterl Phinney.* 418, 28, 231-D4 (1993)

Properties of High-Redshift Lyman-Alpha Clouds. II. Statistical Properties of the Clouds. *William H. Press & George B. Rybicki.* 418, 585, 239-F12 (1993)

Measurements of D_A for a Large QSO Sample and Determination of Evolution of Lyman-Alpha Clouds. *Lin Zuo & Limin Lu.* 418, 601, 240-A1 (1993)

Production and Circulation of Iron in Elliptical Galaxies and Clusters of Galaxies. *Alvio Renzini, Luca Ciotti, Annibale D'Ercole, & Silvia Pellegrini.* 419, 52, 246-F12 (1993)

Spatially Resolved X-Ray Spectroscopy of the Merging Galaxy Cluster A2256. *T. Miyaji, R. F. Mushotzky, M. Loewenstein, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, E. A. Boldt, S. S. Holt, J. Swank, A. E. Szymkowiak, & R. Kelley.* 419, 66, 247-A2 (1993)

A Morphology-Cosmology Connection for X-Ray Clusters. *August E. Evrard, Joseph J. Mohr, Daniel G. Fabricant, & Margaret J. Geller.* 419, L9, 252-B13 (1993)

The Environment of Lyman-α Absorbers in the Sight Line toward 3C 273. *S. L. Morris, R. J. Weymann, Alan Dressler, P. J. McCarthy, B. A. Smith, R. J. Terrile, R. Giovanelli, & M. Irwin.* 419, 524, 254-C9 (1993)

Diffuse Hα Emission in the Virgo Cluster Associated with the 3C 273 Lyman-Alpha Clouds. *T. B. Williams & R. A. Schommer.* 419, L53, 259-B11 (1993)

Mass Stripping of Lyman-Alpha Clouds by Ram Pressure under the Minihalo Model. *Izumi Murakami & Satoru Ikeuchi.* 420, 68, 1-G8 (1994)

On the Inevitability of Reionization: Implications for Cosmic Microwave Background Fluctuations. *Max Tegmark, Joseph Silk, & Alain Blanchard.* 420, 484, 8-F1 (1994)

Interstellar and Intergalactic Magnesium and Sodium Absorption toward SN 1993J. *David V. Bowen, Katherine C. Roth, J. Chris Blades, & David M. Meyer.* 420, L71, 15-D5 (1994)

The Baryonic Fraction in Groups of Galaxies from X-Ray Measurements. *Mark J. Henriksen & Gary A. Mamon.* 421, L63, 29-C9 (1994)

Evolution of Lyman-Alpha Clouds at Low Redshifts. *Izumi Murakami & Satoru Ikeuchi.* 421, L79, 29-E5 (1994)

The Transmission Correlation in the QSO Lyα Forest Produced by Finite Width Lines. *Lin Zuo & J. Richard Bond.* 423, 73, 47-A13 (1994)

Long-Term Hydrodynamical Simulations of Extragalactic Radio Jets. *Jagbir S. Hooda, Arun V. Mangalam, & Paul J. Wiita.* 423, 116, 47-E5 (1994)

Reanalysis of X-Ray Emission from M87. I. The Single-Phase Medium. *John C. Tsai.* 423, 143, 47-G9 (1994)

Did the Universe Recombine? New Spectral Constraints on Reheating. *Max Tegmark & Joseph Silk.* 423, 529, 55-B1 (1994)

X-Ray Emission from a Simulated Cluster of Galaxies. *John C. Tsai, Neal Katz, & Edmund Bertschinger.* 423, 553, 55-D4 (1994)

Diffuse Light in A2670: Smoothly Distributed? *Xania Scheick & Jeffrey R. Kuhn.* 423, 566, 55-E5 (1994)

Upper Limits on Metals in Quasar Lyman-α Forest Clouds: Absence of C IV Lines in Echelle Spectra. *David Tytler & Xiao-Ming Fan.* 424, L87, 78-G9 (1994)

Mergers, Cooling Flows, and Evaporation Revisited. *A. C. Fabian, C. R. Canizares, & H. Böhringer.* 425, 40, 80-F1 (1994)

The Gunn-Peterson Effect in the Spectrum of the $z = 4.7$ QSO 1202−0725: The Intergalactic Medium at Very High Redshifts. *E. Giallongo, S. D'Odorico, A. Fontana, R. G. McMahon, S. Savaglio, S. Cristiani, P. Molaro, & D. Trevese.* 425, L1, 85-B1 (1994)

Toward Unbiased Determination of the Redshift Evolution of Lyman-Alpha Forest Clouds. *Limin Lu & Lin Zuo.* 426, 502, 104-E12 (1994)

Small-Scale Cosmic Microwave Background Anisotropies as a Probe of the Geometry of the Universe. *Marc Kamionkowski, David N. Spergel, & Naoshi Sugiyama.* 426, L57, 109-B1 (1994)

The Temperature of the Lyman-α Clouds and the Ultraviolet Ionizing Backgrounds at High Redshifts. *Emanuele Giallongo & Patrick Petitjean.* 426, L61, 109-B7 (1994)

Formation of a Retrograde Spiral Arm Induced by a Ram Pressure. *Makoto Tosa.* 426, L81, 109-E1 (1994)

Reionization in a Cold Dark Matter Universe: The Feedback of Galaxy Formation on the Intergalactic Medium. *Paul R. Shapiro, Mark L. Giroux, & Arif Babul.* 427, 25, 110-D1 (1994)

The Coma Cluster after Lunch: Has a Galaxy Group Passed through the Cluster Core? *Jack O. Burns, Kurt Roettiger, Michael Ledlow, & Anatoly Klypin.* 427, L87, 127-A5 (1994)

Mapping the Dark Matter in the NGC 5044 Group with *ROSAT*: Evidence for a Nearly Homogeneous Cooling Flow with a Cooling Wake. *Laurence P. David, Christine Jones, William Forman, & Stuart Daines.* 428, 544, 137-A11 (1994)

Lyman-Alpha Absorption in the Spectrum of the $z = 4.5$ QSO BR 1033−0327. *G. M. Williger, J. A. Baldwin, R. F. Carswell, A. J. Cooke, C. Hazard, M. J. Irwin, R. G. McMahon, & L. J. Storrie-Lombardi.* 428, 574, 137-D4 (1994)

Reanalysis of X-Ray Emission from M87. II. The Multiphase Medium. *John C. Tsai.* 429, 119, 145-E13 (1994)

Nonpolytropic Model for the Coma Cluster. *R. Fusco-Femiano & John P. Hughes.* 429, 545, 152-D12 (1994)

OSSE Search for High-Energy X-Ray Emission from the Coma Cluster. *Yoel Rephaeli, Mel Ulmer, & Duane Gruber.* 429, 554, 152-E10 (1994)

Far-Ultraviolet Absorption Spectra of Quasars: How to Find Missing Hot Gas and Metals. *D. A. Verner, David Tytler, & P. D. Barthel.* 430, 186, 161-D3 (1994)

Competition between Pressure and Gravity Confinement in Lyα Forest Observations. *Jane C. Charlton, Edwin E. Salpeter, & Suzanne M. Linder.* 430, L29, 165-D13 (1994)

Implications for Gravitational Lensing and the Dark Matter Content in Clusters of Galaxies from Spatially Resolved X-Ray Spectra. *M. Loewenstein.* 431, 91, 177-C9 (1994)

Relic Sources and Diffuse Cluster Radio Emission. *Oleg Goldshmidt & Yoel Rephaeli.* 431, 586, 185-G6 (1994)

Compton Scattering of the Microwave Background by Quasar-blown Bubbles. *G. Mark Voit.* 432, L19, 199-C13 (1994)

A VLA Search for Neutral Hydrogen in Cooling Flow Clusters. *K. S. Dwarakanath, J. H. van Gorkom, & F. N. Owen.* 432, 469, 201-G1 (1994)

Lick Optical Spectra of Quasar HS 1946+7658 at 10 Kilometers per Second Resolution: Lyman-Alpha Forest and Metal Absorption Systems. *Xiao-Ming Fan & David Tytler.* 94, 17, 52-C5 (1994)

The Dynamical Evolution of Poor Clusters of Galaxies: Growth and Properties of the First-ranked Galaxy. *Paul W. Bode, Robert C. Berrington, Haldan N. Cohn, & Phyllis M. Lugger.* 433, 479, 217-A2 (1994)

Spectral Energy Distributions of the Brightest Palomar-Green Quasars at Intermediate Redshifts. *Todd M. Tripp, Jill Bechtold, & Richard F. Green.* 433, 533, 217-E12 (1994)

Predicted Optical/Ultraviolet Line Fluxes for the Warm Absorber in Abell 2256. *Shlomi Pistinner & Craig L. Sarazin.* 433, 577, 218-B8 (1994)

The He II Lyman-Alpha Opacity of the Universe. *Piero Madau & Avery Meiksin.* 433, L53, 223-D1 (1994)

Multiphase Gas in Quasar Absorption-Line Systems. *Mark L. Giroux, Ralph S. Sutherland, & J. Michael Shull.* 435, L97, 259-E2 (1994)

Why Do Head-Tail Sources Exist in Poor Clusters of Galaxies? *T. C. A. Venkatesan, David J. Batuski, Robert J. Hanisch, & Jack O. Burns.* 436, 67, 262-B8 (1994)

Emission Lines from Condensing Intracluster Gas. *G. Mark Voit, Megan Donahue, & Jonathan D. Slavin.* 95, 87, 65-C8 (1994)

Effects of Intergalactic Absorption on the Visibility of Young Galaxies. *Yuzuru Yoshii & Bruce A. Peterson.* 436, 551, 273-B3 (1994)

A Simulation of the Intracluster Medium with Feedback from Cluster Galaxies. *Christopher A. Metzler & August E. Evrard.* 437, 564, 293-E8 (1994)

X-Ray Constraints on the Intergalactic Medium. *Thomas Aldcroft, Martin Elvis, Jonathan McDowell, & Fabrizio Fiore.* 437, 584, 293-G4 (1994)

A Search for Diffuse Hα Emission from Lyα Absorption Clouds toward 3C 273. *J. Bland-Hawthorn, K. Taylor, S. Veilleux, & P. L. Shopbell.* 437, L95, 299-A1 (1994)

ROSAT HRI Images of Abell 85 and Abell 496: Evidence for Inhomogeneities in Cooling Flows. *Andrea H. Prestwich, Stephen J. Guimond, Christian B. Luginbuhl, & Marshall Joy.* 438, L71, 19-D11 (1995)

Medium-Resolution Far-Ultraviolet Spectroscopy of PKS 2155−304. *I. Appenzeller, H. Mandel, J. Krautter, S. Bowyer, M. Hurwitz, M. Grewing, G. Krämer, & N. Kappelmann.* 439, L33, 40-B9 (1995)

Abell 548: An X-Ray and Optical Analysis of Substructure. *David S. Davis, Christina M. Bird, Richard F. Mushotzky, & S. C. Odewahn.* 440, 48, 41-G9 (1995)

A New Method for Measuring the H I Gunn-Peterson Effect at High Redshift. *Yihu Fang & Arlin P. S. Crotts.* 440, 69, 42-B8 (1995)

The Proximity Profile of Intergalactic He II Resonance Absorption toward High-Redshift QSOs. *Wei Zheng & Arthur Davidsen.* 440, L53, 57-D11 (1995)

Radiative Transfer in a Clumpy Universe: The Colors of High-Redshift Galaxies. *Piero Madau.* 441, 18, 59-D13 (1995)

In Search of a Source for the 320 EeV Fly's Eye Cosmic Ray. *Jerome W. Elbert & Paul Sommers.* 441, 151, 61-D9 (1995)

New Upper Limits on the Local Metagalactic Ionizing Radiation Density. *Stuart N. Vogel, Ray Weymann, Michael Rauch, & Tom Hamilton.* 441, 162, 61-E10 (1995)

Energetic Proton Heating of Gas in the Core of the Perseus Cluster. *Yoel Rephaeli & Joseph Silk.* 442, 91, 78-D13 (1995)

Diffuse Hot Gas in the NGC 4261 Group of Galaxies. *David S. Davis, Richard F. Mushotzky, John S. Mulchaey, D. M. Worrall, M. Birkinshaw, & David Burstein.* 444, 582, 124-D6 (1995)

Radio Jet Propagation and Wide-Angle Tailed Radio Sources in Merging Galaxy Cluster Environments. *Chris Loken, Kurt Roettiger, Jack O. Burns, & Michael Norman.* 445, 80, 133-D11 (1995)

Evidence for an On-going Cluster/Group Merger in Abell 2255. *Jack O. Burns, Kurt Roettiger, Jason Pinkney, Rick A. Perley, Frazer N. Owen, & Wolfgang Voges.* 446, 583, 164-B8 (1995)

Extragalactic Ionized Hydrogen in the Fornax Cluster. *J. Bland-Hawthorn, R. D. Ekers, W. van Breugel, A. Koekemoer, & K. Taylor.* 447, L77, 190-C13 (1995)

High-Resolution Spectroscopy of the Bright Quasar HS 1700+6416. *P. M. Rodríguez-Pascual, A. de la Fuente, J. L. Sanz, M. C. Recondo, J. Clavel, M. Santos-Lleó, & W. Wamsteker.* 448, 575, 202-F1 (1995)

The X-Ray Environment of the Dumbbell Radio Galaxy NGC 326. *D. M. Worrall, M. Birkinshaw, & R. A. Cameron.* 449, 93, 211-D13 (1995)

The Gunn-Peterson Effect from Underdense Regions in a Photoionized Intergalactic Medium. *Andreas Reisenegger & Jordi Miralda-Escudé.* 449, 476, 219-D5 (1995)

Far-Infrared Emission from Abell Clusters. *Caroline V. Cox, Joel N. Bregman, & James M. Schombert.* 99, 405, 40-F6 (1995)

Low Surface Brightness Hα Observations of Local Intergalactic Hydrogen Clouds. *Megan Donahue, Greg Aldering, & John T. Stocke.* 450, L45, 244-D8 (1995)

The Local Lyα Forest: Association of Clouds with Superclusters and Voids. *John T. Stocke, J. Michael Shull, Steve Penton, Megan Donahue, & Chris Carilli.* 451, 24, 246-E2 (1995)

Cooling Flow Models of the X-Ray Emission and Temperature Profiles for a Sample of Elliptical Galaxies. *G. Bertin & T. Toniazzo.* 451, 111, 247-F1 (1995)

Unusual Radio Structures in the Cooling Flow Cluster 2A 0335+096. *Craig L. Sarazin, Stefi A. Baum, & Christopher P. O'Dea.* 451, 125, 247-G4 (1995)

The Distribution of Mass and Gas in the Center of Clusters of Galaxies Implied by X-Ray and Lensing Observations. *Eli Waxman & Jordi Miralda-Escudé.* 451, 451, 253-E6 (1995)

Intergalactic Helium Absorption toward High-Redshift Quasars. *Mark L. Giroux, Mark A. Fardal, & J. Michael Shull.* 451, 477, 253-G10 (1995)

Problems with Cold Clouds and Cooling Flows. *G. Mark Voit & Megan Donahue.* 452, 164, 264-C9 (1995)

Influence of Cooling Flows and Galactic Motion on the Iron Distribution in Clusters of Galaxies. *Yutaka Fujita & Hideo Kodama.* 452, 177, 264-D11 (1995)

Implications of Nonthermal Motions for Statistics of Lyman-Alpha Forest Clouds. *Varsha P. Kulkarni & S. Michael Fall.* 453, 65, 281-B2 (1995)

NGC 4654: A Virgo Cluster Spiral Interacting with the Intracluster Medium. *Bikram Phookun & Lee G. Mundy.* 453, 154, 283-C6 (1995)

On the Origin of Temperature Substructure within Merging Clusters of Galaxies: Abell 2256. *Kurt Roettiger, Jack O. Burns, & Jason Pinkney.* 453, 634, 292-E11 (1995)

A Multispecies Model for Hydrogen and Helium Absorbers in Lyman-Alpha Forest Clouds. *Yu Zhang, Peter Anninos, & Michael L. Norman.* 453, L57, 298-A6 (1995)

The Lyman Continuum in Starburst Galaxies Observed with the Hopkins Ultraviolet Telescope. *Claus Leitherer, Henry C. Ferguson, Timothy M. Heckman, & James D. Lowenthal.* 454, L19, 307-E5 (1995)

Powerful Extended Radio Sources as Tools to Estimate Ambient Gas Densities, Jet Luminosities, and Other Key Physical Parameters. *Ruth A. Daly.* 454, 580, 309-E1 (1995)

Dwarf Galaxies and the Origin of the Intracluster Medium. *Biman B. Nath & Masashi Chiba.* 454, 604, 309-G6 (1995)

Search for Intracluster MACHOs by Pixel Lensing of M87. *Andrew Gould.* 455, 44, 318-G3 (1995)

ROSAT X-Ray Observations of the 2A 0335+096 Cluster of Galaxies. *Jimmy A. Irwin & Craig L. Sarazin.* 455, 497, 328-G3 (1995)

GALAXIES: INTERNAL MOTIONS

Hamiltonian Dynamics of Self-gravitating Ellipsoids. *G. Rosensteel & Huy Q. Tran.* 366, 30, 1-D9 (1991)

Galaxy Velocity Dispersions Using a Cross-Correlation Method. *Cristina Dalle Ore, S. M. Faber, J. Jesús Gonzalez, Roland Stoughton, & David Burstein.* 366, 38, 1-E5 (1991)

Kinematics and Ionization of Extended Gas in Active Galaxies. VI. The Seyfert 2 Galaxy NGC 1386. *K. A. Weaver, A. S. Wilson, & J. A. Baldwin.* 366, 50, 1-F5 (1991)

The Galactic Disk Surface Mass Density and the Galactic Force K_z at $z = 1.1$ Kiloparsecs. *Konrad Kuijken & Gerard Gilmore.* 367, L9, 17-C1 (1991)

Criticism of Lake's Analysis of the Rotation Curves of Dwarf Spirals. *Mordehai Milgrom.* 367, 490, 19-D11 (1991)

New Velocity Dispersions and Photometry for E and S0 Galaxies in the Great Attractor. *Alan Dressler, S. M. Faber, & David Burstein.* 368, 54, 23-G1 (1991)

The Universal Galaxy Rotation Curve. *Massimo Persic & Paolo Salucci.* 368, 60, 23-G9 (1991)

A Search for Instability in Two Families of Spherical Stellar Models. *Martin D. Weinberg.* 368, 66, 24-A1 (1991)

Extended Stellar Hydrodynamics for Galactic Disks. *Peter Amendt & Phil Cuddeford.* 368, 79, 24-B1 (1991)

Hydrodynamic Constraints on the Radial Structure of Late-Type Galaxy Disks. *Curtis Struck-Marcell.* 368, 348, 29-D5 (1991)

A Study of the Structure and Kinematics of the Narrow-Line Region in Seyfert Galaxies. I. Atlas of Line Profiles. *Sylvain Veilleux.* 75, 357, 5-F1 (1991)

A Study of the Structure and Kinematics of the Narrow-Line Region in Seyfert Galaxies. II. Analysis of the Line-Profile Parameters. *Sylvain Veilleux.* 75, 383, 6-A1 (1991)

The Ring Instability in Radially Cold Oblate Galaxy Models. *Tim de Zeeuw & Martin Schwarzschild.* 369, 57, 36-F7 (1991)

A Merger Scenario for NGC 7252: A Tale of Two Tails. *Kirk D. Borne & Douglas O. Richstone.* 369, 111, 37-C11 (1991)

A Study of the Structure and Kinematics of the Narrow-Line Region in Seyfert Galaxies. III. Individual Objects. *Sylvain Veilleux.* 369, 331, 42-A1 (1991)

Compression of Dark Halos by Baryon Infall: Self-similar Solutions. *Barbara S. Ryden.* 370, 15, 47-C1 (1991)

The Shape of the Galaxy. *Leo Blitz & David N. Spergel.* 370, 205, 49-F11 (1991)

Extragalactic Globular Clusters. II. The M31 Globular Cluster System. *John P. Huchra, Jean P. Brodie, & Stephen M. Kent.* 370, 495, 54-E5 (1991)

Fueling Starburst Galaxies with Gas-rich Mergers. *Joshua E. Barnes & Lars E. Hernquist.* 370, L65, 59-B7 (1991)

Mapping of Infrared Helium and Hydrogen Line Profiles in the Central Few Arcseconds of the Galaxy. *T. R. Geballe, K. Krisciunas, J. A. Bailey, & R. Wade.* 370, L73, 59-C8 (1991)

Three-dimensional Models of a Galactic Wind Expansion with Ellipsoidal Geometry. I. The Hydrodynamical Test Case. *H. Fichtner, W. Neutsch, H. J. Fahr, & R. Schlickeiser.* 371, 98, 61-C9 (1991)

The Neutral Hydrogen Distribution of NGC 3079. *Judith A. Irwin & E. R. Seaquist.* 371, 111, 61-D9 (1991)

Ultramassive ($\sim 10^{11}$ $M_\odot$) Dark Core in the Luminous Infrared Galaxy NGC 6240? *Jonathan Bland-Hawthorn, Andrew S. Wilson, & R. Brent Tully.* 371, L19, 66-C7 (1991)

Hydrodynamics of the Hot Component of the Galactic Halo. I. Steady State Solutions. *G. Einaudi & A. Ferrara.* 371, 571, 68-E12 (1991)

The Distribution and Kinematics of Neutral Gas in M31. *Robert Braun.* 372, 54, 74-F6 (1991)

Ultraviolet Interstellar Absorption toward HD 156359, a Halo Star at 11 Kiloparsecs in the Direction $l = 329°$ and $b = -15°$. *Kenneth R. Sembach, Blair D. Savage, & Derck Massa.* 372, 81, 75-A11 (1991)

The Stability of Cold, Flattened, Self-gravitating Disks Obeying Other than Newtonian Force Laws. *Dimitris M. Christodoulou.* 372, 471, 81-F1 (1991)

The Halo of the Large Magellanic Cloud: Kinematics of the CH Stars. *A. P. Cowley & F. D. A. Hartwick.* 373, 80, 87-A8 (1991)

Optical Properties and Dynamics of Galaxies in the Hickson Compact Groups. *Vera C. Rubin, Deidre A. Hunter, & W. Kent Ford, Jr.* 76, 153, 26-A1 (1991)

Testing the Gravitational Field in Elliptical Galaxies: NGC 5077. *Francesco Bertola, Daniela Bettoni, John Danziger, Elaine Sadler, Linda Sparke, & Tim de Zeeuw.* 373, 369, 92-E10 (1991)

Vertical Oscillation of the Galactic Disk. *Martin D. Weinberg.* 373, 391, 92-G7 (1991)

A Catalog of Spin Orientation of Southern Galaxies. *Masanori Iye & Hajime Sugai.* 374, 112, 99-D3 (1991)

Extraplanar Ionized Gas and Kinematics in the Edge-on Galaxy NGC 891. *Jean W. Keppel, Ralf-Jürgen Dettmar, John S. Gallagher III, & Morton S. Roberts.* 374, 507, 105-D6 (1991)

Fundamental Parameters of Brightest Cluster Galaxies. *William R. Oegerle & John G. Hoessel.* 375, 15, 111-B13 (1991)

Global Stability of Self-similar Newtonian Gaseous Disks against Axisymmetric Perturbations. *José P. S. Lemos, Agris J. Kalnajs, & Donald Lynden-Bell.* 375, 484, 118-G1 (1991)

Orbital Decay in Aspherical Galaxies. II. Triaxial Systems. *Thomas S. Statler.* 375, 544, 119-E1 (1991)

Resonance Excitation of Spiral Density Waves in a Gaseous Disk. II. A Nonlinear Theory and Application to the 3 Kiloparsec Arm. *Chi Yuan & Ye Cheng.* 376, 104, 126-C3 (1991)

Stability of Nonrotating Stellar Systems. II. Prolate Shell-Orbit Models. *David Merritt & Lars Hernquist.* 376, 439, 131-G13 (1991)

Arm Classification and Velocity Gradients in Spiral Galaxies. *A. Biviano, M. Girardi, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 376, 458, 132-B7 (1991)

Galactic Disk Warps. *Konrad Kuijken.* 376, 467, 132-C4 (1991)

Modes of Oscillation of a Uniformly Rotating, Homogeneous Spheroid of Stars. *Peter O. Vandervoort.* 377, 49, 138-F1 (1991)

H I Studies of the Sculptor Group Galaxies. VII. Implications on the Distribution and Nature of Dark Matter in Groups. *Daniel Puche & Claude Carignan.* 378, 487, 158-E1 (1991)

The Dark Matter Content of Spiral Galaxies. *Paolo Salucci, Keith M. Ashman, & Massimo Persic.* 379, 89, 164-B1 (1991)

Massive Star Formation and Superwinds in IRAS 19254−7245 (The "Superantennae"). *Luis Colina, Sebastian Lípari, & F. Macchetto.* 379, 113, 164-D5 (1991)

Dynamics of Cooling Gas in Galactic Dark Halos. *Julio F. Navarro & Willy Benz.* 380, 320, 182-C7 (1991)

Population Studies. XI. The Extended Disk, Halo Configuration. *John E. Norris & Sean G. Ryan.* 380, 403, 183-C6 (1991)

The H I Content of the Local Group Dwarf (Spheroidal or Irregular?) Galaxy Phoenix. *Claude Carignan, Serge Demers, & Stéphanie Côté.* 381, L13, 194-C1 (1991)

Spectroscopy of Spatially Extended Material around High-Redshift Radio-loud Quasars. *Timothy M. Heckman, Matthew D. Lehnert, George K. Miley, & Wil van Breugel.* 381, 373, 195-D1 (1991)

3C 390.3: Modeling Variable Profile Humps. *Wei Zheng, Sylvain Veilleux, & Steven A. Grandi.* 381, 418, 196-A1 (1991)

Vertical Distribution and Support of Galactic H I. *Felix J. Lockman & Curtis S. Gehman.* 382, 182, 202-D12 (1991)

Is the Kinematically Distinct Core in NGC 5982 Necessarily the Remnant of an Accreted Companion? *Thomas S. Statler.* 382, L11, 205-B7 (1991)

Neutral Hydrogen Observations of Galaxies in Superclusters. *M. P. Haynes & R. Giovanelli.* 77, 331, 49-B1 (1991)

The Ordered Nature of Elliptical Galaxies: Implications for Their Intrinsic Angular Momenta and Shapes. *Marijn Franx, Garth Illingworth, & Tim de Zeeuw.* 383, 112, 213-D7 (1991)

On the Effects of Interstellar Gas on the Oscillations and the Stability of Galaxies. *Peter O. Vandervoort.* 383, 498, 220-E1 (1991)

GALAXIES: INTERSTELLAR MATTER

Giant Molecular Clouds and the CO-to-H_2 Conversion Factor in IC 10. *Christine D. Wilson & I. Neill Reid.* 366, L11, 6-B7 (1991)

The Star-forming Disk and CO Bar in M101. *Jeffrey D. P. Kenney, Nick Z. Scoville, & Christine D. Wilson.* 366, 432, 8-C1 (1991)

Photolevitation of Diffuse Clouds. *José Franco, Federico Ferrini, Andrea Ferrara, & Bruno Barsella.* 366, 443, 8-D1 (1991)

Simulations of the Supernova-dominated Interstellar Medium in Disk Galaxies. *Denis F. Cioffi & J. Michael Shull.* 367, 96, 13-B13 (1991)

Millimeter Interferometer Observations of Infrared Luminous Galaxies: NGC 828 and NGC 6240. *Z. Wang, N. Z. Scoville, & D. B. Sanders.* 368, 112, 24-D9 (1991)

High-Excitation Extranuclear Gas in Seyfert Galaxies. *Christopher A. Haniff, Martin J. Ward, & Andrew S. Wilson.* 368, 167, 25-B5 (1991)

CO Excitation and H_2 Masses of Infrared-luminous Galaxies. *Simon J. E. Radford, P. M. Solomon, & D. Downes.* 368, L15, 28-C7 (1991)

Stripped Interstellar Gas in Cluster Cooling Flows. *Noam Soker, Joel N. Bregman, & Craig L. Sarazin.* 368, 341, 29-C10 (1991)

Evolution of the Interstellar Medium in Elliptical Galaxies. II. X-Ray Properties. *L. P. David, W. Forman, & C. Jones.* 369, 121, 37-D9 (1991)

Infrared Mapping of M82: A Starburst in an Edge-on Barred Galaxy. *C. M. Telesco, H. Campins, M. Joy, K. Dietz, & R. Decher.* 369, 135, 37-E11 (1991)

High-Resolution Aperture Synthesis of Molecular Gas in NGC 1068. *P. Planesas, N. Scoville, & S. T. Myers.* 369, 364, 42-C9 (1991)

Spatially Resolved Optical Images of High-Redshift Quasi-stellar Objects. *Timothy M. Heckman, Matthew D. Lehnert, Wil van Breugel, & George K. Miley.* 370, 78, 48-A7 (1991)

Relics of an Eruptive Starburst in NGC 1569. *William H. Waller.* 370, 144, 48-G12 (1991)

Molecular Gas in Luminous Infrared Galaxies. *D. B. Sanders, N. Z. Scoville, & B. T. Soifer.* 370, 158, 49-B1 (1991)

High-Resolution CO Observations of Luminous Infrared Galaxies with Large L_{IR}/L_B Ratios: IRAS 10173+0828, Zw 049.057, IRAS 17208−0014. *P. Planesas, I. F. Mirabel, & D. B. Sanders.* 370, 172, 49-C5 (1991)

OB Star Formation and H I Production in Molecular Clouds in M33. *Christine D. Wilson & Nick Scoville.* 370, 184, 49-D11 (1991)
Interstellar Matter in Early-Type Galaxies. I. The Catalog. *Morton S. Roberts, David E. Hogg, Joel N. Bregman, William R. Forman, & Christine Jones.* 75, 751, 11-F5 (1991)
The Escape of Lyman-Alpha Radiation from a Multiphase Interstellar Medium. *David A. Neufeld.* 370, L85, 59-D13 (1991)
High Chemical Abundances in Virgo Spiral Galaxies? *Gregory A. Shields, Evan D. Skillman, & Robert C. Kennicutt, Jr.* 371, 82, 61-B1 (1991)
The Neutral Hydrogen Distribution of NGC 3079. *Judith A. Irwin & E. R. Seaquist.* 371, 111, 61-D9 (1991)
Far-Infrared Properties of NGC 6822. *John S. Gallagher III, Deidre A. Hunter, Fred C. Gillett, & Walter L. Rice.* 371, 142, 61-G1 (1991)
The Rate and Efficiency of High-Mass Star Formation along the Hubble Sequence. *Nicholas A. Devereux & Judith S. Young.* 371, 515, 68-A1 (1991)
Detection of CO Emission in the Elliptical Galaxies NGC 3265 and NGC 5666. *M. A. Gordon.* 371, 563, 68-E1 (1991)
The Distribution and Kinematics of Neutral Gas in M31. *Robert Braun.* 372, 54, 74-F6 (1991)
The Molecular Interstellar Medium and the Near-Infrared Continuum of the Barred LINER NGC 6764. *A. Eckart, M. Cameron, J. M. Jackson, R. Genzel, A. I. Harris, W. Wild, & H. Zinnecker.* 372, 67, 74-G9 (1991)
The Influence of High-Density Environment on the Radio–Far-Infrared Correlation of Spiral Galaxies. *T. K. Menon.* 372, 419, 81-A7 (1991)
The Far-Infrared Morphology of the Double-ringed Galaxy NGC 4736 (M94): A Ring Surrounding an Extended Nucleus. *Beverly J. Smith, D. F. Lester, P. M. Harvey, & R. W. Pogge.* 373, 66, 86-G5 (1991)
Gaseous Halos of Elliptical Galaxies, the Cosmic Evolution of Their Radio Sizes, and the Phenomenon of Compact Steep-Spectrum Sources. *Gopal-Krishna & Paul J. Wiita.* 373, 325, 92-B1 (1991)
H I Mapping of Galaxies in the Cluster A1367. *John M. Dickey & Giuseppe Gavazzi.* 373, 347, 92-C12 (1991)
Molecular Clouds in Starburst Galaxy Nuclei. *Judith S. Young & Nicholas A. Devereux.* 373, 414, 93-B6 (1991)
The 158 Micron [C II] Line: A Measure of Global Star Formation Activity in Galaxies. *G. J. Stacey, N. Geis, R. Genzel, J. B. Lugten, A. Poglitsch, A. Sternberg, & C. H. Townes.* 373, 423, 93-C1 (1991)
Hot Gas Metallicity and the History of Supernova Activity in Elliptical Galaxies. *Michael Loewenstein & William G. Mathews.* 373, 445, 93-D11 (1991)
H I Deficiency in Cluster Spiral Galaxies: Dependence on Galaxy Size. *Monica Valluri & Chanda J. Jog.* 374, 103, 99-C7 (1991)
Time Evolution of Interstellar Dust and Far-Infrared Luminosity of Disk Galaxies. *Boqi Wang.* 374, 456, 104-G1 (1991)
Integrated Far-Infrared Background from Galaxies. *Boqi Wang.* 374, 465, 104-G12 (1991)
The Detection of X-Rays from the Hot Interstellar Medium of the Large Magellanic Cloud. *Q. Wang, T. Hamilton, D. J. Helfand, & X. Wu.* 374, 475, 105-A10 (1991)
Ram-Pressure Stripping of the Multiphase Interstellar Medium of the Virgo Cluster Elliptical Galaxy M86 (NGC 4406). *David A. White, A. C. Fabian, W. Forman, C. Jones, & C. Stern.* 375, 35, 111-D9 (1991)
The CO Luminosity Function of Galaxies. *Frances Verter.* 375, 95, 112-B11 (1991)
The Interstellar Medium of the Hot-Spot Galaxy NGC 2903. *James M. Jackson, Andreas Eckart, Murray Cameron, Wolfgang Wild, Paul T. P. Ho, Richard W. Pogge, & Andrew I. Harris.* 375, 105, 112-C9 (1991)
The Properties of NGC 2777: Are Companion Galaxies Young? *Halton Arp & Jack W. Sulentic.* 375, 569, 119-G1 (1991)
Imaging Spectrophotometry of Ionized Gas in NGC 1068. III. Anisotropic Excitation of the Large-Scale Disk by Scattering of Nuclear Continuum. *James Sokolowski, Jonathan Bland-Hawthorn, & Gerald Cecil.* 375, 583, 120-A1 (1991)
Origins of the 12–200 Micron Flux in NGC 6946: Starlight and Continuum Dust Emission from an Sc Galaxy. *G. Engargiola.* 76, 875, 36-G5 (1991)
X-Ray Halos as Diagnostics of Interstellar Grains. *John S. Mathis & C.-W. Lee.* 376, 490, 132-E1 (1991)
CO (3→2) Mapping and Gas Excitation in the Core of M82. *R. P. J. Tilanus, L. J. Tacconi, E. C. Sutton, S. Zhou, D. B. Sanders, C. G. Wynn-Williams, K. Y. Lo, & S. A. Stephens.* 376, 500, 132-E13 (1991)
Very Small Grains and the Infrared Colors of Galaxies. *G. Helou, C. Ryter, & B. T. Soifer.* 376, 505, 132-F6 (1991)
Neutral Hydrogen in the Outer Galaxy. *Athanassios Diplas & Blair D. Savage.* 377, 126, 139-E5 (1991)
The Molecular Structure of a Starburst: ^{13}CO in the Nucleus of Maffei 2. *Robert L. Hurt & Jean L. Turner.* 377, 434, 145-B8 (1991)
The Detection of the Hot Gaseous Halo around the Small Magellanic Cloud. *Qingde Wang.* 377, L85, 150-D1 (1991)
The Discovery of a Long H I Plume near the Peculiar Galaxy NGC 2782 (Arp 215). *Beverly J. Smith.* 378, 39, 151-E1 (1991)
Attenuation of Lyman-Alpha Emission by Dust in Damped Lyman-Alpha Systems. *Stéphane Charlot & S. Michael Fall.* 378, 471, 158-C7 (1991)
X-Ray Irradiation of Interstellar Grains in Active Galaxies: Evaporation and Infrared Spectra. *G. Mark Voit.* 379, 122, 164-E1 (1991)
Molecular Gas in Elliptical Galaxies. *Joanna F. Lees, G. R. Knapp, Michael P. Rupen, & T. G. Phillips.* 379, 177, 165-B11 (1991)
Spectroscopic Limits to an Extragalactic Far-Ultraviolet Background. *Christopher Martin, Mark Hurwitz, & Stuart Bowyer.* 379, 549, 171-D10 (1991)
A COSMOS Study of the Structure and Content of NGC 6822. *Paul Hodge, Toby Smith, Paul Eskridge, Harvey MacGillivray, & Steven Beard.* 379, 621, 172-D1 (1991)
Molecular Gas Excitation in NGC 253. *W. F. Wall, D. T. Jaffe, F. P. Israel, & F. N. Bash.* 380, 384, 183-A11 (1991)
Star Formation and the Molecular Content of IC 342. *Leslie J. Sage & P. M. Solomon.* 380, 392, 183-B7 (1991)
Possible Deflection of a Jet by Molecular Clouds in NGC 4258. *R. L. Plante, K. Y. Lo, Jean-René Roy, Pierre Martin, & Louis Noreau.* 381, 110, 190-D4 (1991)
Orbit Crowding of Molecular Gas at a Bar-Spiral Arm Transition Zone in M83. *Jeffrey D. P. Kenney & Steven D. Lord.* 381, 118, 190-D13 (1991)
A Molecular Gas Ridge Offset from the Dust Lane in a Spiral Arm of M83. *Steven D. Lord & Jeffrey D. P. Kenney.* 381, 130, 190-E13 (1991)
Evolution of Dust Grains through a Hot Gaseous Halo. *A. Ferrara, F. Ferrini, J. Franco, & B. Barsella.* 381, 137, 190-F9 (1991)
The H I Content of the Local Group Dwarf (Spheroidal or Irregular?) Galaxy Phoenix. *Claude Carignan, Serge Demers, & Stéphanie Côté.* 381, L13, 194-C1 (1991)
Upper Limit on Interstellar Gas in Coma Cluster Ellipticals. *Claude R. Canizares & Paula Blizzard.* 382, 79, 201-B1 (1991)
The Discrete X-Ray Source Population in M31. *G. Trinchieri & G. Fabbiano.* 382, 82, 201-B6 (1991)
Polarized Radio Emission from the Edge-on Spiral Galaxies NGC 891 and NGC 4565. *S. Sukumar & R. J. Allen.* 382, 100, 201-D1 (1991)
Infrared Spectroscopy of Cygnus A: Implications for the Obscured Active Nucleus. *Martin J. Ward, Philip R. Blanco, Andrew S. Wilson, & Minoru Nishida.* 382, 115, 201-E11 (1991)
The Relationship between the Carbon Monoxide Intensity and the Radio Continuum Emission in Spiral Galaxies. *David S. Adler, Ronald J. Allen, & K. Y. Lo.* 382, 475, 207-D12 (1991)
First Observations of the CO J = 6–5 Transition in Starburst Galaxies. *A. I. Harris, R. E. Hills, J. Stutzki, U. U. Graf, A. P. G. Russell, & R. Genzel.* 382, L75, 211-C7 (1991)
The Ultraviolet Spectra of Nearby Radio Galaxies. *William C. Keel & Rogier A. Windhorst.* 383, 135, 213-F3 (1991)
H II Regions in Seven Dwarf Irregular Galaxies. *Nicolas V. Strobel, Paul Hodge, & Robert C. Kennicutt, Jr.* 383, 148, 213-G3 (1991)
A Complete CO Survey of M31. *E. Koper, T. M. Dame, F. P. Israel, & P. Thaddeus.* 383, L11, 219-B7 (1991)
On the Effects of Interstellar Gas on the Oscillations and the Stability of Galaxies. *Peter O. Vandervoort.* 383, 498, 220-E1 (1991)
Effects of Internal Absorption on Galaxy Number Count and Redshift Distribution. *Boqi Wang.* 383, L37, 226-B6 (1991)
^{13}CO in IC 342: Evidence for a Spiral Density Wave in the Nucleus. *Jean L. Turner & Robert L. Hurt.* 384, 72, 1-G13 (1992)
Formaldehyde Absorption in the Nucleus of NGC 3628. *Willem A. Baan & W. M. Goss.* 385, 188, 14-C10 (1992)
The Abundance Gradients across the Spiral Galaxies NGC 628 and NGC 6946. *Julien Belley & Jean-René Roy.* 78, 61, 2-C7 (1992)
An Improved Method to Derive H I Absorption Spectra through the Disks of Galaxies: Application to the Sculptor Group. *John M. Dickey, Elias Brinks, & Daniel Puche.* 385, 501, 19-D6 (1992)
Star Formation Efficiency Patterns in the Spiral Arms of M51. *Johan H. Knapen, John E. Beckman, Jordi Cepa, Thijs van der Hulst, & Richard J. Rand.* 385, L37, 23-B7 (1992)

An Extended Search for Extragalactic O_2. *H. S. Liszt.* 386, 139, 25-G9 (1992)
Predicted Galaxy Counts in CO Emission. *Frances Verter.* 386, 398, 30-D1 (1992)
A Triggering Mechanism for Enhanced Star Formation in Colliding Galaxies. *Chanda J. Jog & P. M. Solomon.* 387, 152, 38-G6 (1992)
The Lyα/Hα Ratio in High-Redshift Radio Galaxies. *Patrick J. McCarthy, Richard Elston, & Peter Eisenhardt.* 387, L29, 43-D1 (1992)
The Structure and Dynamics of the Gaseous and Stellar Components in Centaurus A. *Richard A. Nicholson, Jonathan Bland-Hawthorn, & Keith Taylor.* 387, 503, 45-A1 (1992)
Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)
Detection of Ca II Absorption in the QSO 0958+559 Due to a Heiles Shell in NGC 3079. *Donna S. Womble, Vesa T. Junkkarinen, & E. Margaret Burbidge.* 388, 55, 49-G1 (1992)
The Integrated Spectra of Nearby Galaxies: General Properties and Emission-Line Spectra. *Robert C. Kennicutt, Jr.* 388, 310, 54-C1 (1992)
Warm Molecular Gas in the Nucleus of IC 342: The CO ($J = 3 \rightarrow 2$) Distribution. *Judith A. Irwin & L. W. Avery.* 388, 328, 54-D7 (1992)
Spectroscopy of Emission-Line Nebulae in Powerful Radio Galaxies: Interpretation. *S. A. Baum, T. M. Heckman, & W. van Breugel.* 389, 208, 62-E7 (1992)
Star Formation and the Distribution of H I and Infrared Emission in M51. *Richard J. Rand, Shrinivas R. Kulkarni, & W. Rice.* 390, 66, 74-G9 (1992)
Primordial Giant Molecular Cloud Clumps Can Be Probed—Optically. *David L. Block, J. E. Dyson, & Claus Madsen.* 390, L13, 78-C1 (1992)
The Braided Jets in the Spiral Galaxy NGC 4258. *Gerald Cecil, Andrew S. Wilson, & R. Brent Tully.* 390, 365, 79-G1 (1992)
Swing Amplification of Nonaxisymmetric Perturbations in Stars and Gas in a Sheared Galactic Disk. *Chanda J. Jog.* 390, 378, 80-B1 (1992)
Formation of a Giant Galactic Gaseous Halo: Metal Absorption Lines and High-Velocity Clouds. *Fan Li & Satoru Ikeuchi.* 390, 405, 80-D7 (1992)
The Kinematics of the Molecular Gas in Centaurus A. *A. C. Quillen, P. T. de Zeeuw, E. S. Phinney, & T. G. Phillips.* 391, 121, 87-D13 (1992)
SO in Starburst Galaxies. *S. J. Petuchowski & C. L. Bennett.* 391, 137, 87-F5 (1992)
CO Emission from the Dwarf Irregular Galaxy NGC 6822. *Christine D. Wilson.* 391, 144, 87-G1 (1992)
Supergiant Filaments of Ionized Gas in Irregular Galaxies. *Deidre A. Hunter & John S. Gallagher III.* 391, L9, 91-G7 (1992)
The Internal Extinction in Spiral Galaxies. *Mingsheng Han.* 391, 617, 95-F4 (1992)
An X-Ray Image of the Seyfert Galaxy NGC 1068. *A. S. Wilson, M. Elvis, A. Lawrence, & J. Bland-Hawthorn.* 391, L75, 99-E11 (1992)
A Completely Sampled Aperture Synthesis Map of the CO Emission in M51. *David S. Adler, K. Y. Lo, Melvyn C. H. Wright, Gustav Rydbeck, Raymond L. Plante, & Ronald J. Allen.* 392, 497, 108-D11 (1992)
The Relation of Dust and Atomic Gas Properties of Galaxies. *John G. Spitzak & Stephen E. Schneider.* 393, 126, 115-F1 (1992)
The Tully-Fisher Relation for the CO Line. *John M. Dickey & Ilya Kazès.* 393, 530, 122-D5 (1992)
Dust and the Transfer of Stellar Radiation within Galaxies. *Adolf N. Witt, Harley A. Thronson, Jr., & John M. Capuano, Jr.* 393, 611, 123-D7 (1992)
Reproducing the Local and Global Morphological Segregation between S and S0 Galaxies in Rich Clusters by Simple Ram-Pressure Stripping. *José M. Solanes & Eduardo Salvador-Solé.* 395, 91, 141-C1 (1992)
Peculiar Rotations of Molecular Gas in M82: Keplerian Disk and Slowly Rotating Halo. *Y. Sofue, H.-P. Reuter, M. Krause, R. Wielebinski, & N. Nakai.* 395, 126, 141-F5 (1992)
Interstellar Dust from the Milky Way to the Magellanic Clouds. *Yichuan C. Pei.* 395, 130, 141-G1 (1992)
On the Angular Extent of the Galactic 1.8 MeV Line Emission from Radioactive ^{26}Al. *Martin Varendorff & Volker Schönfelder.* 395, 158, 142-B7 (1992)
Twin Peaks of CO Emission in the Central Regions of Barred Galaxies. *Jeffrey D. P. Kenney, Christine D. Wilson, Nick Z. Scoville, Nicholas A. Devereux, & Judith S. Young.* 395, L79, 153-G5 (1992)
Warm Ionized Gas in the Edge-on Galaxies NGC 4565 and NGC 4631. *Richard J. Rand, Shrinivas R. Kulkarni, & J. Jeff Hester.* 396, 97, 156-C6 (1992)
High-Resolution CO Observations of NGC 7252: A Counterrotating Central Molecular Gas Disk. *Zhong Wang, François Schweizer, & Nicholas Z. Scoville.* 396, 510, 163-G5 (1992)
On the Use of Far-Infrared Luminosity as a Star Formation Indicator in Galaxies. *Marc Sauvage & Trinh X. Thuan.* 396, L69, 167-A9 (1992)
IRAS 14070+0525: An OH Gigamaser at $z = 0.265$. *Willem A. Baan, James Rhoads, Karl Fisher, Daniel R. Altschuler, & Aubrey Haschick.* 396, L99, 167-E1 (1992)
The He I λ2.06 Microns/Brγ Ratio in Starburst Galaxies—An Objective Constraint on the Upper Mass Limit to the Initial Mass Function. *René Doyon, P. J. Puxley, & R. D. Joseph.* 397, 117, 169-D9 (1992)
[C I] Emission at $z = 2.286$ in the Protogalaxy IRAS F10214+4724. *Robert L. Brown & Paul A. Vanden Bout.* 397, L11, 173-B10 (1992)
Submillimeter Detection of Extragalactic C I Emission: IC 342. *Thomas H. Büttgenbach, Jocelyn Keene, T. G. Phillips, & Christopher K. Walker.* 397, L15, 173-C1 (1992)
IRAS F10214+4724: An Extended CO Emission Source at $z = 2.2867$. *Robert L. Brown & Paul A. Vanden Bout.* 397, L19, 173-C6 (1992)
Molecular Gas Distribution in a Protogalaxy Candidate IRAS F10214+4724: A Dense Compact Nucleus and Nondetected Extra Components. *Kazushi Sakamoto, Sumio Ishizuki, Ryohei Kawabe, & Masato Ishiguro.* 397, L27, 173-D4 (1992)
O-Star Photoionization Models of Liners with Weak [O I] λ6300 Emission. *Alexei V. Filippenko & Roberto Terlevich.* 397, L79, 181-A1 (1992)
The Determination of Dust Mass in Galaxies. *John Kwan & Shuding Xie.* 398, 105, 183-C7 (1992)
Submillimeter Spectrum and Dust Mass of the Primeval Galaxy IRAS 10214+4724. *D. Downes, S. J. E. Radford, A. Greve, C. Thum, P. M. Solomon, & J. E. Wink.* 398, L25, 187-D7 (1992)
Warm Molecular Gas in the Primeval Galaxy IRAS 10214+4724. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 398, L29, 187-E1 (1992)
Low-Redshift Lyman-Alpha Absorption Lines and the Dark Matter Halos of Disk Galaxies. *Philip Maloney.* 398, L89, 194-C1 (1992)
Mergers, Cooling Flows, and Evaporation. *W. B. Sparks.* 399, 66, 196-A5 (1992)
Nuclear Molecular Gas in the Virgo Cluster S0 Galaxy NGC 4710. *J. M. Wrobel & Jeffrey D. P. Kenney.* 399, 94, 196-C10 (1992)
Normal O Stars in Dense Media Generate LINERs. *Joseph C. Shields.* 399, L27, 200-C1 (1992)
Dynamical Properties of Compact Groups of Galaxies. *Paul Hickson, Claudia Mendes de Oliveira, John P. Huchra, & Giorgio G. C. Palumbo.* 399, 353, 202-C11 (1992)
A Survey for Extragalactic HCN and HCO^+. *Nguyen-Q-Rieu, James M. Jackson, Christian Henkel, Truong-Bach, & Rainer Mauersberger.* 399, 521, 204-D1 (1992)
Observations of Zn II, Cr II, Fe II, and Ca II in the Damped Lyman-Alpha Absorber at $z = 0.692$ toward 3C 286. *David M. Meyer & Donald G. York.* 399, L121, 207-G7 (1992)
Models of Star Formation in Interacting and Merging Disk Galaxies. *J. Christopher Mihos, Douglas O. Richstone, & Gregory D. Bothun.* 400, 153, 210-G4 (1992)
The BL Lacertae Object PKS 1413+135: Is It within or behind a Spiral Galaxy? *John T. Stocke, Ron Wurtz, Qingde Wang, Richard Elston, & Buell T. Jannuzi.* 400, L17, 214-C5 (1992)
The Opacity of Spiral Disks. *A. Bosma, Y. Byun, K. C. Freeman, & E. Athanassoula.* 400, L21, 214-C10 (1992)
Heating the Warm Ionized Medium. *R. J. Reynolds & D. P. Cox.* 400, L33, 214-D10 (1992)
Starbursts Triggered by Central Overpressure in Interacting Galaxies. *Chanda J. Jog & Mousumi Das.* 400, 476, 216-C1 (1992)
UGC 7636 and NGC 4472: Tidal Interaction between a Stripped Dwarf Irregular and a Giant Elliptical Galaxy. *Richard J. Patterson & Trinh X. Thuan.* 400, L55, 220-C7 (1992)
Infrared Spectra of Obscuring Dust Tori around Active Galactic Nuclei. I. Calculational Method and Basic Trends. *Edward A. Pier & Julian H. Krolik.* 401, 99, 222-C5 (1992)
On Determining the Primordial Helium Abundance from the Spectra of H II Galaxies. *Alison Campbell.* 401, 157, 223-A1 (1992)
OH and H I Absorption at the Nucleus of NGC 660. *Willem A. Baan, James Rhoads, & Aubrey D. Haschick.* 401, 508, 229-A6 (1992)
Heating of H II Regions with Application to the Galactic Center. *Philip R. Maloney, David J. Hollenbach, & Charles H. Townes.* 401, 559, 229-E5 (1992)

GALAXIES: IRREGULAR

A Comparison of the Properties of an Unbiased Sample of OB Associations in the Local Group Galaxies M33 and NGC 6822. *Christine D. Wilson.* 384, L29, 11-B1 (1992)

CO Emission from the Dwarf Irregular Galaxy NGC 6822. *Christine D. Wilson.* 391, 144, 87-G1 (1992)

Supergiant Filaments of Ionized Gas in Irregular Galaxies. *Deidre A. Hunter & John S. Gallagher III.* 391, L9, 91-G7 (1992)

Northern Dwarf and Low Surface Brightness Galaxies. II. The Green Bank Neutral Hydrogen Survey. *Stephen E. Schneider, Trinh X. Thuan, Jeffrey G. Mangum, & John Miller.* 81, 5, 35-B13 (1992)

Chemical Evolution of Irregular Galaxies and the Primordial ^{4}He Abundance. *G. J. Mathews, R. N. Boyd, & G. M. Fuller.* 403, 65, 14-G7 (1993)

Ar/S. *Christopher C. Stevenson, Marshall L. McCall, & Douglas L. Welch.* 408, 460, 90-G11 (1993)

H I Streamers around M82: Tidally Disrupted Outer Gas Disk. *Min S. Yun, Paul T. P. Ho, & K. Y. Lo.* 411, L17, 133-F1 (1993)

Spatially Resolved Optical and Near-Infrared Spectroscopy of I Zw 18. *Evan D. Skillman & Robert C. Kennicutt, Jr.* 411, 655, 137-G8 (1993)

The Primordial Helium Abundance as Determined from Chemical Evolution of Irregular Galaxies. *M. J. Balbes, R. N. Boyd, & G. J. Mathews.* 418, 229, 233-G8 (1993)

Asymptotic Giant Branch Stars in NGC 6822: Probes of Star Formation History. *C. Gallart, A. Aparicio, C. Chiosi, G. Bertelli, & J. M. Vílchez.* 425, L9, 85-B13 (1994)

A Survey of the Large Magellanic Cloud in the [C II] 158 Micron Line. *Kenji Mochizuki, Takao Nakagawa, Yasuo Doi, Yukari Y. Yui, Haruyuki Okuda, Hiroshi Shibai, Masao Yui, Tetsuo Nishimura, & Frank J. Low.* 430, L37, 165-E13 (1994)

Spatially Resolved Optical and Near-Infrared Spectroscopy of the Low-Metallicity Galaxy UGC 4483. *Evan D. Skillman, Roberto J. Terlevich, Robert C. Kennicutt, Jr., Donald R. Garnett, & Elena Terlevich.* 431, 172, 178-C9 (1994)

First Observations of Individual Molecular Clouds in the Irregular Galaxy NGC 6822. *Christine D. Wilson.* 434, L11, 232-C1 (1994)

The Distance to the Pegasus Dwarf Irregular Galaxy: An Open Question. *A. Aparicio.* 437, L27, 291-E6 (1994)

Oxygen Abundances in Diffuse Ellipticals and the Metallicity-Luminosity Relations for Dwarf Galaxies. *Michael G. Richer & Marshall L. McCall.* 445, 642, 144-A1 (1995)

The Morphological Mix of Field Galaxies to $m_i = 24.25$ mag ($b_J \sim 26$ mag) From a Deep Hubble Space Telescope WFRC2 Image. *Simon P. Driver, Rogier A. Windhorst, Eric J. Ostrander, William C. Keel, Richard E. Griffiths, & Kavan U. Ratnatunga.* 449, L23, 216-C11 (1995)

The Contribution of Late-Type/Irregulars to the Faint Galaxy Counts from *Hubble Space Telescope* Medium-Deep Survey Images. *Simon P. Driver, Rogier A. Windhorst, & Richard E. Griffiths.* 453, 48, 281-G10 (1995)

GALAXIES: ISM

The Evolution of Compact Steep Spectrum Sources. *David S. De Young.* 402, 95, 2-C6 (1993)

First Measurements of Extragalactic CO(4–3). *R. Güsten, E. Serabyn, C. Kasemann, A. Schinckel, G. Schneider, A. Schulz, & K. Young.* 402, 537, 9-C1 (1993)

Fast Rotation in the Nuclear Region of the Galaxy NGC 1808. *Bärbel Koribalski, John M. Dickey, & Ulrich Mebold.* 402, L41, 12-D9 (1993)

Dynamical Evolution of Gaseous Disks in Halo Potentials. I. Massless Rings in Static, Spheroidal Halos. *Dimitris M. Christodoulou & Joel E. Tohline.* 403, 110, 15-D5 (1993)

Clear Evidence for the Presence of O VI Absorption in QSO Metal Systems. *Limin Lu & Blair D. Savage.* 403, 127, 15-E10 (1993)

Infrared Polarimetry of Galaxies. III. Global Comparisons. *Terry Jay Jones.* 403, 135, 15-F5 (1993)

Interstellar Mg II and C IV Absorption toward Markarian 205 by NGC 4319: An "Optically Thick" QSO Absorption System. *David V. Bowen & J. Chris Blades.* 403, L55, 27-B8 (1993)

An Infrared Study of Hot Dust in Quasars Using Prism Spectrophotometry. *Yukiyasu Kobayashi, Shuji Sato, Takuya Yamashita, Hisashi Shiba, & Hideki Takami.* 404, 94, 29-B11 (1993)

Imaging Polarimetry of High-Redshift Radio Galaxies. *S. di Serego Alighieri, A. Cimatti, & R. A. E. Fosbury.* 404, 584, 36-C3 (1993)

A Molecular Spiral Arm Segment of M51 at 3.5 Arcsecond Resolution. *Richard J. Rand.* 404, 593, 36-C14 (1993)

Warm Molecular Gas in a Starburst: CO (3–2) Observations of Maffei 2. *Robert L. Hurt, Jean L. Turner, Paul T. P. Ho, & Robert N. Martin.* 404, 602, 36-D11 (1993)

The Scale Height and Radial Distribution of Molecular Gas in NGC 891. *N. Z. Scoville, D. Thakkar, J. E. Carlstrom, & A. I. Sargent.* 404, L59, 40-D7 (1993)

Segregation of Gas and Stars in Shell Galaxies. *Melinda L. Weil & Lars Hernquist.* 405, 142, 42-G1 (1993)

An H I Absorption Survey of M31 and M33: The Mixture of Warm and Cool Phases in the Interstellar Media of Spiral Galaxies. *John M. Dickey & Elias Brinks.* 405, 153, 43-A1 (1993)

Evidence for the Interaction of the IRS 16 Wind with the Ionized and Molecular Gas at the Galactic Center. *Farhad Yusef-Zadeh & Mark Wardle.* 405, 584, 50-C5 (1993)

The Ionized Gas in the Center and in the Bar of the Spiral Galaxy NGC 6946. *Jean-René Roy & Julien Belley.* 406, 60, 55-G1 (1993)

Magnetic Field Strengths in High-Redshift Galaxies: Can the Galactic Dynamo Be Tested? *Judith J. Perry, Alan M. Watson, & Philipp P. Kronberg.* 406, 407, 62-F12 (1993)

Heterogenous Array Observations of IC 342: The CO Isotopic Ratio. *M. C. H. Wright, S. Ishizuki, J. L. Turner, P. T. P. Ho, & K. Y. Lo.* 406, 470, 63-E10 (1993)

Interferometric Observations of Three Giant Molecular Clouds in M31. *Christine D. Wilson & Alexander L. Rudolph.* 406, 477, 63-F6 (1993)

Microarcsecond Proper Motions of Extragalactic Water Vapor Masers in M33. *L. J. Greenhill, J. M. Moran, M. J. Reid, K. M. Menten, & H. Hirabayashi.* 406, 482, 63-F13 (1993)

Turbulent Mixing Layers in the Interstellar Medium of Galaxies. *Jonathan D. Slavin, J. Michael Shull, & Mitchell C. Begelman.* 407, 83, 70-B7 (1993)

The Impact of Supernova Fragments on the Evolution of Multisupernova Remnants. *J. Franco, A. Ferrara, M. Różyczka, G. Tenorio-Tagle, & D. P. Cox.* 407, 100, 70-C11 (1993)

158 Micron [C II] Mapping of NGC 6946: Probing the Atomic Medium. *S. C. Madden, N. Geis, R. Genzel, F. Herrmann, J. Jackson, A. Poglitsch, G. J. Stacey, & C. H. Townes.* 407, 579, 77-F12 (1993)

Molecular Gas in Powerful Radio Galaxies Detected by *IRAS*. *J. M. Mazzarella, J. R. Graham, D. B. Sanders, & S. Djorgovski.* 409, 170, 99-A13 (1993)

An Atlas of Ultraviolet Spectra of Star-forming Galaxies. *A. L. Kinney, R. C. Bohlin, D. Calzetti, N. Panagia, & Rosemary F. G. Wyse.* 86, 5, 14-B9 (1993)

Evolution of Elliptical Galaxies. I. The Multiphase Model. *Federico Ferrini & Bianca Maria Poggianti.* 410, 44, 112-F4 (1993)

Detection of CO Emission from Massive Molecular Clouds in the Inner Disk of M31. *Ronald J. Allen & J. Lequeux.* 410, L15, 117-G7 (1993)

Near-Infrared Spectroscopy of the Peculiar Giant Elliptical NGC 1275. *Kimiaki Kawara & Yoshiaki Taniguchi.* 410, L19, 117-G13 (1993)

The H to H_2 Transition in Galaxies: Totally Molecular Galaxies. *B. G. Elmegreen.* 411, 170, 129-C3 (1993)

Molecular Gas in the Early-Type Starburst Galaxy NGC 3928. *Jonathan G. Li, E. R. Seaquist, & L. J. Sage.* 411, L71, 142-C11 (1993)

Nuclear Winds in Active Elliptical Galaxies. II. Observational Signatures. *Steven J. Smith, C. F. Kennel, & F. V. Coroniti.* 412, 82, 143-A13 (1993)

M82: The Saga Continues. *K. K. McLeod, G. H. Rieke, M. J. Rieke, & D. M. Kelly.* 412, 111, 143-D10 (1993)

The Warped Disk of Centaurus A in the Near-Infrared. *A. C. Quillen, James R. Graham, & Jay A. Frogel.* 412, 550, 150-E7 (1993)

Hydrodynamical Simulations of Star-Gas Interactions in the Interstellar Medium with an External Gravitational Potential. *Alexander Rosen, Joel N. Bregman, & Michael L. Norman.* 413, 137, 157-G5 (1993)

The Molecular Gas and Star Formation in *IRAS* Bright Early-Type Disk Galaxies. I. NGC 7625. *Jonathan G. Li, E. R. Seaquist, J. M. Wrobel, Zhong Wang, & L. J. Sage.* 413, 150, 158-A6 (1993)

The Dusty Emission Filaments of M87. *W. B. Sparks, H. C. Ford, & A. L. Kinney.* 413, 531, 163-B1 (1993)

Cosmic-Ray–dominated Dense Molecular Gas in Normal and Starburst Galaxies. *Anatoly Suchkov, Ronald J. Allen, & Timothy M. Heckman.* 413, 542, 163-C1 (1993)

Sharp Edges to Neutral Hydrogen Disks in Galaxies and the Extragalactic Radiation Field. *Philip Maloney.* 414, 41, 170-E8 (1993)

Analysis of the Distribution of Pitch Angles in Model Galactic Disks: Numerical Methods and Algorithms. *William S. Russell & William W., Jr. Roberts.* 414, 86, 171-B5 (1993)

Kiloparsec-Scale Molecular Gas Excitation in Spiral Galaxies. *W. F. Wall, D. T. Jaffe, F. N. Bash, F. P. Israel, P. R. Maloney, & F. Baas.* 414, 98, 171-C5 (1993)

Molecular Gas Mass and Far-Infrared Emission from Distant Luminous Galaxies. *D. Downes, P. M. Solomon, & S. J. E. Radford.* 414, L13, 175-D6 (1993)

Calcium Depletion in Cooling-Flow Nebulae and the Origin of the Line-emitting Gas. *Megan Donahue & G. Mark Voit.* 414, L17, 175-D11 (1993)

Strong [Fe II] Emission from NGC 1275. *Richard J. Rudy, Ross D. Cohen, George S. Rossano, Peter Erwin, R. C. Puetter, Matthew A. Greenhouse, & Charles E. Woodward.* 414, 527, 177-F13 (1993)

Millimeter and Submillimeter Continuum Emission from Early-Type Galaxies. *Michel Fich & Paul Hodge.* 415, 75, 186-A1 (1993)

Formaldehyde Emission in Galaxies. *Willem A. Baan, Aubrey D. Haschick, & Robert Uglesich.* 415, 140, 186-G1 (1993)

On ^{26}Al and Other Short-lived Interstellar Radioactivity. *Donald D. Clayton, Dieter H. Hartmann, & Mark D. Leising.* 415, L25, 192-A1 (1993)

Lyman-Alpha Emission from Galaxies. *Stéphane Charlot & S. Michael Fall.* 415, 580, 195-A13 (1993)

A Reevaluation of the Excitation Mechanism of LINERs. *Luis C. Ho, Alexei V. Filippenko, & Wallace L. W. Sargent.* 417, 63, 217-G8 (1993)

The Shape of the H I Mass Function for Late-Type Galaxies over the Range $M_{\rm H\,I} \approx 10^7$–$10^{10}$ $M_\odot$. *F. H. Briggs & S. Rao.* 417, 494, 225-D12 (1993)

Atomic Carbon in M82. *Peter Schilke, John E. Carlstrom, Jocelyn Keene, & T. G. Phillips.* 417, L67, 230-C3 (1993)

Early Observations of SN 1993J in M81 at McDonald Observatory. *J. C. Wheeler, E. Barker, R. Benjamin, J. Boisseau, A. Clocchiatti, G. de Vaucouleurs, N. Gaffney, R. P. Harkness, A. M. Khokhlov, D. F. Lester, B. J. Smith, V. V. Smith, & J. Tomkin.* 417, L71, 230-C9 (1993)

High-Resolution CO and H I Observations of the Interacting Galaxy NGC 3627. *Xiaolei Zhang, Melvyn Wright, & Paul Alexander.* 418, 100, 232-C11 (1993)

Tracing the Stellar Mass in M51. *Hans-Walter Rix & Marcia J. Rieke.* 418, 123, 232-E10 (1993)

Dense Molecular Gas toward the Nucleus of the Seyfert Galaxy NGC 1068. *James M. Jackson, Timothy A. D. Paglione, Sumio Ishizuki, & Nguyen-Q-Rieu.* 418, L13, 238-B11 (1993)

Molecular Gasdynamics of the Young Nuclear Starburst in the Barred Galaxy NGC 3504. *Jeffrey D. P. Kenney, John E. Carlstrom, & Judith S. Young.* 418, 687, 241-A13 (1993)

A Complete CO Survey of M31. I. Distribution and Kinematics. *T. M. Dame, E. Koper, F. P. Israel, & P. Thaddeus.* 418, 730, 241-E8 (1993)

The Heavy Element Abundance in the Hot Corona of the Bright Elliptical Galaxy NGC 4472. *W. Forman, C. Jones, L. David, M. Franx, K. Makishima, & T. Ohashi.* 418, L55, 245-B1 (1993)

Gamma-Ray Bursts: Multiwaveband Spectral Predictions for Blast Wave Models. *P. Mészáros & M. J. Rees.* 418, L59, 245-B7 (1993)

On the Lyman-Alpha Emission of Starburst Galaxies. *David Valls-Gabaud.* 419, 7, 246-B9 (1993)

Dense Gas in the Bulges of External Galaxies. *Tamara T. Helfer & Leo Blitz.* 419, 86, 247-B13 (1993)

H I Spin Temperatures and Heating Requirements in Outer Regions of Disk Galaxies. *Edvige Corbelli & Edwin E. Salpeter.* 419, 94, 247-C9 (1993)

Sharp H I Edges in the Outskirts of Disk Galaxies. *Edvige Corbelli & Edwin E. Salpeter.* 419, 104, 247-D7 (1993)

Subarcsecond Mid-Infrared Imaging of Warm Dust in the Narrow-Line Region of NGC 1068. *Murray Cameron, John W. V. Storey, Valentin Rotaciuc, Reinhard Genzel, Laurent Verstraete, Siegfried Drapatz, Ralf Siebenmorgen, & Terry J. Lee.* 419, 136, 247-G5 (1993)

Neutral Hydrogen in Galaxies at the Present Epoch. *Sandhya Rao & Frank Briggs.* 419, 515, 254-B12 (1993)

Evolution in Dust Lane Ellipticals: Detection of Accreted Molecular Gas. *Leslie J. Sage & Giuseppe Galletta.* 419, 544, 254-E5 (1993)

The Ionization Cones in the Seyfert Galaxy NGC 5728. *A. S. Wilson, J. A. Braatz, T. M. Heckman, J. H. Krolik, & G. K. Miley.* 419, L61, 259-C7 (1993)

Detection of CO $J = 2 \rightarrow 1$ Emission from the Polar Rings of NGC 2685 and NGC 4650A. *Dan M. Watson, Matthew T. Guptill, & Leah M. Buchholz.* 420, L21, 7-D1 (1994)

X-Ray–emitting Gas Surrounding the Spiral Galaxy NGC 891. *Joel N. Bregman & Rachel A. Pildis.* 420, 570, 9-F7 (1994)

Interstellar and Intergalactic Magnesium and Sodium Absorption toward SN 1993J. *David V. Bowen, Katherine C. Roth, J. Chris Blades, & David M. Meyer.* 420, L71, 15-D5 (1994)

Near-Infrared Spectroscopic Imaging of the Circumnuclear Environment of NGC 1068. *M. Blietz, M. Cameron, S. Drapatz, R. Genzel, A. Krabbe, P. van der Werf, A. Sternberg, & M. Ward.* 421, 92, 17-B13 (1994)

A Near-Infrared Spectroscopic Study of the Luminous Merger NGC 3256. I. Constraints on the Initial Mass Function of the Starburst. *René Doyon, R. D. Joseph, & G. S. Wright.* 421, 101, 17-C10 (1994)

A Near-Infrared Spectroscopic Study of the Luminous Merger NGC 3256. II. Evidence for Fluorescent Molecular Hydrogen Emission. *René Doyon, G. S. Wright, & R. D. Joseph.* 421, 115, 17-D12 (1994)

A ^{12}CO, ^{13}CO, and CS Study of NGC 2146 and IC 342. *Shuding Xie, Judith Young, & F. Peter Schloerb.* 421, 434, 23-E7 (1994)

Conditions in the $z = 0.692$ Absorber toward 3CR 286. *Ross D. Cohen, Thomas A. Barlow, E. A. Beaver, Vesa T. Junkkarinen, Ronald W. Lyons, & Harding E. Smith.* 421, 453, 23-G1 (1994)

Constraining the Influence of Star Formation on the Lowest ^{12}CO Line Ratios in M33. *Michele D. Thornley & Christine D. Wilson.* 421, 458, 23-G9 (1994)

Neutral Hydrogen Absorption in NGC 1068 and NGC 3079. *J. F. Gallimore, S. A. Baum, C. P. O'Dea, E. Brinks, & A. Pedlar.* 422, L13, 36-C9 (1994)

Constraints on Molecular Gas in Cooling Flows and Powerful Radio Galaxies. *Christopher P. O'Dea, Stefi A. Baum, Philip R. Maloney, Linda J. Tacconi, & William B. Sparks.* 422, 467, 37-F5 (1994)

Infrared Spectroscopy of Seyfert 2 Galaxies: A Look through the Obscuring Torus? *Robert W. Goodrich, Sylvain Veilleux, & Gary J. Hill.* 422, 521, 38-C12 (1994)

Stellar and Scattered Light in a Radio Galaxy at $z = 2.63$. *Andrea Cimatti, Sperello di Serego Alighieri, George B. Field, & Robert A. E. Fosbury.* 422, 562, 38-G1 (1994)

The Angular Structure and Intraday Variability of a Water Vapor Maser in IC 10. *A. L. Argon, L. J. Greenhill, J. M. Moran, M. J. Reid, K. M. Menten, C. Henkel, & M. Inoue.* 422, 586, 39-B7 (1994)

An H I Survey of High-Velocity Clouds in Nearby Disk Galaxies. *Eric Schulman, Joel N. Bregman, & Morton S. Roberts.* 423, 180, 48-C9 (1994)

Extraplanar Emission-Line Gas in NGC 891. *Rachel A. Pildis, Joel N. Bregman, & James M. Schombert.* 423, 190, 48-D7 (1994)

Photoionization of Disk Galaxies: An Explanation of the Sharp Edges in the H I Distribution. *James B. Dove & J. Michael Shull.* 423, 196, 48-E3 (1994)

Ram-Pressure Stripping of Gas from Companions and Accretion onto a Spiral Galaxy: A Gaseous Merger. *Yoshiaki Sofue.* 423, 207, 48-F3 (1994)

The Interstellar Medium in the Starburst Regions of NGC 253 and NGC 3256. *P. Carral, D. J. Hollenbach, S. D. Lord, S. W. J. Colgan, Michael R. Haas, R. H. Rubin, & E. F. Erickson.* 423, 223, 48-G7 (1994)

Wavelength-dependent Kinematics in the Dusty Inclined Galaxy NGC 2146. *F. Prada, J. E. Beckman, C. D. McKeith, J. Castles, & A. Greve.* 423, L35, 53-E8 (1994)

The H_2O Masers in IC 10SE. *Willem A. Baan & Aubrey Haschick.* 424, L33, 69-E1 (1994)

Self-Gravity and Dissipation in Polar Rings. *John Dubinski & Dimitris M. Christodoulou.* 424, 615, 72-E3 (1994)

Interstellar Medium and Star Formation in the Nearby QSO I Zw 1. *A. Eckart, P. P. van der Werf, R. Hofmann, & A. I. Harris.* 424, 627, 72-F3 (1994)

Dust and Ionized Gas in NGC 3607. *K. P. Singh, T. P. Prabhu, A. K. Kembhavi, & P. N. Bhat.* 424, 638, 72-G2 (1994)

Near-Infrared Spectral Imaging of NGC 1808: Probing the Starburst. *A. Krabbe, A. Sternberg, & R. Genzel.* 425, 72, 81-B2 (1994)

Far-Infrared Emission from the Bulges of Early-Type Spirals: KAO Observations of NGC 4736 (M94) and NGC 3627 (M66). *Beverly J. Smith, P. M. Harvey, C. Colomé, C. Y. Zhang, J. DiFrancesco, & R. W. Pogge.* 425, 91, 81-C9 (1994)

An Optical Study of Compact Steep-Spectrum Radio Sources. I. The Spectroscopic Data. *Richard Gelderman & Mark Whittle.* 91, 491, 26-B1 (1994)

Evolutionary Models for High-Metallicity Giant Extragalactic H II Regions. *Maria Luisa García Vargas & Angeles I. Díaz.* 91, 553, 27-A4 (1994)

Far-Infrared Properties of Early-Type Galaxies. *P. Mazzei & G. De Zotti.* 426, 97, 97-C5 (1994)

IRAS Colors within M31: Evidence for Deficiency of Very Small Grains? *Cong Xu & George Helou.* 426, 109, 97-D7 (1994)

Emission-Line Ratios of the Integrated Spectra of Galaxies: Evidence for a Diffuse Ionized Medium in Other Galaxies? *Matthew D. Lehnert & Timothy M. Heckman.* 426, L27, 103-D3 (1994)

The Nature of the Dense Obscuring Material in the Nucleus of NGC 1068. *L. J. Tacconi, R. Genzel, M. Blietz, M. Cameron, A. I. Harris, & S. Madden.* 426, L77, 109-D11 (1994)

Luminosity Evolution and Dust Effects in Distant Galaxies: Implications for the Observability of the Early Evolutionary Phases. *Alberto Franceschini, Paola Mazzei, Gianfranco De Zotti, & Luigi Danese.* 427, 140, 111-F4 (1994)

Radio-emitting Dust in the Free Electron Layer of Spiral Galaxies: Testing the Disk/Halo Interface. *A. Ferrara & R.-J. Dettmar.* 427, 155, 111-G7 (1994)

Extraplanar Emission-Line Gas in Edge-on Galaxies. *Rachel A. Pildis, Joel N. Bregman, & James M. Schombert.* 427, 160, 112-A1 (1994)

K'-Band Observations of the Evil Eye Galaxy: Are the Optical and Near-Infrared Dust Albedos Identical? *Adolf N. Witt, Rebecca S. Lindell, David L. Block, & Rhodri Evans.* 427, 227, 112-G1 (1994)

A Study of Molecular Gas in the Center of the S0 Galaxy NGC 4710. *G. A. Welch & G. F. Mitchell.* 427, 770, 122-C3 (1994)

Molecular Hydrogen Emission in Galaxies: Determination of Excitation Mechanism. *Hideaki Mouri.* 427, 777, 122-C12 (1994)

A Diagnosis of Dust in Active Galactic Nuclei through Analysis of the Infrared Bump. *S. M. Viegas & M. Contini.* 428, 113, 129-E9 (1994)

ROSAT PSPC Observations of NGC 4636: Interaction with Virgo Gas? *G. Trinchieri, D.-W. Kim, G. Fabbiano, & C. R. C. Canizares.* 428, 555, 137-B11 (1994)

CO Absorption in Luminous Infrared Galaxies. *Susan E. Ridgway, C. G. Wynn-Williams, & E. E. Becklin.* 428, 609, 137-G1 (1994)

Models of Hot Galactic Coronae around Early-Type Galaxies. *W. Forman, C. Jones, & W. Tucker.* 429, 77, 145-B7 (1994)

The Far-Infrared Properties of the CfA Galaxy Sample. II. Gas, Dust, and Star Formation along the Hubble Sequence. *Marc Sauvage & Trinh X. Thuan.* 429, 153, 146-A9 (1994)

The Reddening Law outside the Local Group Galaxies: The Case of NGC 7552 and NGC 5236. *Anne L. Kinney, Daniela Calzetti, Eduardo Bica, & Thaisa Storchi-Bergmann.* 429, 172, 146-C2 (1994)

Dust Extinction of the Stellar Continua in Starburst Galaxies: The Ultraviolet and Optical Extinction Law. *Daniela Calzetti, Anne L. Kinney, & Thaisa Storchi-Bergmann.* 429, 582, 153-A1 (1994)

Extended Infrared Line Emission Excited by Starburst and Seyfert Activity in NGC 3256 and NGC 4945. *A. F. M. Moorwood & E. Oliva.* 429, 602, 153-B9 (1994)

Millimeter Recombination Lines and the State of Ionized Gas in M82. *E. R. Seaquist, C. R. Kerton, & M. B. Bell.* 429, 612, 153-C13 (1994)

Interaction, Star Formation, and H I Deficiency in E + S Pairs. *A. V. Zasov & Jack W. Sulentic.* 430, 179, 161-C8 (1994)

A Survey of the Large Magellanic Cloud in the [C II] 158 Micron Line. *Kenji Mochizuki, Takao Nakagawa, Yasuo Doi, Yukari Y. Yui, Haruyuki Okuda, Hiroshi Shibai, Masao Yui, Tetsuo Nishimura, & Frank J. Low.* 430, L37, 165-E13 (1994)

Discovery of a Nuclear Counterjet in NGC 1275: A New Way to Probe the Parsec-Scale Environment. *R. C. Vermeulen, A. C. S. Readhead, & D. C. Backer.* 430, L41, 165-F7 (1994)

Dynamics and X-Ray Emission of a Galactic Superwind Interacting with Disk and Halo Gas. *Anatoly A. Suchkov, Dinshaw S. Balsara, Timothy M. Heckman, & Claus Leitherer.* 430, 511, 168-B5 (1994)

Diffuse Ionized Gas in the Spiral Galaxy M31. *René A. M. Walterbos & Robert Braun.* 431, 156, 178-B3 (1994)

The Effect of Central Starbursts on the Interstellar Medium of Dwarf Galaxies. *David S. De Young & Timothy M. Heckman.* 431, 598, 186-A6 (1994)

Diffuse Molecular Clouds and the Molecular Interstellar Medium from ^{13}CO Observations of M33. *Christine D. Wilson & Constance E. Walker.* 432, 148, 195-A13 (1994)

Lyα Emission and Absorption Features in the Spectra of Galaxies. *W. L. Chen & David A. Neufeld.* 432, 567, 203-A10 (1994)

Radiative Excitation of Molecules near Powerful Compact Radio Sources. *Philip R. Maloney, Mitchell C. Begelman, & Martin J. Rees.* 432, 606, 203-E3 (1994)

A Comparison of Dynamical and Molecular Gas Masses in Very Luminous Infrared Galaxies. *L. M. Shier, M. J. Rieke, & G. H. Rieke.* 433, L9, 214-E3 (1994)

The Peculiar Dust Distribution of M82. *T. Ichikawa, W. van Driel, T. Aoki, T. Soyano, K. Tarusawa, & S. Yoshida.* 433, 645, 219-A11 (1994)

H I and CO in the Nuclear Disk of NGC 4261. *Walter Jaffe & Brian R. McNamara.* 434, 110, 226-E13 (1994)

First Observations of Individual Molecular Clouds in the Irregular Galaxy NGC 6822. *Christine D. Wilson.* 434, L11, 232-C1 (1994)

The 3.28 Micron Emission Feature in NGC 253. *Paul Kalas & C. G. Wynn-Williams.* 434, 546, 235-C13 (1994)

Anisotropy in the Angular Broadening of Sagittarius A* at the Galactic Center. *Farhad Yusef-Zadeh, William Cotton, Mark Wardle, Fulvio Melia, & Douglas A. Roberts.* 434, L63, 241-F1 (1994)

Narrowband *HST* Images of M87: Evidence for a Disk of Ionized Gas around a Massive Black Hole. *Holland C. Ford, Richard J. Harms, Zlatan I. Tsvetanov, George F. Hartig, Linda L. Dressel, Gerard A. Kriss, Ralph C. Bohlin, Arthur F. Davidsen, Bruce Margon, & Ajay K. Kochhar.* 435, L27, 251-F11 (1994)

The Primordial Helium Abundance from a New Sample of Metal-deficient Blue Compact Galaxies. *Yuri I. Izotov, Trinh X. Thuan, & Valentin A. Lipovetsky.* 435, 647, 255-A5 (1994)

Multiphase Gas in Quasar Absorption-Line Systems. *Mark L. Giroux, Ralph S. Sutherland, & J. Michael Shull.* 435, L97, 259-E2 (1994)

When Star Formation Stops: Galaxy Edges and Low Surface Brightness Disks. *B. G. Elmegreen & A. Parravano.* 435, L121, 260-A3 (1994)

An X-Ray Image of the Large Magellanic Cloud. *S. L. Snowden & R. Petre.* 436, L123, 281-A1 (1994)

HCN and CO in the Nucleus of NGC 1068. *A. Sternberg, R. Genzel, & L. Tacconi.* 436, L131, 281-B7 (1994)

Placid Stars and Excited Gas in NGC 4826. *Hans-Walter R. Rix, Robert C. Kennicutt, Jr., Robert Braun, & Rene A. M. Walterbos.* 438, 155, 3-D9 (1995)

Submillimeter HCN and HCO^+ Emission from Galaxies. *James M. Jackson, Timothy A. D. Paglione, John E. Carlstrom, & Nguyen-Q- Rieu.* 438, 695, 13-F11 (1995)

The Detection of Molecular Gas in the Ring Galaxy Arp 143. *James L. Higdon, Beverly J. Smith, Steven D. Lord, & Richard J. Rand.* 438, L79, 19-F7 (1995)

ROSAT Detection of Diffuse Hot Gas in the Edge-on Galaxy NGC 4631. *Q. Daniel Wang, René A. M. Walterbos, Michael F. Steakly, Colin A. Norman, & Robert Braun.* 439, 176, 23-E13 (1995)

Far-Infrared Thermal Emission from the Inner Cooling Flow Region of NGC 1275. *D. F. Lester, E. C. Zink, G. W. Doppmann, N. I. Gaffney, P. M. Harvey, B. J. Smith, & M. Malkan.* 439, 185, 23-G1 (1995)

Millimeter Observations of a Complete Sample of *IRAS* Galaxies: Dust Emission and Absorption in Spirals. *Alberto Franceschini & Paola Andreani.* 440, L5, 48-B8 (1995)

Global Models of the Interstellar Medium in Disk Galaxies. *Alexander Rosen & Joel N. Bregman.* 440, 634, 52-A2 (1995)

The Interaction between Hot and Cold Gas in Early-Type Galaxies. *Joel N. Bregman, David E. Hogg, & Morton S. Roberts.* 441, 561, 69-F9 (1995)

High-Resolution X-Ray Imaging of M33. *Eric Schulman & Joel N. Bregman.* 441, 568, 69-G6 (1995)

Ionized Gas in the Halos of Edge-on, Starburst Galaxies: Data and Results. *Matthew D. Lehnert & Timothy M. Heckman.* 97, 89, 12-B3 (1995)

A Multiparametric Analysis of the *Einstein* Sample of Early-Type Galaxies. I. Luminosity and ISM Parameters. *Paul B. Eskridge, Giuseppina Fabbiano, & Dong-Woo Kim.* 97, 141, 12-G6 (1995)

A Multiparametric Analysis of the *Einstein* Sample of Early-Type Galaxies. II. Galaxy Formation History and Properties of the Interstellar Medium. *Paul B. Eskridge, Giuseppina Fabbiano, & Dong-Woo Kim.* 442, 523, 87-B8 (1995)

The Origin of the Soft X-Ray Excess in the Seyfert 2 Galaxy NGC 2110. *K. A. Weaver, R. F. Mushotzky, P. J. Serlemitsos, A. S. Wilson, M. Elvis, & U. Briel.* 442, 597, 88-B7 (1995)

The Distribution of Far-Infrared Light in the "Dusty Hand" Galaxy NGC 2146. *Beverly J. Smith, P. M. Harvey, & D. F. Lester.* 442, 610, 88-C10 (1995)

The Heating of Dust in Starburst Galaxies: The Contribution of the Nonionizing Radiation. *Daniela Calzetti, Ralph C. Bohlin, Anne L. Kinney, Thaisa Storchi-Bergmann, & Timothy M. Heckman.* 443, 136, 97-A12 (1995)

The Striking Near-Infrared Morphology of the Inner Region in M100. *J. H. Knapen, J. E. Beckman, I. Shlosman, R. F. Peletier, C. H. Heller, & R. S. de Jong.* 443, L73, 111-G3 (1995)

Infrared Imaging and Spectroscopy of NGC 7469. *R. Genzel, L. Weitzel, L. E. Tacconi-Garman, M. Blietz, M. Cameron, A. Krabbe, D. Lutz, & A. Sternberg.* 444, 129, 115-B3 (1995)

Physical Properties of Molecular Clouds in the Inner Disk of M31. *R. J. Allen, J. Le Bourlot, J. Lequeux, G. Pineau des Forêts, & E. Roueff.* 444, 157, 115-E1 (1995)

Cooling Gas Outflows from Galaxies. *Boqi Wang.* 444, 590, 124-E3 (1995)

The Local Metallicity–Surface Brightness Relationship in Galactic Disks. *Stuart D. Ryder.* 444, 610, 124-F12 (1995)

Neutral Hydrogen Associated with Shells and Other Fine Structure in NGC 2865: A Dynamically Young Elliptical? *D. Schiminovich, J. H. van Gorkom, J. M. van der Hulst, & D. F. Malin.* 444, L77, 130-D1 (1995)

Radio Jet Propagation and Wide-Angle Tailed Radio Sources in Merging Galaxy Cluster Environments. *Chris Loken, Kurt Roettiger, Jack O. Burns, & Michael Norman.* 445, 80, 133-D11 (1995)

Chemical Evolution of Irregular and Blue Compact Galaxies. *Leticia Carigi, Pedro Colín, Manuel Peimbert, & Antonio Sarmiento.* 445, 98, 133-F5 (1995)

The Interstellar Disk–Halo Connection in the Spiral Galaxy NGC 3079. *Sylvain Veilleux, Gerald Cecil, & J. Bland-Hawthorn.* 445, 152, 134-D11 (1995)

The Oxygen Distribution in NGC 3359 or a Disk Galaxy in the Early Phase of Bar Formation. *Pierre Martin & Jean-René Roy.* 445, 161, 134-F3 (1995)

The Relativistic ISM in M33: Role of the Supernova Remnants. *N. Duric, S. M. Gordon, W. M. Goss, F. Viallefond, & C. Lacey.* 445, 173, 134-G8 (1995)

The FCRAO Extragalactic CO Survey. I. The Data. *Judith S. Young, Shuding Xie, Linda Tacconi, Pat Knezek, Paul Viscuso, Lowell Tacconi-Garman, Nick Scoville, Steve Schneider, F. Peter Schloerb, Steve Lord, Amy Lesser, Jeff Kenney, Yi-Long Huang, Nick Devereux, Mark Claussen, James Case, John Carpenter, Mike Berry, & Lori Allen.* 98, 219, 23-E3 (1995)

High-Resolution Near-Infrared Spectra of NGC 4151: Line and Continuum Analysis. *Rodger I. Thompson.* 445, 700, 144-G5 (1995)

GR 8: CO-to-H_2 Conversion Factor at Extremely Low Metallicity. *Frances Verter & Paul Hodge.* 446, 616, 164-F1 (1995)

Soft X-Ray Emission from NGC 5253 and the Ionized Interstellar Medium. *Crystal L. Martin & Robert C. Kennicutt, Jr.* 447, 171, 174-E2 (1995)

Metal Abundances and Physical Conditions in Two Damped Lyα Systems toward HS 1946+7658. *Limin Lu, Blair D. Savage, Todd M. Tripp, & David M. Meyer.* 447, 597, 184-D2 (1995)

Molecular Gas in the Inner 3.2 Kiloparsecs of NGC 2403: Star Formation at Subcritical Gas Surface Densities. *Michele D. Thornley & Christine D. Wilson.* 447, 616, 184-E10 (1995)

Toward Extragalactic Chemistry: Detections of N_2H^+ and SiO in Nearby Galaxies. *Leslie J. Sage & L. M. Ziurys.* 447, 625, 184-F9 (1995)

EXAFS and XANES: New Astrophysical Tools to Study the Solid State Structure of Interstellar Grains. *Jonathan W. Woo.* 447, L129, 191-C8 (1995)

Excitation of Activity in Galaxies by Minor Mergers. *Lars Hernquist & J. Christopher Mihos.* 448, 41, 192-G1 (1995)

A Multiparametric Analysis of the *Einstein* Sample of Early-Type Galaxies. III. Comparisons with the κ-Parameters. *Paul B. Eskridge, Giuseppina Fabbiano, & Dong-Woo Kim.* 448, 70, 193-B9 (1995)

High Spatial Resolution Fabry-Perot Imaging of M82: Near-Infrared Recombination Line Observations. *Shobita Satyapal, Dan M. Watson, Judith L. Pipher, William J. Forrest, Diana Coppenbarger, S. Nicholas Raines, Scott Libonate, François Piché, Matthew A. Greenhouse, Howard A. Smith, Keith L. Thompson, Jacqueline Fischer, Charles E. Woodward, & Tracy Hodge.* 448, 611, 203-B10 (1995)

Interstellar Mg II Absorption Lines from Low-Redshift Galaxies. *David V. Bowen, J. Chris Blades, & Max Pettini.* 448, 634, 203-E5 (1995)

The Metallicity Dependence of the CO-to-H_2 Conversion Factor from Observations of Local Group Galaxies. *Christine D. Wilson.* 448, L97, 209-C1 (1995)

Dust and Molecular Gas in the Barred Spiral Galaxy NGC 1530. *Michael W. Regan, Stuart N. Vogel, & Peter J. Teuben.* 449, 576, 220-F10 (1995)

Hubble Space Telescope Images of the Nuclear Star-forming Region in the Interacting Galaxy NGC 5930. *Gary A. Bower & Andrew S. Wilson.* 99, 543, 42-E11 (1995)

The Massive Star Populations in Ionized Gas Shells in M33 and M31. *Deidre A. Hunter, Danielle M. Boyd, & Walter N. Hawley.* 99, 551, 42-F9 (1995)

Chemistry in Dense Photon-dominated Regions. *A. Sternberg & A. Dalgarno.* 99, 565, 43-A3 (1995)

The Onset of the Cold H I Phase in Disks of Protogalaxies. *Edvige Corbelli & Edwin E. Salpeter.* 450, 32, 228-E3 (1995)

High-Resolution Berkeley-Illinois-Maryland Association Observations of CO, HCN, and ^{13}CO in NGC 1068. *Tamara T. Helfer & Leo Blitz.* 450, 90, 229-C10 (1995)

The Iron Group Abundance Pattern of the Damped Lyman-Alpha Absorber at $z = 1.3726$ toward the QSO 0935+417. *David M. Meyer, Kenneth M. Lanzetta, & Arthur M. Wolfe.* 451, L13, 252-C4 (1995)

NGC 6946: Molecular Spiral Arms Masquerading as a Bar? *Michael W. Regan & Stuart N. Vogel.* 452, L21, 269-E11 (1995)

An H_2O Maser near Sagittarius A East: Evidence for Active Massive Star Formation near the Galactic Center. *Farhad Yusef-Zadeh & David M. Mehringer.* 452, L37, 270-A4 (1995)

Diffuse X-Ray Emission from M101. *S. L. Snowden & W. Pietsch.* 452, 627, 273-C12 (1995)

Are Galaxies Optically Thin to Their Own Lyman-Continuum Radiation? II. NGC 6822. *Kanan Patel & Christine D. Wilson.* 453, 162, 283-D13 (1995)

New Observations and a New Interpretation of CO(3–2) in IRAS F10214+4724. *D. Downes, P. M. Solomon, & S. J. E. Radford.* 453, L65, 298-B6 (1995)

The Molecular Medium of H1413+117: BIMA CO (3–2) and HCO^+ (4–3) Observations. *D. J. Wilner, J.-H. Zhao, & Paul T. P. Ho.* 453, L91, 298-E11 (1995)

The Lyman Continuum in Starburst Galaxies Observed with the Hopkins Ultraviolet Telescope. *Claus Leitherer, Henry C. Ferguson, Timothy M. Heckman, & James D. Lowenthal.* 454, L19, 307-E5 (1995)

Broad Ne VIII λ744 Emission from the Quasar PG 1148+549. *Fred Hamann, Joseph C. Shields, Gary J. Ferland, & Kirk T. Korista.* 454, 688, 311-B9 (1995)

Nuclear Antics of IC 4553 (ARP 220). *Willem A. Baan & Aubrey D. Haschick.* 454, 745, 312-A6 (1995)

The Unusual X-Ray Collision Morphology of NGC 4782/4783 (3C 278). *Luis Colina & Kirk D. Borne.* 454, L101, 315-F11 (1995)

The Distribution of the Dense Clouds in the Starburst Nucleus of NGC 253. *Timothy A. D. Paglione, Tomoka Tosaki, & James M. Jackson.* 454, L117, 316-A10 (1995)

The Peculiar H I Kinematics of the Wolf-Rayet Starburst Galaxy NGC 5253. *Henry A. Kobulnicky & Evan D. Skillman.* 454, L121, 316-B6 (1995)

An Alignment between Optical Continuum and Emission-Line Structures in the Circumnuclear Regions of Seyfert Galaxies. *John S. Mulchaey & Andrew S. Wilson.* 455, L17, 324-E1 (1995)

GALAXIES: JETS

An Infrared Jet in Centaurus A: A Link to the Extranuclear Activity in Distant Radio Galaxies? *Marshall Joy, P. M. Harvey, E. V. Tollestrup, K. Sellgren, P. J. McGregor, & A. R. Hyland.* 366, 82, 2-A13 (1991)

Oblique Mixed Shocks in Extragalactic Jets. *D. Fraix-Burnet & G. Pelletier.* 367, 86, 13-B1 (1991)

Fanaroff-Riley I Galaxies as the Parent Population of BL Lacertae Objects. II. Optical Constraints. *P. Padovani & C. M. Urry.* 368, 373, 29-F6 (1991)

Numerical Simulations of a Restarting Jet. *David A. Clarke & Jack O. Burns.* 369, 308, 41-E4 (1991)

First Results from the Faint Object Camera: Observations of PKS 0521−36. *F. Macchetto, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 369, L55, 46-A1 (1991)

Altered Luminosity Functions for Relativistically Beamed Objects. II. Distribution of Lorentz Factors and Parent Populations with Complex Luminosity Functions. *C. M. Urry & P. Padovani.* 371, 60, 60-G5 (1991)

The Deflection of Cosmic Jets. *David S. De Young.* 371, 69, 61-A1 (1991)

Multifrequency VLA, VLBI, and Single-Dish Observations of the Quasar 4C 39.25. *Alan P. Marscher, Yun Fei Zhang, David B. Shaffer, Hugh D. Aller, & Margo F. Aller.* 371, 491, 67-E12 (1991)

Statistical Analysis of Power-Size-Redshift Distributions of Extragalactic Jets. *Alexander Rosen & Paul J. Wiita.* 371, 501, 67-F10 (1991)

OX 169: Evidence for a Recent Merger. *Alan Stockton & Tony Farnham.* 371, 525, 68-A13 (1991)

Correlated Radio and Optical Variability in the BL Lacertae Object 0716+714. *A. Quirrenbach, A. Witzel, S. Wagner, F. Sanchez-Pons, T. P. Krichbaum,*

R. Wegner, K. Anton, U. Erkens, M. Haehnelt, J. A. Zensus, & K. J. Johnston. 372, L71, 85-C9 (1991)

Atmospheric Gradients and the Stability of Expanding Jets. *Philip E. Hardee, Michael L. Norman, Theodoros Koupelis, & David A. Clarke.* 373, 8, 86-B10 (1991)

Gaseous Halos of Elliptical Galaxies, the Cosmic Evolution of Their Radio Sizes, and the Phenomenon of Compact Steep-Spectrum Sources. *Gopal-Krishna & Paul J. Wiita.* 373, 325, 92-B1 (1991)

HST Observations of 3C 66B: A Double-stranded Optical Jet. *F. Macchetto, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, & G. K. Miley.* 373, L55, 97-C10 (1991)

Synchrotron Emission from Shocked Relativistic Jets. III. Models for the Centimeter Wave Band Quiescent and Burst Emission from 3C 279 and OT 081. *P. A. Hughes, H. D. Aller, & M. F. Aller.* 374, 57, 98-F5 (1991)

A Model for the Spectral Variability of BL Lacertae Objects at High Frequencies. *A. Celotti, L. Maraschi, & A. Treves.* 377, 403, 144-G1 (1991)

Coherent Radiation from Energetic Electron Streams via Collisionless Bremsstrahlung in Strong Plasma Turbulence. *James C. Weatherall & Gregory Benford.* 378, 543, 159-B8 (1991)

Heavy, Overpressured Jets and the Radio Source Hercules A. *David L. Meier, Alberto C. Sadun, & Kevin R. Lind.* 379, 141, 164-F9 (1991)

Depolarization Asymmetry in the Quasar 3C 47. *Ilias Fernini, J. Patrick Leahy, Jack O. Burns, & John P. Basart.* 381, 63, 189-G1 (1991)

Possible Deflection of a Jet by Molecular Clouds in NGC 4258. *R. L. Plante, K. Y. Lo, Jean-René Roy, Pierre Martin, & Louis Noreau.* 381, 110, 190-D4 (1991)

Fanaroff-Riley I Galaxies as the Parent Population of BL Lacertae Objects. III. Radio Constraints. *C. M. Urry, P. Padovani, & M. Stickel.* 382, 501, 207-F13 (1991)

Relativistic Electron-Positron Beam Formation in the Framework of the Two-Flow Model for Active Galactic Nuclei. *Gilles Henri & Guy Pelletier.* 383, L7, 219-B1 (1991)

Multifrequency Radio Observations of Cygnus A: Spectral Aging in Powerful Radio Galaxies. *C. L. Carilli, R. A. Perley, J. W. Dreher, & J. P. Leahy.* 383, 554, 221-B9 (1991)

The Origin of the Optical Emission Lines Associated with Extragalactic Radio Sources. *S. M. Viegas & Elisabete M. de Gouveia Dal Pino.* 384, 467, 8-A1 (1992)

The Radio Source and Bipolar Nebulosity in the Seyfert Galaxy NGC 3516. *Takamitsu Miyaji, Andrew S. Wilson, & Ismael Pérez-Fournon.* 385, 137, 13-F1 (1992)

Origin of the Structures and Polarization in the Classical Double 3C 219. *David A. Clarke, Alan H. Bridle, Jack O. Burns, Richard A. Perley, & Michael L. Norman.* 385, 173, 14-B1 (1992)

Numerical Simulations of Hydrodynamical Jets Crossing a Galactic Halo/Intracluster Medium Interface. *Paul J. Wiita & Michael L. Norman.* 385, 478, 19-B7 (1992)

Inverse Compton Scattering and the Alignments Observed in High-Redshift Radio Galaxies. *Ruth A. Daly.* 386, L9, 29-B9 (1992)

Instabilities in Astrophysical Jets. I. Linear Analysis of Body and Surface Waves. *Jun-Hui Zhao, Jack O. Burns, Philip E. Hardee, & Michael L. Norman.* 387, 69, 37-G7 (1992)

Instabilities in Astrophysical Jets. II. Numerical Simulations of Slab Jets. *Jun-Hui Zhao, Jack O. Burns, Michael L. Norman, & Martin E. Sulkanen.* 387, 83, 38-B1 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. II. Galaxy Rotation as Virial Parameter. *Mark Whittle.* 387, 109, 38-D2 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. III. Galaxy Luminosity as Virial Parameter. *Mark Whittle.* 387, 121, 38-E1 (1992)

Luminosity Functions, Relativistic Beaming, and Unified Theories of High-Luminosity Radio Sources. *P. Padovani & C. M. Urry.* 387, 449, 44-C9 (1992)

Astrophysical Jets and Theories of Gravitation. *Mario Livio & Nathan Rosen.* 387, 458, 44-D5 (1992)

Asymmetric Morphology of the Propagating Jet. II. The Effect of Atmospheric Gradients. *Philip E. Hardee, Raymond E. White III, Michael L. Norman, Michael A. Cooper, & David A. Clarke.* 387, 460, 44-D8 (1992)

A Survey of the Milliarcsecond Polarization Properties of BL Lacertae Objects at 5 GHz. *D. C. Gabuzda, T. V. Cawthorne, D. H. Roberts, & J. F. C. Wardle.* 388, 40, 49-E5 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. I. A Compilation of Narrow Line Region and Host Galaxy Properties. *Mark Whittle.* 79, 49, 13-A9 (1992)

Intrinsically Asymmetric Astrophysical Jets. *J. C. L. Wang, M. E. Sulkanen, & R. V. E. Lovelace.* 390, 46, 74-F1 (1992)

Modeling Structures of Knots in Jet Flows with the Burgers Equation. *Lev Kofman & A. C. Raga.* 390, 359, 79-F5 (1992)

The Braided Jets in the Spiral Galaxy NGC 4258. *Gerald Cecil, Andrew S. Wilson, & R. Brent Tully.* 390, 365, 79-G1 (1992)

Relativistic Magnetosonic Shock Waves in Synchrotron Sources: Shock Structure and Nonthermal Acceleration of Positrons. *Masahiro Hoshino, Jonathan Arons, Yves A. Gallant, & A. Bruce Langdon.* 390, 454, 81-A9 (1992)

The Milliarcsecond Structure of Highly Variable Radio Sources. *Ann E. Wehrle, Marshall H. Cohen, Stephen C. Unwin, Hugh D. Aller, Margo F. Aller, & George Nicolson.* 391, 589, 95-C5 (1992)

Collective Emission from Rapidly Variable Quasars. *Gregory Benford.* 391, L59, 99-D1 (1992)

An X-Ray Image of the Seyfert Galaxy NGC 1068. *A. S. Wilson, M. Elvis, A. Lawrence, & J. Bland-Hawthorn.* 391, L75, 99-E11 (1992)

Ram-Pressure Confinement of a Hypersonic Jet. *Chris Loken, Jack O. Burns, David A. Clarke, & Michael L. Norman.* 392, 54, 101-F1 (1992)

The Evolution of Cocoons Surrounding Light, Extragalactic Jets. *Denis F. Cioffi & John M. Blondin.* 392, 458, 108-A7 (1992)

Self-similar Evolution of Magnetized Plasmas. I. Quasi-static Solution. *Wei-Hong Yang.* 392, 465, 108-B1 (1992)

A 20 Centimeter VLA Survey of Abell Clusters of Galaxies. II. Images and Optical Identifications. *Frazer N. Owen, Richard A. White, & Jack O. Burns.* 80, 501, 30-D13 (1992)

Three-Epoch VLBI Observations of the Nucleus in the Lobe-dominated Quasar 3C 334. *D. H. Hough, A. C. S. Readhead, D. A. Wood, Jr., & J. J. Feldmeier.* 393, 81, 115-B1 (1992)

Three-dimensional Hydrodynamic Simulations of Narrow-Angle–Tail Radio Sources. I. The Begelman, Rees, and Blandford Model. *Dinshaw S. Balsara & Michael L. Norman.* 393, 631, 123-F3 (1992)

Electromagnetically Driven Relativistic Jets: A Class of Self-similar Solutions. *Zhi-Yun Li, Tzihong Chiueh, & Mitchell C. Begelman.* 394, 459, 135-B1 (1992)

VLA Observations of the Inner Lobes of Centaurus A. *David A. Clarke, Jack O. Burns, & Michael L. Norman.* 395, 444, 147-G7 (1992)

The University of Michigan Radio Astronomy Data Base. I. Structure Function Analysis and the Relation between BL Lacertae Objects and Quasi-stellar Objects. *P. A. Hughes, H. D. Aller, & M. F. Aller.* 396, 469, 163-C9 (1992)

Outflowing Molecular Gas in NGC 3079. *Judith A. Irwin & Yoshiaki Sofue.* 396, L75, 167-B1 (1992)

Kinematics of the Parsec-Scale Relativistic Jet in 3C 345. *Stephen C. Unwin & Ann E. Wehrle.* 398, 74, 183-A1 (1992)

Spatial Stability of the Magnetized Slab Jet. *Philip E. Hardee, Michael A. Cooper, Michael L. Norman, & James M. Stone.* 399, 478, 203-G11 (1992)

Nonlinear Dynamics of a Three-dimensional Jet. *Philip E. Hardee & David A. Clarke.* 400, L9, 214-B6 (1992)

Magnetohydrodynamic Models for Extragalactic Jets. I. General Method Based on Conservation Laws. *Paola Pietrini & Guidetta Torricelli-Ciamponi.* 401, 60, 221-G1 (1992)

The BL Lacertae Object 1E 1415.6+2557: Host Galaxy, Possible Optical Jet, and Environment. *W. Romanishin.* 401, L65, 232-G1 (1992)

The Evolution of Compact Steep Spectrum Sources. *David S. De Young.* 402, 95, 2-C6 (1993)

The Parsec-Scale Radio Jet of 4C 39.25. *A. Alberdi, J. M. Marcaide, A. P. Marscher, Y. F. Zhang, P. Elósegui, J. L. Gómez, & D. B. Shaffer.* 402, 160, 3-A13 (1993)

The Nature and Structure of Active Galactic Nuclei. *Donald E. Osterbrock.* 404, 551, 35-G7 (1993)

Gamma-Ray Emission of Active Galactic Nuclei as a Signature of Relativistic Electron-Positron Beams. *G. Henri, G. Pelletier, & J. Roland.* 404, L41, 40-B10 (1993)

On the Relation between Fanaroff-Riley Types I and II Radio Galaxies. *David S. De Young.* 405, L13, 47-C8 (1993)

Magnetohydrodynamic Models for Extragalactic Jets. II. Multistep Structures. *Guidetta Torricelli-Ciamponi & Paola Pietrini.* 406, 36, 55-E1 (1993)

Turbulent Magnetohydrodynamic Dynamo for Accretion Disks Using the Cross-Helicity Effect. *Akira Yoshizawa & Nobumitsu Yokoi.* 407, 540, 77-C8 (1993)

A Two-dimensional Relativistic ($\Gamma = 3.25$) Jet Simulation. *Maurice H. P. M. van Putten.* 408, L21, 88-G8 (1993)

Flow Dynamics and Bending of Wide-Angle Tailed Radio Sources. *Aileen A. O'Donoghue, Jean A. Eilek, & Frazer N. Owen.* 408, 428, 90-E1 (1993)

VLBI Observations of a Complete Sample of Radio Galaxies. III. The Two-sided Milliarcsecond Structure of 3C 338. *L. Feretti, G. Comoretto, G. Giovannini, T. Venturi, & A. E. Wehrle.* 408, 446, 90-F7 (1993)

On the Separation of the Flaring Component's Emission in Variable Compact Extragalactic Radio Sources: Results from a Simple Shocked Relativistic Jet Model. *D. J. van der Walt.* 409, 126, 98-E3 (1993)

A Massive Binary Black Hole in 1928+738? *Nico Roos, Jelle S. Kaastra, & Christian A. Hummel.* 409, 130, 98-E8 (1993)

Double-peaked Broad Line Emission from the LINER Nucleus of NGC 1097. *Thaisa Storchi-Bergmann, Jack A. Baldwin, & Andrew S. Wilson.* 410, L11, 117-G1 (1993)

Three-dimensional Simulations of Protostellar Jets. *Elisabete M. de Gouveia Dal Pino & Willy Benz.* 410, 686, 122-B13 (1993)

Helical Jets and the Misalignment Distribution for Core-dominated Radio Sources. *J. E. Conway & D. W. Murphy.* 411, 89, 128-B10 (1993)

A 20 Centimeter VLA Survey of Abell Clusters of Galaxies. III. Images and Optical Identifications. *Frazer N. Owen, Richard A. White, & JingPing Ge.* 87, 135, 28-E5 (1993)

The X-Ray Structure and Spectrum of NGC 6251. *M. Birkinshaw & D. M. Worrall.* 412, 568, 150-G4 (1993)

Radiative Instability in Synchrotron-emitting Plasmas. *P. Rossi, G. Bodo, S. Massaglia, & A. Ferrari.* 414, 112, 171-D7 (1993)

Shock Excitation of the Emission-Line Filaments in Centaurus A. *Ralph S. Sutherland, Geoffrey V. Bicknell, & Michael A. Dopita.* 414, 510, 177-E7 (1993)

Radio-selected BL Lacertae Objects and Some Correlations. *J. H. Fan, G. Z. Xie, J. J. Li, J. Liu, S. L. Wen, R. R. Huang, Z. M. Tang, & Y. J. Wang.* 415, 113, 186-D12 (1993)

Electromagnetically Driven Relativistic Jets: A Class of Self-consistent Numerical Solutions. *Zhi-Yun Li.* 415, 118, 186-E4 (1993)

3C 317: An Amorphous Radio Source in the Cooling Flow Cluster Abell 2052. *Jun-Hui Zhao, Dean M. Sumi, J. O. Burns, & Nebojsa Duric.* 416, 51, 201-F7 (1993)

Polarization of Compact Radio Sources. *C.-I. Björnsson.* 416, 104, 202-C11 (1993)

Unified Model for X-Ray– and Radio-selected BL Lacertae Objects. *A. Celotti, L. Maraschi, G. Ghisellini, A. Caccianiga, & T. Maccacaro.* 416, 118, 202-D13 (1993)

Ballistic Models for Radio Jets in Colliding Galaxies: 3C 278 (NGC 4782/4783). *Kirk D. Borne & Luis Colina.* 416, 157, 203-A8 (1993)

Model for the High-Energy Emission from Blazars. *Charles D. Dermer & Reinhard Schlickeiser.* 416, 458, 209-A11 (1993)

Milliarcsecond Polarization Structure of 24 Objects from the Pearson-Readhead Sample of Bright Extragalactic Radio Sources. II. Discussion. *T. V. Cawthorne, J. F. C. Wardle, D. H. Roberts, & D. C. Gabuzda.* 416, 519, 209-G5 (1993)

Propagation and Stability Properties of Radio Jets in Cluster Cooling Flow Atmospheres. *Chris Loken, Jack O. Burns, Michael L. Norman, & David A. Clarke.* 417, 515, 225-F9 (1993)

Superluminal Motion in the Large, Strongly Lobe-dominated Quasar 3C 47. *R. C. Vermeulen, R. A. Bernstein, D. H. Hough, & A. C. S. Readhead.* 417, 541, 226-A11 (1993)

Three-dimensional Propagation of Transverse Magnetohydrodynamic Perturbations in Relativistic Winds. *Yu-Qing Lou.* 418, 709, 241-C12 (1993)

Magnetic Confinement of Jets. *David Eichler.* 419, 111, 247-E2 (1993)

An Application of the Narrow-Jet Model: The M87 Jet. *Theodoros Koupelis.* 419, 117, 247-E10 (1993)

Comptonization of Diffuse Ambient Radiation by a Relativistic Jet: The Source of Gamma Rays from Blazars? *Marek Sikora, Mitchell C. Begelman, & Martin J. Rees.* 421, 153, 18-A1 (1994)

Relic Radio Emission in 3C 388. *Kurt Roettiger, Jack O. Burns, David A. Clarke, & Wayne A. Christiansen.* 421, L23, 21-F1 (1994)

Slender Elliptical Jets. *Michael D. Smith.* 421, 400, 23-B11 (1994)

Coulomb Scattering as a Mechanism for Electron Reacceleration in the Jets of Extragalactic Radio Sources. *I. E. Ekejiuba & P. N. Okeke.* 422, 537, 38-E1 (1994)

On the Relationship between BL Lacertae Objects and Fanaroff-Riley I Radio Galaxies. *Geoffrey V. Bicknell.* 422, 542, 38-E8 (1994)

Hubble Space Telescope Observations of Synchrotron Jets. *W. B. Sparks, J. A. Biretta, & F. Macchetto.* 90, 909, 15-B1 (1994)

On the Location of the Acceleration and Emission Sites in Gamma-Ray Blazars. *Charles D. Dermer & Reinhard Schlickeiser.* 90, 945, 15-E7 (1994)

Long-Term Hydrodynamical Simulations of Extragalactic Radio Jets. *Jagbir S. Hooda, Arun V. Mangalam, & Paul J. Wiita.* 423, 116, 47-E5 (1994)

Discovery of Neutral Hydrogen Associated with the Diffuse Shells of NGC 5128 (Centaurus A). *D. Schiminovich, J. H. van Gorkom, J. M. van der Hulst, & S. Kasow.* 423, L101, 60-D13 (1994)

On Jet Response to a Driving Frequency and the Jets in 3C 449. *Philip E. Hardee, Michael A. Cooper, & David A. Clarke.* 424, 126, 63-E7 (1994)

Magnetic Activity in Thick Accretion Disks and Associated Observable Phenomena. I. Flux Expulsion. *Sandip K. Chakrabarti & Sydney D'Silva.* 424, 138, 63-F7 (1994)

Physics and Evolution of Constant Opening Angle Jets Using a Quasi–One-dimensional Magnetohydrodynamic Model. *Theodoros Koupelis.* 424, 645, 72-G12 (1994)

Evidence for Two Classes of Parsec-Scale Radio Double Source in Active Galactic Nuclei. *J. E. Conway, S. T. Myers, T. J. Pearson, A. C. S. Readhead, S. C. Unwin, & W. Xu.* 425, 568, 88-F10 (1994)

Is the High-Energy Emission from Centaurus A Compton-scattered Jet Radiation? *J. G. Skibo, C. D. Dermer, & R. L. Kinzer.* 426, L23, 103-C11 (1994)

Morphological Changes in the NGC 6251 Jet. *Dayton L. Jones & Ann E. Wehrle.* 427, 221, 112-F9 (1994)

Magnetic Energy Dissipation via Reconnective Relaxation in Astrophysical Jets. *G. E. Vekstein, E. R. Priest, & C. D. C. Steele.* 92, 111, 32-F13 (1994)

Compton Cooling of Jets as the Origin of Radio-quiet Quasars. *Aneta Siemiginowska & Martin Elvis.* 92, 603, 39-G11 (1994)

Relativistic Jets in Blazars: Polarization of Radiation. *Juri Poutanen.* 92, 607, 40-A2 (1994)

Interaction of Ultraviolet and X-Ray Radiation with Gamma Rays Produced by a Jet in Active Galactic Nuclei. *Magda Zbyszewska.* 92, 615, 40-A12 (1994)

Magnetically Driven Jets and Winds: Exact Solutions. *J. Contopoulos & R. V. E. Lovelace.* 429, 139, 145-G7 (1994)

Energetic and Radiative Constraints on Highly Relativistic Jets. *Mitchell C. Begelman, Martin J. Rees, & Marek Sikora.* 429, L57, 157-G13 (1994)

Discovery of a Nuclear Counterjet in NGC 1275: A New Way to Probe the Parsec-Scale Environment. *R. C. Vermeulen, A. C. S. Readhead, & D. C. Backer.* 430, L41, 165-F7 (1994)

Detection of a VLBI Counterjet in NGC 1275: A Possible Probe of the Parsec-Scale Accretion Region. *R. C. Walker, J. D. Romney, & J. M. Benson.* 430, L45, 165-F13 (1994)

Superluminal Motion Statistics and Cosmology. *R. C. Vermeulen & M. H. Cohen.* 430, 467, 167-E3 (1994)

Radio and X-Ray Observations of the Gamma-Ray Bright Quasar PKS 0528+134. *Yun Fei Zhang, Alan P. Marscher, Hugh D. Aller, Margo F. Aller, Harri Teräsranta, & Esko Valtaoja.* 432, 91, 194-D1 (1994)

Inverse-Compton X-Ray Emission from the Superluminal Quasar 3C 345. *S. C. Unwin, A. E. Wehrle, C. M. Urry, D. M. Gilmore, E. J. Barton, B. C. Kjerulf, J. A. Zensus, & C. R. Rabaça.* 432, 103, 194-E1 (1994)

The Unusual Tail of the Tornado Nebula. *R. T. Stewart, R. F. Haynes, A. D. Gray, & W. Reich.* 432, L39, 199-F2 (1994)

Magnetically Driven Relativistic Jets and Winds: Exact Solutions. *J. Contopoulos.* 432, 508, 202-C7 (1994)

Hubble Space Telescope Imaging of the Seyfert 2 Galaxy NGC 2110. *John S. Mulchaey, Andrew S. Wilson, Gary A. Bower, Timothy M. Heckman, Julian H. Krolik, & George K. Miley.* 433, 625, 218-F10 (1994)

Disk-driven Hydromagnetic Winds as a Key Ingredient of Active Galactic Nuclei Unification Schemes. *Arieh Königl & John F. Kartje.* 434, 446, 233-G9 (1994)

Simultaneous Synchrotron and Adiabatic Effects in Multiply Shocked Jets in Extended Extragalactic Radio Sources. *Ifeanyi E. Ekejiuba, Paul J. Wiita, & Richard A. Frazin.* 434, 503, 234-F1 (1994)

VLBI Observations of a Complete Sample of Radio Galaxies. IV. The Radio Galaxies NGC 2484, 3C 109, and 3C 382. *G. Giovannini, L. Feretti, T. Venturi, L. Lara, J. Marcaide, M. Rioja, S. R. Spangler, & A. E. Wehrle.* 435, 116, 245-A1 (1994)

The 1993 Multiwavelength Campaign on 3C 279: The Radio to Gamma-Ray Energy Distribution in Low State. *L. Maraschi, P. Grandi, C. M. Urry, A. E. Wehrle, G. M. Madejski, H. H. Fink, G. Ghisellini, R. C. Hartman, A. P. Koratkar, C. von Montigny, E. Pian, H. C. Thomas, A. Treves, M. F. Aller, H. D. Aller, C. D. Bailyn, T. J. Balonek, H. Bock, W. Collmar, I. S. Glass, S. J. Litchfield, I. M. McHardy, R. Méndez, J. Pesce, H. P. Reuter, E. I. Robson, H. Steppe, J. A. Stevens, H. Teräsranta, & S. J. Wagner.* 435, L91, 259-D8 (1994)

Why Do Head-Tail Sources Exist in Poor Clusters of Galaxies? *T. C. A. Venkatesan, David J. Batuski, Robert J. Hanisch, & Jack O. Burns.* 436, 67, 262-B8 (1994)

A Unified Relativistic Beaming Model for BL Lacertae Objects and Flat Spectrum Radio Quasars. *Laura Maraschi & Fausto Rovetti.* 436, 79, 262-C13 (1994)

Simulations of Relativistic Extragalactic Jets. *G. Comer Duncan & Philip A. Hughes.* 436, L119, 280-G1 (1994)

Multifrequency Observations of Blazars. V. Long-Term Millimeter, Submillimeter, and Infrared Monitoring. *J. A. Stevens, S. J. Litchfield, E. I. Robson, D. H. Hughes, W. K. Gear, H. Teräsranta, E. Valtaoja, & M. Tornikoski.* 437, 91, 284-F1 (1994)

Evolution of the Parsec-Scale Linear Polarization Structure of the Superluminal Quasar 3C 345. *L. F. Brown, D. H. Roberts, & J. F. C. Wardle.* 437, 108, 284-F7 (1994)

Implosive Accretion and Outbursts of Active Galactic Nuclei. *R. V. E. Lovelace, M. M. Romanova, & W. I. Newman.* 437, 136, 285-A13 (1994)

A Helical Jet in the Orthogonally Misaligned BL Lacertae Object Markarian 501 (B1652+398). *J. E. Conway & J. M. Wrobel.* 439, 98, 22-E3 (1995)

Magnetohydrodynamic Simulations of Outflows from Accretion Disks. *G. V. Ustyugova, A. V. Koldoba, M. M. Romanova, V. M. Chechetkin, & R. V. E. Lovelace.* 439, L39, 40-C3 (1995)

Hot Shocked Gas along the Jets of NGC 4258 (M106). *G. Cecil, A. S. Wilson, & C. De Pree.* 440, 181, 43-F3 (1995)

Pair Cascades in Extragalactic Jets. I. Gamma Rays. *R. D. Blandford & A. Levinson.* 441, 79, 60-D11 (1995)

Relativistic Hadrons and the Origin of Relativistic Outflows in Active Galactic Nuclei. *John Contopoulos & Demosthenes Kazanas.* 441, 521, 69-C2 (1995)

Simulation of the Instability of Mach 2 and Mach 4 Gaseous Jets in Two and Three Dimensions. *Gene M. Bassett & Paul R. Woodward.* 441, 582, 70-B1 (1995)

The Parsec-Scale Jet in Quasar 3C 345. *J. Anton Zensus, Marshall H. Cohen, & Stephen C. Unwin.* 443, 35, 95-F9 (1995)

Blue Lobes in the Hydra A Cluster Central Galaxy. *Brian R. McNamara.* 443, 77, 96-C8 (1995)

New Superluminal Quasar 1633+382 and the Blazar–Gamma-Ray Connection. *P. D. Barthel, J. E. Conway, S. T. Myers, T. J. Pearson, & A. C. S. Readhead.* 444, L21, 121-D8 (1995)

Optical Continuum Signature of the Jet in the Spiral Galaxy NGC 4258. *Yvan Dutil, Dominique Beauchamp, & Jean-René Roy.* 444, L85, 130-E8 (1995)

Radio Jet Propagation and Wide-Angle Tailed Radio Sources in Merging Galaxy Cluster Environments. *Chris Loken, Kurt Roettiger, Jack O. Burns, & Michael Norman.* 445, 80, 133-D11 (1995)

Force-free Self-similar Magnetically Driven Relativistic Jets. *J. Contopoulos.* 446, 67, 154-B9 (1995)

On the Origin of Blue Lobes in Central Cooling Flow Galaxies. *David S. De Young.* 446, 521, 163-C7 (1995)

The Extreme Ultraviolet Spectrum of the BL Lacertae Object PKS 2155−304. *Arieh Königl, John F. Kartje, Stuart Bowyer, Steven M. Kahn, & Chorng-Yuan Hwang.* 446, 598, 164-D1 (1995)

The Nuclear Structure of NGC 3079. *Willem A. Baan & Judith A. Irwin.* 446, 602, 164-D9 (1995)

Optical Structure and Polarization of the Western Hot Spot of Pictor A. *R. C. Thomson, P. Crane, & C. D. Mackay.* 446, L93, 171-B12 (1995)

Two Classes of Gamma-Ray–emitting Active Galactic Nuclei. *Charles D. Dermer & Neil Gehrels.* 447, 103, 173-E7 (1995)

Detection of Proper Motions in the M87 Jet. *J. A. Biretta, F. Zhou, & F. N. Owen.* 447, 582, 183-G6 (1995)

Constraints on the Parsec-Scale Environment in NGC 1275. *A. Levinson, A. Laor, & R. C. Vermeulen.* 448, 589, 202-G4 (1995)

The Morphology of the Narrow-Line Region of Markarian 3. *A. Capetti, F. Macchetto, D. J. Axon, W. B. Sparks, & A. Boksenberg.* 448, 600, 203-A4 (1995)

Morphology and Dynamics of Highly Supersonic Relativistic Jets. *J. M^a. Martí, E. Müller, J. A. Font, & J. M^a. Ibá nez.* 448, L105, 209-D1 (1995)

Pair Cascades in Extragalactic Jets. II. The Beamed X-Ray Spectrum. *Amir Levinson & Roger Blandford.* 449, 86, 211-D2 (1995)

The X-Ray Environment of the Dumbbell Radio Galaxy NGC 326. *D. M. Worrall, M. Birkinshaw, & R. A. Cameron.* 449, 93, 211-D13 (1995)

Destabilization of Strongly Magnetized Jets. *Philip E. Hardee & David A. Clarke.* 449, 119, 211-G4 (1995)

Parsec-Scale Synchrotron Emission from Hydrodynamic Relativistic Jets in Active Galactic Nuclei. *J. L. Gómez, J. M^a. Martí, A. P. Marscher, J. M^a. Ibáñez, & J. M. Marcaide.* 449, L19, 216-C3 (1995)

A Simple Type of Magnetically Driven Jets: An Astrophysical Plasma Gun. *J. Contopoulos.* 450, 616, 239-C12 (1995)

Discovery of an Optical Synchrotron Jet in 3C 78. *William B. Sparks, Daniel Golombek, Stefi A. Baum, John Biretta, Sigrid de Koff, Ferdinando Macchetto, Patrick McCarthy, & George K. Miley.* 450, L55, 244-F1 (1995)

The Central Regions of NGC 4691: A Remarkable Structure with a Fast Outflow near the Nucleus. *J. A. García-Barreto, J. Franco, J. Guichard, & R. Carrillo.* 451, 156, 248-B13 (1995)

Emission and Dynamics of a Heavy Three-dimensional Magnetized Jet. *Philip E. Hardee & David A. Clarke.* 451, L25, 252-D11 (1995)

Detection of a Faint Optical Jet in 3C 120. *Jens Hjorth, Marianne Vestergaard, Anton N. Sørensen, & Frank Grundahl.* 452, L17, 269-E3 (1995)

Mass Flux and Terminal Velocities of Magnetically Driven Jets from Accretion Disks. *Takahiro Kudoh & Kazunari Shibata.* 452, L41, 270-B1 (1995)

VLBI Observations of a Complete Sample of Radio Galaxies. V. 3C 346 and 4C 31.04: Two Unusual Compact Steep Spectrum Sources. *W. D. Cotton, L. Feretti, G. Giovannini, T. Venturi, L. Lara, J. Marcaide, & A. E. Wehrle.* 452, 605, 273-A6 (1995)

Spectral Evidence for Shock-ionized Gas along the Jets of NGC 4258. *Gerald Cecil, Jon A. Morse, & Sylvain Veilleux.* 452, 613, 273-B4 (1995)

A Signature of Relativistic Electron-Positron Beams in BL Lacertae Objects. *G. Z. Xie, B. F. Liu, & J. C. Wang.* 454, 50, 299-G9 (1995)

Radio and Emission-Line Jets in the Type 2 Seyfert Galaxy Markarian 1066 (UGC 2456). *Gary Bower, Andrew Wilson, Jon A. Morse, Richard Gelderman, Mark Whittle, & John Mulchaey.* 454, 106, 300-F4 (1995)

Relativistic Jets and the Fanaroff-Riley Classification of Radio Galaxies. *Geoffrey V. Bicknell.* 101, 29, 53-D4 (1995)

Powerful Extended Radio Sources as Tools to Estimate Ambient Gas Densities, Jet Luminosities, and Other Key Physical Parameters. *Ruth A. Daly.* 454, 580, 309-E1 (1995)

VLBI Observations of a Complete Sample of Radio Galaxies. VI. The Two FR I Radio Galaxies B2 0836+29 and 3C 465. *T. Venturi, C. Casaldini, W. D. Cotton, L. Feretti, G. Giovannini, L. Lara, J. M. Marcaide, & A. E. Wehrle.* 454, 735, 311-G7 (1995)

The Emission-Line Jet in Markarian 6. *A. Capetti, D. J. Axon, M. Kukula, F. Macchetto, A. Pedlar, W. B. Sparks, & A. Boksenberg.* 454, L85, 315-D9 (1995)

High-Energy Gamma Rays from PKS 1406−076 and the Observation of Correlated Gamma-Ray and Optical Emission. *Stefan J. Wagner, John R. Mattox, Ulrich Hopp, H. Bock, J. Heidt, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, P. Sreekumar, & D. J. Thompson.* 454, L97, 315-F4 (1995)

GALAXIES: KINEMATICS AND DYNAMICS

Stellar Population–induced Peculiar Velocities of Elliptical Galaxies. *Michael D. Gregg.* 384, 43, 1-E5 (1992)

Elliptical Galaxies with Dark Matter. I. Self-consistent Models. *G. Bertin, R. P. Saglia, & M. Stiavelli.* 384, 423, 7-D9 (1992)

Elliptical Galaxies with Dark Matter. II. Optimal Luminous–Dark Matter Decomposition for a Sample of Bright Objects. *R. P. Saglia, G. Bertin, & M. Stiavelli.* 384, 433, 7-E7 (1992)

The Orbital Structure of Galactic Halos. *Joanna F. Lees & M. Schwarzschild.* 384, 491, 8-C1 (1992)

Ring Structure in Disk Galaxies. *C. E. Zaspel.* 385, 83, 13-A11 (1992)

Gas Clouds from Tidally Disrupted Stars in Active Galactic Nuclei. *Nico Roos.* 385, 108, 13-C11 (1992)

Projections of Box-shaped Galaxies. *Barbara S. Ryden.* 386, 42, 24-E10 (1992)

Anisotropic Ionizing Radiation in Seyfert Galaxies. I. The Extended Narrow-Line Region in Markarian 573. *Zlatan Tsvetanov & J. R. Walsh.* 386, 485, 31-D5 (1992)

The Central Velocity Dispersion of the Lensing Galaxy in the Quadruple Lens System Q2237+0305. *Craig B. Foltz, Paul C. Hewett, Rachel L. Webster, & Geraint F. Lewis.* 386, L43, 36-C1 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. II. Galaxy Rotation as Virial Parameter. *Mark Whittle.* 387, 109, 38-D2 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. III. Galaxy Luminosity as Virial Parameter. *Mark Whittle.* 387, 121, 38-E1 (1992)

The Structure and Dynamics of the Gaseous and Stellar Components in Centaurus A. *Richard A. Nicholson, Jonathan Bland-Hawthorn, & Keith Taylor.* 387, 503, 45-A1 (1992)

Optical Tracers of Spiral Wave Resonances in Galaxies. II. Hidden Three-Arm Spirals in a Sample of 18 Galaxies. *Bruce G. Elmegreen, Debra Meloy Elmegreen, & Luis Montenegro.* 79, 37, 12-E9 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. I. A Compilation of Narrow Line Region and Host Galaxy Properties. *Mark Whittle.* 79, 49, 13-A9 (1992)

Equilibrium Stellar Systems with Spindle Singularities. *Stuart L. Shapiro & Saul A. Teukolsky.* 388, 287, 53-G10 (1992)

Fabry-Perot Images of NGC 1275 and Its Puzzling High-Velocity System. *Adeline Caulet, Bruce E. Woodgate, Larry W. Brown, Theodore R. Gull, Paul Hintzen, James D. Lowenthal, Ronald J. Oliversen, & Michael M. Ziegler.* 388, 301, 54-A12 (1992)

Warm Molecular Gas in the Nucleus of IC 342: The CO ($J = 3 \rightarrow 2$) Distribution. *Judith A. Irwin & L. W. Avery.* 388, 328, 54-D7 (1992)

Galactic Disks, Infall, and the Global Value of Ω. *G. Tóth & J. P. Ostriker.* 389, 5, 60-B6 (1992)

Triaxial Galaxy Models with Thin Tube Orbits. *C. Hunter & P. T. de Zeeuw.* 389, 79, 61-B1 (1992)

A Rotating Stäckel Potential. *G. Contopoulos & Peter O. Vandervoort.* 389, 118, 61-E1 (1992)

Dynamics of Ultraharmonic Resonances in Spiral Galaxies. *Paweł Artymowicz & Stephen H. Lubow.* 389, 129, 61-F1 (1992)

No Back-Side Infall into the Great Attractor. *D. S. Mathewson, V. L. Ford, & M. Buchhorn.* 389, L5, 66-B6 (1992)

Cooling and the Longevity of Polar Rings. *Neal Katz & Hans-Walter Rix.* 389, L55, 73-C3 (1992)

The Braided Jets in the Spiral Galaxy NGC 4258. *Gerald Cecil, Andrew S. Wilson, & R. Brent Tully.* 390, 365, 79-G1 (1992)

Swing Amplification of Nonaxisymmetric Perturbations in Stars and Gas in a Sheared Galactic Disk. *Chanda J. Jog.* 390, 378, 80-B1 (1992)

The Kinematics of the Molecular Gas in Centaurus A. *A. C. Quillen, P. T. de Zeeuw, E. S. Phinney, & T. G. Phillips.* 391, 121, 87-D13 (1992)

Inferring the Mass of Spherical Stellar Systems from Velocity Moments. *Herwig Dejonghe & David Merritt.* 391, 531, 94-E6 (1992)

Elongated Disks and the Scatter in the Tully-Fisher Relation. *Marijn Franx & Tim de Zeeuw.* 392, L47, 113-B1 (1992)

Transformations of Galaxies. I. Mergers of Equal-Mass Stellar Disks. *Joshua E. Barnes.* 393, 484, 121-G9 (1992)

Off-Center Nuclei in Galaxies. *R. H. Miller & B. F. Smith.* 393, 508, 122-B7 (1992)

The Tully-Fisher Relation for the CO Line. *John M. Dickey & Ilya Kazès.* 393, 530, 122-D5 (1992)

The Evolutionary History of the Interacting Galaxy System NGC 7714/7715 (Arp 284). *Beverly J. Smith & John F. Wallin.* 393, 544, 122-E7 (1992)

Evidence for a Supermassive Black Hole in NGC 3115. *John Kormendy & Douglas Richstone.* 393, 559, 122-G1 (1992)

The Kinematics of the Extended Gas in the Seyfert Galaxy NGC 3516. *John S. Mulchaey, Zlatan Tsvetanov, Andrew S. Wilson, & Ismael Pérez-Fournon.* 394, 91, 129-B11 (1992)

Cospatial Counterrotating Stellar Disks in the Virgo E7/S0 Galaxy NGC 4550. *Vera C. Rubin, J. A. Graham, & Jeffrey D. P. Kenney.* 394, L9, 133-B7 (1992)

The Kinematics of Planetary Nebulae in the Outer Fields of the Large Magellanic Cloud. *E. Vassiliadis, Stephen J. Meatheringham, & Michael A. Dopita.* 394, 489, 135-D7 (1992)

Dynamical Evolution of Highly Inclined Rings. *Dimitris M. Christodoulou, Neal Katz, Hans-Walter Rix, & Asao Habe.* 395, 113, 141-E1 (1992)

The Potential Energy Tensors for Subsystems. *R. Caimmi & L. Secco.* 395, 119, 141-E11 (1992)

Peculiar Rotations of Molecular Gas in M82: Keplerian Disk and Slowly Rotating Halo. *Y. Sofue, H.-P. Reuter, M. Krause, R. Wielebinski, & N. Nakai.* 395, 126, 141-F5 (1992)

A Dynamical Analysis of the Barred Spiral Galaxy NGC 3359. *Roger Ball.* 395, 418, 147-E5 (1992)

Twin Peaks of CO Emission in the Central Regions of Barred Galaxies. *Jeffrey D. P. Kenney, Christine D. Wilson, Nick Z. Scoville, Nicholas A. Devereux, & Judith S. Young.* 395, L79, 153-G5 (1992)

A Southern Sky Survey of the Peculiar Velocities of 1355 Spiral Galaxies. *D. S. Mathewson, V. L. Ford, & M. Buchhorn.* 81, 413, 41-B1 (1992)

Velocity Segregation in Galaxy Clusters. *A. Biviano, M. Girardi, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 396, 35, 155-E1 (1992)

The Ionization Cone, Obscured Nucleus, and Gaseous Outflow in NGC 3281: A Prototypical Seyfert 2 Galaxy? *Thaisa Storchi-Bergmann, Andrew S. Wilson, & Jack A. Baldwin.* 396, 45, 155-F1 (1992)

Properties of Galactic Halos in Spatially Flat Universes Dominated by Cold Dark Matter: Effects of Nonvanishing Cosmological Constant. *Tatsushi Suginohara & Yasushi Suto.* 396, 395, 162-C11 (1992)

The Intrinsic Shapes of Elliptical Galaxies. *Barbara S. Ryden.* 396, 445, 163-A5 (1992)

Peculiar Velocities of Clusters in the Perseus-Pisces Supercluster. *M. Han & J. R. Mould.* 396, 453, 163-B1 (1992)

Bidimensional Spectroscopy of the Central Kiloparsec of NGC 4151. *E. Mediavilla, S. Arribas, & J. L. Rasilla.* 396, 517, 164-A1 (1992)

Dwarf Spheroidal Galaxies and Non-Newtonian Gravity. *Ortwin E. Gerhard & David N. Spergel.* 397, 38, 168-E1 (1992)

Analytical Potentials for Barred Galaxies. *Kevin Long & Chigurupati Murali.* 397, 44, 168-E9 (1992)

Generalized Newtonian Force Law and Hidden Mass. *Richard L. Liboff.* 397, L71, 180-G1 (1992)

Kinematics of the Parsec-Scale Relativistic Jet in 3C 345. *Stephen C. Unwin & Ann E. Wehrle.* 398, 74, 183-A1 (1992)

The Estimation of Absolute Magnitude and Distance from the Tully-Fisher Relation. *Geoffrey V. Bicknell.* 399, 1, 195-B1 (1992)

A Model for Ring Galaxies: Arp 147–like Systems. *Richard A. Gerber, Susan A. Lamb, & Dinshaw S. Balsara.* 399, L51, 200-E10 (1992)

Dark Halos Formed via Dissipationless Collapse. I. Shapes and Alignment of Angular Momentum. *Michael S. Warren, Peter J. Quinn, John K. Salmon, & Wojciech H. Zurek.* 399, 405, 203-A11 (1992)

Dynamically Hot Galaxies. I. Structural Properties. *Ralf Bender, David Burstein, & S. M. Faber.* 399, 462, 203-F1 (1992)

Cold Dissipationless Collapse of Spherical Systems: Sensitivity to the Initial Density Law. *John K. Cannizzo & Timothy C. Hollister.* 400, 58, 209-F6 (1992)

Bar-Spheroid Interaction in Galaxies. *Lars Hernquist & Martin D. Weinberg.* 400, 80, 210-A6 (1992)

NGC 4550: A Laboratory for Testing Galaxy Formation. *Hans-Walter Rix, Marijn Franx, David Fisher, & Garth Illingworth.* 400, L5, 214-B1 (1992)

The Opacity of Spiral Disks. *A. Bosma, Y. Byun, K. C. Freeman, & E. Athanassoula.* 400, L21, 214-C10 (1992)

On the Amplification of Large-Scale Magnetic Fields in Spiral Galaxies by Galactic Winds. *S. J. Spencer & L. E. Cram.* 400, 484, 216-C12 (1992)

Are Cluster Ellipticals the Products of Mergers? *Gary A. Mamon.* 401, L3, 227-A10 (1992)

Cosmological Tidal Shear. *John Dubinski.* 401, 441, 228-B12 (1992)

The External Origin of the Gas in S0 Galaxies. *F. Bertola, L. M. Buson, & W. W. Zeilinger.* 401, L79, 233-A12 (1992)

A Search for Dead Quasars among Nearby Luminous Galaxies. I. The Stellar Kinematics in the Nuclei of NGC 2613, NGC 4699, NGC 5746, and NGC 7331. *Gary A. Bower, Douglas O. Richstone, Gregory D. Bothun, & Timothy M. Heckman.* 402, 76, 2-A12 (1993)

Fast Rotation in the Nuclear Region of the Galaxy NGC 1808. *Bärbel Koribalski, John M. Dickey, & Ulrich Mebold.* 402, L41, 12-D9 (1993)

Heating of Galactic Disks by Mergers. *P. J. Quinn, Lars Hernquist, & D. P. Fullagar.* 403, 74, 15-A3 (1993)

Dynamical Evolution of Gaseous Disks in Halo Potentials. I. Massless Rings in Static, Spheroidal Halos. *Dimitris M. Christodoulou & Joel E. Tohline.* 403, 110, 15-D5 (1993)

Stellar Dynamical Evidence for Dark Halos in Elliptical Galaxies: The Case of NGC 4472, IC 4296, and NGC 7144. *R. P. Saglia, G. Bertin, F. Bertola, J. Danziger, H. Dejonghe, E. M. Sadler, M. Stiavelli, P. T. de Zeeuw, & W. W. Zeilinger.* 403, 567, 22-F1 (1993)

Do Rotation Curves of Spiral Galaxies in Clusters Decline? *P. Amram, W. T. Sullivan III, C. Balkowski, M. Marcelin, & V. Cayatte.* 403, L59, 27-C1 (1993)

Multiple Equilibria and Free Energy for Rotating, Self-gravitating Fluid Bodies. *Elizabeth A. Praton & Jennie Traschen.* 404, 63, 28-G1 (1993)

Orbital Deflections in *N*-Body Systems. *Siqin Huang, John Dubinski, & R. G. Carlberg.* 404, 73, 29-A1 (1993)

Gravitational Microlensing: The Effect of Random Motion of Individual Stars in the Lensing Galaxy. *Tomislav Kundić & Joachim Wambsganss.* 404, 455, 34-F1 (1993)

The Nature and Structure of Active Galactic Nuclei. *Donald E. Osterbrock.* 404, 551, 35-G7 (1993)

High-Resolution Study of Luminous Infrared Galaxies. I. The Composite Nature of the Seyfert 1 Galaxy IRAS 20044−6114 (NGC 6860). *Sebastian Lipari, Zlatan Tsvetanov, & F. Macchetto.* 405, 186, 43-D3 (1993)

A Measurement of Ω_0 from the Internal Dynamics of Spiral Galaxies. *Paolo Salucci, Massimo Persic, & Stefano Borgani.* 405, 459, 48-G1 (1993)

Spiral Structure of the Giant Galaxy UGC 2885: Hα Kinematics. *Blaise Canzian, R. J. Allen, & R. P. J. Tilanus.* 406, 457, 63-D7 (1993)

Heterogenous Array Observations of IC 342: The CO Isotopic Ratio. *M. C. H. Wright, S. Ishizuki, J. L. Turner, P. T. P. Ho, & K. Y. Lo.* 406, 470, 63-E10 (1993)

The Im/dE,N Mixed Morphology Dwarf ESO 359-G29 as a Probe of a Massive Halo in NGC 1532. *Allan Sandage & Edward Fomalont.* 407, 14, 69-C1 (1993)

Relativistic Bulk Motion in Active Galactic Nuclei. *G. Ghisellini, P. Padovani, A. Celotti, & L. Maraschi.* 407, 65, 70-A1 (1993)

Kinematics of an "E+A" Galaxy in Abell 665 at $z = 0.18$. *Marijn Franx.* 407, L5, 75-B1 (1993)

A New Method for the Identification of Non-Gaussian Line Profiles in Elliptical Galaxies. *Roeland P. van der Marel & Marijn Franx.* 407, 525, 77-B5 (1993)

The Stellar Velocity Dispersion in the Nucleus of M82. *Niall I. Gaffney, Dan F. Lester, & C. M. Telesco.* 407, L57, 82-C6 (1993)

Compressive Tidal Heating of a Disk Galaxy in a Rich Cluster. *Monica Valluri.* 408, 57, 83-G1 (1993)

Flow Dynamics and Bending of Wide-Angle Tailed Radio Sources. *Aileen A. O'Donoghue, Jean A. Eilek, & Frazer N. Owen.* 408, 428, 90-E1 (1993)

Softening in *N*-Body Simulations of Collisionless Systems. *Charles C. Dyer & Peter S. S. Ip.* 409, 60, 97-F7 (1993)

Self-consistent Models for Triaxial Galaxies with Flat Rotation Curves: The Disk Case. *Konrad Kuijken.* 409, 68, 97-G1 (1993)

Mapping Spherical Potentials with Discrete Radial Velocities. *David Merritt & Prasenjit Saha.* 409, 75, 97-G10 (1993)

Galactic Bars with Central Mass Concentrations: Three-dimensional Dynamics. *Hashima Hasan, Daniel Pfenniger, & Colin Norman.* 409, 91, 98-B1 (1993)

The Velocity Dispersion of the Caustic Network Due to Random Motion of Individual Stars in the Lensing Galaxy. *Tomislav Kundić, Hans J. Witt, & Kyongae Chang.* 409, 537, 105-E13 (1993)

Structure of Merger Remnants. II. Progenitors with Rotating Bulges. *Lars Hernquist.* 409, 548, 105-F12 (1993)

Self-consistent Models for Galactic Halos. *Martin Schwarzschild.* 409, 563, 106-A3 (1993)

The Peculiar Balmer Line Profiles of OQ 208. *P. Marziani, J. W. Sulentic, M. Calvani, E. Perez, M. Moles, & M. V. Penston.* 410, 56, 112-G4 (1993)

Density Wave Kinematics and Giant Molecular Association Formation in M51. *Richard J. Rand.* 410, 68, 113-A3 (1993)

Nonlocal and Collective Relaxation in Stellar Systems. *Martin D. Weinberg.* 410, 543, 120-D8 (1993)

The Circumnuclear Region of NGC 5728. *S. Arribas & E. Mediavilla.* 410, 552, 120-E5 (1993)

Hydrodynamic Models of the Cartwheel Ring Galaxy. *Curtis Struck-Marcell & James L. Higdon.* 411, 108, 128-D7 (1993)

A General Relativistic Hydrostatic Model for a Galaxy. *Roberto Hojman, Leda Peña, & Nelson Zamorano.* 411, 541, 136-D3 (1993)

Subparsec-Scale Radio Structure in NGC 1275: Complex Structure in the Vicinity of the Central Engine. *T. Venturi, A. C. S. Readhead, J. M. Marr, & D. C. Backer.* 411, 552, 136-E2 (1993)

A Model for the Vertical Distribution of Stars in Disk Galaxies. *James B. Dove & Harley A. Thronson, Jr.* 411, 632, 137-E7 (1993)

The Mass Distribution in a Merger Model. *Nir J. Shaviv & Giora Shaviv.* 412, L25, 148-C11 (1993)

Rotation Curves from Baryonic Infall: Dependence on Disk-to-Halo Ratio, Initial Angular Momentum, and Core Radius, and Comparison with Data. *Ricardo Flores, Joel R. Primack, George R. Blumenthal, & S. M. Faber.* 412, 443, 149-B1 (1993)

The Warped Disk of Centaurus A in the Near-Infrared. *A. C. Quillen, James R. Graham, & Jay A. Frogel.* 412, 550, 150-E7 (1993)

The Angular Momentum Behavior in the Dissipationless Collapse of Triaxial Systems. *Anna Curir, Antonaldo Diaferio, & Fernando de Felice.* 413, 70, 157-A6 (1993)

Dynamical Mapping of Hot Stellar Systems. *David Merritt.* 413, 79, 157-B3 (1993)

The Molecular Gas and Star Formation in *IRAS* Bright Early-Type Disk Galaxies. I. NGC 7625. *Jonathan G. Li, E. R. Seaquist, J. M. Wrobel, Zhong Wang, & L. J. Sage.* 413, 150, 158-A6 (1993)

Interaction of NGC 2276 with the NGC 2300 Group: Fabry-Perot Observations of the Hα Velocity Field. *Robert A. Gruendl, Stuart N. Vogel, David S. Davis, & John S. Mulchaey.* 413, L81, 168-D10 (1993)

Sharp Edges to Neutral Hydrogen Disks in Galaxies and the Extragalactic Radiation Field. *Philip Maloney.* 414, 41, 170-E8 (1993)

Analysis of the Distribution of Pitch Angles in Model Galactic Disks: Numerical Methods and Algorithms. *William S. Russell & William W., Jr. Roberts.* 414, 86, 171-B5 (1993)

Effects of Gas on the Global Stability of Galactic Disks: Radial Flows. *Isaac Shlosman & Masafumi Noguchi.* 414, 474, 177-B2 (1993)

A New Way to Locate Corotation Resonances in Spiral Galaxies. *Blaise Canzian.* 414, 487, 177-C4 (1993)

Shock Excitation of the Emission-Line Filaments in Centaurus A. *Ralph S. Sutherland, Geoffrey V. Bicknell, & Michael A. Dopita.* 414, 510, 177-E7 (1993)

The Evolution of the Globular Cluster System in a Triaxial Galaxy: Can a Galactic Nucleus Form by Globular Cluster Capture? *Roberto Capuzzo-Dolcetta.* 415, 616, 195-D13 (1993)

The Rotation Curves of Galaxies at Intermediate Redshift. *Nicole P. Vogt, Terry Herter, Martha P. Haynes, & Stéphane Courteau.* 415, L95, 199-G11 (1993)

Kinematical Modeling of Warps in the H I Disks of Galaxies. *Dimitris M. Christodoulou, Joel E. Tohline, & Thomas Y. Steiman-Cameron.* 416, 74, 202-A7 (1993)

Bending Instabilities in Galaxy Merger Remnants. *Lars Hernquist, Jeremy S. Heyl, & David N. Spergel.* 416, L9, 207-B13 (1993)

Star Formation in the Spiral Arms of NGC 4321. II. H I Distribution and Kinematics. *Johan H. Knapen, Jordi Cepa, John E. Beckman, M. Soledad del Rio, & Alan Pedlar.* 416, 563, 210-D1 (1993)

Dark Matter Halos in Elliptical Galaxies. *Francesco Bertola, Alessandro Pizzella, Massimo Persic, & Paolo Salucci.* 416, L45, 216-B1 (1993)

Using the Schrödinger Equation to Simulate Collisionless Matter. *Lawrence M. Widrow & Nick Kaiser.* 416, L71, 216-D6 (1993)

Can the Dark Matter be 10^6 Solar Mass Objects? *Hans-Walter Rix & George Lake.* 417, L1, 222-F1 (1993)

A Simulation Atlas of Tidal Features in Galaxies. *Sethanne Howard, William C. Keel, Gene Byrd, & Jordan Burkey.* 417, 502, 225-E8 (1993)

The Structure and Dynamics of Elliptical Galaxies in Compact Groups. *Stephen E. Zepf & Bradley C. Whitmore.* 418, 72, 232-A7 (1993)

Spectroscopy of Giants in the Sextans Dwarf Spheroidal Galaxy. *Nicholas B. Suntzeff, Mario Mateo, Donald M. Terndrup, Edward W. Olszewski, Doug Geisler, & W. Weller.* 418, 208, 233-E12 (1993)

Molecular Gasdynamics of the Young Nuclear Starburst in the Barred Galaxy NGC 3504. *Jeffrey D. P. Kenney, John E. Carlstrom, & Judith S. Young.* 418, 687, 241-A13 (1993)

Linear Potentials and Galactic Rotation Curves. *Philip D. Mannheim.* 419, 150, 248-A8 (1993)

On the Wave Excitation and a Generalized Torque Formula for Lindblad Resonances Excited by External Potential. *Paweł Artymowicz.* 419, 155, 248-B1 (1993)

Dynamical Instabilities in Hollow Halo Models. *Joshua E. Barnes.* 419, L17, 252-C11 (1993)

Steadily Rotating Perfect-Fluid Gravitating Prolate Spheroids in Newtonian Theory. *P. S. Florides & N. K. Spyrou.* 419, 541, 254-E1 (1993)

Evolution in Dust Lane Ellipticals: Detection of Accreted Molecular Gas. *Leslie J. Sage & Giuseppe Galletta.* 419, 544, 254-E5 (1993)

Counterrotating Gaseous Disks in NGC 4826. *Robert Braun, René A. M. Walterbos, Robert C. Kennicutt, Jr., & Linda J. Tacconi.* 420, 558, 9-E6 (1994)

Separatrix Crossing and the Enigma of NGC 4550. *N. W. Evans & J. L. Collett.* 420, L67, 15-C13 (1994)

Weakly Damped Modes in Star Clusters and Galaxies. *Martin D. Weinberg.* 421, 481, 24-B9 (1994)

The Velocity Dispersion of Globular Clusters in NGC 1399. *Carl J. Grillmair, K. C. Freeman, G. V. Bicknell, D. Carter, Warrick J. Couch, J. Sommer-Larsen, & K. Taylor.* 422, L9, 36-C3 (1994)

Neutral Hydrogen Absorption in NGC 1068 and NGC 3079. *J. F. Gallimore, S. A. Baum, C. P. O'Dea, E. Brinks, & A. Pedlar.* 422, L13, 36-C9 (1994)

An H I Survey of High-Velocity Clouds in Nearby Disk Galaxies. *Eric Schulman, Joel N. Bregman, & Morton S. Roberts.* 423, 180, 48-C9 (1994)

Extraplanar Emission-Line Gas in NGC 891. *Rachel A. Pildis, Joel N. Bregman, & James M. Schombert.* 423, 190, 48-D7 (1994)

Wavelength-dependent Kinematics in the Dusty Inclined Galaxy NGC 2146. *F. Prada, J. E. Beckman, C. D. McKeith, J. Castles, & A. Greve.* 423, L35, 53-E8 (1994)

Orbital Evolution of Bodies Crossing Disks Due to Density and Bending Wave Excitation. *Pawel Artymowicz.* 423, 581, 55-F8 (1994)

Fueling Nuclear Activity in Disk Galaxies: Starbursts and Monsters. *Clayton H. Heller & Isaac Shlosman.* 424, 84, 63-B1 (1994)

Stability against Phase Mixing of Collisionless Self-gravitating Matter. *Jens Hjorth.* 424, 106, 63-C11 (1994)

The Influence of Bars on the Chemical Composition of Spiral Galaxies. *Pierre Martin & Jean-René Roy.* 424, 599, 72-B10 (1994)

Self-Gravity and Dissipation in Polar Rings. *John Dubinski & Dimitris M. Christodoulou.* 424, 615, 72-E3 (1994)

Uncovering the Intrinsic Shapes of Elliptical Galaxies. I. Theoretical Velocity Field Models. *Thomas S. Statler.* 425, 458, 87-D7 (1994)

Uncovering the Intrinsic Shapes of Elliptical Galaxies. II. Approximate Kinematic Shape Indicators. *Thomas S. Statler & Anne M. Fry.* 425, 481, 87-F7 (1994)

Uncovering the Intrinsic Shapes of Elliptical Galaxies. III. Practical Modeling. *Thomas S. Statler.* 425, 500, 88-A1 (1994)

Instabilities of Counterrotating Stellar Disks. *J. A. Sellwood & David Merritt.* 425, 530, 88-C5 (1994)

Bending Instabilities in Stellar Systems. *David Merritt & J. A. Sellwood.* 425, 551, 88-E5 (1994)

Bar-induced Velocities in the Bulge of M31. *Antony A. Stark & James Binney.* 426, L31, 103-D9 (1994)

Formation of a Retrograde Spiral Arm Induced by a Ram Pressure. *Makoto Tosa.* 426, L81, 109-E1 (1994)

Galaxies with Extreme Infrared and Fe II Emission. I. Markarian 231: The Signature of a Young Infrared QSO. *Sebastian Lípari, Luis Colina, & F. Macchetto.* 427, 174, 112-B12 (1994)

Modal Approach to the Morphology of Spiral Galaxies. III. Application to the Galaxy M81. *S. A. Lowe, W. W. Roberts, J. Yang, G. Bertin, & C. C. Lin.* 427, 184, 112-C11 (1994)

On the Sensitivity of the *N*-Body Problem toward Small Changes in Initial Conditions. IV. *Henry E. Kandrup, M. Elaine Mahon, & Haywood Smith, Jr.* 428, 458, 135-G12 (1994)

Time Evolution of Galactic Warps. *Peter Hofner & Linda S. Sparke.* 428, 466, 136-A8 (1994)

Flat Rotation Curves: A Result of the Helical Inverse Cascade in Turbulent Media? *R. D. Prabhu & V. Krishan.* 428, 483, 136-B13 (1994)

The Stability of Perfect Elliptic Disks. I. The Maximum Streaming Case. *Stephen E. Levine & Linda S. Sparke.* 428, 493, 136-D1 (1994)

Arcs and Bridges in the Interacting Galaxies NGC 5775/NGC 5774. *Judith A. Irwin.* 429, 618, 153-D7 (1994)

A Model for the Declining Rotation Curves of Cluster Spiral Galaxies. *Monica Valluri.* 430, 101, 160-C9 (1994)

Discovery of a Nuclear Counterjet in NGC 1275: A New Way to Probe the Parsec-Scale Environment. *R. C. Vermeulen, A. C. S. Readhead, & D. C. Backer.* 430, L41, 165-F7 (1994)

Dynamics and X-Ray Emission of a Galactic Superwind Interacting with Disk and Halo Gas. *Anatoly A. Suchkov, Dinshaw S. Balsara, Timothy M. Heckman, & Claus Leitherer.* 430, 511, 168-B5 (1994)

On the Influence of Bars and Star Formation on Galactic Abundance Gradients. *D. Friedli, W. Benz, & R. Kennicutt.* 430, L105, 174-F3 (1994)

Modes of Elliptical Galaxies. *Ue-Li Pen.* 431, 104, 177-D10 (1994)

The Structure and Evolution of Lyman-Alpha Forest Clouds in the Minihalo Model. *Avery Meiksin.* 431, 109, 177-E3 (1994)

Stellar Kinematics in the Nucleus of NGC 6240: A Massive Galaxy Revealed. *Dan F. Lester & Niall I. Gaffney.* 431, L13, 182-D7 (1994)

A Model for Collisionally Induced Disturbed Structure in Disk Galaxies. *Richard A. Gerber & Susan A. Lamb.* 431, 604, 186-B1 (1994)

The Effect of Dissipation on the Shapes of Dark Halos. *John Dubinski.* 431, 617, 186-C3 (1994)

Kinematic Misalignments in Remnants of Multiple Mergers. *Melinda L. Weil & Lars Hernquist.* 431, L79, 191-D3 (1994)

Testing for Interaction between the Galaxies NGC 450 and UGC 807. *Mariano Moles, Isabel Márquez, Josefa Masegosa, Ascensión del Olmo, Jaime Perea, & Halton Arp.* 432, 135, 194-G12 (1994)

Counterrotating Stars in the Disk of the Sab Galaxy NGC 7217. *Michael R. Merrifield & Konrad Kuijken.* 432, 575, 203-B6 (1994)

On the Stellar Kinematical Evidence for Massive Black Holes in Galactic Nuclei Expected with the *Hubble Space Telescope*. *Roeland P. van der Marel.* 432, L91, 206-F1 (1994)

The Nuclear Superbubble of NGC 3079. *S. Veilleux, G. Cecil, J. Bland-Hawthorn, R. B. Tully, A. V. Filippenko, & W. L. W. Sargent.* 433, 48, 208-G2 (1994)

A Comparison of Dynamical and Molecular Gas Masses in Very Luminous Infrared Galaxies. *L. M. Shier, M. J. Rieke, & G. H. Rieke.* 433, L9, 214-E3 (1994)

Generation of Spatial Structures by Nonlinear Mass-Exchange Processes in a Multicomponent Rotating Disk. *V. I. Korchagin & A. D. Ryabtsev.* 433, 520, 217-D9 (1994)

Narrow-Line Region Kinematics in Seyfert Nuclei. *David Moore & Ross D. Cohen.* 433, 602, 218-D13 (1994)

Observations and Models of the Sacred Mushroom: AM 1724−622. *John F. Wallin & Curtis Struck-Marcell.* 433, 631, 218-G8 (1994)

The Dynamical Survival of Small-Scale Substructure in Relaxed Galaxy Clusters. *Guillermo González-Casado, Gary A. Mamon, & Eduard Salvador-Solé.* 433, L61, 223-E3 (1994)

Spectropolarimetry of High-Polarization Seyfert 1 Galaxies: Geometry and Kinematics of the Scattering Regions. *R. W. Goodrich & J. S. Miller.* 434, 82, 226-C7 (1994)

Markarian 315: A Test Case for the Active Galactic Nucleus–Merger Hypothesis? *John W. MacKenty, Susan M. Simkin, Richard E. Griffiths, James S. Ulvestad, & Andrew S. Wilson.* 435, 71, 244-C3 (1994)

Interacting Binary Galaxies. VII. Kinematic Data for 12 Disturbed Ellipticals. *Kirk D. Borne, Marc Balcells, John G. Hoessel, & Matthew McMaster.* 435, 79, 244-D4 (1994)

Narrowband *HST* Images of M87: Evidence for a Disk of Ionized Gas around a Massive Black Hole. *Holland C. Ford, Richard J. Harms, Zlatan I. Tsvetanov, George F. Hartig, Linda L. Dressel, Gerard A. Kriss, Ralph C. Bohlin, Arthur F. Davidsen, Bruce Margon, & Ajay K. Kochhar.* 435, L27, 251-F11 (1994)

HST FOS Spectroscopy of M87: Evidence for a Disk of Ionized Gas around a Massive Black Hole. *Richard J. Harms, Holland C. Ford, Zlatan I. Tsvetanov, George F. Hartig, Linda L. Dressel, Gerard A. Kriss, Ralph Bohlin, Arthur F. Davidsen, Bruce Margon, & Ajay K. Kochhar.* 435, L35, 252-A3 (1994)

The Massive Halos of Spiral Galaxies. *Dennis Zaritsky & Simon D. M. White.* 435, 599, 254-D1 (1994)

Multiple High-Velocity Emission-Line Systems in the E+S Pair CPG 29. *P. Marziani, W. C. Keel, D. Dultzin-Hacyan, & J. W. Sulentic.* 435, 668, 255-C5 (1994)

The Dynamics of Luminous Galaxies in Isothermal Halos. *Christopher S. Kochanek.* 436, 56, 262-A8 (1994)

Slingshot Ejections from Clusters of Three and Four Black Holes. *M. J. Valtonen, S. Mikkola, P. Heinämäki, & H. Valtonen.* 95, 69, 65-B1 (1994)

The Flattened Dark Halo of Polar Ring Galaxy NGC 4650A: A Conspiracy of Shapes? *Penny D. Sackett, Hans-Walter Rix, Brian J. Jarvis, & Kenneth C. Freeman.* 436, 629, 274-C1 (1994)

Evidence for Axisymmetric Halos: The Case of IC 2006. *Marijn Franx, J. H. van Gorkom, & Tim de Zeeuw.* 436, 642, 274-D3 (1994)

Interpretation of VLBI Kinematic and Polarization Data: Application to 3C 345. *J. F. C. Wardle, T. V. Cawthorne, D. H. Roberts, & L. F. Brown.* 437, 122, 284-G10 (1994)

Complex Ionization Structure and Kinematics in the Circumnuclear Region of NGC 3227. *S. Arribas & E. Mediavilla.* 437, 149, 285-C4 (1994)

The Gravitational Potential of the Bar in NGC 4314. *A. C. Quillen, Jay A. Frogel, & Rosa A. González.* 437, 162, 285-D6 (1994)

Galactic Magnetism and the Rotation Curves of M31 and the Milky Way. *J. P. Vallée.* 437, 179, 285-F1 (1994)

The Masering Torus in NGC 4258. *Aubrey D. Haschick, Willem A. Baan, & Eric W. Peng.* 437, L35, 291-F6 (1994)

Rotating Cooling Flows. *Wilhelm Kley & William G. Mathews.* 438, 100, 2-F4 (1995)

Gas Filaments in the Collisional Debris of NGC 4438. *Jeffrey D. P. Kenney, Vera C. Rubin, Pere Planesas, & Judith S. Young.* 438, 135, 3-B10 (1995)

Placid Stars and Excited Gas in NGC 4826. *Hans-Walter R. Rix, Robert C. Kennicutt, Jr., Robert Braun, & Rene A. M. Walterbos.* 438, 155, 3-D9 (1995)

Pictor A: A New Double-peaked Emission-Line Quasar. *J. W. Sulentic, P. Marziani, T. Zwitter, & M. Calvani.* 438, L1, 9-E1 (1995)

Kinematics of 13 Brightest Cluster Galaxies. *David Fisher, Garth Illingworth, & Marijn Franx.* 438, 539, 11-F1 (1995)

Observations of the Impact of Starbursts on the Interstellar Medium in Dwarf Galaxies. *Amanda T. Marlowe, Timothy M. Heckman, Rosemary F. G. Wyse, & Robert Schommer.* 438, 563, 12-A3 (1995)

A Bowl-shaped Mode of Galactic Disks. *Linda S. Sparke.* 439, 42, 21-F13 (1995)

Structure and Kinematics within the Starburst Nucleus of M82: Searching for a Bar. *J. M. Achtermann & J. H. Lacy.* 439, 163, 23-D10 (1995)

Neutral Hydrogen Profiles of Cluster Galaxies. *Jeremy Mould, Sarah Martin, Greg Bothun, John Huchra, & Bob Schommer.* 96, 1, 1-B1 (1995)

The Starburst Galaxy NGC 7714. *Rosa González-Delgado, Enrique Pérez, Ángeles I. Díaz, María Luisa García-Vargas, Elena Terlevich, & José M. Vílchez.* 439, 604, 32-F9 (1995)

Faint Object Camera Imaging and Spectroscopy of NGC 4151. *A. Boksenberg, R. M. Catchpole, F. Macchetto, R. Albrecht, C. Barbieri, J. C. Blades, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kampermann, I. R. King, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 440, 151, 43-C6 (1995)

Models of Galaxies with Central Black Holes: Adiabatic Growth in Spherical Galaxies. *Gerald D. Quinlan, Lars Hernquist, & Steinn Sigurdsson.* 440, 554, 50-G8 (1995)

Detection of a Subparsec Diameter Disk in the Nucleus of NGC 4258. *L. J. Greenhill, D. R. Jiang, J. M. Moran, M. J. Reid, K. Y. Lo, & M. J. Claussen.* 440, 619, 51-F8 (1995)

Global Models of the Interstellar Medium in Disk Galaxies. *Alexander Rosen & Joel N. Bregman.* 440, 634, 52-A2 (1995)

Dark Matter in Elliptical Galaxies. *C. M. Carollo, P. T. de Zeeuw, R. P. van der Marel, I. J. Danziger, & E. E. Qian.* 441, L25, 66-F9 (1995)

The Potential-Energy Tensors for Subsystems. III. Mass Distributions with Ellipsoidal and Confocal Strata. *R. Caimmi.* 441, 533, 69-D3 (1995)

An Estimate of the Gas Inflow Rate along the Bar in NGC 7479. *A. C. Quillen, Jay A. Frogel, Jeffrey D. P. Kenney, R. W. Pogge, & D. L. DePoy.* 441, 549, 69-E8 (1995)

A Technique for Determining the Extragalactic Distance Scale. *Masashi Chiba & Yuzuru Yoshii.* 442, 82, 78-C11 (1995)

Ionized Gas in the Halos of Edge-on, Starburst Galaxies: Data and Results. *Matthew D. Lehnert & Timothy M. Heckman.* 97, 89, 12-B3 (1995)

The Settling of Warped Disks in Oblate Dark Halos. *John Dubinski & Konrad Kuijken.* 442, 492, 86-F7 (1995)

Establishing the Connection between Peanut-shaped Bulges and Galactic Bars. *Konrad Kuijken & Michael R. Merrifield.* 443, L13, 102-C11 (1995)

Finite Disks with Power-Law Potentials. *Rafael Brada & Mordehai Milgrom.* 444, 71, 114-C4 (1995)

The Tully-Fisher Relation of the *IRAS* Minisurvey Galaxies. *W. van Driel, A. C. van den Broek, & W. A. Baan.* 444, 80, 114-D4 (1995)

The Orientation of Spin Vectors of Galaxies in the Ursa Major Filament. *Cheongho Han, Andrew Gould, & Penny D. Sackett.* 445, 46, 133-A8 (1995)

Small Deviations from the $R^{1/4}$ Law, the Fundamental Plane, and Phase Densities of Elliptical Galaxies. *Jens Hjorth & Jes Madsen.* 445, 55, 133-B6 (1995)

The Interstellar Disk–Halo Connection in the Spiral Galaxy NGC 3079. *Sylvain Veilleux, Gerald Cecil, & J. Bland-Hawthorn.* 445, 152, 134-D11 (1995)

The Oxygen Distribution in NGC 3359 or a Disk Galaxy in the Early Phase of Bar Formation. *Pierre Martin & Jean-René Roy.* 445, 161, 134-F3 (1995)

Evidence for Dark Matter in MG 1654+134. *Christopher S. Kochanek.* 445, 559, 142-F13 (1995)

Inner Two-Arm Symmetry in Spiral Galaxies. *Debra Meloy Elmegreen & Bruce G. Elmegreen.* 445, 591, 143-B11 (1995)

Models of Galaxies with Central Black Holes: Simulation Methods. *Steinn Sigurdsson, Lars Hernquist, & Gerald D. Quinlan.* 446, 75, 154-C6 (1995)

Phase-Transition Theory of Instabilities. II. Fourth-Harmonic Bifurcations and λ-Transitions. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 485, 162-G3 (1995)

The Nuclear Structure of NGC 3079. *Willem A. Baan & Judith A. Irwin.* 446, 602, 164-D9 (1995)

Nonaxisymmetric Structures in the Stellar Disks of Galaxies. *Hans-Walter Rix & Dennis Zaritsky.* 447, 82, 173-C9 (1995)

The Barred Spiral Galaxy NGC 1398 and Its Pattern Speed. *E. M. Moore & S. T. Gottesman.* 447, 159, 174-C8 (1995)

Soft X-Ray Emission from NGC 5253 and the Ionized Interstellar Medium. *Crystal L. Martin & Robert C. Kennicutt, Jr.* 447, 171, 174-E2 (1995)

Excitation of Activity in Galaxies by Minor Mergers. *Lars Hernquist & J. Christopher Mihos.* 448, 41, 192-G1 (1995)

Inferring Galaxy Viewing Angles. *Jeremy S. Heyl, Lars Hernquist, & David N. Spergel.* 448, 64, 193-A13 (1995)

An X-Ray and Optical Study of the Dwarf Galaxy NGC 1569: Evidence for a Starburst-driven Outflow. *Timothy M. Heckman, Michael Dahlem, Matthew D. Lehnert, Giuseppina Fabbiano, Diane Gilmore, & William H. Waller.* 448, 98, 193-E1 (1995)

Pressure-supported Ionized Gas in S0 Galaxies. *Francesco Bertola, Pieratonio Cinzano, Enrico Maria Corsini, Hans-Walter Rix, & Werner W. Zeilinger.* 448, L13, 199-C11 (1995)

Stellar and Gaseous Kinematics of Seyfert Galaxies. I. Spectroscopic Data. *Charles H. Nelson & Mark Whittle.* 99, 67, 35-B5 (1995)

Nuclear Rings and Mass Inflow in Hydrodynamic Simulations of Barred Galaxies. *B. Glenn Piner, James M. Stone, & Peter J. Teuben.* 449, 508, 219-G5 (1995)

The Planetary Nebula System and Dynamics of NGC 5128. III. Kinematics and Halo Mass Distributions. *Xiaohui Hui, Holland C. Ford, Kenneth C. Freeman, & Michael A. Dopita.* 449, 592, 221-A1 (1995)

The Morphology and Kinematics of 16 Markarian Galaxies with Multiple Nuclei. I. Basic Data. *Tyler E. Nordgren, George Helou, Jayaram N. Chengalur, Yervant Terzian, & Ed Khachikian.* 99, 461, 41-C12 (1995)

Rotation Curves of 967 Spiral Galaxies. *Massimo Persic & Paolo Salucci.* 99, 501, 42-A11 (1995)

The Rotation Curves of the Polar Ring Galaxy NGC 4650A under Modified Newtonian Dynamics. *Takahiro Morishima & Hideyuki Saio.* 450, 70, 229-A12 (1995)

Echelle Spectroscopy of the Na I D Absorption-Line Systems of Markarian 231. *Karl Forster, R. Michael Rich, & James K. McCarthy.* 450, 74, 229-B5 (1995)

High-Resolution Berkeley-Illinois-Maryland Association Observations of CO, HCN, and ^{13}CO in NGC 1068. *Tamara T. Helfer & Leo Blitz.* 450, 90, 229-C10 (1995)

A Model of Nonlinear Dynamo Action in Lenticular Galaxies. *Matthew R. Walker & Carlo F. Barenghi.* 450, 540, 238-B12 (1995)

NGC 7217: A Spheroid-dominated, Early-Type Resonance Ring Spiral Galaxy. *R. Buta, W. van Driel, J. Braine, F. Combes, K. Wakamatsu, Y. Sofue, & A. Tomita.* 450, 593, 238-G13 (1995)

Internal Heating of Molecular Clouds by Tidal Fields. *Mousumi Das & Chanda J. Jog.* 451, 167, 248-C11 (1995)

A Catalog of Stellar Velocity Dispersions. II. 1994 Update. *Douglas B. McElroy.* 100, 105, 47-C1 (1995)

A Century of Galaxy Spectroscopy. *Vera C. Rubin.* 451, 419, 253-B1 (1995)

Mergers of Dissipationless Systems: Clues about the Fundamental Plane. *H. V. Capelato, R. R. de Carvalho, & R. G. Carlberg.* 451, 525, 254-E1 (1995)

The Optimal N-Body Method for Stability Studies of Galaxies. *David J. D. Earn & J. A. Sellwood.* 451, 533, 254-E12 (1995)

Near-Infrared Spectroscopy of the Arp 220 Nuclei: Measuring the Nuclear Rotation. *J. E. Larkin, L. Armus, R. A. Knop, K. Matthews, & B. T. Soifer.* 452, 599, 272-G11 (1995)

The Velocity Dispersion–Temperature Correlation from a Limited Cluster Sample. *Christina M. Bird, Richard F. Mushotzky, & Christopher A. Metzler.* 453, 40, 281-F13 (1995)

The Interaction between Spiral Galaxies IC 2163 and NGC 2207. I. Observations. *Debra Meloy Elmegreen, Michele Kaufman, Elias Brinks, Bruce G. Elmegreen, & Maria Sundin.* 453, 100, 282-E8 (1995)

The Interaction between Spiral Galaxies IC 2163 and NGC 2207. II. Models. *Bruce G. Elmegreen, Maria Sundin, Michele Kaufman, Elias Brinks, & Debra Meloy Elmegreen.* 453, 139, 283-B2 (1995)

AM 1354−250: Photometric Observations and Models of a Collisional Ring System. *John F. Wallin.* 453, 641, 292-F7 (1995)

Interpreting New Data on Large-Scale Bulk Flows. *Richard Watkins & Hume A. Feldman.* 453, L73, 298-C8 (1995)

The Central Region in M100: Observations and Modeling. *J. H. Knapen, J. E. Beckman, C. H. Heller, I. Shlosman, & R. S. de Jong.* 454, 623, 310-B4 (1995)

Evolution of Spiral Galaxies. V. The Galactic Bulge. *Mercedes Mollá & Federico Ferrini.* 454, 726, 311-F9 (1995)

Nuclear Antics of IC 4553 (ARP 220). *Willem A. Baan & Aubrey D. Haschick.* 454, 745, 312-A6 (1995)

The Peculiar H I Kinematics of the Wolf-Rayet Starburst Galaxy NGC 5253. *Henry A. Kobulnicky & Evan D. Skillman.* 454, L121, 316-B6 (1995)

Likelihood Analysis of Large-Scale Flows. *Andrew H. Jaffe & Nick Kaiser.* 455, 26, 318-E4 (1995)

On the Dynamical Origin of Bias in Clusters of Galaxies. *S. Colafrancesco, V. Antonuccio-Delogu, & A. Del Popolo.* 455, 32, 318-E13 (1995)

Production of Milky Way Structure by the Magellanic Clouds. *Martin D. Weinberg.* 455, L31, 324-F9 (1995)

Genetic Algorithms in Astronomy and Astrophysics. *P. Charbonneau.* 101, 309, 58-B5 (1995)

GALAXIES: LOCAL GROUP

A Cosmos Study of IC 1613. *Paul W. Hodge, Toby R. Smith, Paul B. Eskridge, Harvey T. MacGillivray, & Steven M. Beard.* 369, 372, 42-D5 (1991)

New Cepheid Distances to Nearby Galaxies Based on *BVRI* CCD Photometry. II. The Local Group Galaxy M33. *Wendy L. Freedman, Christine D. Wilson, & Barry F. Madore.* 372, 455, 81-D9 (1991)

X-Ray Detectability of Gamma-Ray Bursts from M31. *Edison P. Liang.* 380, L55, 188-B11 (1991)

A Complete CO Survey of M31. *E. Koper, T. M. Dame, F. P. Israel, & P. Thaddeus.* 383, L11, 219-B7 (1991)

A Comparison of the Properties of an Unbiased Sample of OB Associations in the Local Group Galaxies M33 and NGC 6822. *Christine D. Wilson.* 384, L29, 11-B1 (1992)

A New Tidal Model of the Magellanic Stream. *W. L. H. Shuter.* 386, 101, 25-D1 (1992)

Planetary Nebulae as Standard Candles. VIII. Evidence for a Change in the Luminosity Function Cutoff at Low Metallicity. *Robin Ciardullo & George H. Jacoby.* 388, 268, 53-F1 (1992)

Dwarf Spheroidal Galaxies and the Mass of the Neutrino. *Ortwin E. Gerhard & David N. Spergel.* 389, L9, 66-B11 (1992)

Abundances for Giant Stars in the Draco Dwarf Galaxy. *Matthew D. Lehnert, R. A. Bell, James E. Hesser, & J. B. Oke.* 395, 466, 148-C9 (1992)

New Cepheid Distances to Nearby Galaxies Based on *BVRI* CCD Photometry. III. NGC 300. *Wendy L. Freedman, Barry F. Madore, S. L. Hawley, Irwin K. Horowitz, Jeremy Mould, Mauricio Navarrete, & Shauna Sallmen.* 396, 80, 156-A13 (1992)

A Redshift Survey of *IRAS* Galaxies. V. The Acceleration on the Local Group. *Michael A. Strauss, Amos Yahil, Marc Davis, John P. Huchra, & Karl Fisher.* 397, 395, 175-E11 (1992)

Core Velocity Dispersions and Metallicities of Three Globular Clusters Belonging to the Fornax Dwarf Spheroidal Galaxy. *P. Dubath, G. Meylan, & M. Mayor.* 400, 510, 216-F1 (1992)

The Distance to Nearby Galaxy NGC 3109 Based on the Tip of the Red Giant Branch. *Myung Gyoon Lee.* 408, 409, 90-C8 (1993)

Unbound Dwarf Spheroidal Galaxies and the Mass of the Milky Way. *Jeffrey R. Kuhn.* 409, L13, 104-C1 (1993)

Infrared Surface Brightness Fluctuations: K'-Band Observations of M31, M32, and the Distance to Maffei 1. *Gerard A. Luppino & John L. Tonry.* 410, 81, 113-B3 (1993)

The Bulge of M33. *Dante Minniti, Edward W. Olszewski, & Marcia Rieke.* 410, L79, 125-G3 (1993)

H I 21 Centimeter Observations and *I*-Band CCD Surface Photometry of Spiral Galaxies behind the Virgo Cluster and toward Its Antipode. *N. Y Lu, G. L. Hoffman, T. Groff, T. Roos, & C. Lamphier.* 88, 383, 45-D1 (1993)

Black Hole Models for the Dark Matter in Draco and Ursa Minor. *Nicolas V. Strobel & George Lake.* 424, L83, 78-G3 (1994)

Asymptotic Giant Branch Stars in NGC 6822: Probes of Star Formation History. *C. Gallart, A. Aparicio, C. Chiosi, G. Bertelli, & J. M. Vílchez.* 425, L9, 85-B13 (1994)

The Motion of the Local Group with Respect to the 15,000 Kilometer per Second Abell Cluster Inertial Frame. *Tod R. Lauer & Marc Postman.* 425, 418, 87-A1 (1994)

The Evolutionary History of Low-Luminosity Local Group Dwarf Galaxies. *Sidney van den Bergh.* 428, 617, 137-G13 (1994)

Orbits of the Nearby Galaxies. *P. J. E. Peebles.* 429, 43, 144-F11 (1994)

The Fornax-Leo-Sculptor Stream Revisited. *Steven R. Majewski.* 431, L17, 182-D13 (1994)

First Observations of Individual Molecular Clouds in the Irregular Galaxy NGC 6822. *Christine D. Wilson.* 434, L11, 232-C1 (1994)

The Distance to the Pegasus Dwarf Irregular Galaxy: An Open Question. *A. Aparicio.* 437, L27, 291-E6 (1994)

Combinatorics and Companion Galaxies: Paradox Lost. *William I. Newman & Yervant Terzian.* 441, 505, 69-A8 (1995)

On the Tidal Disruption of Dwarf Spheroidal Galaxies around the Galaxy. *K. S. Oh, D. N. C. Lin, & S. J. Aarseth.* 442, 142, 79-B9 (1995)

The Least-Action Method, Cold Dark Matter, and Ω. *A. M. Dunn & R. Laflamme.* 443, L1, 102-B1 (1995)

Determining the Motion of the Local Group Using Type Ia Supernova Light Curve Shapes. *Adam G. Riess, William H. Press, & Robert P. Kirshner.* 445, L91, 150-F3 (1995)

On the Discrepancy between the Cepheid and RR Lyrae Distance Scales. *Sidney van den Bergh.* 446, 39, 153-F3 (1995)

The Metallicity Dependence of the CO-to-H_2 Conversion Factor from Observations of Local Group Galaxies. *Christine D. Wilson.* 448, L97, 209-C1 (1995)

Mass of the Milky Way and Redshifts of the Nearby Galaxies. *P. J. E. Peebles.* 449, 52, 211-A1 (1995)

H II Regions in Four Galaxies in and near the Local Group. *Paul Hodge & Bryan W. Miller.* 451, 176, 248-D9 (1995)

GALAXIES: LUMINOSITY FUNCTION, MASS FUNCTION

Predicted Galaxy Counts in CO Emission. *Frances Verter.* 386, 398, 30-D1 (1992)

The Extended Medium Sensitivity Survey Distant Cluster Sample: X-Ray Data and Interpretation of the Luminosity Evolution. *J. P. Henry, I. M. Gioia, T. Maccacaro, S. L. Morris, J. T. Stocke, & A. Wolter.* 386, 408, 30-D13 (1992)

Large-Scale Morphological Segregation in the Center for Astrophysics Redshift Survey. *Basílio X. Santiago & Michael A. Strauss.* 387, 9, 37-B7 (1992)

Planetary Nebulae as Standard Candles. VIII. Evidence for a Change in the Luminosity Function Cutoff at Low Metallicity. *Robin Ciardullo & George H. Jacoby.* 388, 268, 53-F1 (1992)

The Mass Distribution Function of Groups of Galaxies. *A. Pisani, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 389, 68, 61-A1 (1992)

Far-Infrared Luminosity Functions of Normal Galaxies. *Takashi Isobe & Eric D. Feigelson.* 79, 197, 16-F3 (1992)

The Mass Function of Galaxy Halos in a Cold Dark Matter Universe. *T. G. Brainerd & J. V. Villumsen.* 394, 409, 134-D5 (1992)

The Evolution of the QSO Luminosity Function Up to $z = 4$: The Role of *K*-Correction Uncertainties. *Emanuele Giallongo & Fausto Vagnetti.* 396, 411, 162-E5 (1992)

The He I λ2.06 Microns/Brγ Ratio in Starburst Galaxies—An Objective Constraint on the Upper Mass Limit to the Initial Mass Function. *René Doyon, P. J. Puxley, & R. D. Joseph.* 397, 117, 169-D9 (1992)

Dynamical Properties of Compact Groups of Galaxies. *Paul Hickson, Claudia Mendes de Oliveira, John P. Huchra, & Giorgio G. C. Palumbo.* 399, 353, 202-C11 (1992)

Tidally Triggered Galaxy Formation. II. Galaxy Number Counts. *Cedric Lacey, Bruno Guiderdoni, Brigitte Rocca-Volmerange, & Joseph Silk.* 402, 15, 1-C6 (1993)

Spectral Evolution of Stellar Populations Using Isochrone Synthesis. *Gustavo Bruzual A., & Stéphane Charlot.* 405, 538, 49-F11 (1993)

A Revised Catalog of CfA1 Galaxy Groups in the Virgo/Great Attractor Flow Field. *Richard Nolthenius.* 85, 1, 6-B1 (1993)

Starburst Modeling of M82: Test Case for a Biased Initial Mass Function. *G. H. Rieke, K. Loken, M. J. Rieke, & P. Tamblyn.* 412, 99, 143-C9 (1993)

A New Survey for Low-Luminosity Emission-Line Galaxies. *Todd A. Boroson, John J. Salzer, & Adam Trotter.* 412, 524, 150-B10 (1993)

Counter-Evolution of Faint Field Galaxies. *David C. Koo, Caryl Gronwall, & Gustavo Bruzual A.* 415, L21, 191-G10 (1993)

An Argument against Mergers of the Faint Blue Galaxies. *Julianne J. Dalcanton.* 415, L87, 199-F13 (1993)

Unified Model for X-Ray– and Radio-selected BL Lacertae Objects. *A. Celotti, L. Maraschi, G. Ghisellini, A. Caccianiga, & T. Maccacaro.* 416, 118, 202-D13 (1993)

Smoothed Nonparametric Estimation of the Luminosity Function for Flux-limited Samples. *David Caditz & Vahé Petrosian.* 416, 450, 209-A1 (1993)

The Shape of the H I Mass Function for Late-Type Galaxies over the Range $M_{H\,I} \approx 10^7$–10^{10} $M_\odot$. *F. H. Briggs & S. Rao.* 417, 494, 225-D12 (1993)

The Failure of Simple Merging Models to Save a Flat, $\Omega_0 = 1$ Universe. *Boudewijn F. Roukema & Yuzuru Yoshii.* 418, L1, 238-A8 (1993)

The Extended 12 Micron Galaxy Sample. *Brian Rush, Matthew A. Malkan, & Luigi Spinoglio.* 89, 1, 49-B1 (1993)

Neutral Hydrogen in Galaxies at the Present Epoch. *Sandhya Rao & Frank Briggs.* 419, 515, 254-B12 (1993)

Stellar Evolution in the Starburst Galaxy M82: Evidence for a Top-heavy Initial Mass Function. *Jay S. Doane & William G. Mathews.* 419, 573, 254-G9 (1993)

A Wide-Field Multicolor Survey for High-Redshift Quasars, $z \geq 2.2$. III. The Luminosity Function. *Stephen J. Warren, Paul C. Hewett, & Patrick S. Osmer.* 421, 412, 23-C11 (1994)

The X-Ray Luminosity Functions of Abell Clusters from the *Einstein* Cluster Survey. *R. Burg, R. Giacconi, W. Forman, & C. Jones.* 422, 37, 30-E1 (1994)

Application of the Loh-Spillar Cosmological Test to Quasars. *David Schade & F. D. A. Hartwick.* 423, L85, 60-B13 (1994)

A Complete Southern Sky Redshift Survey. *L. Nicolaci da Costa, M. J. Geller, P. S. Pellegrini, D. W. Latham, A. P. Fairall, R. O. Marzke, C. N. A. Willmer, J. P. Huchra, J. H. Calderon, M. Ramella, & M. J. Kurtz.* 424, L1, 69-A8 (1994)

The Detection of X-Ray Emission from the Highest Redshift Galaxy Clusters. *Francisco J. Castander, Richard S. Ellis, Carlos S. Frenk, Alan Dressler, & James E. Gunn.* 424, L79, 78-F9 (1994)

Counts of Galaxies in a Merger Model. *P. Colín, D. N. Schramm, & M. Peimbert.* 426, 459, 104-B1 (1994)

Luminosity Evolution and Dust Effects in Distant Galaxies: Implications for the Observability of the Early Evolutionary Phases. *Alberto Franceschini, Paola Mazzei, Gianfranco De Zotti, & Luigi Danese.* 427, 140, 111-F4 (1994)

The Luminosity Function of the CfA Redshift Survey. *R. O. Marzke, J. P. Huchra, & M. J. Geller.* 428, 43, 128-F11 (1994)

Optical Luminosity Functions for Compact Groups of Galaxies. *Jack W. Sulentic & Carlos R. Rabaça.* 429, 531, 152-C8 (1994)

The Properties of X-Ray–selected Active Galactic Nuclei. III. The Radio-quiet versus Radio-loud Samples. *Roberto Della Ceca, Giovanni Zamorani, Tommaso Maccacaro, Anna Wolter, Richard Griffiths, John T. Stocke, & Giancarlo Setti.* 430, 533, 168-D1 (1994)

UIT: Ultraviolet Observations of the Small Magellanic Cloud. *Robert H. Cornett, J. K. Hill, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 430, L117, 174-G9 (1994)

Clusters of Galaxies in the Long Cosmic String Model. *Tetsuya Hara, Hideki Yamamoto, Petri Mähönen, & Shigeru J. Miyoshi.* 432, 31, 193-E9 (1994)

Past and Future Star Formation in Disk Galaxies. *Robert C. Kennicutt, Jr., Peter Tamblyn, & Charles W. Congdon.* 435, 22, 243-E5 (1994)

The Luminosity Function of Quasars. *Yichuan C. Pei.* 438, 623, 12-F10 (1995)

Resurrection of Traditional Luminosity Evolution Models to Explain Faint Field Galaxies. *Caryl Gronwall & David C. Koo.* 440, L1, 48-B1 (1995)

The Contribution of Low Surface Brightness Galaxies to Faint Galaxy Counts. *Henry C. Ferguson & Stacy S. McGaugh.* 440, 470, 49-F11 (1995)

The Quasar Distribution in a Static Universe. *David F. Crawford.* 441, 488, 68-F13 (1995)

Quasar Populations in a Cosmological Constant–dominated Flat Universe. *Sangeeta Malhotra & Edwin L. Turner.* 445, 553, 142-F3 (1995)

The Morphological Mix of Field Galaxies to $m_i = 24.25$ mag ($b_J \sim 26$ mag) From a Deep Hubble Space Telescope WFRC2 Image. *Simon P. Driver, Rogier A. Windhorst, Eric J. Ostrander, William C. Keel, Richard E. Griffiths, & Kavan U. Ratnatunga.* 449, L23, 216-C11 (1995)

Evidence for Steep Luminosity Functions in Clusters of Galaxies. *Roberto De Propris, Christopher J. Pritchet, William E. Harris, & Robert D. McClure.* 450, 534, 238-B3 (1995)

Differences in the Luminosity Functions of Faint Early-Type and Faint Late-Type Galaxies in Four Nearby Clusters of Galaxies. *Nobunari Kashikawa, Kazuhiro Shimasaku, Masafumi Yagi, Naoki Yasuda, Mamoru Doi, Sadanori Okamura, & Maki Sekiguchi.* 452, L99, 279-F9 (1995)

The Contribution of Late-Type/Irregulars to the Faint Galaxy Counts from *Hubble Space Telescope* Medium-Deep Survey Images. *Simon P. Driver, Rogier A. Windhorst, & Richard E. Griffiths.* 453, 48, 281-G10 (1995)

The Canada-France Redshift Survey. VI. Evolution of the Galaxy Luminosity Function to $z \sim 1$. *S. J. Lilly, L. Tresse, F. Hammer, David Crampton, & O. Le Fèvre.* 455, 108, 319-F9 (1995)

The Current Star Formation Rate of the Local Universe. *J. Gallego, J. Zamorano, A. Aragón-Salamanca, & M. Rego.* 455, L1, 324-C1 (1995)

GALAXIES: MAGELLANIC CLOUDS

Photoionization Modeling of Magellanic Cloud Planetary Nebulae. I. *M. A. Dopita & S. J. Meatheringham.* 367, 115, 13-D6 (1991)

Chemical Evolution with Bursts of Star Formation: Element Ratios in Dwarf Galaxies. *Gerard Gilmore & Rosemary F. G. Wyse.* 367, L55, 22-C1 (1991)

A ^{12}CO Survey of the Small Magellanic Cloud. *M. Rubio, G. Garay, J. Montani, & P. Thaddeus.* 368, 173, 25-C1 (1991)

Optical Spectroscopy of Magellanic Cloud Planetary Nebulae. I. *Stephen J. Meatheringham & Michael A. Dopita.* 75, 407, 6-C9 (1991)

Star Clusters in the Clouds of Magellan. *Sidney van den Bergh.* 369, 1, 36-A11 (1991)

Multiwavelength Observations of Nova LMC 1990 Number 2: The First Extragalactic Recurrent Nova. *Steven N. Shore, George Sonneborn, Sumner G. Starrfield, M. Hamuy, R. E. Williams, A. Cassatella, & H. Drechsel.* 370, 193, 49-E8 (1991)

An X-Ray Image of the Violent Interstellar Medium in 30 Doradus. *Q. Wang & D. J. Helfand.* 370, 541, 55-B9 (1991)

A Large Supershell H II Region Complex in the Large Magellanic Cloud and the Interstellar Environment of SN 1987A. *Frederick C. Bruhweiler, Michelle A. Fitzurka, & Theodore R. Gull.* 370, 551, 55-C9 (1991)

The Young Supernova Remnants N132D and 1E 0102.2−7219: Limits on the Presence of Rapidly Moving Sulfur. *Barry M. Lasker & David A. Golimowski.* 371, 568, 68-E8 (1991)

The Halo of the Large Magellanic Cloud: Kinematics of the CH Stars. *A. P. Cowley & F. D. A. Hartwick.* 373, 80, 87-A8 (1991)

DD 13: A Very Young and Heavily Reddened Early O Star in the Large Magellanic Cloud. *Peter S. Conti & Edward L. Fitzpatrick.* 373, 100, 87-C5 (1991)

The Structure and Evolution of Rich Star Clusters in the Large Magellanic Cloud. *Rebecca A. W. Elson.* 76, 185, 26-E9 (1991)

He II Emission in Extragalactic H II Regions. *Donald R. Garnett, Robert C. Kennicutt, Jr., You-Hua Chu, & Evan D. Skillman.* 373, 458, 93-E14 (1991)

The Detection of X-Ray Emission from the OB Associations of the Large Magellanic Cloud. *Q. Wang & D. J. Helfand.* 373, 497, 94-B7 (1991)

Cosmic-Ray Distribution and the Dynamic Balance in the Large Magellanic Cloud. *Carl E. Fichtel, Mehmet E. Özel, Robert G. Stone, & P. Sreekumar.* 374, 134, 99-F7 (1991)

LMC SMP 64: The Youngest Planetary Nebula? *M. A. Dopita & S. J. Meatheringham.* 374, L21, 103-E1 (1991)

The Detection of X-Rays from the Hot Interstellar Medium of the Large Magellanic Cloud. *Q. Wang, T. Hamilton, D. J. Helfand, & X. Wu.* 374, 475, 105-A10 (1991)

First Results from the Goddard High-Resolution Spectrograph: Spectroscopic Determination of Stellar Parameters of Melnick 42, an O3f Star in the Large Magellanic Cloud. *S. R. Heap, B. Altner, D. Ebbets, I. Hubeny, J. B. Hutchings, R. P. Kudritzki, S. A. Voels, S. Haser, A. Pauldrach, J. Puls, & K. Butler.* 377, L29, 143-D6 (1991)

Photoionization Modeling of Magellanic Cloud Planetary Nebulae. II. *M. A. Dopita & S. J. Meatheringham.* 377, 480, 145-F6 (1991)

The Detection of the Hot Gaseous Halo around the Small Magellanic Cloud. *Qingde Wang.* 377, L85, 150-D1 (1991)

Optical Spectroscopy of Magellanic Cloud Planetary Nebulae. II. *Stephen J. Meatheringham & Michael A. Dopita.* 76, 1085, 40-F7 (1991)

LMC-2 as the Blowout of a Hot Superbubble. *Qingde Wang & David J. Helfand.* 379, 327, 167-B5 (1991)

The Intensity and Spectrum of the Diffuse X-Ray Background. *X. Wu, T. Hamilton, D. J. Helfand, & Q. Wang.* 379, 564, 171-F1 (1991)

Properties of the SN 1987A Circumstellar Ring and the Distance to the Large Magellanic Cloud. *N. Panagia, R. Gilmozzi, F. Macchetto, H.-M. Adorf, & R. P. Kirshner.* 380, L23, 181-D1 (1991)

Ionized Carbon in the Large Magellanic Cloud. *R. T. Boreiko & A. L. Betz.* 380, L27, 181-D9 (1991)

LMC X-4: *Ginga* Observations and Search for Orbital Period Changes. *A. Levine, S. Rappaport, A. Putney, R. Corbet, & F. Nagase.* 381, 101, 190-C7 (1991)

Detection of the Helium Flash Gap in the Integrated $(U - B)$ versus $(B - V)$ Diagram for 624 Large Magellanic Cloud Clusters. *E. Bica, J. J. Clariá, H. Dottori, J. F. C. Santos, Jr., & A. Piatti.* 381, L51, 199-C7 (1991)

Core Masses and Abundances of Low-Excitation Planetary Nebulae in the Magellanic Clouds. *James B. Kaler & George H. Jacoby.* 382, 134, 201-G7 (1991)

Cocoon Stars in the Large Magellanic Cloud. *Neill Reid.* 382, 143, 202-A4 (1991)

The Formation of Globular Clusters in Merging and Interacting Galaxies. *Keith M. Ashman & Stephen E. Zepf.* 384, 50, 1-F1 (1992)

Abundances of the Heavy Elements in the Magellanic Clouds. III. Interpretation of Results. *Stephen C. Russell & Michael A. Dopita.* 384, 508, 8-D9 (1992)

The Energy Sources Powering the Late-Time Bolometric Evolution of SN 1987A. *Nicholas B. Suntzeff, M. M. Phillips, J. H. Elias, D. L. DePoy, & A. R. Walker.* 384, L33, 11-B6 (1992)

On the Mass Discrepancy of the Cepheid Stars. *C. Chiosi, P. R. Wood, G. Bertelli, A. Bressan, & M. Mateo.* 385, 205, 14-E1 (1992)

A New Tidal Model of the Magellanic Stream. *W. L. H. Shuter.* 386, 101, 25-D1 (1992)

A Comprehensive X-Ray Study of the Small Magellanic Cloud. *Qingde Wang & Xiaoyi Wu.* 78, 391, 7-G5 (1992)

Line Fluorescence from the Ring around SN 1987A. *Eli Dwek & James E. Felten.* 387, 551, 45-E1 (1992)

The Star Formation History of the Large Magellanic Cloud. *Gianpaolo Bertelli, Mario Mateo, Cesare Chiosi, & Alessandro Bressan.* 388, 400, 55-C11 (1992)

A Theoretical Calibration of the Planetary Nebular Cosmic Distance Scale. *Michael A. Dopita, George H. Jacoby, & E. Vassiliadis.* 389, 27, 60-D1 (1992)

The Chemical Composition of Magellanic Cloud Cepheids and Nonvariable Supergiants. *R. Earle Luck & David L. Lambert.* 79, 303, 18-E3 (1992)

Stellar Evolution in Blue Populous Clusters of the Small Magellanic Cloud and the Problems of Envelope Semiconvection and Convective Core Overshooting. *Richard B. Stothers & Chao-wen Chin.* 390, 136, 75-F6 (1992)

The Absolute Magnitudes of LMC RR Lyrae Variables and the Ages of Galactic Globular Clusters. *Alistair R. Walker.* 390, L81, 85-A7 (1992)

Ultraviolet and Optical Spectral Morphology of Melnick 42 and Radcliffe 136a in 30 Doradus. *Nolan R. Walborn, Dennis C. Ebbets, Joel Wm. Parker, Joy Nichols-Bohlin, & Richard L. White.* 393, L13, 120-C1 (1992)

A Multiwavelength Study of the Supernova Remnant N49 in the Large Magellanic Cloud. *Olaf Vancura, William P. Blair, Knox S. Long, & John C. Raymond.* 394, 158, 130-A1 (1992)

The Kinematics of Planetary Nebulae in the Outer Fields of the Large Magellanic Cloud. *E. Vassiliadis, Stephen J. Meatheringham, & Michael A. Dopita.* 394, 489, 135-D7 (1992)

Interstellar Dust from the Milky Way to the Magellanic Clouds. *Yichuan C. Pei.* 395, 130, 141-G1 (1992)

Astro-1 Ultraviolet Imaging of the 30 Doradus and SN 1987A Fields with the Ultraviolet Imaging Telescope. *Kwang-Ping Cheng, Andrew G. Michalitsianos, Paul Hintzen, Ralph C. Bohlin, Robert W. O'Connell, Robert H. Cornett, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L29, 145-A1 (1992)

S-154 in the Large Magellanic Cloud: Spectral Evolution from a Luminous Fe II Variable to a Symbiotic-like Star. *R. A. Remillard, E. Rosenthal, I. R. Tuohy, D. A. Schwartz, D. A. H. Buckley, & R. J. V. Brissenden.* 396, 668, 165-F1 (1992)

IRAS Observations and the Stellar Content of H II Regions in the Large Magellanic Cloud. *Kathleen DeGioia-Eastwood.* 397, 542, 177-F7 (1992)

OH/IR Stars in the Magellanic Clouds. *P. R. Wood, J. B. Whiteoak, S. M. G. Hughes, M. S. Bessell, F. F. Gardner, & A. R. Hyland.* 397, 552, 177-G5 (1992)

Polarization and the Envelopes of B[e] Supergiants in the Magellanic Clouds. *A. M. Magalhães.* 398, 286, 185-C11 (1992)

Imaging of Four Planetary Nebulae in the Magellanic Clouds Using the *Hubble Space Telescope* Faint Object Camera. *J. C. Blades, M. J. Barlow, R. Albrecht, C. Barbieri, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, S. Osmer, & W. B. Sparks.* 398, L41, 187-F7 (1992)

The Age of the Small Magellanic Cloud Cluster Lindsay 11. *J. R. Mould, J. B. Jensen, & G. S. Da Costa.* 82, 489, 55-E11 (1992)

Two-Stage Starbursts in the Large Magellanic Cloud: N11 as a Once and Future 30 Doradus. *Nolan R. Walborn & Joel Wm. Parker.* 399, L87, 201-C5 (1992)

The Young Large Magellanic Cloud Cluster NGC 2214 with a Single Supergiant Branch. *Myung Gyoon Lee.* 399, L133, 208-B1 (1992)

Optical Spectroscopy of Magellanic Cloud Planetary Nebulae. III. *E. Vassiliadis, Michael A. Dopita, D. H. Morgan, & J. F. Bell.* 83, 87, 58-B1 (1992)

Observations of the Large Magellanic Cloud in High-Energy Gamma Rays. *P. Sreekumar, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. J. Schneid, & D. J. Thompson.* 400, L67, 220-E1 (1992)

Far-Ultraviolet Observations of the Supernova Remnant N49 Using the Hopkins Ultraviolet Telescope. *Olaf Vancura, William P. Blair, Knox S. Long, Arthur F. Davidsen, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Henry C. Ferguson, Richard C. Henry, Randy A. Kimble, Gerard A. Kriss, Jeffrey W. Kruk, & H. Warren Moos.* 401, 220, 223-G1 (1992)

Survey of Ultra–High-Energy Gamma-Ray Emission in the Magellanic Clouds. *W. H. Allen, I. A. Bond, E. Budding, M. J. Conway, A. Daniel, K. B. Fenton, H. Fujii, Z. Fujii, N. Hayashida, K. Hibino, M. Honda, J. E. Humble, S. Kabe, K. Kasahara, T. Kifune, G. D. Lythe, A. Masaike, Y. Matsubara, K. Mitsui, Y. Miura, M. Mori, Y. Muraki, M. Nagano, T. Nakamura, M. Nishizawa, P. M. Norris, S. Ogio, To. Saito, M. Sakata, H. Sato, H. M. Shimizu, M. Spencer, J. R. Storey, T. Tanimori, M. Teshima, S. Torii, A. Wadsworth, Y. Watase, M. D. Woodhams, Y. Yamamoto, P. C. M. Yock, & T. Yuda (The JANZOS Collaboration).* 403, 239, 16-G10 (1993)

Radio Detection of PSR B0540−69. *R. N. Manchester, D. P. Mar, A. G. Lyne, V. M. Kaspi, & S. Johnston.* 403, L29, 20-D1 (1993)

Formation of Globular Clusters from Gas in Large-Scale Unorganized Motion in Galaxies. *Yasuki Kumai, Baidyanath Basu, & Mitsuaki Fujimoto.* 404, 144, 29-G1 (1993)

Probing the Large Magellanic Cloud Halo for MACHOS. *Andrew Gould.* 404, 451, 34-E9 (1993)

Evidence for Processed Material in the Atmospheres of Large Magellanic Cloud B Supergiants. *Edward L. Fitzpatrick & Bruce Bohannan.* 404, 734, 38-B1 (1993)

A Distance to the Cepheid HV 829 in the Small Magellanic Cloud. *Thomas G. Barnes III, Thomas J. Moffett, & Wolfgang P. Gieren.* 405, L51, 54-B11 (1993)

The Asymmetric Wind of R127. *R. E. Schulte-Ladbeck, C. Leitherer, G. C. Clayton, C. Robert, M. R. Meade, L. Drissen, A. Nota, & W. Schmutz.* 407, 723, 79-E1 (1993)

The Age of the Large Magellanic Cloud Cluster NGC 2031. *J. R. Mould, D. A. Xystus, & G. S. Da Costa.* 408, 108, 84-D8 (1993)

Diffuse Gamma-Ray Emission from Pulsars in the Large Magellanic Cloud. *Dieter H. Hartmann, Lawrence E. Brown, & Neil Schnepf.* 408, L13, 88-F8 (1993)

Theoretical Models for Massive Stars in Young Magellanic Cloud Stellar Clusters. *Enzo Brocato & Vittorio Castellani.* 410, 99, 113-D1 (1993)

ROSAT Observations of the Large Magellanic Cloud Pulsar PSR 0540−69. *John P. Finley, Hakki Ögelman, Günther Hasinger, & Joachim Trümper.* 410, 323, 116-B1 (1993)

A Provisional RR Lyrae Distance Scale. *Norman R. Simon & Christine M. Clement.* 410, 526, 120-C1 (1993)

New Radio Observations of Supernova Remnant 1E 0102.2−7219 in the Small Magellanic Cloud. *S. W. Amy & Lewis Ball.* 411, 761, 139-C1 (1993)

Interacting Massive Binaries, H-R Diagram of the Large Magellanic Cloud and SN 1987A. *N. Rathnasree.* 411, 848, 140-D1 (1993)

The Distance to the Large Magellanic Cloud: Constraints from Cepheids in Large Magellanic Cloud Star Clusters. *Gianpaolo Bertelli, Alessandro Bressan, Cesare Chiosi, Mario Mateo, & Peter R. Wood.* 412, 160, 144-A13 (1993)

30 Doradus: Ultraviolet and Optical Stellar Photometry. *Jesse K. Hill, Ralph C. Bohlin, Kwang-Ping Cheng, Michael N. Fanelli, Paul Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 413, 604, 164-A5 (1993)

Hidden Supernova Remnants in the Large Magellanic Cloud H II Complex N44. *You-Hua Chu, Mordecai-Mark Mac Low, Guillermo Garcia-Segura, Bart Wakker, & Robert C. Kennicutt, Jr.* 414, 213, 172-F2 (1993)

High-Resolution X-Ray Spectroscopy of the Supernova Remnant N132D. *Una Hwang, John P. Hughes, Claude R. Canizares, & Thomas H. Markert.* 414, 219, 172-F11 (1993)

Bright Planetary Nebulae as Probes of Chemical Evolution. *Michael G. Richer.* 415, 240, 188-A6 (1993)

The Age of the Large Magellanic Cloud Cluster NGC 1953. *J. R. Mould, D. A. Xystus, G. S. Da Costa, & R. A. Schommer.* 416, 582, 210-E12 (1993)

Improved Observations of Faint Planetary Nebulae in the Magellanic Clouds. *George H. Jacoby & James B. Kaler.* 417, 209, 220-A12 (1993)

Hubble Space Telescope Observations of Planetary Nebulae in the Magellanic Clouds. I. The Extreme Type I SMP 83/WS 35. *Michael A. Dopita, Holland C. Ford, Ralph Bohlin, Ian N. Evans, & Stephen J. Meatheringham.* 418, 804, 242-E7 (1993)

Lithium Abundances and Other Clues to Envelope Burning in Small Magellanic Cloud Asymptotic Giant Branch Stars. *Bertrand Plez, Verne V. Smith, & David L. Lambert.* 418, 812, 242-F3 (1993)

MACHOs in a Flattened Halo. *Penny D. Sackett & Andrew Gould.* 419, 648, 255-F12 (1993)

The Population of Massive Stars in R136 from Faint Object Camera Ultraviolet Observations. *Guido De Marchi, Antonella Nota, Claus Leitherer, Roberto Ragazzoni, & Cesare Barbieri.* 419, 658, 255-G10 (1993)

High-Resolution Spectroscopy of Balmer-dominated Shocks in the Large Magellanic Cloud. *R. Chris Smith, John C. Raymond, & J. Martin Laming.* 420, 286, 4-D7 (1994)

The Outer Shell of SNR 0540−69.3. *F. D. Seward & F. R. Harnden, Jr.* 421, 581, 25-D5 (1994)

Proper Motions of MACHOs. *Andrew Gould.* 421, L71, 29-D7 (1994)

MACHO Velocities from Satellite-based Parallaxes. *Andrew Gould.* 421, L75, 29-D13 (1994)

Einstein Observations of Ultrasoft X-Ray Sources in the Magellanic Clouds. *Thomas Brown, France Córdova, Robin Ciardullo, Richard Thompson, & Howard Bond.* 422, 118, 31-E4 (1994)

Oosterhoff Dichotomy in the Galaxy and Globular Clusters in the Large Magellanic Cloud. *Giuseppe Bono, Filippina Caputo, & Robert F. Stellingwerf.* 423, 294, 49-F8 (1994)

A Massive Radio Pulsar Binary in the Small Magellanic Cloud. *V. M. Kaspi, S. Johnston, J. F. Bell, R. N. Manchester, M. Bailes, M. Bessell, A. G. Lyne, & N. D'Amico.* 423, L43, 53-F7 (1994)

Microlensing Events: Thin Disk, Thick Disk, or Halo? *Andrew Gould, Jordi Miralda-Escudé, & John N. Bahcall.* 423, L105, 60-E13 (1994)

The Ring around Supernova 1987A Revisited. I. Ellipticity of the Ring. *Andrew Gould.* 425, 51, 80-G2 (1994)

Initial Mass Functions from Ultraviolet Stellar Photometry: A Comparison of Lucke and Hodge OB Associations near 30 Doradus with the Nearby Field. *Jesse K. Hill, Joan E. Isensee, Robert H. Cornett, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 425, 122, 81-F5 (1994)

A Spectroscopic Method to Measure MACHO Proper Motions. *Dan Maoz & Andrew Gould.* 425, L67, 94-C1 (1994)

The Initial Mass Function for Massive Stars in the Magellanic Clouds. I. *UBV* Photometry and Color-Magnitude Diagrams for 14 OB Associations. *Robert J. Hill, Barry F. Madore, & Wendy L. Freedman.* 91, 583, 27-C8 (1994)

Hubble Space Telescope Observations of Planetary Nebulae in the Magellanic Clouds. II. SMP 85, A Young Planetary. *Michael A. Dopita, Emanuel Vassiliadis, Stephen J. Meatheringham, Holland C. Ford, Ralph Bohlin, Peter R. Wood, Theodore P. Stecher, Stephen P. Maran, & J. Patrick Harrington.* 426, 150, 98-A6 (1994)

The Metallicity Dependence of Inferred Cepheid Distances. *Andrew Gould.* 426, 542, 105-B7 (1994)

Hubble Space Telescope Fine Guidance Sensor Interferometric Observations of the Core of 30 Doradus. *M. G. Lattanzi, J. L. Hershey, R. Burg, L. G. Taff, S. T. Holfeltz, B. Bucciarelli, I. N. Evans, R. Gilmozzi, J. Pringle, & N. R. Walborn.* 427, L21, 117-D1 (1994)

Post–Asymptotic Giant Branch Evolution of Low- to Intermediate-Mass Stars. *E. Vassiliadis & P. R. Wood.* 92, 125, 33-A4 (1994)

Gravitational Microlensing by Dark Clusters in the Galactic Halo. *Eyal Maoz.* 428, L5, 134-B6 (1994)

A Thermal Pulse in Progress in the Nucleus of the Large Magellanic Cloud Planetary Nebula N66. *M. Peña, S. Torres-Peimbert, M. Peimbert, M. T. Ruiz, & J. Maza.* 428, L9, 134-B13 (1994)

The Initial Mass Function for Massive Stars in the Magellanic Clouds. II. Interstellar Reddening toward 14 OB Associations. *Robert J. Hill, Barry F. Madore, & Wendy L. Freedman.* 429, 192, 146-D12 (1994)

The Initial Mass Function for Massive Stars in the Magellanic Clouds. III. Luminosity and Mass Functions for 14 OB Associations. *Robert J. Hill, Barry F. Madore, & Wendy L. Freedman.* 429, 204, 146-E12 (1994)

Opacity, Metallicity, and Cepheid Period Ratios in the Galaxy and Magellanic Clouds. *Norman R. Simon & Shashi M. Kanbur.* 429, 772, 155-C8 (1994)

A Survey of the Large Magellanic Cloud in the [C II] 158 Micron Line. *Kenji Mochizuki, Takao Nakagawa, Yasuo Doi, Yukari Y. Yui, Haruyuki Okuda, Hiroshi Shibai, Masao Yui, Tetsuo Nishimura, & Frank J. Low.* 430, L37, 165-E13 (1994)

Can Lensed Stars Be Regarded as Pointlike for Microlensing by MACHOs? *Hans J. Witt & Shude Mao.* 430, 505, 168-A11 (1994)

UIT: Ultraviolet Observations of the Small Magellanic Cloud. *Robert H. Cornett, J. K. Hill, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 430, L117, 174-G9 (1994)

Can MACHOs Probe the Shape of the Galaxy Halo? *Joshua Frieman & Román Scoccimarro.* 431, L23, 182-E7 (1994)

An Atlas of the Interstellar Environment of Wolf-Rayet Stars in the Magellanic Clouds. *M. A. Dopita, J. F. Bell, Y.-H. Chu, & T. A. Lozinskaya.* 93, 455, 48-G7 (1994)

A Comparison of the Intrinsic Shapes of Globular Clusters in Four Different Galaxies. *Cheongho Han & Barbara S. Ryden.* 433, 80, 209-C4 (1994)

The Distance to the Large Magellanic Cloud Cluster NGC 1866 from Its Cepheid Members. *Wolfgang P. Gieren, Tom Richtler, & Michael Hilker.* 433, L73, 223-F13 (1994)

Gravitational Microlensing by the MACHOs of the Large Magellanic Cloud. *Xiang-Ping Wu.* 435, 66, 244-B9 (1994)

Two New Light Echo Structures from SN 1987A at Large Distances. *Jun Xu, Arlin P. S. Crotts, & William E. Kunkel.* 435, 274, 247-B1 (1994)

GHRS Spectroscopy of Individual Stars in R136a. *Sara R. Heap, Dennis Ebbets, Eliot M. Malumuth, Stephen P. Maran, Alex de Koter, & Ivan Hubeny.* 435, L39, 252-A11 (1994)

WFPC2 Observations of the Double Cluster NGC 1850 in the Large Magellanic Cloud. *R. Gilmozzi, E. K. Kinney, S. P. Ewald, N. Panagia, & M. Romaniello.* 435, L43, 252-B7 (1994)

Remarkable Long-Term Changes in the Small Magellanic Cloud Wolf-Rayet System HD 5980. *G. Koenigsberger, A. F. J. Moffat, N. St-Louis, L. H. Auer, L. Drissen, & W. Seggewiss.* 436, 301, 265-D8 (1994)

An X-Ray Image of the Large Magellanic Cloud. *S. L. Snowden & R. Petre.* 436, L123, 281-A1 (1994)

Studies of Binary Stars in the Magellanic Clouds. II. Spectroscopic Orbits of Four Massive Eclipsing Binaries. *Virpi S. Niemela & Lilia P. Bassino.* 437, 332, 287-F11 (1994)

Observations of the Small Magellanic Cloud by the *Vela 5B* X-Ray Monitor. *L. Whitlock & James C. Lochner.* 437, 841, 297-B7 (1994)

Probing the Galactic Disk and Halo: Metal Abundances in the Magellanic Stream. *Limin Lu, Blair D. Savage, & Kenneth R. Sembach.* 437, L119, 299-D1 (1994)

Massive Stars in the Field and Associations of the Magellanic Clouds: The Upper Mass Limit, the Initial Mass Function, and a Critical Test of Main-Sequence Stellar Evolutionary Theory. *Philip Massey, Cornelia C. Lang, Kathleen DeGioia-Eastwood, & Catharine D. Garmany.* 438, 188, 4-A2 (1995)

The Circumstellar Envelope of SN 1987A. I. The Shape of the Double-lobed Nebula and Its Rings and the Distance to the Large Magellanic Cloud. *Arlin P. S. Crotts, William E. Kunkel, & Stephen R. Heathcote.* 438, 724, 14-B11 (1995)

Ionization Nebulae Surrounding CAL 83 and Other Supersoft X-Ray Sources. *R. A. Remillard, S. Rappaport, & L. M. Macri.* 439, 646, 33-C11 (1995)

The Motion of the Magellanic Clouds, Origin of the Magellanic Stream, and the Mass of the Milky Way. *D. N. C. Lin, B. F. Jones, & A. R. Klemola.* 439, 652, 33-D11 (1995)

Time-dependent Behavior and Physical Conditions of the LMC Planetary Nebula N66. *M. Peña, M. Peimbert, S. Torres-Peimbert, M. T. Ruiz, & J. Maza.* 441, 343, 64-B1 (1995)

A Comparison of Near-Infrared Spectra of the Galactic Center Compact He I Emission-Line Sources and Early-Type Mass-losing Stars. *R. D. Blum, D. L. DePoy, & K. Sellgren.* 441, 603, 70-D7 (1995)

A Survey of Lithium in the Red Giants of the Magellanic Clouds. *Verne V. Smith, Bertrand Plez, David L. Lambert, & D. A. Lubowich.* 441, 735, 72-A13 (1995)

Interstellar Titanium in the Galactic Halo. *Keith Lipman & Max Pettini.* 442, 628, 88-E8 (1995)

The Stellar Content of 30 Doradus Derived from Spatially Integrated Ultraviolet Spectra: A Test of Spectral Synthesis Models. *William D. Vacca, Carmelle Robert, Claus Leitherer, & Peter S. Conti.* 444, 647, 125-C3 (1995)

Probable Gravitational Microlensing toward the Galactic Bulge. *C. Alcock, R. A. Allsman, T. S. Axelrod, D. P. Bennett, K. H. Cook, K. C. Freeman, K. Griest, S. L. Marshall, S. Perlmutter, B. A. Peterson, M. R. Pratt, P. J. Quinn, A. W. Rodgers, C. W. Stubbs, & W. Sutherland (The MACHO Collaboration).* 445, 133, 134-B10 (1995)

UIT and Optical Imagery of Large Magellanic Cloud Associations LH 52 and LH 53: Ages and Initial Mass Function Slopes. *Robert S. Hill, K.-P. Cheng, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 446, 622, 164-F10 (1995)

The Intermediate Stellar Mass Population in R136 Determined from *Hubble Space Telescope* Planetary Camera 2 Images. *Deidre A. Hunter, Edward J. Shaya, Jon A. Holtzman, Robert M. Light, Earl J. O'Neil, Jr., & Roger Lynds.* 448, 179, 194-E7 (1995)

Binary Models for the Solar Neighborhood and Magellanic Cloud W-R Populations. *William W. Dalton & Craig L. Sarazin.* 448, 369, 197-C6 (1995)

Identification of Emission-Line Stars in 30 Doradus Using *HST* Observations. *Joel Wm. Parker, Sara R. Heap, & Eliot M. Malumuth.* 448, 705, 204-D11 (1995)

Variable Stars in Magellanic Cloud Clusters. II. NGC 1850. *K. M. Sebo & P. R. Wood.* 449, 164, 212-D8 (1995)

Coronal Gas in the Galactic Halo: ORFEUS Observations of NGC 346 No. 1 and PKS 2155−304. *M. Hurwitz, S. Bowyer, R.-P. Kudritzki, & D. J. Lennon.* 450, 149, 230-B2 (1995)

X-Rays from Superbubbles in the Large Magellanic Cloud. III. X-Ray–dim Superbubbles. *You-Hua Chu, Hsiao-wei Chang, Yu-ling Su, & Mordecai-Mark Mac Low.* 450, 157, 230-B13 (1995)

Ages for Globular Clusters with Predominantly Red Horizontal Branches. *Ata Sarajedini, Young-Wook Lee, & Dong-Han Lee.* 450, 712, 240-E7 (1995)

The Supernova Ring Revisited. II. Distance to the Large Magellanic Cloud. *Andrew Gould.* 452, 189, 264-E12 (1995)

Empirical Approach to Cepheid Period-Luminosity-Color and Period-Luminosity Relations by Surface Brightness. *G. P. Di Benedetto.* 452, 195, 264-F7 (1995)

Triggered Star Formation and the Dynamics of a Superbubble in the LMC: The OB Association LH 47/48 in DEM 152. *M. S. Oey & Philip Massey.* 452, 210, 264-G11 (1995)

Microlensed Image Motions. *Mark A. Walker.* 453, 37, 281-F7 (1995)

Two X-Ray Sources in 30 Doradus: Wolf-Rayet + Black Hole Binaries? *Q. Daniel Wang.* 453, 783, 294-F9 (1995)

A Multiwavelength Study of 30 Doradus: The Interstellar Medium in a Low-Metallicity Galaxy. *A. Poglitsch, A. Krabbe, S. C. Madden, T. Nikola, N. Geis, L. E. B. Johansson, G. J. Stacey, & A. Sternberg.* 454, 293, 303-C8 (1995)

A Reconnaissance of the 900–1200 Å Spectra of Early O Stars in the Magellanic Clouds. *Nolan R. Walborn, Knox S. Long, Daniel J. Lennon, & Rolf-Peter Kudritzki.* 454, L27, 307-F9 (1995)

A Revised and Extended Catalog of Magellanic System Clusters, Associations, and Emission Nebulae. I. Small Magellanic Cloud and Bridge. *Eduardo L. D. Bica & Henrique R. Schmitt.* 101, 41, 53-E4 (1995)

Production of Milky Way Structure by the Magellanic Clouds. *Martin D. Weinberg.* 455, L31, 324-F9 (1995)

GALAXIES: MAGNETIC FIELDS

Milliarcsecond Polarization Structure of 24 Objects from the Pearson-Readhead Sample of Bright Extragalactic Radio Sources. II. Discussion. *T. V. Cawthorne, J. F. C. Wardle, D. H. Roberts, & D. C. Gabuzda.* 416, 519, 209-G5 (1993)

The Formation of Sharp Structures by Ambipolar Diffusion. *Axel Brandenburg & Ellen G. Zweibel.* 427, L91, 127-A11 (1994)

On the Origin of Obscuring Tori in the Galactic Nucleus and Active Galactic Nuclei. *Insu Yi, George B. Field, & Eric G. Blackman.* 432, L31, 199-E2 (1994)

The Unusual Tail of the Tornado Nebula. *R. T. Stewart, R. F. Haynes, A. D. Gray, & W. Reich.* 432, L39, 199-F2 (1994)

OSSE Observations of NGC 1275 in the 0.05–10.0 MeV Range. *C. Y. Osako, M. P. Ulmer, D. A. Grabelsky, W. R. Purcell, M. S. Strickman, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, & G. V. Jung.* 435, 181, 245-G1 (1994)

Evolution of the Parsec-Scale Linear Polarization Structure of the Superluminal Quasar 3C 345. *L. F. Brown, D. H. Roberts, & J. F. C. Wardle.* 437, 108, 284-F7 (1994)

Interpretation of VLBI Kinematic and Polarization Data: Application to 3C 345. *J. F. C. Wardle, T. V. Cawthorne, D. H. Roberts, & L. F. Brown.* 437, 122, 284-G10 (1994)

In Search of a Source for the 320 EeV Fly's Eye Cosmic Ray. *Jerome W. Elbert & Paul Sommers.* 441, 151, 61-D9 (1995)

A Faraday Rotation Search for Magnetic Fields in Quasar-damped Lyα Absorption Systems. *Abraham L. Oren & Arthur M. Wolfe.* 445, 624, 143-F7 (1995)

Discovery of Inverse-Compton X-Rays in Radio Lobes. *E. D. Feigelson, S. A. Laurent-Muehleisen, R. I. Kollgaard, & E. B. Fomalont.* 449, L149, 227-E6 (1995)

GALAXIES: NUCLEI

Kinematics and Ionization of Extended Gas in Active Galaxies. VI. The Seyfert 2 Galaxy NGC 1386. *K. A. Weaver, A. S. Wilson, & J. A. Baldwin.* 366, 50, 1-F5 (1991)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. I. An 8 Month Campaign of Monitoring NGC 5548 with *IUE*. *J. Clavel, G. A. Reichert, D. Alloin, D. M. Crenshaw, G. Kriss, J. H. Krolik, M. A. Malkan, H. Netzer, B. M. Peterson, W. Wamsteker, A. Altamore, T. Baribaud, P. Barr, S. Beck, L. Binette, G. E. Bromage, N. Brosch, A. I. Diaz, A. V. Filippenko, K. Fricke, C. M. Gaskell, P. Giommi, I. S. Glass, P. Gondhalekar, R. L. Hackney, J. P. Halpern, D. J. Hutter, S. Jörsäter, A. L. Kinney, W. Kollatschny, A. Koratkar, K. T. Korista, A. Laor, J.-P. Lasota, E. Leibowitz, D. Maoz, P. G. Martin, T. Mazeh, E. J. A. Meurs, A. D. Nair, P. O'Brien, D. Pelat, E. Perez, G. C. Perola, R. L. Ptak, P. Rodríguez-Pascual, E. I. Rosenblatt, A. C. Sadun, M. Santos-Lleo, R. A. Shaw, P. S. Smith, G. M. Stirpe, R. Stoner, W. H. Sun, M.-H. Ulrich, E. van Groningen, & W. Zheng.* 366, 64, 1-G7 (1991)

An Infrared Jet in Centaurus A: A Link to the Extranuclear Activity in Distant Radio Galaxies? *Marshall Joy, P. M. Harvey, E. V. Tollestrup, K. Sellgren, P. J. McGregor, & A. R. Hyland.* 366, 82, 2-A13 (1991)

Dust and Gas in the Core of Arp 220 (IC 4553). *N. Z. Scoville, A. I. Sargent, D. B. Sanders, & B. T. Soifer.* 366, L5, 6-A13 (1991)

VLA Radio Recombination Line Observations of Sagittarius A West. *D. A. Roberts, W. W. Goss, J. H. van Gorkom, & J. P. Leahy.* 366, L15, 6-B13 (1991)

H II Regions in M82: High-Resolution Millimeter Continuum Observations. *J. E. Carlstrom & Philipp P. Kronberg.* 366, 422, 8-B1 (1991)

Accretion Disk Emission from a BL Lacertae Object. *Amri Wandel & C. Megan Urry.* 367, 78, 13-A5 (1991)

Effect of a QSO on the Interstellar Medium of Its Host Galaxy. *Smita Shanbhag.* 367, 462, 19-B5 (1991)

Structure of Thermal Pair Clouds around Gamma-Ray–emitting Black Holes. *Edison P. Liang.* 367, 470, 19-C1 (1991)

High-Rate Active Galaxy Monitoring at the Wise Observatory. III. The Broad-Line Region of NGC 4151. *D. Maoz, H. Netzer, T. Mazeh, S. Beck, E. Almoznino, E. Leibowitz, N. Brosch, H. Mendelson, & A. Laor.* 367, 493, 19-E1 (1991)

The Line-emitting Regions of the Exceptional Seyfert Galaxy Markarian 359. *Sylvain Veilleux.* 368, 158, 25-A9 (1991)

High-Excitation Extranuclear Gas in Seyfert Galaxies. *Christopher A. Haniff, Martin J. Ward, & Andrew S. Wilson.* 368, 167, 25-B5 (1991)

Fanaroff-Riley I Galaxies as the Parent Population of BL Lacertae Objects. II. Optical Constraints. *P. Padovani & C. M. Urry.* 368, 373, 29-F6 (1991)

Saturation of the Synchrotron Megamaser. *André R. Crusius-Wätzel.* 368, 390, 30-A1 (1991)

A Study of the Structure and Kinematics of the Narrow-Line Region in Seyfert Galaxies. I. Atlas of Line Profiles. *Sylvain Veilleux.* 75, 357, 5-F1 (1991)

A Study of the Structure and Kinematics of the Narrow-Line Region in Seyfert Galaxies. II. Analysis of the Line-Profile Parameters. *Sylvain Veilleux.* 75, 383, 6-A1 (1991)

The Number Count Distribution for X-Ray–selected BL Lacertae Objects and Constraints on the Luminosity Function. *Anna Wolter, I. M. Gioia, T. Maccacaro, S. L. Morris, & J. T. Stocke.* 369, 314, 41-F5 (1991)

A Study of the Structure and Kinematics of the Narrow-Line Region in Seyfert Galaxies. III. Individual Objects. *Sylvain Veilleux.* 369, 331, 42-A1 (1991)

HST Imaging of the Inner 3 Arcseconds of NGC 1068 in the Light of [O III] λ5007. *I. N. Evans, H. C. Ford, A. L. Kinney, R. R. J. Antonucci, L. Armus, & S. Caganoff.* 369, L27, 45-C9 (1991)

The Core of the Nearby S0 Galaxy NGC 7457 Imaged with the *HST* Planetary Camera. *Tod R. Lauer, S. M. Faber, Jon A. Holtzman, William A. Baum, Douglas G. Currie, S. P. Ewald, Edward J. Groth, J. Jeff Hester, T. Kelsall, Jerome Kristian, Robert M. Light, C. Roger Lynds, Earl J. O'Neil, Jr., Edward J. Shaya, & James A. Westphal.* 369, L41, 45-E9 (1991)

Dynamical and Luminosity Evolution of Active Galactic Nuclei: Models with a Mass Spectrum. *Brian W. Murphy, Haldan N. Cohn, & Richard H. Durisen.* 370, 60, 47-G1 (1991)

IC 5063: A Merger Remnant with a Hidden Luminous Active Nucleus. *L. Colina, W. B. Sparks, & F. Macchetto.* 370, 102, 48-C5 (1991)

High-Resolution CO Observations of Luminous Infrared Galaxies with Large L_{IR}/L_B Ratios: IRAS 10173+0828, Zw 049.057, IRAS 17208−0014. *P. Planesas, I. F. Mirabel, & D. B. Sanders.* 370, 172, 49-C5 (1991)

High-Resolution Imaging of Brackett-γ and H_2 1–0 $S(1)$ Emission in the Seyfert Galaxy NGC 1068. *V. Rotaciuc, A. Krabbe, M. Cameron, S. Drapatz, R. Genzel, A. Sternberg, & J. W. V. Storey.* 370, L23, 53-D6 (1991)

Structure and Kinematics of the Broad-Line Regions in Active Galaxies from *IUE* Variability Data. *Anuradha P. Koratkar & C. Martin Gaskell.* 75, 719, 11-B5 (1991)

Two-Temperature Accretion Disks with Winds in a Fluid Approximation. *Masaaki Kusunose.* 370, 505, 54-F1 (1991)

The Origin of the Far-Infrared Continuum in Active Galactic Nuclei. *L. K. Hunt.* 370, 511, 54-F9 (1991)

Radius-Luminosity and Mass-Luminosity Relationships for Active Galactic Nuclei. *Anuradha P. Koratkar & C. Martin Gaskell.* 370, L61, 59-B1 (1991)

Fueling Starburst Galaxies with Gas-rich Mergers. *Joshua E. Barnes & Lars E. Hernquist.* 370, L65, 59-B7 (1991)

Far-Infrared Line and Continuum Observations of G0.095+0.012 and the E2 Thermal Radio Filament near the Galactic Center. *Edwin F. Erickson, Sean W. J. Colgan, J. P. Simpson, Robert H. Rubin, Mark Morris, & Michael R. Haas.* 370, L69, 59-C1 (1991)

Mapping of Infrared Helium and Hydrogen Line Profiles in the Central Few Arcseconds of the Galaxy. *T. R. Geballe, K. Krisciunas, J. A. Bailey, & R. Wade.* 370, L73, 59-C8 (1991)

Quasars and Active Galactic Nuclei in Rich Environments. II. The Evolution of Radio-loud Quasars. *E. Ellingson, H. K. C. Yee, & R. F. Green.* 371, 49, 60-F7 (1991)

Near-Infrared Long-Slit Spectra of NGC 1068. *M. Tamura, S. G. Kleinmann, N. Z. Scoville, & R. R. Joyce.* 371, 131, 61-F3 (1991)

C IV Line Profile Correlations in NGC 4151. *R. P. Fahey, A. G. Michalitsianos, & D. Kazanas.* 371, 136, 61-F9 (1991)

Ultramassive ($\sim 10^{11}$ $M_\odot$) Dark Core in the Luminous Infrared Galaxy NGC 6240? *Jonathan Bland-Hawthorn, Andrew S. Wilson, & R. Brent Tully.* 371, L19, 66-C7 (1991)

The Effect of Anisotropic Emission from Thick Accretion Disks on the Luminosity Functions of Active Galactic Nuclei. *C. M. Urry, P. Marziani, & M. Calvani.* 371, 510, 67-G7 (1991)

Ultraviolet Variability of NGC 5548: Dynamics of the Continuum Production Region and Geometry of the Broad-Line Region. *J. H. Krolik, Keith Horne, T. R. Kallman, M. A. Malkan, R. A. Edelson, & G. A. Kriss.* 371, 541, 68-C6 (1991)

A Comparison of C IV and Hβ Broad Emission-Line Profiles in Low-Redshift Active Galactic Nuclei. *Michael R. Corbin.* 371, L51, 73-B1 (1991)

The Molecular Interstellar Medium and the Near-Infrared Continuum of the Barred LINER NGC 6764. *A. Eckart, M. Cameron, J. M. Jackson, R. Genzel, A. I. Harris, W. Wild, & H. Zinnecker.* 372, 67, 74-G9 (1991)

Magnetically Dominated Accretion onto Black Holes. *Brian Punsly.* 372, 424, 81-B1 (1991)

Correlated Radio and Optical Variability in the BL Lacertae Object 0716+714. *A. Quirrenbach, A. Witzel, S. Wagner, F. Sanchez-Pons, T. P. Krichbaum, R. Wegner, K. Anton, U. Erkens, M. Haehnelt, J. A. Zensus, & K. J. Johnston.* 372, L71, 85-C9 (1991)

Photoerosion and the Abundances of ^{7}Li, ^{9}Be, ^{10}B, and ^{11}B near Active Galactic Nuclei. *R. N. Boyd & H. S. Fencl.* 373, 84, 87-A13 (1991)

The Bumps in the Spectral Energy Distribution of Active Galactic Nuclei. *Marcella Contini & Sueli M. Viegas.* 373, 405, 93-A9 (1991)

Molecular Clouds in Starburst Galaxy Nuclei. *Judith S. Young & Nicholas A. Devereux.* 373, 414, 93-B6 (1991)

Near-Infrared Long-Slit Spectroscopy of IRAS 14348−1447. *Tadashi Nakajima, Kimiaki Kawara, Minoru Nishida, & Brooke Gregory.* 373, 452, 93-E6 (1991)

The Properties of X-Ray–selected Active Galactic Nuclei. I. Luminosity Function, Cosmological Evolution, and Contribution to the Diffuse X-Ray Background. *Tommaso Maccacaro, Roberto Della Ceca, Isabella M. Gioia, Simon L. Morris, John T. Stocke, & Anna Wolter.* 374, 117, 99-D11 (1991)

Broad Paschen-Alpha Emission in Two Extremely Infrared Luminous Seyfert 2 Galaxies. *Dean C. Hines.* 374, L9, 103-C7 (1991)

A Survey of the 158 Micron [C II] Fine-Structure Line in the Central 50 Parsecs of The Galaxy. *A. Poglitsch, G. J. Stacey, N. Geis, M. Haggerty, J. Jackson, M. Rumitz, R. Genzel, & C. H. Townes.* 374, L33, 110-B5 (1991)

Quasars and Active Galactic Nuclei in Rich Environments. I. Fields Surrounding Optically Faint Quasars. *E. Ellingson, H. K. C. Yee, & R. F. Green.* 76, 455, 31-D2 (1991)

Optical Polarization of a Complete Sample of Radio Sources. *C. D. Impey, C. R. Lawrence, & S. Tapia.* 375, 46, 111-E10 (1991)

Imaging Spectrophotometry of Ionized Gas in NGC 1068. II. Global Ionization of the Inner Disk. *Jonathan Bland-Hawthorn, James Sokolowski, & Gerald Cecil.* 375, 78, 112-A1 (1991)

Infrared Broad Emission Lines from an Obscured Quasar, IRAS 23060+0505. *Tadashi Nakajima, Nathaniel P. Carleton, & Minoru Nishida.* 375, L1, 117-A7 (1991)

Are Hypernovae Detectable? *Seok Jae Park & Ethan T. Vishniac.* 375, 565, 119-F9 (1991)

Line Profiles from a Disk around a Rotating Black Hole. *Ari Laor.* 376, 90, 126-B1 (1991)

The *Einstein Observatory* Extended Medium-Sensitivity Survey. II. The Optical Identifications. *John T. Stocke, Simon L. Morris, I. M. Gioia, T. Maccacaro, R. Schild, A. Wolter, Thomas A. Fleming, & J. Patrick Henry.* 76, 813, 36-B1 (1991)

Variable Soft X-Ray Excesses in Active Galactic Nuclei from Nonthermal Electron-Positron Pair Cascades. *Andrzej A. Zdziarski & Paolo S. Coppi.* 376, 480, 132-D5 (1991)

Unique Broad-Line Profile Variations in the Radio Galaxy 3C 390.3. *Sylvain Veilleux & Wei Zheng.* 377, 89, 139-B7 (1991)

The Featureless Continua and Hydrogen Lines of Seyfert 2 Galaxies. *A. L. Kinney, R. R. J. Antonucci, M. J. Ward, A. S. Wilson, & M. Whittle.* 377, 100, 139-C5 (1991)

Faint Object Spectrograph Spectroscopy of Resolved Structure in the Nucleus of NGC 1068. *S. Caganoff, R. R. J. Antonucci, H. C. Ford, G. A. Kriss, G. Hartig, L. Armus, I. N. Evans, E. Rosenblatt, R. C. Bohlin, & A. L. Kinney.* 377, L9, 143-B11 (1991)

Faint Object Spectrograph Observations of the Low-Luminosity Seyfert Galaxy NGC 1566. *G. A. Kriss, G. F. Hartig, L. Armus, William P. Blair, S. Caganoff, & L. Dressel.* 377, L13, 143-C1 (1991)

The Molecular Structure of a Starburst: ^{13}CO in the Nucleus of Maffei 2. *Robert L. Hurt & Jean L. Turner.* 377, 434, 145-B8 (1991)

Isothermal, Compton-heated Coronae above Accretion Disks. *Eve C. Ostriker, Christopher F. McKee, & Richard I. Klein.* 377, 593, 147-B3 (1991)

Neutrino-heated Stars and Broad-Line Emission from Active Galactic Nuclei. *James MacDonald, Todor Stanev, & Peter L. Biermann.* 378, 30, 151-D4 (1991)

Multidirectional Views of the Active Nucleus of NGC 1068. *J. S. Miller, R. W. Goodrich, & William G. Mathews.* 378, 47, 151-E13 (1991)

The *EXOSAT* High Galactic Latitude Survey. *P. Giommi, G. Tagliaferri, K. Beuermann, G. Branduardi-Raymont, R. Brissenden, U. Graser, K. O. Mason, J. D. P. Mittaz, P. Murdin, G. Pooley, H.-C. Thomas, & I. Tuohy.* 378, 77, 152-A5 (1991)

A Finger-like Extension of the 20 Kilometer per Second Cloud toward the Galactic Center. *Sachiko K. Okumura, Masato Ishiguro, Edward B. Fomalont, Tetsuo Hasegawa, Takashi Kasuga, Koh-Ichiro Morita, Ryohei Kawabe, & Hideyuki Kobayashi.* 378, 127, 152-E9 (1991)

A Gaseous Tail Ablated from the Supergiant IRS 7 near the Galactic Center. *E. Serabyn, J. H. Lacy, & J. M. Achtermann.* 378, 557, 159-C9 (1991)

Echo Images of Broad-Line Regions in Active Galactic Nuclei. *William F. Welsh & Keith Horne.* 379, 586, 172-A1 (1991)

Modeling an Accretion Disk in NGC 985. *R. M. Stanga, J. M. Rodríguez Espinosa, & F. Mannucci.* 379, 592, 172-A9 (1991)

Direct Evidence for a Bar at the Galactic Center. *Leo Blitz & David N. Spergel.* 379, 631, 172-E1 (1991)

Location of the Thermal Continuum Source Sagittarius D. *Dariusz C. Lis.* 379, L53, 175-B10 (1991)

The Luminosity Function and Cosmological Evolution of X-Ray–selected BL Lacertae Objects. *Simon L. Morris, John T. Stocke, Isabella M. Gioia, Rudy E. Schild, Anna Wolter, Tommaso Maccacaro, & Roberto Della Ceca.* 380, 49, 176-F1 (1991)

Hybrid Accretion Disks in Active Galactic Nuclei. I. Structure and Spectra. *Amri Wandel & Edison P. Liang.* 380, 84, 177-B1 (1991)

Polarimetric Imaging of the Galactic Center at 12.4 Microns: The Detailed Magnetic Field Structure in the Northern Arm and East-West Bar. *David K. Aitken, Daniel Gezari, Craig H. Smith, Mark McCaughrean, & Patrick F. Roche.* 380, 419, 183-D10 (1991)

Millimeter Continuum Observations of Galactic Center Giant Molecular Cloud Cores. *D. C. Lis, J. E. Carlstrom, & Jocelyn Keene.* 380, 429, 183-E7 (1991)

A Two-Phase Model for the X-Ray Emission from Seyfert Galaxies. *F. Haardt & L. Maraschi.* 380, L51, 188-B6 (1991)

Infrared Hot Spots in the Nucleus of NGC 253. *Duncan A. Forbes, Martin J. Ward, & D. L. DePoy.* 380, L63, 188-C6 (1991)

Galactic Center Gasdynamics: A One-armed Spiral in a Keplerian Disk. *J. H. Lacy, J. M. Achtermann, & E. Serabyn.* 380, L71, 188-D6 (1991)

Massive Black Holes in the Nuclei of Spiral Galaxies: M31 and the Problem of the Initial Conditions. *M. Bradley, A. Curir, & F. de Felice.* 381, 72, 189-G11 (1991)

The Starburst Ring around the Seyfert Nucleus in NGC 7469. *A. S. Wilson, T. T. Helfer, C. A. Haniff, & M. J. Ward.* 381, 79, 190-A6 (1991)

3C 390.3: Modeling Variable Profile Humps. *Wei Zheng, Sylvain Veilleux, & Steven A. Grandi.* 381, 418, 196-A1 (1991)

Compton Backscattered 511 keV Annihilation Line Emission and the 170 keV Line from the Galactic Center Direction. *Richard E. Lingenfelter & Xin-Min Hua.* 381, 426, 196-A10 (1991)

A Search for the 2.223 MeV Neutron Capture Gamma-Ray Line from the Directions of Cygnus and the Galactic Center. *Michael J. Harris & Gerald H. Share.* 381, 439, 196-B10 (1991)

The Galactic Center Radio Source Shines below the Compton Limit. *C. R. Gwinn, R. M. Danen, J. Middleditch, L. M. Ozernoy, & T. Kh. Tran.* 381, L43, 199-B7 (1991)

Infrared Spectroscopy of Cygnus A: Implications for the Obscured Active Nucleus. *Martin J. Ward, Philip R. Blanco, Andrew S. Wilson, & Minoru Nishida.* 382, 115, 201-E11 (1991)

Fe II Emission and Anisotropy in Broad-Line Regions. *Wei Zheng & William C. Keel.* 382, 121, 201-F5 (1991)

Polarization Properties of Emission Lines from Relativistic Accretion Disks. *Kaiyou Chen & Douglas M. Eardley.* 382, 125, 201-F10 (1991)

A Cluster of He I Emission-Line Stars in the Galactic Center. *A. Krabbe, R. Genzel, S. Drapatz, & V. Rotaciuc.* 382, L19, 205-C1 (1991)

The Ultraviolet Spectrum of NGC 4151 from 1978 to 1990: General Characteristics and Evolution. *M.-H. Ulrich, A. Boksenberg, G. E. Bromage, J. Clavel, A. Elvius, M. V. Penston, G. C. Perola, & M. A. J. Snijders.* 382, 483, 207-E7 (1991)

Fanaroff-Riley I Galaxies as the Parent Population of BL Lacertae Objects. III. Radio Constraints. *C. M. Urry, P. Padovani, & M. Stickel.* 382, 501, 207-F13 (1991)

Inference of the Extreme-Ultraviolet Continuum Shape of Quasars. *Wei Zheng.* 382, L55, 211-A11 (1991)

The Ultraviolet Spectra of Nearby Radio Galaxies. *William C. Keel & Rogier A. Windhorst.* 383, 135, 213-F3 (1991)

Relativistic Electron-Positron Beam Formation in the Framework of the Two-Flow Model for Active Galactic Nuclei. *Gilles Henri & Guy Pelletier.* 383, L7, 219-B1 (1991)

Relativistic Enhancement of the Compton-reflected Component in Active Galactic Nuclei. *R. D. Rogers.* 383, 550, 221-B4 (1991)

SIGMA Discovery of Variable e^+-e^- Annihilation Radiation from the Near Galactic Center Variable Compact Source 1E 1740.7−2942. *L. Bouchet, P. Mandrou, J. P. Roques, G. Vedrenne, B. Cordier, A. Goldwurm, F. Lebrun, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, M. Pavlinsky, S. Grebenev, G. Babalyan, I. Dekhanov, & N. Khavenson.* 383, L45, 226-C1 (1991)

EXOSAT X-Ray Spectra of Quasars. *Andrea Comastri, Giancarlo Setti, Giovanni Zamorani, Martin Elvis, Paolo Giommi, Belinda J. Wilkes, & Jonathan C. McDowell.* 384, 62, 1-G1 (1992)

^{13}CO in IC 342: Evidence for a Spiral Density Wave in the Nucleus. *Jean L. Turner & Robert L. Hurt.* 384, 72, 1-G13 (1992)

The Effects of Radiation Drag on Radial, Relativistic Hydromagnetic Winds. *Zhi-yun Li, Mitchell C. Begelman, & Tzihong Chiueh.* 384, 567, 9-C1 (1992)

Accretion Disks in Active Galactic Nuclei: Vertically Averaged Models. *John K. Cannizzo & Christine M. Reiff.* 385, 87, 13-B1 (1992)

Accretion Disks in Active Galactic Nuclei: Vertically Explicit Models. *John K. Cannizzo.* 385, 94, 13-B9 (1992)

Gas Clouds from Tidally Disrupted Stars in Active Galactic Nuclei. *Nico Roos.* 385, 108, 13-C11 (1992)

Inner Shell of Optically Thin Gas in Active Galactic Nuclei. *Wei Zheng.* 385, 127, 13-E4 (1992)

The Radio Source and Bipolar Nebulosity in the Seyfert Galaxy NGC 3516. *Takamitsu Miyaji, Andrew S. Wilson, & Ismael Pérez-Fournon.* 385, 137, 13-F1 (1992)

Magnetic Acceleration of Broad Emission-Line Clouds in Active Galactic Nuclei. *Robert T. Emmering, Roger D. Blandford, & Isaac Shlosman.* 385, 460, 19-A1 (1992)

The Ionizing Radiation Field of NGC 4388 and Its Relation to the Extranuclear Emission-Line Regions. *Luis Colina.* 386, 59, 24-G5 (1992)

Origin of Far-Infrared Emission in Seyfert and Starburst Galaxies. *Hideaki Mouri & Yoshiaki Taniguchi.* 386, 68, 25-A1 (1992)

Optical and Radio Variability in Blazars. *Beth R. Hufnagel & Joel N. Bregman.* 386, 473, 31-C5 (1992)

Anisotropic Ionizing Radiation in Seyfert Galaxies. I. The Extended Narrow-Line Region in Markarian 573. *Zlatan Tsvetanov & J. R. Walsh.* 386, 485, 31-D5 (1992)

Anisotropic Line Emission and the Geometry of the Broad-Line Region in Active Galactic Nuclei. *G. J. Ferland, B. M. Peterson, K. Horne, W. F. Welsh, & S. N. Nahar.* 387, 95, 38-C1 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. II. Galaxy Rotation as Virial Parameter. *Mark Whittle.* 387, 109, 38-D2 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. III. Galaxy Luminosity as Virial Parameter. *Mark Whittle.* 387, 121, 38-E1 (1992)

Mid-Infrared Imaging of Markarian 231 and Arp 220. *Eric Keto, Roger Ball, John Arens, Garrett Jernigan, & Margaret Meixner.* 387, L17, 43-B13 (1992)

Standing Shocks in Accretion Disks and the Spectra of Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 387, L21, 43-C4 (1992)

Luminosity Functions, Relativistic Beaming, and Unified Theories of High-Luminosity Radio Sources. *P. Padovani & C. M. Urry.* 387, 449, 44-C9 (1992)

Spatially Resolved Ultraviolet Spectroscopy of the Liner Galaxy NGC 3998. *G. A. Reichert, G. Branduardi-Raymont, A. V. Filippenko, K. O. Mason, E. M. Puchnarewicz, & C.-C. Wu.* 387, 536, 45-C11 (1992)

A New Scheme for Multidimensional Line Transfer. II. ETLA Method in One Dimension with Application to Iron Kα Lines. *John I. Castor, Pieter G. Dykema, & Richard I. Klein.* 387, 561, 45-F1 (1992)

The Nonthermal Nucleus of M87. *John Kormendy.* 388, L9, 52-B1 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. I. A Compilation of Narrow Line Region and Host Galaxy Properties. *Mark Whittle.* 79, 49, 13-A9 (1992)

The X-Ray Spectra of High-Luminosity Active Galactic Nuclei Observed by *Ginga*. *O. R. Williams, M. J. L. Turner, G. C. Stewart, R. D. Saxton, T. Ohashi, K. Makishima, T. Kii, H. Inoue, F. Makino, K. Hayashida, & K. Koyama.* 389, 157, 62-A5 (1992)

Near-Infrared Spectra and Classification Diagnostics of Seyfert Galaxies. *Donald E. Osterbrock, Hien D. Tran, & Sylvain Veilleux.* 389, 196, 62-D7 (1992)

Subarcsecond Mid-Infrared Imaging of the Nuclei of the Infrared Bright Galaxies NGC 1614 and NGC 7469. *Eric Keto, Roger Ball, John Arens, Garrett Jernigan, & Margaret Meixner.* 389, 223, 62-F9 (1992)

The Properties of X-Ray Selected Active Galactic Nuclei. II. A Deeper Look at the Cosmological Evolution. *Roberto Della Ceca, Tommaso Maccacaro, Isabella M. Gioia, Anna Wolter, & John T. Stocke.* 389, 491, 67-E8 (1992)

Detection of an Unresolved Nuclear Radio Source in M31. *Patrick C. Crane, John R. Dickel, & John J. Cowan.* 390, L9, 78-B7 (1992)

Hard X-Ray Tests of the Unified Model for an Ultraviolet-detected Sample of Seyfert 2 Galaxies. *John S. Mulchaey, Richard F. Mushotzky, & Kimberly A. Weaver.* 390, L69, 84-G1 (1992)

The Infrared Properties of Quasars and Radio Galaxies: Testing the Unification Schemes. *Timothy M. Heckman, Kenneth C. Chambers, & Marc Postman.* 391, 39, 86-E3 (1992)

Variability of Near-Infrared Emission Lines in NGC 4151: Implications for Nuclear Star Formation. *Andrea H. Prestwich, Gillian S. Wright, & Robert D. Joseph.* 80, 205, 25-A5 (1992)

Active Galactic Nuclei. IV. Supplying Black Hole Clusters by Tidal Disruption and by Tidal Capture of Stars. *W. R. Stoeger, S.J., A. G. Pacholczyk, & T. F. Stepinski.* 391, 550, 94-F13 (1992)

The Milliarcsecond Structure of Highly Variable Radio Sources. *Ann E. Wehrle, Marshall H. Cohen, Stephen C. Unwin, Hugh D. Aller, Margo F. Aller, & George Nicolson.* 391, 589, 95-C5 (1992)

Polarization in the Radio Galaxy 3C 109—An Obscured Quasar. *Robert W. Goodrich & Marshall H. Cohen.* 391, 623, 95-F12 (1992)

Collective Emission from Rapidly Variable Quasars. *Gregory Benford.* 391, L59, 99-D1 (1992)

Cosmic Gamma-Ray Bursts from Black Hole Tidal Disruption of Stars? *Brandon Carter.* 391, L67, 99-D13 (1992)

An X-Ray Image of the Seyfert Galaxy NGC 1068. *A. S. Wilson, M. Elvis, A. Lawrence, & J. Bland-Hawthorn.* 391, L75, 99-E11 (1992)

From Fairall 9 to High-z Objects: Pattern of Change in Ionization Structure. *Wei Zheng, Li-Zhi Fang, & Luc Binette.* 392, 74, 102-A1 (1992)

Hopkins Ultraviolet Telescope Observations of the Far-Ultraviolet Spectrum of NGC 4151. *G. A. Kriss, A. F. Davidsen, William P. Blair, C. W. Bowers, W. V. Dixon, S. T. Durrance, P. D. Feldman, H. C. Ferguson, R. C. Henry, R. A. Kimble, J. W. Kruk, Knox S. Long, H. W. Moos, & O. Vancura.* 392, 485, 108-C10 (1992)

Off-Center Nuclei in Galaxies. *R. H. Miller & B. F. Smith.* 393, 508, 122-B7 (1992)

Evidence for a Supermassive Black Hole in NGC 3115. *John Kormendy & Douglas Richstone.* 393, 559, 122-G1 (1992)

Near-Infrared Images of the Nuclear Region of NGC 5128. *Paula C. Turner, William J. Forrest, Judith L. Pipher, & Mark A. Shure.* 393, 648, 123-G7 (1992)

Line Profile and Variability Data to Probe the Broad-Line Region Geometry: Of Disks and Nests. *F. Mannucci, M. Salvati, & R. M. Stanga.* 394, 98, 129-C6 (1992)

Hydromagnetic Disk Winds in Young Stellar Objects and Active Galactic Nuclei. *Guy Pelletier & Ralph E. Pudritz.* 394, 117, 129-D13 (1992)

A 2.18 to 2.28 Micron Study of the Stellar Population in the Nucleus of M82. *Niall I. Gaffney & Dan F. Lester.* 394, 139, 129-F9 (1992)

Gravitational Lensing, Finite Galaxy Cores, and the Cosmological Constant. *Lawrence M. Krauss & Martin White.* 394, 385, 134-B1 (1992)

Evidence for Shock-heated Gas in the Hopkins Ultraviolet Telescope Spectrum of NGC 1068. *Gerard A. Kriss, Arthur F. Davidsen, William P. Blair, Henry C. Ferguson, & Knox S. Long.* 394, L37, 139-B7 (1992)

Using Electron Scattering to Probe the Environment of Cluster Cooling Flows. *Michael W. Wise & Craig L. Sarazin.* 395, 387, 147-B5 (1992)

Infrared Emission in Seyfert 2 Galaxies: Reprocessed Radiation from a Dusty Torus? *Thaisa Storchi-Bergmann, John S. Mulchaey, & Andrew S. Wilson.* 395, L73, 153-F12 (1992)

Active Galactic Nuclei with Ultrasoft X-Ray Emission. *F. A. Córdova, J. F. Kartje, R. J. Thompson, Jr., K. O. Mason, E. M. Puchnarewicz, & F. R. Harnden, Jr.* 81, 661, 45-A11 (1992)

The Ionization Cone, Obscured Nucleus, and Gaseous Outflow in NGC 3281: A Prototypical Seyfert 2 Galaxy? *Thaisa Storchi-Bergmann, Andrew S. Wilson, & Jack A. Baldwin.* 396, 45, 155-F1 (1992)

The Compact Triples 0710+439 and 2352+495: A New Morphology of Radio Galaxy Nuclei. *J. E. Conway, T. J. Pearson, A. C. S. Readhead, S. C. Unwin, W. Xu, & R. L. Mutel.* 396, 62, 155-G7 (1992)

Intermediate-Resolution Spectropolarimetry of 3C 273. *J. A. de Diego, E. Pérez, M. R. Kidger, & L. O. Takalo.* 396, L19, 160-D10 (1992)

Bidimensional Spectroscopy of the Central Kiloparsec of NGC 4151. *E. Mediavilla, S. Arribas, & J. L. Rasilla.* 396, 517, 164-A1 (1992)

Gravitational Wave Burst Produced by Merging of Central Black Holes of Galaxies. *Toshiyuki Fukushige, Toshikazu Ebisuzaki, & Junichiro Makino.* 396, L61, 166-G7 (1992)

IRAS 03202−5150: A New Ring Active Galactic Nucleus with Obscured Seyfert 1 Nucleus. *Sebastian Lípari & F. Macchetto.* 397, 126, 169-E6 (1992)

Preliminary Analysis of an Ultraviolet *Hubble Space Telescope* Faint Object Camera Image of the Center of M31. *I. R. King, J. M. Deharveng, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, M. J. Disney, P. Jakobsen, T. M. Kamperman, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, & S. A. Stanford.* 397, L35, 173-E5 (1992)

X-Ray Luminosity and Spectral Variability of Hard X-Ray–selected Active Galactic Nuclei. *P. Grandi, G. Tagliaferri, P. Giommi, P. Barr, & G. G. C. Palumbo.* 82, 93, 50-C9 (1992)

Detection of Obscured Broad-Line Regions in Four Seyfert 2 Galaxies. *Hien D. Tran, Joseph S. Miller, & Laura E. Kay.* 397, 452, 176-C12 (1992)

O-Star Photoionization Models of Liners with Weak [O I] λ6300 Emission. *Alexei V. Filippenko & Roberto Terlevich.* 397, L79, 181-A1 (1992)

The Nucleus of M31. *Fulvio Melia.* 398, L95, 194-C8 (1992)

A Near-Infrared Study of a Homogeneous Sample of Optically Selected Active Galactic Nuclei. II. Analysis of the Results and Interpretation. *L. Danese, V. Zitelli, G. L. Granato, R. Wade, G. De Zotti, & N. Mandolesi.* 399, 38, 195-E8 (1992)

Polarization in the Narrow [O III] Lines in Seyfert 2 Galaxies. *Robert W. Goodrich.* 399, 50, 195-F8 (1992)

Nuclear Molecular Gas in the Virgo Cluster S0 Galaxy NGC 4710. *J. M. Wrobel & Jeffrey D. P. Kenney.* 399, 94, 196-C10 (1992)

Normal O Stars in Dense Media Generate LINERs. *Joseph C. Shields.* 399, L27, 200-C1 (1992)

Infrared Fine-Structure Line Diagnostics of Shrouded Active Galactic Nuclei. *G. Mark Voit.* 399, 495, 204-B1 (1992)

Infrared Line Diagnostics of Active Galactic Nuclei. *Luigi Spinoglio & Matthew A. Malkan.* 399, 504, 204-B11 (1992)

Hard X-Ray Emission from a Narrow-Line Radio Galaxy IC 5063 and Obscured Active Nucleus. *Katsuji Koyama, Hisamitu Awaki, Kazushi Iwasawa, & Martin J. Ward.* 399, L129, 208-A9 (1992)

Polarimetry and Spectrophotometry of the QSO IRAS 13349+2438 and the Unification of Active Galaxies. *Beverley J. Wills, D. Wills, Neal J. Evans II, A. Natta, K. L. Thompson, M. Breger, & M. L. Sitko.* 400, 96, 210-B10 (1992)

Fine-Scale Structure in the -185 Kilometers per Second Absorption by HCO^+ in the Galactic Center. *Jonathan M. Marr, Alexander L. Rudolph, Thomas A. Pauls, Melvyn C. H. Wright, & Donald C. Backer.* 400, L29, 214-D5 (1992)

Broad Band X-Ray Telescope Observations of NGC 4151: Iron Line Diagnostics. *K. A. Weaver, R. F. Mushotzky, K. A. Arnaud, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, E. A. Boldt, S. S. Holt, J. Swank, A. E. Szymkowiak, R. Kelley, A. P. Smale, & C. Done.* 401, L11, 227-B9 (1992)

Infrared Lines from Active Galactic Nuclei: A Theoretical Approach. *Marcella Contini & Sueli M. Viegas.* 401, 481, 228-F3 (1992)

OH and H I Absorption at the Nucleus of NGC 660. *Willem A. Baan, James Rhoads, & Aubrey D. Haschick.* 401, 508, 229-A6 (1992)

12 and 20 Micron Imaging of the Starburst Galaxy NGC 253. *R. K. Piña, B. Jones, R. C. Puetter, & W. A. Stein.* 401, L75, 233-A5 (1992)

The Continuum Flux from Sagittarius A* at 222 GHz. *E. Serabyn, J. E. Carlstrom, & N. Z. Scoville.* 401, L87, 233-B11 (1992)

A Search for Dead Quasars among Nearby Luminous Galaxies. I. The Stellar Kinematics in the Nuclei of NGC 2613, NGC 4699, NGC 5746, and NGC 7331. *Gary A. Bower, Douglas O. Richstone, Gregory D. Bothun, & Timothy M. Heckman.* 402, 76, 2-A12 (1993)

Subarcsecond Near-Infrared Imaging of Ultraluminous *IRAS* Galaxies. *S. R. Majewski, M. Hereld, D. C. Koo, G. D. Illingworth, & T. M. Heckman.* 402, 125, 2-E13 (1993)

Neutral Gas in the Central 2 Parsecs of the Galaxy. *J. M. Jackson, N. Geis, R. Genzel, A. I. Harris, S. Madden, A. Poglitsch, G. J. Stacey, & C. H. Townes.* 402, 173, 3-C1 (1993)

Dense Clouds near the Central Engine of Active Galactic Nuclei. *R. Sivron & S. Tsuruta.* 402, 420, 7-G7 (1993)

Implications of Lyman-Alpha Equivalent Widths in Active Galactic Nuclei. *Joseph C. Shields & Gary J. Ferland.* 402, 425, 8-A1 (1993)

Spectroscopic Constraints on the Properties of Dust in Active Galactic Nuclei. *Ari Laor & Bruce T. Draine.* 402, 441, 8-B5 (1993)

First Measurements of Extragalactic CO(4–3). *R. Güsten, E. Serabyn, C. Kasemann, A. Schinckel, G. Schneider, A. Schulz, & K. Young.* 402, 537, 9-C1 (1993)

On the Gamma-Ray Emission from 3C 279. *W. Bednarek.* 402, L29, 12-C1 (1993)

High-Velocity Formaldehyde Absorption within 30″ of the Galactic Nucleus. *T. Pauls, K. J. Johnston, T. L. Wilson, J. M. Marr, & A. Rudolph.* 403, L13, 20-B6 (1993)

NGC 4945: A Postburst Infrared Galaxy. *Jan Koornneef.* 403, 581, 22-G8 (1993)

Simultaneous *Ginga* and *IUE* Observations of the Seyfert Galaxy NGC 3516. *Michiel Kolman, Jules P. Halpern, Christopher Martin, Hisamitsu Awaki, & Katsuji Koyama.* 403, 592, 23-A8 (1993)

An Infrared Study of Hot Dust in Quasars Using Prism Spectrophotometry. *Yukiyasu Kobayashi, Shuji Sato, Takuya Yamashita, Hisashi Shiba, & Hideki Takami.* 404, 94, 29-B11 (1993)

The Nature and Structure of Active Galactic Nuclei. *Donald E. Osterbrock.* 404, 551, 35-G7 (1993)

Extended Near-Ultraviolet Continuum Emission and the Nature of the Polarized Broad-Line Seyfert 2 Galaxies. *Richard W. Pogge & M. M. De Robertis.* 404, 563, 36-A7 (1993)

A Near-Infrared Study of a Homogeneous Sample of Optically Selected Active Galactic Nuclei. I. The Observations. *V. Zitelli, G. L. Granato, N. Mandolesi, R. Wade, & L. Danese.* 84, 185, 4-A3 (1993)

Segregation of Gas and Stars in Shell Galaxies. *Melinda L. Weil & Lars Hernquist.* 405, 142, 42-G1 (1993)

High-Resolution Study of Luminous Infrared Galaxies. I. The Composite Nature of the Seyfert 1 Galaxy IRAS 20044−6114 (NGC 6860). *Sebastian Lípari, Zlatan Tsvetanov, & F. Macchetto.* 405, 186, 43-D3 (1993)

Near-Infrared Line Imaging of NGC 6240: Collision Shock and Nuclear Starburst. *Paul P. van der Werf, R. Genzel, A. Krabbe, M. Blietz, D. Lutz, S. Drapatz, Martin J. Ward, & Duncan A. Forbes.* 405, 522, 49-E7 (1993)

High-Resolution Imaging of [Fe II 1.64 Microns, Brackett-γ, and H_2 1–0 $S(1)$ Emission in the Starburst Galaxy NGC 253. *Duncan A. Forbes, Martin J. Ward, V. Rotaciuc, M. Blietz, R. Genzel, S. Drapatz, Paul P. van der Werf, & A. Krabbe.* 406, L11, 60-F1 (1993)

Optical Imaging and Long-Slit Spectroscopy of Markarian Galaxies with Multiple Nuclei. I. Basic Data. *Joseph M. Mazzarella & Todd A. Boroson.* 85, 27, 6-E1 (1993)

Accretion Disk Models for Optical and Ultraviolet Microvariability in Active Galactic Nuclei. *Arun V. Mangalam & Paul J. Wiita.* 406, 420, 63-A1 (1993)

Extreme Optical Fe II Emission in Luminous *IRAS* Active Galactic Nuclei. *Sebastian Lípari, Roberto Terlevich, & F. Macchetto.* 406, 451, 63-C12 (1993)

Relativistic Bulk Motion in Active Galactic Nuclei. *G. Ghisellini, P. Padovani, A. Celotti, & L. Maraschi.* 407, 65, 70-A1 (1993)

Dynamical Instabilities in Two-Phase Media and the Minimum Masses of Stellar Systems. *Stephen D. Murray, Simon D. M. White, John M. Blondin, & Douglas N. C. Lin.* 407, 588, 77-G11 (1993)

The Stellar Velocity Dispersion in the Nucleus of M82. *Niall I. Gaffney, Dan F. Lester, & C. M. Telesco.* 407, L57, 82-C6 (1993)

Near-Infrared 0.15″ Resolution Imaging of the Galactic Center. *A. Eckart, R. Genzel, R. Hofmann, B. J. Sams, & L. E. Tacconi-Garman.* 407, L77, 82-E1 (1993)

VLBI Observations of a Complete Sample of Radio Galaxies. II. The Parsec-Scale Structure of NGC 315. *T. Venturi, G. Giovannini, L. Feretti, G. Comoretto, & A. E. Wehrle.* 408, 81, 84-B4 (1993)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. IV. Intensity Variations of the Optical Emission Lines of NGC 5548. *M. Dietrich, W. Kollatschny, B. M. Peterson, J. Bechtold, R. Bertram, N. G. Bochkarev, T. A Boroson, T. E. Carone, M. Elvis, A. V. Filippenko, C. M. Gaskell, J. P. Huchra, J. B. Hutchings, A. P. Koratkar, K. T. Korista, N. J. Lame, A. Laor, G. M. MacAlpine, M. A. Malkan, C. Mendes de Oliveira, H. Netzer, J. Penfold, M. V. Penston, E. Pérez, R. W. Pogge, M. W. Richmond, E. I. Rosenblatt, A. I. Shapovalova, J. C. Shields, H. A. Smith, P. S. Smith, W.-H. Sun, U. Thiele, S. Veilleux, R. M. Wagner, B. J. Wilkes, B. J. Wills, & D. Wills.* 408, 416, 90-D1 (1993)

Galactic Bars with Central Mass Concentrations: Three-dimensional Dynamics. *Hashima Hasan, Daniel Pfenniger, & Colin Norman.* 409, 91, 98-B1 (1993)

Imaging of Luminous Infrared Galaxies at 3.4 Microns. *Shudong Zhou, C. G. Wynn-Williams, & D. B. Sanders.* 409, 149, 98-G1 (1993)

X-Ray Evidence for Seyfert Activity Buried in the Infrared Galaxy NGC 4945. *K. Iwasawa, K. Koyama, H. Awaki, H. Kunieda, K. Makishima, T. Tsuru, T. Ohashi, & N. Nakai.* 409, 155, 98-G9 (1993)

High-Resolution Mid-Infrared Imaging and Astrometry of the Nucleus of the Seyfert Galaxy NGC 1068. *J. A. Braatz, A. S. Wilson, D. Y. Gezari, F. Varosi, & C. A. Beichman.* 409, L5, 104-B1 (1993)

A Search for Rapid Variability in the Broad Hα Profiles of Seyfert and Radio Galaxies. *Michael Eracleous & Jules P. Halpern.* 409, 584, 106-C1 (1993)

Features of the Fluorescent Iron Line from Highly Inclined Disks: Some Possible Examples for NGC 6814. *G. Bao.* 409, L41, 111-C1 (1993)

Double-peaked Broad Line Emission from the LINER Nucleus of NGC 1097. *Thaisa Storchi-Bergmann, Jack A. Baldwin, & Andrew S. Wilson.* 410, L11, 117-G1 (1993)

Near-Infrared Spectroscopy of the Peculiar Giant Elliptical NGC 1275. *Kimiaki Kawara & Yoshiaki Taniguchi.* 410, L19, 117-G13 (1993)

The Narrow-Line Region of High-Luminosity Active Galactic Nuclei. *Beverley J. Wills, H. Netzer, M. S. Brotherton, Mingsheng Han, D. Wills, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 410, 534, 120-C11 (1993)

The Circumnuclear Region of NGC 5728. *S. Arribas & E. Mediavilla.* 410, 552, 120-E5 (1993)

The Ionizing Radiation of Seyfert 2 Galactic Nuclei. *Luis C. Ho, Joseph C. Shields, & Alexei V. Filippenko.* 410, 567, 120-F9 (1993)

High-Resolution X-Ray Observations of the Central Region of M31 with the *ROSAT* Satellite. *F. A. Primini, W. Forman, & C. Jones.* 410, 615, 121-C12 (1993)

HST Observations of NGC 4395, the Least Luminous Seyfert 1 Nucleus: Evidence against the Starburst Hypothesis for Broad-lined Active Galactic Nuclei. *Alexei V. Filippenko, Luis C. Ho, & Wallace L. W. Sargent.* 410, L75, 125-F11 (1993)

Quasars and Active Galactic Nuclei in Rich Environments. III. The Rapid Evolution of Active Galactic Nucleus Activity in Rich Clusters. *H. K. C. Yee & E. Ellingson.* 411, 43, 127-E13 (1993)

Statistical Evidence for Accretion Disks in Active Galactic Nuclei. *David Caditz.* 411, 103, 128-C13 (1993)

Infrared Imaging of the Galactic Center and the Search for Sagittarius A*. *T. M. Herbst, S. V. W. Beckwith, & Mark Shure.* 411, L21, 133-F13 (1993)

A General Relativistic Hydrostatic Model for a Galaxy. *Roberto Hojman, Leda Peña, & Nelson Zamorano.* 411, 541, 136-D3 (1993)

Subparsec-Scale Radio Structure in NGC 1275: Complex Structure in the Vicinity of the Central Engine. *T. Venturi, A. C. S. Readhead, J. M. Marr, & D. C. Backer.* 411, 552, 136-E2 (1993)

Nuclear Winds and the Narrow-Line Emission from Active Galaxies. *Steven J. Smith.* 411, 570, 136-F10 (1993)

Nuclear Winds in Active Elliptical Galaxies. I. Interaction. *Steven J. Smith, C. F. Kennel, & F. V. Coroniti.* 411, 581, 136-G9 (1993)

Spiral Shocks in Accretion Disks As a Contributor to Variability in Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 411, 602, 137-B6 (1993)

Nuclear Winds in Active Elliptical Galaxies. II. Observational Signatures. *Steven J. Smith, C. F. Kennel, & F. V. Coroniti.* 412, 82, 143-A13 (1993)

Luminous Infrared Galaxies: Sizes at 10–32 Microns. *C. G. Wynn-Williams & E. E. Becklin.* 412, 535, 150-C13 (1993)

Ten New BL Lacertae Objects Discovered by an Efficient X-Ray/Radio/Optical Technique. *Jonathan F. Schachter, John T. Stocke, Eric Perlman, Martin Elvis, Ron Remillard, Arno Granados, Jane Luu, John P. Huchra, Roberta Humphreys, C. Megan Urry, & John Wallin.* 412, 541, 150-D9 (1993)

The X-Ray Structure and Spectrum of NGC 6251. *M. Birkinshaw & D. M. Worrall.* 412, 568, 150-G4 (1993)

Collisions and Close Encounters between Massive Main-Sequence Stars. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 412, 593, 151-B7 (1993)

Dynamical and Radiative Effects of Ultrarelativistic Hadronic Interactions in Active Galactic Nuclei. *I. E. Ekejiuba & P. N. Okeke.* 413, 110, 157-D11 (1993)

Aperture Synthesis Mapping of CO (2–1) in IC 342. *Jean L. Turner, Robert L. Hurt, & David Y. Hudson.* 413, L19, 162-D1 (1993)

The Genesis of Starbursts and Infrared Emission in the Centers of Galaxies. *C. M. Telesco, L. L. Dressel, & R. D. Wolstencroft.* 414, 120, 171-E3 (1993)

Molecular Gas Mass and Far-Infrared Emission from Distant Luminous Galaxies. *D. Downes, P. M. Solomon, & S. J. E. Radford.* 414, L13, 175-D6 (1993)

Strong [Fe II] Emission from NGC 1275. *Richard J. Rudy, Ross D. Cohen, George S. Rossano, Peter Erwin, R. C. Puetter, Matthew A. Greenhouse, & Charles E. Woodward.* 414, 527, 177-F13 (1993)

IRS 16: The Galaxy's Central Wimp? *Peter Tamblyn & G. H. Rieke.* 414, 573, 178-D1 (1993)

Infrared Coronal Emission Lines and the Possibility of Their Laser Emission in Seyfert Nuclei. *Matthew A. Greenhouse, Uri Feldman, Howard A. Smith, Marcel Klapisch, Anand K. Bhatia, & Avi Bar-Shalom.* 88, 23, 40-C11 (1993)

Does a Luminosity-dependent Continuum Shape Cause the Baldwin Effect? *Wei Zheng & Matthew A. Malkan.* 415, 517, 194-C6 (1993)

The Evolution of the Globular Cluster System in a Triaxial Galaxy: Can a Galactic Nucleus Form by Globular Cluster Capture? *Roberto Capuzzo-Dolcetta.* 415, 616, 195-D13 (1993)

Stellar Mass Loss in Elliptical Galaxies and the Fueling of Active Galactic Nuclei. *Paolo Padovani & Francesca Matteucci.* 416, 26, 201-D2 (1993)

Radio and Near-Infrared [Fe II] Emission from Active Galaxies. *Duncan A. Forbes & Martin J. Ward.* 416, 150, 202-G12 (1993)

The Iron K Line as a Probe of Beamed X-Ray Emission in Active Galactic Nuclei. *T. Yaqoob, B. McKernan, C. Done, P. J. Serlemitsos, & K. A. Weaver.* 416, L5, 207-B7 (1993)

A Reevaluation of the Excitation Mechanism of LINERs. *Luis C. Ho, Alexei V. Filippenko, & Wallace L. W. Sargent.* 417, 63, 217-G8 (1993)

Hubble Space Telescope Imaging of the Narrow-Line Region of NGC 4151. *I. N. Evans, Z. Tsvetanov, G. A. Kriss, H. C. Ford, S. Caganoff, & A. P. Koratkar.* 417, 82, 218-B1 (1993)

Variability of the Nuclear Radio Source in M31. *Patrick C. Crane, John J. Cowan, John R. Dickel, & Douglas A. Roberts.* 417, L61, 230-B8 (1993)

N-Body Evolution of Dense Clusters of Compact Stars. *Man Hoi Lee.* 418, 147, 232-G12 (1993)

Dense Molecular Gas toward the Nucleus of the Seyfert Galaxy NGC 1068. *James M. Jackson, Timothy A. D. Paglione, Sumio Ishizuki, & Nguyen-Q-Rieu.* 418, L13, 238-B11 (1993)

A Study of a Homogeneous Sample of Optically Selected Active Galactic Nuclei. III. Optical Observations. *G. L. Granato, V. Zitelli, F. Bonoli, L. Danese, C. Bonoli, & F. Delpino.* 89, 35, 49-D9 (1993)

The Broad-Band X-Ray Spectrum of the Nucleus of M81. *R. Petre, R. F. Mushotzky, P. J. Serlemitsos, K. Jahoda, & F. E. Marshall.* 418, 644, 240-E1 (1993)

Infrared Spectra of Obscuring Dust Tori around Active Galactic Nuclei. II. Comparison with Observations. *Edward A. Pier & Julian H. Krolik.* 418, 673, 240-G10 (1993)

Molecular Gasdynamics of the Young Nuclear Starburst in the Barred Galaxy NGC 3504. *Jeffrey D. P. Kenney, John E. Carlstrom, & Judith S. Young.* 418, 687, 241-A13 (1993)

Vertical Structure and Emission Spectrum of an Accretion Disk around a Massive Black Hole. *Toshiya Shimura & Fumio Takahara.* 419, 78, 247-B3 (1993)

Subarcsecond Mid-Infrared Imaging of Warm Dust in the Narrow-Line Region of NGC 1068. *Murray Cameron, John W. V. Storey, Valentin Rotaciuc, Reinhard Genzel, Laurent Verstraete, Siegfried Drapatz, Ralf Siebenmorgen, & Terry J. Lee.* 419, 136, 247-G5 (1993)

Detection of H92α Recombination Line from the Galaxies NGC 3628, IC 694, and NGC 1365. *K. R. Anantharamaiah, Jun-Hui Zhao, W. M. Goss, & F. Viallefond.* 419, 585, 255-A9 (1993)

The Ionization Cones in the Seyfert Galaxy NGC 5728. *A. S. Wilson, J. A. Braatz, T. M. Heckman, J. H. Krolik, & G. K. Miley.* 419, L61, 259-C7 (1993)

The Ultraviolet Emission Properties of Five Low-Redshift Active Galactic Nuclei at High Signal-to-Noise Ratio and Spectral Resolution. *Ari Laor, John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, Richard F. Green, & George F. Hartig.* 420, 110, 2-C12 (1994)

ROSAT Observations of X-Ray–selected Active Galactic Nuclei. *R. J. Thompson, Jr., E. M. Puchnarewicz, F. A. Córdova, & K. O. Mason.* 420, 136, 2-F1 (1994)

HST Observations of the [O III] Emission-Line Region in Markarian 78. *A. Capetti, F. Macchetto, W. B. Sparks, & A. Boksenberg.* 421, 87, 17-B4 (1994)

Near-Infrared Spectroscopic Imaging of the Circumnuclear Environment of NGC 1068. *M. Blietz, M. Cameron, S. Drapatz, R. Genzel, A. Krabbe, P. van der Werf, A. Sternberg, & M. Ward.* 421, 92, 17-B13 (1994)

Bright Radio Continuum Emission from Star Formation in the Cores of Nearby Spiral Galaxies. *Jean L. Turner & Paul T. P. Ho.* 421, 122, 17-E7 (1994)

A ^{12}CO, ^{13}CO, and CS Study of NGC 2146 and IC 342. *Shuding Xie, Judith Young, & F. Peter Schloerb.* 421, 434, 23-E7 (1994)

The "Drop-off" Frequency in the X-Ray Variability Power Spectrum of Active Galactic Nuclei: A Possible Characteristic Timescale in X-Ray Emission of NGC 4051. *G. Bao & E. Østgaard.* 422, L51, 44-G1 (1994)

High-Energy Radiation from Active Galactic Nuclei. *Marek Sikora.* 90, 923, 15-C7 (1994)

Relativistic Particle Transport in Hot Accretion Disks. *Peter A. Becker, Menas Kafatos, & Michael Maisack.* 90, 949, 15-E13 (1994)

Do Relativistic Electrons either Gain or Lose Energy, outside of Extragalactic Nuclei? *Lawrence Rudnick, Debora M. Katz-Stone, & Martha C. Anderson.* 90, 955, 15-F6 (1994)

Effect of Advected Fields on Accretion Disk Dynamos. *Arun V. Mangalam & K. Subramanian.* 90, 963, 15-G3 (1994)

Plasma Mechanisms for Variability in Active Galactic Nuclei. *Vinod Krishan & Paul J. Wiita.* 423, 172, 48-B13 (1994)

Two-Phase Model of Accretion Disks: Pressure Balance. *Masaaki Kusunose & Shin Mineshige.* 423, 600, 56-A1 (1994)

The Complex Soft X-Ray Excess in NGC 4151. *K. A. Weaver, R. F. Mushotzky, K. A. Arnaud, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, A. P. Smale, & H. Netzer.* 423, 621, 56-C1 (1994)

Intermediate-Resolution Spectropolarimetry of a Small Sample of Quasars. *J. A. de Diego, M. R. Kidger, E. Pérez, & L. O. Takalo.* 424, 76, 63-A4 (1994)

Do the Compact Radio Sources in NGC 253 and M82 Fade over Time? *James S. Ulvestad & Robert R. J. Antonucci.* 424, L29, 69-D10 (1994)

Interstellar Medium and Star Formation in the Nearby QSO I Zw 1. *A. Eckart, P. P. van der Werf, R. Hofmann, & A. I. Harris.* 424, 627, 72-F3 (1994)

The Source of the Relativistic Particles in the Galactic Center Arc. *E. Serabyn & Mark Morris.* 424, L91, 79-A1 (1994)

The Distribution and Kinematics of Atomic Carbon near the Galactic Center. *E. Serabyn, Jocelyn Keene, D. C. Lis, & T. G. Phillips.* 424, L95, 79-A9 (1994)

Multiple Images and Light Curves of an Emitting Source on a Relativistic Eccentric Orbit around a Black Hole. *G. Bao, P. Hadrava, & E. Østgaard.* 425, 63, 81-A5 (1994)

Near-Infrared Spectral Imaging of NGC 1808: Probing the Starburst. *A. Krabbe, A. Sternberg, & R. Genzel.* 425, 72, 81-B2 (1994)

High-Resolution Mid-Infrared Observations of NGC 7469. *J. W. Miles, J. R. Houck, & T. L. Hayward.* 425, L37, 85-E13 (1994)

Apparent Milliarcsecond Sizes of Active Galactic Nuclei and the Geometry of the Universe. *L. I. Gurvits.* 425, 442, 87-C1 (1994)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. V. Variability of the Ultraviolet Continuum and Emission Lines of NGC 3783. *G. A. Reichert, P. M. Rodríguez-Pascual, D. Alloin, J. Clavel, D. M. Crenshaw, G. A. Kriss, J. H. Krolik, M. A. Malkan, H. Netzer, B. M. Peterson, W. Wamsteker, A. Altamore, B. Altieri, K. S. Anderson, J. H. Blackwell, Jr., C. Boisson, N. Brosch, T. E. Carone, M. Dietrich, M .N. England, I. N. Evans, A. V. Filippenko, C. M. Gaskell, M. Goad, P. M. Gondhalekar, K. Horne, D. Kazanas, W. Kollatschny, A. P. Koratkar, K. T. Korista, G. M. MacAlpine, D. Maoz, T. Mazeh, B. McCollum, H. R. Miller, C. Mendes de Oliveira, P. T. O'Brien, M. G. Pastoriza, D. Pelat, E. Pérez, G. C. Perola, R. W. Pogge, R. L. Ptak, M. C. Recondo-González, J. Rodríguez-Espinosa, E. I. Rosenblatt, A. C. Sadun, M. Santos-Lleó, J. C. Shields, C. R. Shrader, J. M. Shull, S. M. Simkin, M. L. Sitko, M. A. J. Snijders, L. S. Sparke, G. M. Stirpe, R. Stoner, T. Storchi-Bergmann, W.-H. Sun, T. Wang, W. F. Welsh, R. J. White, C. Winge, & W. Zheng.* 425, 582, 89-A1 (1994)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VI. Variability of NGC 3783 from Ground-based Data. *G. M. Stirpe, C. Winge, B. Altieri, D. Alloin, E. L. Aguero, G. C. Anupama, R. Ashley, R. Bertram, J. H. Calderon, R. M.*

Catchpole, R. L. M. Corradi, E. Covino, H. A. Dottori, M. W. Feast, K. K. Ghosh, R. Gil Hutton, I. S. Glass, E. K. Grebel, L. Jorda, C. Koen, C. D. Laney, M. Maia, F. Marang, Y. D. Mayya, N. Morrell, Y. Nakada, M. G. Pastoriza, A. K. Pati, D. Pelat, B. M. Peterson, T. P. Prabhu, G. Roberts, R. Sagar, I. Salamanca, K. Sekiguchi, T. Storchi-Bergmann, A. Subramaniam, H. van Winckel, F. van Wyk, M. Villada, R. M. Wagner, P. A. Whitelock, H. Winkler, J. Clavel, M. Dietrich, W. Kollatschny, P. T. O'Brien, G. C. Perola, M. C. Recondo-González, P. Rodríguez-Pascual, & M. Santos-Lleo. 425, 609, 89-C1 (1994)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VII. Variability of the Optical Spectrum of NGC 5548 over 4 Years. *B. M. Peterson, P. Berlind, R. Bertram, N. G. Bochkarev, D. Bond, M. S. Brotherton, J. R. Busler, K. K. Chuvaev, R. D. Cohen, M. Dietrich, M. Elvis, A. V. Filippenko, C. B. Foltz, P. M. Garnavich, L. C. Ho, E. Horine, K. Horne, J. P. Huchra, W. Kollatschny, K. T. Korista, M. A. Malkan, T. Matheson, M. Mignoli, S. L. Morris, L. Nazarova, J. Penfold, J. Peters, R. W. Pogge, V. I. Pronik, B. Rush, S. G. Sergeev, A. I. Shapovalova, J. C. Shields, G. M. Stirpe, S. Tokarz, R. M. Wagner, R. J. Weymann, R. J. White, B. J. Wilkes, D. Wills, B. J. Wills, C. Winge, & P. F. Younger.* 425, 622, 89-D1 (1994)

An Upper Limit to the Electrodynamic Power Output from a Thin Accretion Disk around a Black Hole. *Seok Jae Park & Ethan T. Vishniac.* 426, 131, 97-F11 (1994)

The Nature of the Dense Obscuring Material in the Nucleus of NGC 1068. *L. J. Tacconi, R. Genzel, M. Blietz, M. Cameron, A. I. Harris, & S. Madden.* 426, L77, 109-D11 (1994)

Galaxies with Extreme Infrared and Fe II Emission. I. Markarian 231: The Signature of a Young Infrared QSO. *Sebastian Lípari, Luis Colina, & F. Macchetto.* 427, 174, 112-B12 (1994)

The Nuclear 10 Micron Emission of Spiral Galaxies. *Giuliano Giuricin, Laura Tamburini, Fabio Mardirossian, Marino Mezzetti, & Pierluigi Monaco.* 427, 202, 112-E1 (1994)

Obscuration, Orientation, and the Infrared Properties of Radio-loud Active Galaxies. *Timothy M. Heckman, Christopher P. O'Dea, Stefi A. Baum, & Eija Laurikainen.* 428, 65, 129-A11 (1994)

A Diagnosis of Dust in Active Galactic Nuclei through Analysis of the Infrared Bump. *S. M. Viegas & M. Contini.* 428, 113, 129-E9 (1994)

The Intrinsic Nuclear Spectrum of NGC 1068. *Edward A. Pier, Robert Antonucci, Todd Hurt, Gerard Kriss, & Julian Krolik.* 428, 124, 129-F8 (1994)

CO Absorption in Luminous Infrared Galaxies. *Susan E. Ridgway, C. G. Wynn-Williams, & E. E. Becklin.* 428, 609, 137-G1 (1994)

Ellipticals with Kinematically Distinct Cores: *HST* Imaging of the Nuclear Structure of IC 1459. *Duncan A. Forbes, Marijn Franx, & Garth D. Illingworth.* 428, L49, 142-D8 (1994)

Multiwavelength Properties of Active Galactic Nuclei. *Thierry J.-L. Courvoisier.* 92, 579, 39-E4 (1994)

The Nonthermal Pair Model for the X-Ray and Gamma-Ray Spectra from Active Galactic Nuclei. *Roland Svensson.* 92, 585, 39-E12 (1994)

Gamma-Ray Properties of Active Galactic Nuclei. *V. Schönfelder.* 92, 593, 39-F8 (1994)

Multiwavelength Analysis of Quasars, Seyfert Galaxies, and Starbursts. *J. Miguel Mas-Hesse, Pedro M. Rodríguez-Pascual, Lourdes Sanz Fernández de Córdoba, & I. Félix Mirabel.* 92, 599, 39-G4 (1994)

Energy Transport by Relativistic Neutrons from the Core of Active Galactic Nuclei. *W. Tkaczyk.* 92, 611, 40-A7 (1994)

Search for 10 TeV Gamma-Ray Emission from Active Galactic Nuclei with the Tibet Air Shower Array. *M. Amenomori, Z. Cao, B. Z. Dai, L. K. Ding, Y. X. Feng, Z. Y. Feng, K. Hibino, N. Hotta, Q. Huang, A. X. Huo, H. Y. Jia, G. Z. Jiang, S. Q. Jiao, F. Kajino, K. Kasahara, Labaciren, S. M. Liu, D. M. Mei, L. Meng, X. R. Meng, Mimaciren, K. Mizutani, J. Mu, H. Nanjo, M. Nishizawa, A. Oguro, M. Ohnishi, I. Ohta, T. Ouchi, J. R. Ren, To. Saito, M. Sakata, Z. Z. Shi, M. Shibata, T. Shirai, H. Sugimoto, X. X. Sun, K. Taira, Y. H. Tan, N. Tateyama, S. Torii, H. Wang, C. Z. Wen, Y. Yamamoto, G. C. Yu, P. Yuan, T. Yuda, C. S. Zhang, H. M. Zhang, L. Zhang, Zhasang, Zhaxiciren, & W. D. Zhou (The Tibet ASγ Collaboration).* 429, 634, 153-E11 (1994)

Nebular Properties and the Ionizing Radiation Field in the Galactic Center. *Joseph C. Shields & Gary J. Ferland.* 430, 236, 162-A9 (1994)

The True Nucleus of NGC 253 Revealed by High-Resolution Near-Infrared Imaging. *Bruce J. Sams III, R. Genzel, A. Eckart, L. Tacconi-Garman, & R. Hofmann.* 430, L33, 165-E5 (1994)

Discovery of a Nuclear Counterjet in NGC 1275: A New Way to Probe the Parsec-Scale Environment. *R. C. Vermeulen, A. C. S. Readhead, & D. C. Backer.* 430, L41, 165-F7 (1994)

Detection of a VLBI Counterjet in NGC 1275: A Possible Probe of the Parsec-Scale Accretion Region. *R. C. Walker, J. D. Romney, & J. M. Benson.* 430, L45, 165-F13 (1994)

The Properties of X-Ray–selected Active Galactic Nuclei. III. The Radio-quiet versus Radio-loud Samples. *Roberto Della Ceca, Giovanni Zamorani, Tommaso Maccacaro, Anna Wolter, Richard Griffiths, John T. Stocke, & Giancarlo Setti.* 430, 533, 168-D1 (1994)

Ultraviolet Imaging of the AGN + Starburst Galaxy NGC 1068. *Susan G. Neff, Michael N. Fanelli, Laura J. Roberts, Robert W. O'Connell, Ralph Bohlin, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 430, 545, 168-E1 (1994)

X-Ray Observations of Cygnus A Using the *Ginga* Satellite. *Shiro Ueno, Katsuji Koyama, Minoru Nishida, Shigeo Yamauchi, & Martin J. Ward.* 431, L1, 182-C1 (1994)

Are Globular Clusters the Nuclei of Cannibalized Dwarf Galaxies? *Lilia P. Bassino, Juan C. Muzzio, & Mónica Rabolli.* 431, 634, 186-D10 (1994)

On the Origin of Obscuring Tori in the Galactic Nucleus and Active Galactic Nuclei. *Insu Yi, George B. Field, & Eric G. Blackman.* 432, L31, 199-E2 (1994)

Evidence from Masers for a Rapidly Rotating Disk at the Nucleus of NGC 4258. *William D. Watson & Bradley K. Wallin.* 432, L35, 199-E8 (1994)

Compact Radio Cores in Seyfert Galaxies. *A. L. Roy, R. P. Norris, M. J. Kesteven, E. R. Troup, & J. E. Reynolds.* 432, 496, 202-B7 (1994)

Two-sided Ejection in Powerful Radio Sources: The Compact Symmetric Objects. *P. N. Wilkinson, A. G. Polatidis, A. C. S. Readhead, W. Xu, & T. J. Pearson.* 432, L87, 206-E4 (1994)

Laser Action in Far-Infrared Astrophysical Sources. *Jianfang Peng & Anil K. Pradhan.* 432, L123, 207-B7 (1994)

NGC 7552: A Galaxy with a Dormant Active Nucleus? *Duncan A. Forbes, Jari K. Kotilainen, & A. F. M. Moorwood.* 433, L13, 214-E10 (1994)

Narrow-Line Region Kinematics in Seyfert Nuclei. *David Moore & Ross D. Cohen.* 433, 602, 218-D13 (1994)

Hubble Space Telescope Imaging of the Seyfert 2 Galaxy NGC 2110. *John S. Mulchaey, Andrew S. Wilson, Gary A. Bower, Timothy M. Heckman, Julian H. Krolik, & George K. Miley.* 433, 625, 218-F10 (1994)

High-Resolution Optical and UV Observations of the Centers of NGC 1316 and NGC 3998 with the *Hubble Space Telescope*. *G. Fabbiano, C. Fassnacht, & G. Trinchieri.* 434, 67, 226-B1 (1994)

Spectropolarimetry of High-Polarization Seyfert 1 Galaxies: Geometry and Kinematics of the Scattering Regions. *R. W. Goodrich & J. S. Miller.* 434, 82, 226-C7 (1994)

H I and CO in the Nuclear Disk of NGC 4261. *Walter Jaffe & Brian R. McNamara.* 434, 110, 226-E13 (1994)

Active Galactic Nuclei. V. X-Ray Variability and the Black Hole Cluster Paradigm. *A. G. Pacholczyk & W. R. Stoeger, S.J.* 434, 435, 233-F9 (1994)

Disk-driven Hydromagnetic Winds as a Key Ingredient of Active Galactic Nuclei Unification Schemes. *Arieh Königl & John F. Kartje.* 434, 446, 233-G9 (1994)

Variable Emission Lines as Evidence of Spiral Shocks in Accretion Disks around Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 434, 518, 234-G9 (1994)

A *ROSAT* Observation of the Nearby Spiral Galaxy NGC 6946. *Eric M. Schlegel.* 434, 523, 235-A4 (1994)

The 3.28 Micron Emission Feature in NGC 253. *Paul Kalas & C. G. Wynn-Williams.* 434, 546, 235-C13 (1994)

X-Ray Color Analysis of the Spectra of Active Galactic Nuclei. *Hagai Netzer, T. J. Turner, & Ian M. George.* 435, 106, 244-G1 (1994)

OSSE Observations of NGC 1275 in the 0.05–10.0 MeV Range. *C. Y. Osako, M. P. Ulmer, D. A. Grabelsky, W. R. Purcell, M. S. Strickman, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, & G. V. Jung.* 435, 181, 245-G1 (1994)

Narrowband *HST* Images of M87: Evidence for a Disk of Ionized Gas around a Massive Black Hole. *Holland C. Ford, Richard J. Harms, Zlatan I. Tsvetanov, George F. Hartig, Linda L. Dressel, Gerard A. Kriss, Ralph C. Bohlin, Arthur F. Davidsen, Bruce Margon, & Ajay K. Kochhar.* 435, L27, 251-F11 (1994)

A Unified Relativistic Beaming Model for BL Lacertae Objects and Flat Spectrum Radio Quasars. *Laura Maraschi & Fausto Rovetti.* 436, 79, 262-C13 (1994)

The Radio Emission from the Ultraluminous Far-Infrared Galaxy NGC 6240. *Edward J. M. Colbert, Andrew S. Wilson, & Jonathan Bland-Hawthorn.* 436, 89, 262-D12 (1994)

Galaxies with Extreme Infrared and Fe II Emission. II. IRAS 07598+6508: A Starburst/Young Broad Absorption Line QSO. *Sebastian Lípari.* 436, 102, 262-F1 (1994)

New X-Ray Spectral Observations of NGC 4151 with *ASCA*. *K. A. Weaver, T. Yaqoob, S. S. Holt, R. F. Mushotzky, M. Matsuoka, & M. Yamauchi.* 436, L27, 268-F8 (1994)

Properties of M33 X-8, the Nuclear Source in the Nearby Spiral Galaxy. *M. Takano, K. Mitsuda, Y. Fukazawa, & F. Nagase.* 436, L47, 269-B1 (1994)

The X-Ray Spectrum of the Highly Polarized Quasar PKS 1502+106. *I. M. George, K. Nandra, T. J. Turner, & A. Celotti.* 436, L59, 269-C11 (1994)

Slingshot Ejections from Clusters of Three and Four Black Holes. *M. J. Valtonen, S. Mikkola, P. Heinämäki, & H. Valtonen.* 95, 69, 65-B1 (1994)

Environmental Effects on Local Active Galactic Nuclei. *Pierluigi Monaco, Giuliano Giuricin, Fabio Mardirossian, & Marino Mezzetti.* 436, 576, 273-D11 (1994)

Multiwavelength Tests of the Dusty Torus Model for Seyfert Galaxies. *John S. Mulchaey, Anuradha Koratkar, Martin J. Ward, Andrew S. Wilson, Mark Whittle, Robert R. J. Antonucci, Anne L. Kinney, & Todd Hurt.* 436, 586, 273-E10 (1994)

Black Hole Accretion Disks with Coronae. *Roland Svensson & Andrzej A. Zdziarski.* 436, 599, 273-F13 (1994)

Triple Black Holes in the Cores of Galaxies. *Junichiro Makino & Toshikazu Ebisuzaki.* 436, 607, 273-G10 (1994)

Detection of a Nuclear Radio Source in NGC 7331: A Relatively "Radio-quiet" Liner. *John J. Cowan, W. Romanishin, & David Branch.* 436, L139, 281-C9 (1994)

Implosive Accretion and Outbursts of Active Galactic Nuclei. *R. V. E. Lovelace, M. M. Romanova, & W. I. Newman.* 437, 136, 285-A13 (1994)

Implications of Neutrino Balls as the Source of Gamma-Ray Bursts. *D. Syer.* 437, 144, 285-B10 (1994)

Complex Ionization Structure and Kinematics in the Circumnuclear Region of NGC 3227. *S. Arribas & E. Mediavilla.* 437, 149, 285-C4 (1994)

The Masering Torus in NGC 4258. *Aubrey D. Haschick, Willem A. Baan, & Eric W. Peng.* 437, L35, 291-F6 (1994)

X-Ray Reflection from Photoionized Media in Active Galactic Nuclei. *Piotr T. Życki, Julian H. Krolik, Andrzej A. Zdziarski, & Timothy R. Kallman.* 437, 597, 294-A6 (1994)

The Discovery of Five New H_2O Megamasers in Active Galaxies. *J. A. Braatz, A. S. Wilson, & C. Henkel.* 437, L99, 299-A8 (1994)

The Difference between Radio-loud and Radio-quiet Active Galaxies. *A. S. Wilson & E. J. M. Colbert.* 438, 62, 2-B10 (1995)

Pictor A: A New Double-peaked Emission-Line Quasar. *J. W. Sulentic, P. Marziani, T. Zwitter, & M. Calvani.* 438, L1, 9-E1 (1995)

Elliptical Accretion Disks in Active Galactic Nuclei. *Michael Eracleous, Mario Livio, Jules P. Halpern, & Thaisa Storchi-Bergmann.* 438, 610, 12-E8 (1995)

The Discovery of an O VII Emission Line in the *ASCA* Spectrum of the Seyfert Galaxy NGC 3783. *I. M. George, T. J. Turner, & H. Netzer.* 438, L67, 19-D4 (1995)

A Multizone Model for Composite Disk-Corona Structure and Spectral Formation in Active Galactic Nuclei. *Toshiya Shimura, Shin Mineshige, & Fumio Takahara.* 439, 74, 22-B12 (1995)

A Helical Jet in the Orthogonally Misaligned BL Lacertae Object Markarian 501 (B1652+398). *J. E. Conway & J. M. Wrobel.* 439, 98, 22-E3 (1995)

Structure and Kinematics within the Starburst Nucleus of M82: Searching for a Bar. *J. M. Achtermann & J. H. Lacy.* 439, 163, 23-D10 (1995)

Detection of Compact Ultraviolet Nuclear Emission in LINER Galaxies. *Dan Maoz, Alexei V. Filippenko, Luis C. Ho, Hans-Walter Rix, John N. Bahcall, Donald P. Schneider, & F. Duccio Macchetto.* 440, 91, 42-D9 (1995)

Low-Luminosity Active Galaxies: Are They Similar to Seyfert Galaxies? *A. Koratkar, S. E. Deustua, T. Heckman, A. V. Filippenko, L. C. Ho, & M. Rao.* 440, 132, 43-A9 (1995)

Faint Object Camera Imaging and Spectroscopy of NGC 4151. *A. Boksenberg, R. M. Catchpole, F. Macchetto, R. Albrecht, C. Barbieri, J. C. Blades, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kampermann, I. R. King, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 440, 151, 43-C6 (1995)

Models of Galaxies with Central Black Holes: Adiabatic Growth in Spherical Galaxies. *Gerald D. Quinlan, Lars Hernquist, & Steinn Sigurdsson.* 440, 554, 50-G8 (1995)

The Nature of Seyfert 2 Galaxies with Obscured Broad-Line Regions. I. Observations. *Hien D. Tran.* 440, 565, 51-A8 (1995)

The Nature of Seyfert 2 Galaxies with Obscured Broad-Line Regions. II. Individual Objects. *Hien D. Tran.* 440, 578, 51-B10 (1995)

The Nature of Seyfert 2 Galaxies with Obscured Broad-Line Regions. III. Interpretation. *Hien D. Tran.* 440, 597, 51-D4 (1995)

Emission Spectrum Integrated over an Accretion Disk: Comparison with Observations of Active Galactic Nuclei. *Toshiya Shimura & Fumio Takahara.* 440, 610, 51-E9 (1995)

Detection of a Subparsec Diameter Disk in the Nucleus of NGC 4258. *L. J. Greenhill, D. R. Jiang, J. M. Moran, M. J. Reid, K. Y. Lo, & M. J. Claussen.* 440, 619, 51-F8 (1995)

Near-Infrared Imaging of CfA Seyfert Galaxies. *K. K. McLeod & G. H. Rieke.* 441, 96, 60-F4 (1995)

Optically Thin Broad-Line Clouds in Active Galactic Nuclei. *Joseph C. Shields, Gary J. Ferland, & Bradley M. Peterson.* 441, 507, 69-A13 (1995)

The Origin of the Soft X-Ray Excess in the Seyfert 2 Galaxy NGC 2110. *K. A. Weaver, R. F. Mushotzky, P. J. Serlemitsos, A. S. Wilson, M. Elvis, & U. Briel.* 442, 597, 88-B7 (1995)

Variability Spectra of Orbiting Blobs around a Black Hole. *G. Bao & E. Østgaard.* 443, 54, 96-A4 (1995)

The Variability of the Double-peaked Balmer Lines in the Active Nucleus of NGC 1097. *Thaisa Storchi-Bergmann, Michael Eracleous, Mario Livio, Andrew S. Wilson, Alexei V. Filippenko, & Jules P. Halpern.* 443, 617, 106-D2 (1995)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VIII. An Intensive *HST*, *IUE*, and Ground-based Study of NGC 5548. *K. T. Korista, D. Alloin, P. Barr, J. Clavel, R. D. Cohen, D. M. Crenshaw, I. N. Evans, K. Horne, A. P. Koratkar, G. A. Kriss, J. H. Krolik, M. A. Malkan, S. L. Morris, H. Netzer, P. T. O'Brien, B. M. Peterson, G. A. Reichert, P. M. Rodríguez-Pascual, W. Wamsteker, K. S. J. Anderson, D. J. Axon, E. Benitez, P. Berlind, R. Bertram, J. H. Blackwell, Jr., N. G. Bochkarev, C. Boisson, M. Carini, R. Carrillo, T. E. Carone, F.-Z. Cheng, J. A. Christensen, K. K. Chuvaev, M. Dietrich, J. J. Dokter, V. Doroshenko, D. Dultzin-Hacyan, M. N. England, B. R. Espey, A. V. Filippenko, C. M. Gaskell, M. R. Goad, L. C. Ho, J. P. Huchra, X. J. Jiang, S. Kaspi, W. Kollatschny, A. Laor, J.-P. Luminet, G. M. MacAlpine, J. W. MacKenty, Yu. F. Malkov, D. Maoz, P. G. Martin, T. Matheson, B. McCollum, N. Merkulova, L. Metik, M. Mignoli, H. R. Miller, M. G. Pastoriza, D. Pelat, J. Penfold, M. Perez, G. C. Perola, J. L. Persaud, J. Peters, R. Pitts, R. W. Pogge, I. Pronik, V. I. Pronik, R. L. Ptak, L. Rawley, M. C. Recondo-González, J. M. Rodríguez-Espinosa, W. Romanishin, A. C. Sadun, I. Salamanca, M. Santos-Lleó, K. Sekiguchi, S. G. Sergeev, A. I. Shapovalova, J. C. Shields, C. Shrader, J. M. Shull, N. A. Silbermann, M. L. Sitko, D. R. Skillman, H. A. Smith, S. M. Smith, M. A. J. Snijders, L. S. Sparke, G. M. Stirpe, R. E. Stoner, W.-H. Sun, U. Thiele, S. Tokarz, Z. I. Tsvetanov, D. A. Turnshek, S. Veilleux, R. M. Wagner, S. J. Wagner, I. Wanders, T. Wang, W. F. Welsh, R. J. Weymann, R. J. White, B. J. Wilkes, B. J. Wills, C. Winge, H. Wu, & Z. L. Zou.* 97, 285, 15-F7 (1995)

Infrared Imaging and Spectroscopy of NGC 7469. *R. Genzel, L. Weitzel, L. E. Tacconi-Garman, M. Blietz, M. Cameron, A. Krabbe, D. Lutz, & A. Sternberg.* 444, 129, 115-B3 (1995)

The Polarization and Ultraviolet Spectrum of Markarian 231. *Paul S. Smith, Gary D. Schmidt, Richard G. Allen, & J. R. P. Angel.* 444, 146, 115-D1 (1995)

A Duty Cycle Hypothesis for the Central Engines of LINERs. *Michael Eracleous, Mario Livio, & Luc Binette.* 445, L1, 140-B1 (1995)

High Angular Resolution Spectroscopic and Polarimetric Imaging of the Galactic Center in the Near-Infrared. *A. Eckart, R. Genzel, R. Hofmann, B. J. Sams, & L. E. Tacconi-Garman.* 445, L23, 140-E1 (1995)

Optical Spectroscopy of Luminous Infrared Galaxies. II. Analysis of the Nuclear and Long-Slit Data. *S. Veilleux, D.-C. Kim, D. B. Sanders, J. M. Mazzarella, & B. T. Soifer.* 98, 171, 23-A8 (1995)

First Direct Comparison of High and Low Ionization Line Kinematics in Active Galactic Nuclei. *J. W. Sulentic, P. Marziani, D. Dultzin-Hacyan, M. Calvani, & M. Moles.* 445, L85, 150-E9 (1995)

Locations of Starbursts in M82. *Jianjun Shen & K. Y. Lo.* 445, L99, 150-G5 (1995)

Models of Galaxies with Central Black Holes: Simulation Methods. *Steinn Sigurdsson, Lars Hernquist, & Gerald D. Quinlan.* 446, 75, 154-C6 (1995)

Thermal Comptonization in Mildly Relativistic Pair Plasmas. *J. G. Skibo, C. D. Dermer, R. Ramaty, & J. M. McKinley.* 446, 86, 154-D6 (1995)

Ultra–Low-Frequency Gravitational Radiation from Massive Black Hole Binaries. *Mohan Rajagopal & Roger W. Romani.* 446, 543, 163-E11 (1995)

The 10 Micron Emission of Seyfert Nuclei. *Giuliano Giuricin, Fabio Mardirossian, & Marino Mezzetti.* 446, 550, 163-F7 (1995)

Radio Detection of a Double Nucleus in the Merging Galaxy NGC 3256. *R. P. Norris & Duncan A. Forbes.* 446, 594, 164-C8 (1995)

The Nuclear Structure of NGC 3079. *Willem A. Baan & Judith A. Irwin.* 446, 602, 164-D9 (1995)

A Search for "Dwarf" Seyfert Nuclei. II. An Optical Spectral Atlas of the Nuclei of Nearby Galaxies. *Luis C. Ho, Alexei V. Filippenko, & Wallace L. W. Sargent.* 98, 477, 29-E2 (1995)

Two Classes of Gamma-Ray–emitting Active Galactic Nuclei. *Charles D. Dermer & Neil Gehrels.* 447, 103, 173-E7 (1995)

A Confirmation of 2–40 keV Spectral Complexity in Seyfert Galaxies. *K. A. Weaver, K. A. Arnaud, & R. F Mushotzky.* 447, 121, 173-G3 (1995)

The Mass Accretion Rate through the Masing Molecular Disk in the Active Galaxy NGC 4258. *David A. Neufeld & Philip R. Maloney.* 447, L17, 180-E11 (1995)

Two New Wolf-Rayet Stars and a Luminous Blue Variable Star in the Quintuplet (AFGL 2004) near the Galactic Center. *Donald F. Figer, Ian S. McLean, & Mark Morris.* 447, L29, 180-G9 (1995)

Observable Properties of X-Ray–heated Winds in Active Galactic Nuclei: Warm Reflectors and Warm Absorbers. *Julian H. Krolik & Gerard A. Kriss.* 447, 512, 182-G11 (1995)

The Nuclear Energy Sources Powering Bright Infrared-selected Galaxies. *M. L. N. Ashby, J. R. Houck, & K. Matthews.* 447, 545, 183-C9 (1995)

A Stringent Constraint on Alternatives to a Massive Black Hole at the Center of NGC 4258. *Eyal Maoz.* 447, L91, 190-F1 (1995)

Discovery of Extreme-Ultraviolet Radiation from the Seyfert Galaxy Ton S180 (= EUVE J0057−223). *Stéphane Vennes, Elisha Polomski, Stuart Bowyer, & John R. Thorstensen.* 448, L9, 199-C3 (1995)

The Morphology of the Narrow-Line Region of Markarian 3. *A. Capetti, F. Macchetto, D. J. Axon, W. B. Sparks, & A. Boksenberg.* 448, 600, 203-A4 (1995)

High Spatial Resolution Fabry-Perot Imaging of M82: Near-Infrared Recombination Line Observations. *Shobita Satyapal, Dan M. Watson, Judith L. Pipher, William J. Forrest, Diana Coppenbarger, S. Nicholas Raines, Scott Libonate, François Piché, Matthew A. Greenhouse, Howard A. Smith, Keith L. Thompson, Jacqueline Fischer, Charles E. Woodward, & Tracy Hodge.* 448, 611, 203-B10 (1995)

Anomalously Excited OH and Competition between Maser Transitions toward Centaurus A. *Huib Jan van Langevelde, Ewine F. van Dishoeck, Maartje N. Sevenster, & Frank P. Israel.* 448, L123, 209-F2 (1995)

Nuclear Rings and Mass Inflow in Hydrodynamic Simulations of Barred Galaxies. *B. Glenn Piner, James M. Stone, & Peter J. Teuben.* 449, 508, 219-G5 (1995)

H I Absorption Toward the Nucleus of the Powerful Radio Galaxy Cygnus A: Evidence for an Atomic Obscuring Torus? *J. E. Conway & P. R. Blanco.* 449, L131, 227-C1 (1995)

The Morphology and Kinematics of 16 Markarian Galaxies with Multiple Nuclei. I. Basic Data. *Tyler E. Nordgren, George Helou, Jayaram N. Chengalur, Yervant Terzian, & Ed Khachikian.* 99, 461, 41-C12 (1995)

Hubble Space Telescope Images of the Nuclear Star-forming Region in the Interacting Galaxy NGC 5930. *Gary A. Bower & Andrew S. Wilson.* 99, 543, 42-E11 (1995)

Compton Heating and Superthermal Electrons in Gamma-loud Active Galactic Nuclei. *Andrei M. Beloborodov & Andrei F. Illarionov.* 450, 64, 229-A3 (1995)

Echelle Spectroscopy of the Na I D Absorption-Line Systems of Markarian 231. *Karl Forster, R. Michael Rich, & James K. McCarthy.* 450, 74, 229-B5 (1995)

WFPC2 Images of Multiple Nuclei in Nearby Active Galactic Nuclei. *Varoujan Gorjian.* 450, L51, 244-E3 (1995)

An *ASCA* X-Ray Spectrum of a Prototype Bare Seyfert 1 Nucleus in MCG −2-58-22. *K. A. Weaver, J. Nousek, T. Yaqoob, K. Hayashida, & S. Murakami.* 451, 147, 248-B1 (1995)

The Central Regions of NGC 4691: A Remarkable Structure with a Fast Outflow near the Nucleus. *J. A. García-Barreto, J. Franco, J. Guichard, & R. Carrillo.* 451, 156, 248-B13 (1995)

A Century of Galaxy Spectroscopy. *Vera C. Rubin.* 451, 419, 253-B1 (1995)

Accretion Disk Winds from Active Galactic Nuclei. *N. Murray, J. Chiang, S. A. Grossman, & G. M. Voit.* 451, 498, 254-B9 (1995)

Stellar Contrails in Quasi-stellar Objects: The Origin of Broad Absorption Lines. *Nick Scoville & Colin Norman.* 451, 510, 254-C10 (1995)

Imaging Spectrophotometry of Markarian 573. *Richard W. Pogge & Michael M. De Robertis.* 451, 585, 255-C11 (1995)

When Is BL Lac Not a BL Lac? *R. C. Vermeulen, P. M. Ogle, H. D. Tran, I. W. A. Browne, M. H. Cohen, A. C. S. Readhead, G. B. Taylor, & R. W. Goodrich.* 452, L5, 269-C8 (1995)

The Nature of the Ultraviolet Continuum in Type 2 Seyfert Galaxies. *T. Heckman, J. Krolik, G. Meurer, D. Calzetti, A. Kinney, A. Koratkar, C. Leitherer, C. Robert, & A. Wilson.* 452, 549, 272-C3 (1995)

Models of the Optical/Ultraviolet Continuum Polarization in Active Galactic Nuclei: Implications for Unification Schemes. *John F. Kartje.* 452, 565, 272-D8 (1995)

Upper Limits on TeV Gamma-Ray Emission from Active Galactic Nuclei. *A. D. Kerrick, C. W. Akerlof, S. Biller, J. Buckley, D. A. Carter-Lewis, M. F. Cawley, M. Chantell, V. Connaughton, D. J. Fegan, S. Fennell, J. Gaidos, A. M. Hillas, P. W. Kwok, R. C. Lamb, T. Lappin, R. Lessard, J. McEnery, D. I. Meyer, G. Mohanty, J. Quinn, H. J. Rose, A. C. Rovero, G. Sembroski, M. S. Schubnell, M. Punch, T. C. Weekes, M. West, C. Wilson, & J. Zweerink.* 452, 588, 272-F10 (1995)

Near-Infrared Spectroscopy of the Arp 220 Nuclei: Measuring the Nuclear Rotation. *J. E. Larkin, L. Armus, R. A. Knop, K. Matthews, & B. T. Soifer.* 452, 599, 272-G11 (1995)

Can Dust Formation in Evolved Stars Be Suppressed near Active Galactic Nuclei? *T. W. Hartquist, R. H. Durisen, J. E. Dyson, J. M. C. Rawlings, D. A. Williams, & R. J. R. Williams.* 453, 77, 282-C3 (1995)

Multiwavelength Energy Distributions and Bolometric Luminosities of the 12 Micron Galaxy Sample. *Luigi Spinoglio, Matthew A. Malkan, Brian Rush, Luis Carrasco, & Elsa Recillas-Cruz.* 453, 616, 292-D4 (1995)

Low-Luminosity and Obscured Seyfert Nuclei in Nearby Galaxies. *R. Maiolino & G. H. Rieke.* 454, 95, 300-E4 (1995)

Radio and Emission-Line Jets in the Type 2 Seyfert Galaxy Markarian 1066 (UGC 2456). *Gary Bower, Andrew Wilson, Jon A. Morse, Richard Gelderman, Mark Whittle, & John Mulchaey.* 454, 106, 300-F4 (1995)

The Far-Ultraviolet Spectrum of NGC 4151 as Observed with the Hopkins Ultraviolet Telescope on Astro-2. *Gerard A. Kriss, Arthur F. Davidsen, Wei Zheng, Jeffrey W. Kruk, & Brian R. Espey.* 454, L7, 307-C11 (1995)

The Central Region in M100: Observations and Modeling. *J. H. Knapen, J. E. Beckman, C. H. Heller, I. Shlosman, & R. S. de Jong.* 454, 623, 310-B4 (1995)

Modeling the Multiwavelength Accretion Disk Spectrum of X-Ray–selected Active Galactic Nuclei. *R. J. Thompson, Jr.* 454, 660, 310-F13 (1995)

Nuclear Antics of IC 4553 (ARP 220). *Willem A. Baan & Aubrey D. Haschick.* 454, 745, 312-A6 (1995)

Optical Detection of the Hidden Nuclear Engine in NGC 4258. *Belinda J. Wilkes, Gary D. Schmidt, Paul S. Smith, Smita Mathur, & Kim K. McLeod.* 455, L13, 324-D8 (1995)

The Galaxy Component and Nuclear Flux Measurements of NGC 5548 from Direct Imaging. *W. Romanishin, T. J. Balonek, R. Ciardullo, H. R. Miller, B. M. Peterson, A. C. Sadun, G. M. Stirpe, K. Takagishi, B. W. Taylor, & V. Zitelli.* 455, 516, 329-B1 (1995)

The H_2O Megamasers in NGC 2639—Evidence for an Accretion Disk in a LINER Nucleus. *A. S. Wilson, J. A. Braatz, & C. Henkel.* 455, L127, 333-F12 (1995)

Spiral Structure in the Circumnuclear Disk at the Center of NGC 4258. *Eyal Maoz.* 455, L131, 333-G4 (1995)

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Far-Ultraviolet MAMA Detector Imagery and Emission-Line CCD Imagery of NGC 6240. *Andrew M. Smith, Robert S. Hill, Frederick J. Vrba, & J. Gethyn Timothy.* 391, L81, 99-F5 (1992)

The Connection between Line Emission and Radio Power in Distant Radio Galaxies. *Ruth A. Daly.* 406, 47, 55-E13 (1993)

Discovery of a Third Giant Low Surface Brightness Disk Galaxy. *D. Sprayberry, C. D. Impey, M. J. Irwin, R. G. McMahon, & G. D. Bothun.* 417, 114, 218-F7 (1993)

Near-Infrared Imaging of FSC 10214+4724 with the W. M. Keck Telescope. *K. Matthews, B. T. Soifer, J. Nelson, H. Boesgaard, J. R. Graham, W. Harrison, W. Irace, G. Jernigan, J. E. Larkin, H. Lewis, S. Lin, G. Neugebauer, M. Sirota, G. Smith, & C. Ziomkowski.* 420, L13, 7-C5 (1994)

The Hidden Nuclear Spectrum of the Luminous *IRAS* Source FSC 10214+4724. *Buell T. Jannuzi, Richard Elston, Gary D. Schmidt, Paul S. Smith, & H. S. Stockman.* 429, L49, 157-G1 (1994)

The Morphology of Faint Galaxies in Medium Deep Survey Images Using WFPC2. *R. E. Griffiths, S. Casertano, K. U. Ratnatunga, L. W. Neuschaefer, R. S. Ellis, G. F. Gilmore, K. Glazebrook, B. Santiago, J. P. Huchra, R. A. Windhorst, S. M. Pascarelle, R. F. Green, G. D. Illingworth, D. C. Koo, & A. J. Tyson.* 435, L19, 251-E1 (1994)

Morphology of Galaxy Mergers at Intermediate Redshift. *J. Christopher Mihos.* 438, L75, 19-E8 (1995)

A Merger Origin for X Structures in S0 Galaxies. *J. Christopher Mihos, Ian R. Walker, Lars Hernquist, Claudia Mendes de Oliveira, & Michael Bolte.* 447, L87, 190-E1 (1995)

The Buried QSO in IRAS F15307+3252 and the Nature of Hyperluminous Infrared Galaxies. *Dean C. Hines, Gary D. Schmidt, Paul S. Smith, Roc M. Cutri, & Frank J. Low.* 450, L1, 235-D1 (1995)

GALAXIES: PHOTOMETRY

The Luminosity-Diameter Relation for Disk Galaxies in Different Environments. *M. Girardi, A. Biviano, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 366, 393, 7-F7 (1991)

Stellar Population Synthesis Revisited. *Stéphane Charlot & Gustavo Bruzual A.* 367, 126, 13-E5 (1991)

Olbers's Paradox and the Spectral Intensity of the Extragalactic Background Light. *Paul S. Wesson.* 367, 399, 18-D5 (1991)

High-Rate Active Galaxy Monitoring at the Wise Observatory. III. The Broad-Line Region of NGC 4151. *D. Maoz, H. Netzer, T. Mazeh, S. Beck, E. Almoznino, E. Leibowitz, N. Brosch, H. Mendelson, & A. Laor.* 367, 493, 19-E1 (1991)

Simulated Optical Images of Galaxies at $z \sim 1$ Using Ultraviolet Images of Nearby Galaxies. *Ralph C. Bohlin, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Wayne B. Landsman, Robert W. O'Connell, Susan G. Neff, Andrew M. Smith, & Theodore P. Stecher.* 368, 12, 23-C1 (1991)

New Velocity Dispersions and Photometry for E and S0 Galaxies in the Great Attractor. *Alan Dressler, S. M. Faber, & David Burstein.* 368, 54, 23-G1 (1991)

Large-Aperture *BVRJK* Photometry of Rich Abell Clusters: Constraints on Dark Matter. *Juan M. Uson & Stephen P. Boughn.* 369, 38, 36-D11 (1991)

Diffuse Light in Dense Clusters of Galaxies. I. *R*-Band Observations of Abell 2029. *Juan M. Uson, Stephen P. Boughn, & Jeffrey R. Kuhn.* 369, 46, 36-E7 (1991)

A Deep Imaging and Spectroscopic Survey of Faint Galaxies. *S. J. Lilly, L. L. Cowie, & J. P. Gardner.* 369, 79, 37-A1 (1991)

Infrared Mapping of M82: A Starburst in an Edge-on Barred Galaxy. *C. M. Telesco, H. Campins, M. Joy, K. Dietz, & R. Decher.* 369, 135, 37-E11 (1991)

A Cosmos Study of IC 1613. *Paul W. Hodge, Toby R. Smith, Paul B. Eskridge, Harvey T. MacGillivray, & Steven M. Beard.* 369, 372, 42-D5 (1991)

The Core of the Nearby S0 Galaxy NGC 7457 Imaged with the *HST* Planetary Camera. *Tod R. Lauer, S. M. Faber, Jon A. Holtzman, William A. Baum, Douglas G. Currie, S. P. Ewald, Edward J. Groth, J. Jeff Hester, T. Kelsall, Jerome Kristian, Robert M. Light, C. Roger Lynds, Earl J. O'Neil, Jr., Edward J. Shaya, & James A. Westphal.* 369, L41, 45-E9 (1991)

Northern Dwarf and Low Surface Brightness Galaxies. IV. The Large-Scale Space Distribution. *Trinh X. Thuan, Jean-Michel Alimi, J. Richard Gott III, & Stephen E. Schneider.* 370, 25, 47-D1 (1991)

The Joint Far-Infrared–Optical Luminosity Function for Spiral Galaxies and Data for the Abell 400 and Cancer Clusters. *Edvige Corbelli, Edwin E. Salpeter, & John M. Dickey.* 370, 49, 47-F4 (1991)

Weakly Barred Early-Type Ringed Galaxies. IV. The Double-ringed S0$^+$ Galaxy NGC 7702. *R. Buta.* 370, 130, 48-F6 (1991)

Interstellar Matter in Early-Type Galaxies. I. The Catalog. *Morton S. Roberts, David E. Hogg, Joel N. Bregman, William R. Forman, & Christine Jones.* 75, 751, 11-F5 (1991)

The Surface Brightness Test for the Expansion of the Universe. III. Reduction of Data for the Several Brightest Galaxies in Clusters to Standard Conditions and a First Indication That the Expansion Is Real. *Allan Sandage & Jean-Marc Perelmuter.* 370, 455, 54-B1 (1991)

Multicolor CCD Imaging of Supergiants in the Disk of NGC 253. *T. J. Davidge, O. Le Fèvre, & C. C. Clark.* 370, 559, 55-D7 (1991)

A Near-Infrared Imaging Survey of Interacting Galaxies: The Disk-Disk Merger Candidates Subset. *S. A. Stanford & H. A. Bushouse.* 371, 92, 61-C1 (1991)

Is the Standard Elliptical NGC 3379 a Triaxial Disk Galaxy? *M. Capaccioli, M. Vietri, E. V. Held, & H. Lorenz.* 371, 535, 68-B12 (1991)

Faint Galaxies: Bounds on the Epoch of Galaxy Formation and the Cosmological Deceleration Parameter. *Yuzuru Yoshii & Bruce A. Peterson.* 372, 8, 74-B6 (1991)

Optical and Near-Infrared Polarimetry of the Infrared Luminous Galaxy IRAS 23060+0505. *J. H. Hough, C. Brindle, Beverley J. Wills, D. Wills, & J. Bailey.* 372, 478, 81-F9 (1991)

The Luminosity Distribution of Globular Clusters in Three Giant Virgo Ellipticals. *William E. Harris, J. W. B. Allwright, Christopher J. Pritchet, & Sidney van den Bergh.* 76, 115, 25-D11 (1991)

Optical Properties and Dynamics of Galaxies in the Hickson Compact Groups. *Vera C. Rubin, Deidre A. Hunter, & W. Kent Ford, Jr.* 76, 153, 26-A1 (1991)

Triaxiality in Disk Galaxies. *F. Bertola, M. Vietri, & W. W. Zeilinger.* 374, L13, 103-D1 (1991)

Multiwavelength Isophotal Data for Southern Elliptical Galaxies. *W. B. Sparks, J. V. Wall, P. R. Jorden, D. J. Thorne, & I. van Breda.* 76, 471, 31-F11 (1991)

Fundamental Parameters of Brightest Cluster Galaxies. *William R. Oegerle & John G. Hoessel.* 375, 15, 111-B13 (1991)

The Distance to the Coma Cluster Using the *B*-Band Tully-Fisher Relation. *M. Fukugita, S. Okamura, K. Tarusawa, H. J. Rood, & B. A. Williams.* 376, 8, 125-B9 (1991)

Correlations between Far-Infrared, Radio, and Blue Luminosities of Spiral Galaxies. *J. J. Condon, M. L. Anderson, & G. Helou.* 376, 95, 126-B7 (1991)

Extremely Low Surface Brightness Galaxies in the Fornax Cluster: Properties, Stability, and Luminosity Fluctuations. *Gregory D. Bothun, Christopher D. Impey, & David F. Malin.* 376, 404, 131-D10 (1991)

Very Small Grains and the Infrared Colors of Galaxies. *G. Helou, C. Ryter, & B. T. Soifer.* 376, 505, 132-F6 (1991)

Narrow-Band Photometry and the Evolution of Galaxies. III. The Intermediate-Redshift Sample. *Karl D. Rakos, James M. Schombert, & Tobias J. Kreidl.* 377, 382, 144-E7 (1991)

Surface Photometry of a Sample of Elliptical and S0 Galaxies. *R. R. de Carvalho, S. Djorgovski, & L. N. da Costa.* 76, 1067, 40-E1 (1991)

The Dark Matter Content of Spiral Galaxies. *Paolo Salucci, Keith M. Ashman, & Massimo Persic.* 379, 89, 164-B1 (1991)

Tidally Triggered Galaxy Formation. I. Evolution of the Galaxy Luminosity Function. *Cedric Lacey & Joseph Silk.* 381, 14, 189-C1 (1991)

Galaxy Evolution in Distant, X-Ray–Selected Clusters of Galaxies. I. Cl 1358+6245. *Daniel G. Fabricant, Jeffrey E. McClintock, & Marshall W. Bautz.* 381, 33, 189-D8 (1991)

Systematic Bias in Cluster Galaxy Data, Affecting Galaxy Distances and Evolutionary History. *Donald H. Gudehus.* 382, 1, 200-A13 (1991)

Optical Colors of Early-Type Galaxies in Compact Groups. *Stephen E. Zepf, Bradley C. Whitmore, & Harold F. Levison.* 383, 524, 220-G1 (1991)

Modeling the Evolution of Galaxies in Compact Groups. *Stephen E. Zepf & Bradley C. Whitmore.* 383, 542, 221-A8 (1991)

Stellar Population–induced Peculiar Velocities of Elliptical Galaxies. *Michael D. Gregg.* 384, 43, 1-E5 (1992)

The Faint Galaxy Contribution to the Diffuse Extragalactic Background Light. *Shaun Cole, Marie-Agnes Treyer, & Joseph Silk.* 385, 9, 12-B10 (1992)

Infrared and Optical Morphologies of Distant Radio Galaxies. *M. A. Rigler, S. J. Lilly, A. Stockton, F. Hammer, & O. Le Fèvre.* 385, 61, 12-G1 (1992)

The Optical Variability of PKS 2155−304. *Michael T. Carini & H. Richard Miller.* 385, 146, 13-G1 (1992)

Spectroscopy of Galaxies in Distant Clusters. IV. A Catalog of Photometry and Spectroscopy for Galaxies in Seven Clusters with $0.35 < z < 0.55$. *Alan Dressler & James E. Gunn.* 78, 1, 1-B1 (1992)

A Multiwavelength Study of the Peculiar Interacting Galaxies Arp 143 = VV 117: Evidence for an Emerging Ring Galaxy? *P. N. Appleton, J. M. Schombert, & E. I. Robson.* 385, 491, 19-C8 (1992)

Infrared Imaging of $z > 2$ Radio Galaxies. *P. J. McCarthy, S. E. Persson, & S. C. West.* 386, 52, 24-F7 (1992)

Galactic Structure from the Spacelab Infrared Telescope. I. 2.4 Micron Map. *S. M. Kent, D. Mink, G. Fazio, D. Koch, G. Melnick, A. Tardiff, & C. Maxson.* 78, 403, 8-A9 (1992)

Constraints on the Universe with a Decaying Cosmological Constant from a Number Count of Faint Galaxies. *Yuzuru Yoshii & Katsuhiko Sato.* 387, L7, 43-B1 (1992)

The Integrated Spectra of Nearby Galaxies: General Properties and Emission-Line Spectra. *Robert C. Kennicutt, Jr.* 388, 310, 54-C1 (1992)

Evidence for Dwarf Stars at $D \sim 100$ Kiloparsecs near the Sextans Dwarf Spheroidal Galaxy. *Andrew Gould, Puragra Guhathakurta, Douglas Richstone, & Chris Flynn.* 388, 345, 54-F1 (1992)

No Back-Side Infall into the Great Attractor. *D. S. Mathewson, V. L. Ford, & M. Buchhorn.* 389, L5, 66-B6 (1992)

A Near-Infrared Imaging Survey of Interacting Galaxies: The Small Angular-Size Arp Systems. *Howard A. Bushouse & S. Adam Stanford.* 79, 213, 16-G11 (1992)

A Spectrophotometric Atlas of Galaxies. *Robert C. Kennicutt, Jr.* 79, 255, 17-F7 (1992)

The Structure of Southern Extragalactic Radio Sources. *Paul A. Jones & W. Bruce McAdam.* 80, 137, 24-C3 (1992)

The Internal Extinction in Spiral Galaxies. *Mingsheng Han.* 391, 617, 95-F4 (1992)

Far-Ultraviolet MAMA Detector Imagery and Emission-Line CCD Imagery of NGC 6240. *Andrew M. Smith, Robert S. Hill, Frederick J. Vrba, & J. Gethyn Timothy.* 391, L81, 99-F5 (1992)

Elongated Disks and the Scatter in the Tully-Fisher Relation. *Marijn Franx & Tim de Zeeuw.* 392. L47, 113-B1 (1992)

CCD Photometry of 14 BL Lacertae Objects and Theoretical Model. *G. Z. Xie, K. H. Li, F. K. Liu, R. W. Lu, J. X. Wu, J. H. Fan, Y. Y. Zhu, & F. Z. Cheng.* 80, 683, 32-G11 (1992)

Evidence for a Supermassive Black Hole in NGC 3115. *John Kormendy & Douglas Richstone.* 393, 559, 122-G1 (1992)

Color Gradients in Cooling Flows in Clusters of Galaxies. *Brian R. McNamara & Robert W. O'Connell.* 393, 579, 123-B1 (1992)

Dust and the Transfer of Stellar Radiation within Galaxies. *Adolf N. Witt, Harley A. Thronson, Jr., & John M. Capuano, Jr.* 393, 611, 123-D7 (1992)

Hubble Flows in the Pisces-Perseus Region from the Giovanelli-Haynes Galaxy Sample. *T. Ichikawa & M. Fukugita.* 394, 61, 128-G5 (1992)

I-Band CCD Surface Photometry of Spiral Galaxies in 16 Nearby Clusters. *Mingsheng Han.* 81, 35, 35-E5 (1992)

Redshift Asymmetry and Color-Velocity Correlation in Nearby Galaxy Groups: Evidence of Dust? *M. Girardi, M. Mezzetti, G. Giuricin, & F. Mardirossian.* 394, 442, 134-G9 (1992)

Ultraviolet Imaging of Old Populations in Nearby Galaxies. *Robert W. O'Connell, Ralph C. Bohlin, Nicholas R. Collins, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Wayne B. Landsman, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L45, 145-D1 (1992)

A Southern Sky Survey of the Peculiar Velocities of 1355 Spiral Galaxies. *D. S. Mathewson, V. L. Ford, & M. Buchhorn.* 81, 413, 41-B1 (1992)

Peculiar Velocities of Clusters in the Perseus-Pisces Supercluster. *M. Han & J. R. Mould.* 396, 453, 163-B1 (1992)

A Near-Infrared Study of a Homogeneous Sample of Optically Selected Active Galactic Nuclei. II. Analysis of the Results and Interpretation. *L. Danese, V. Zitelli, G. L. Granato, R. Wade, G. De Zotti, & N. Mandolesi.* 399, 38, 195-E8 (1992)

Large Infrared and Optical Color Gradients in the Cartwheel Ring Galaxy: Evidence for the First Epoch of Star Formation in the Wake of an Expanding Ring. *P. M. Marcum, P. N. Appleton, & J. L. Higdon.* 399, 57, 195-G3 (1992)

How Old Is the $z = 3.4$ Radio Galaxy B2 0902+34. *Peter Eisenhardt & Mark Dickinson.* 399, L47, 200-E4 (1992)

Dynamically Hot Galaxies. I. Structural Properties. *Ralf Bender, David Burstein, & S. M. Faber.* 399, 462, 203-F1 (1992)

The Young Large Magellanic Cloud Cluster NGC 2214 with a Single Supergiant Branch. *Myung Gyoon Lee.* 399, L133, 208-B1 (1992)

The Stellar Content of Central Dominant Galaxies. II. Colors of cD Envelopes. *Glen Mackie.* 400, 65, 209-G1 (1992)

Intensive Optical Monitoring of the BL Lacertae Object PKS 2155−304. *Paul S. Smith, Patrick B. Hall, Richard G. Allen, & Michael L. Sitko.* 400, 115, 210-D1 (1992)

Deep *Hubble Space Telescope* Imaging of a Compact Radio Galaxy at $z = 2.390$. *Rogier Windhorst, Douglas F. Mathis, & William C. Keel.* 400, L1, 214-A8 (1992)

UGC 7636 and NGC 4472: Tidal Interaction between a Stripped Dwarf Irregular and a Giant Elliptical Galaxy. *Richard J. Patterson & Trinh X. Thuan.* 400, L55, 220-C7 (1992)

A Survey of Ultraviolet Variability in Blazars. *Rick Edelson.* 401, 516, 229-B1 (1992)

The Ultraviolet Color Gradient in the Late-Type Spiral Galaxy M33. *Wayne B. Landsman, Morton S. Roberts, Ralph C. Bohlin, Robert W. O'Connell, Andrew M. Smith, & Theodore P. Stecher.* 401, L83, 233-B3 (1992)

The CFHT North Galactic Pole Faint Galaxy Survey. *L. Infante & C. J. Pritchet.* 83, 237, 61-B1 (1992)

Effect of Malmquist Bias on Correlation Studies with the *IRAS* Data Base. *Frances Verter.* 402, 141, 2-G5 (1993)

Infrared Polarimetry of Galaxies. III. Global Comparisons. *Terry Jay Jones.* 403, 135, 15-F5 (1993)

An Infrared Study of Hot Dust in Quasars Using Prism Spectrophotometry. *Yukiyasu Kobayashi, Shuji Sato, Takuya Yamashita, Hisashi Shiba, & Hideki Takami.* 404, 94, 29-B11 (1993)

Does the Inner Broad-Line Region Dim Down When the Power Turns Up? *Linda S. Sparke.* 404, 570, 36-B1 (1993)

A Near-Infrared Study of a Homogeneous Sample of Optically Selected Active Galactic Nuclei. I. The Observations. *V. Zitelli, G. L. Granato, N. Mandolesi, R. Wade, & L. Danese.* 84, 185, 4-A3 (1993)

Deep Imaging Search for Lyman-Alpha Emission Associated with an H I Cloud at $z = 3.4$. *George Rhee, Chris Loken, & Oliver Le Fèvre.* 406, 26, 55-D1 (1993)

Optical Imaging and Long-Slit Spectroscopy of Markarian Galaxies with Multiple Nuclei. I. Basic Data. *Joseph M. Mazzarella & Todd A. Boroson.* 85, 27, 6-E1 (1993)

Optical Photometry and Polarimetry and Infrared Photometry of 3C 345 in Outburst. *Mark R. Kidger, José Antonio de Diego, Leo O. Takalo, Aimo Sillanpää, & Masami Okyudo.* 407, L1, 75-A7 (1993)

Kinematics of an "E+A" Galaxy in Abell 665 at $z = 0.18$. *Marijn Franx.* 407, L5, 75-B1 (1993)

Surface Photometry of the Hydra I Cluster of Galaxies. I. Photometric Data. *Masaru Hamabe.* 85, 249, 10-D5 (1993)

The Distance to Nearby Galaxy NGC 3109 Based on the Tip of the Red Giant Branch. *Myung Gyoon Lee.* 408, 409, 90-C8 (1993)

Flow Dynamics and Bending of Wide-Angle Tailed Radio Sources. *Aileen A. O'Donoghue, Jean A. Eilek, & Frazer N. Owen.* 408, 428, 90-E1 (1993)

Multifrequency Observations of the Optically Active Radio-quiet Quasar GQ Comae. II. Ultraviolet, Optical, and Infrared Continuum Variability. *Michael L. Sitko, Annamaria K. Sitko, Aneta Siemiginowska, & R. Szczerba.* 409, 139, 98-F5 (1993)

Infrared Surface Brightness Fluctuations: K'-Band Observations of M31, M32, and the Distance to Maffei 1. *Gerard A. Luppino & John L. Tonry.* 410, 81, 113-B3 (1993)

Galaxy Colors in Distant Clusters as a Test for the World Model. *Alberto Buzzoni, Guido Chincarini, & Emilio Molinari.* 410, 499, 119-G9 (1993)

The Shapes of Brightest Cluster Galaxies. *Barbara S. Ryden, Tod R. Lauer, & Marc Postman.* 410, 515, 120-B1 (1993)

Searching for a Far-Infrared Enhancement in Compact Groups of Galaxies. *Jack W. Sulentic & Duilia F. De Mello Rabaça.* 410, 520, 120-B8 (1993)

The Interacting System NGC 7753–7752 (Arp 86). I. *BVRI* Photometry. *Eija Laurikainen, Heikki Salo, & Antonio Aparicio.* 410, 574, 120-G3 (1993)

High-Resolution Infrared Maps from *IRAS* Observations of Large Galaxies. I. *S. K. Ghosh, R. P. Verma, T. N. Rengarajan, B. Das, & H. T. Saraiya.* 86, 401, 19-G9 (1993)

Sources of Scatter in the Fundamental Plane and the D_n-σ Relation. *Inger Jørgensen, Marijn Franx, & Per Kjærgaard.* 411, 34, 127-E1 (1993)

Dynamically Hot Galaxies. II. Global Stellar Populations. *Ralf Bender, David Burstein, & S. M. Faber.* 411, 153, 129-A8 (1993)

M82: The Saga Continues. *K. K. McLeod, G. H. Rieke, M. J. Rieke, & D. M. Kelly.* 412, 111, 143-D10 (1993)

A New Survey for Low-Luminosity Emission-Line Galaxies. *Todd A. Boroson, John J. Salzer, & Adam Trotter.* 412, 524, 150-B10 (1993)

Luminous Infrared Galaxies: Sizes at 10–32 Microns. *C. G. Wynn-Williams & E. E. Becklin.* 412, 535, 150-C13 (1993)

Streaming Motions in the Local Universe: Evidence for Large-Scale, Low-Amplitude Density Fluctuations. *Stéphane Courteau, S. M. Faber, Alan Dressler, & Jeffrey A. Willick.* 412, L51, 155-B10 (1993)

On the Angular Correlation Function of Faint Galaxies. *Yuzuru Yoshii, Bruce A. Peterson, & Fumio Takahara.* 414, 431, 176-E1 (1993)

Counter-Evolution of Faint Field Galaxies. *David C. Koo, Caryl Gronwall, & Gustavo Bruzual A.* 415, L21, 191-G10 (1993)

Optical CCD Imaging of GHz-peaked-Spectrum Radio Sources. *C. Stanghellini, C. P. O'Dea, S. A. Baum, & E. Laurikainen.* 88, 1, 40-B1 (1993)

Does a Luminosity-dependent Continuum Shape Cause the Baldwin Effect? *Wei Zheng & Matthew A. Malkan.* 415, 517, 194-C6 (1993)

Low-Mass Star Formation in Cooling Flow Galaxies. *James M. Schombert, Mary Barsony, & Patricia C. Hanlon.* 416, L61, 216-C7 (1993)

H I 21 Centimeter Observations and *I*-Band CCD Surface Photometry of Spiral Galaxies behind the Virgo Cluster and toward Its Antipode. *N. Y Lu, G. L. Hoffman, T. Groff, T. Roos, & C. Lamphier.* 88, 383, 45-D1 (1993)

Infrared Observations of the Seyfert Ring Galaxy NGC 985. *P. N. Appleton & P. M. Marcum.* 417, 90, 218-C9 (1993)

The Structure and Dynamics of Elliptical Galaxies in Compact Groups. *Stephen E. Zepf & Bradley C. Whitmore.* 418, 72, 232-A7 (1993)

Tracing the Stellar Mass in M51. *Hans-Walter Rix & Marcia J. Rieke.* 418, 123, 232-E10 (1993)

A Study of a Homogeneous Sample of Optically Selected Active Galactic Nuclei. III. Optical Observations. *G. L. Granato, V. Zitelli, F. Bonoli, L. Danese, C. Bonoli, & F. Delpino.* 89, 35, 49-D9 (1993)

The Fundamental Plane and the Surface Brightness Test for the Expansion of the Universe. *Per Kjærgaard, Inger Jørgensen, & Mariano Moles.* 418, 617, 240-B6 (1993)

The Infrared Tully-Fisher Relation in the Ursa Major Cluster. *R. F. Peletier & S. P. Willner.* 418, 626, 240-C3 (1993)

A Comparison of the Planetary Nebula Luminosity Function and Surface Brightness Fluctuation Distance Scales. *Robin Ciardullo, George H. Jacoby, & John L. Tonry.* 419, 479, 253-F9 (1993)

The Wavelength Dependence of Polarization of Active Galaxies and Quasars. *Wayne Webb, Matthew Malkan, Gary Schmidt, & Chris Impey.* 419, 494, 253-G12 (1993)

Near-Infrared Imaging of Low-Redshift Quasar Host Galaxies. *K. K. McLeod & G. H. Rieke.* 420, 58, 1-F10 (1994)

How Fast Do Quasar Emission Lines Vary? First Results from a Program to Monitor the Balmer Lines of the Palomar-Green Quasars. *Dan Maoz, Paul S. Smith, Buell T. Jannuzi, Shai Kaspi, & Hagai Netzer.* 421, 34, 16-E1 (1994)

Models for the Evolution of the Spectral Energy Distribution of Elliptical Galaxies for Ultraviolet to Far-Infrared Wavelengths. *P. Mazzei, G. De Zotti, & C. Xu.* 422, 81, 31-A13 (1994)

Simulations of Deep Galaxy Fields. I. Monte Carlo Simulations of Optical and Near-Infrared Counts. *Arati Chokshi, Carol J. Lonsdale, Paola Mazzei, & Gianfranco De Zotti.* 424, 578, 71-G9 (1994)

IRAS F15307+3252: A Hyperluminous Infrared Galaxy at $z = 0.93$. *Roc M. Cutri, John P. Huchra, Frank J. Low, Robert L. Brown, & Paul A. Vanden Bout.* 424, L65, 78-E1 (1994)

The Flattening Distribution of Dwarf Elliptical Galaxies in the Virgo Cluster. *Barbara S. Ryden & Donald M. Terndrup.* 425, 43, 80-F6 (1994)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VI. Variability of NGC 3783 from Ground-based Data. *G. M. Stirpe, C. Winge, B. Altieri, D. Alloin, E. L. Aguero, G. C. Anupama, R. Ashley, R. Bertram, J. H. Calderon, R. M. Catchpole, R. L. M. Corradi, E. Covino, H. A. Dottori, M. W. Feast, K. K. Ghosh, R. Gil Hutton, I. S. Glass, E. K. Grebel, L. Jorda, C. Koen, C. D. Laney, M. Maia, F. Marang, Y. D. Mayya, N. Morrell, Y. Nakada, M. G. Pastoriza, A. K. Pati, D. Pelat, B. M. Peterson, T. P. Prabhu, G. Roberts, R. Sagar, I. Salamanca, K. Sekiguchi, T. Storchi-Bergmann, A. Subramaniam, H. van Winckel, F. van Wyk, M. Villada, R. M. Wagner, P. A. Whitelock, H. Winkler, J. Clavel, M. Dietrich, W. Kollatschny, P. T. O'Brien, G. C. Perola, M. C. Recondo-González, P. Rodríguez-Pascual, & M. Santos-Lleo.* 425, 609, 89-C1 (1994)

Surface Photometry of Low-Luminosity Radio Galaxies. *Lourdes de Juan, Luis Colina, & Ismael Pérez-Fournon.* 91, 507, 26-C5 (1994)

Emission-Line Ratios of the Integrated Spectra of Galaxies: Evidence for a Diffuse Ionized Medium in Other Galaxies? *Matthew D. Lehnert & Timothy M. Heckman.* 426, L27, 103-D3 (1994)

Counts of Galaxies in a Merger Model. *P. Colín, D. N. Schramm, & M. Peimbert.* 426, 459, 104-B1 (1994)

UIT: Ultraviolet Surface Photometry of the Spiral Galaxy M74 (NGC 628). *Robert H. Cornett, Robert W. O'Connell, Michael R. Greason, Joel D. Offenberg, Ronald J. Angione, Ralph C. Bohlin, K. P. Cheng, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, Fred D. Talbert, & Theodore P. Stecher.* 426, 553, 105-C7 (1994)

Geometrical Evidence for Dark Matter: X-Ray Constraints on the Mass of the Elliptical Galaxy NGC 720. *David A. Buote & Claude R. Canizares.* 427, 86, 111-A12 (1994)

The Nuclear 10 Micron Emission of Spiral Galaxies. *Giuliano Giuricin, Laura Tamburini, Fabio Mardirossian, Marino Mezzetti, & Pierluigi Monaco.* 427, 202, 112-E1 (1994)

The H II Regions of NGC 6822. III. A Photometric Atlas. *John Collier & Paul Hodge.* 92, 119, 32-G10 (1994)

H II Regions in M81 Group Dwarf Galaxies. *Bryan W. Miller & Paul Hodge.* 427, 656, 120-G11 (1994)

Morphology of Galaxies in Compact Groups. *Cláudia Mendes de Oliveira & Paul Hickson.* 427, 684, 121-C1 (1994)

Infrared Surface Photometry of 3C 65: Stellar Evolution and the Tolman Signal. *M. A. Rigler & S. J. Lilly.* 427, L79, 126-G5 (1994)

The Optical Polarization Properties of X-Ray–selected BL Lacertae Objects. *Buell T. Jannuzi, Paul S. Smith, & Richard Elston.* 428, 130, 129-G3 (1994)

The *Hubble Space Telescope* Extragalactic Distance Scale Key Project. II. Photometry of WFC Images of M81. *Shaun M. G. Hughes, Peter B. Stetson, Anne Turner, Robert C. Kennicutt, Jr., Robert Hill, Myung Gyoon Lee, Wendy L. Freedman, Jeremy R. Mould, Barry F. Madore, Laura Ferrarese, Holland C. Ford, John A. Graham, John G. Hoessel, & Garth D. Illingworth.* 428, 143, 130-A5 (1994)

CO Absorption in Luminous Infrared Galaxies. *Susan E. Ridgway, C. G. Wynn-Williams, & E. E. Becklin.* 428, 609, 137-G1 (1994)

Ultraviolet to Near-Infrared Spectral Distributions of Star-forming Galaxies: Metallicity and Age Effects. *Thaisa Storchi-Bergmann, Daniela Calzetti, & Anne L. Kinney.* 429, 572, 152-G5 (1994)

Dust Extinction of the Stellar Continua in Starburst Galaxies: The Ultraviolet and Optical Extinction Law. *Daniela Calzetti, Anne L. Kinney, & Thaisa Storchi-Bergmann.* 429, 582, 153-A1 (1994)

DIRBE Evidence for a Warp in the Interstellar Dust Layer and Stellar Disk of the Galaxy. *H. T. Freudenreich, G. B. Berriman, E. Dwek, M. G. Hauser, T. Kelsall, S. H. Moseley, R. F. Silverberg, T. J. Sodroski, G. N. Toller, & J. L. Weiland.* 429, L69, 158-B3 (1994)

The Morphology of Distant Cluster Galaxies. I. *HST* Observations of CL 0939+4713. *Alan Dressler, Augustus Oemler, Jr., Harvey R. Butcher, & James E. Gunn.* 430, 107, 160-D3 (1994)

Morphological Studies of the Galaxy Populations in Distant "Butcher-Oemler" Clusters with *HST*. I. AC 114 at $z = 0.31$ and Abell 370 at $z = 0.37$. *Warrick J. Couch, Richard S. Ellis, Ray M. Sharples, & Ian Smail.* 430, 121, 160-E8 (1994)

The Relationship between Past and Present Star Formation in Galactic Disks from CCD Surface Photometry. *Stuart D. Ryder & Michael A. Dopita.* 430, 142, 160-G8 (1994)

On the Law of Star Formation in Disk Galaxies. *Michael A. Dopita & Stuart D. Ryder.* 430, 163, 161-B3 (1994)

Optical Spectrophotometry of Blazars. *R. Falomo, R. Scarpa, & M. Bersanelli.* 93, 125, 43-D13 (1994)

Near-Infrared Imaging of Low-Redshift Quasar Host Galaxies. II. High-Luminosity Quasars. *K. K. McLeod & G. H. Rieke.* 431, 137, 177-G8 (1994)

Diffuse Ionized Gas in the Spiral Galaxy M31. *René A. M. Walterbos & Robert Braun.* 431, 156, 178-B3 (1994)

A Morphological and Color Study of Fornax Low Surface Brightness Galaxies in the Washington System. *Sergio A. Cellone, Juan Carlos Forte, & Doug Geisler.* 93, 397, 48-B1 (1994)

The Morphologies of Distant Galaxies. I. An Automated Classification System. *Roberto G. Abraham, Francisco Valdes, H. K. C. Yee, & Sidney van den Bergh.* 432, 75, 194-B7 (1994)

Diagnostics of Dust Content in Spiral Galaxies: Numerical Simulations of Radiative Transfer. *Y. I. Byun, K. C. Freeman, & N. D. Kylafis.* 432, 114, 194-F1 (1994)

Testing for Interaction between the Galaxies NGC 450 and UGC 807. *Mariano Moles, Isabel Márquez, Josefa Masegosa, Ascensión del Olmo, Jaime Perea, & Halton Arp.* 432, 135, 194-G12 (1994)

Infrared Imaging of Spiral Galaxies: Colors and Luminosity Profiles. *Donald M. Terndrup, Roger L. Davies, Jay A. Frogel, D. L. DePoy, & Lisa A. Wells.* 432, 518, 202-D5 (1994)

The Ensemble Variability Properties of Faint QSOs. *Dario Trevese, Richard G. Kron, Steven R. Majewski, Matthew A. Bershady, & David C. Koo.* 433, 494, 217-B5 (1994)

The Nature of E and S0 Galaxies: A Study of a Magnitude-limited Sample of Galaxies in the Coma Cluster. *Inger Jørgensen & Marijn Franx.* 433, 553, 217-G7 (1994)

The Dispersion in the Near-Infrared Surface Brightness Fluctuations in the Virgo Cluster. *Michael A. Pahre & Jeremy R. Mould.* 433, 567, 218-A9 (1994)

Observations and Models of the Sacred Mushroom: AM 1724−622. *John F. Wallin & Curtis Struck-Marcell.* 433, 631, 218-G8 (1994)

The Peculiar Dust Distribution of M82. *T. Ichikawa, W. van Driel, T. Aoki, T. Soyano, K. Tarusawa, & S. Yoshida.* 433, 645, 219-A11 (1994)

Near-Infrared Observations of FSC 15307+3252. *B. T. Soifer, G. Neugebauer, K. Matthews, & L. Armus.* 433, L69, 223-F5 (1994)

The Hawaii K-Band Galaxy Survey. I. Deep K-Band Imaging. *L. L. Cowie, J. P. Gardner, E. M. Hu, A. Songaila, K.-W. Hodapp, & R. J. Wainscoat.* 434, 114, 226-F6 (1994)

Large-Scale Streaming Motions in the Local Universe. *D. S. Mathewson & V. L. Ford.* 434, L39, 241-C1 (1994)

Deep *HST* Imaging of Distant Weak Radio and Field Galaxies. *R. A. Windhorst, J. M. Gordon, S. M. Pascarelle, P. C. Schmidtke, William C. Keel, J. M. Burkey, & James S. Dunlop.* 435, 577, 254-B2 (1994)

Hubble Space Telescope Observations of the Distant Cluster Cl 0016+16: Quantitative Morphology of Confirmed Cluster Members. *Gregory D. Wirth, David C. Koo, & Richard G. Kron.* 435, L105, 259-F2 (1994)

Atlas of Quasar Energy Distributions. *Martin Elvis, Belinda J. Wilkes, Jonathan C. McDowell, Richard F. Green, Jill Bechtold, S. P. Willner, M. S. Oey, Elisha Polomski, & Roc Cutri.* 95, 1, 64-A2 (1994)

Effects of Intergalactic Absorption on the Visibility of Young Galaxies. *Yuzuru Yoshii & Bruce A. Peterson.* 436, 551, 273-B3 (1994)

The Flattened Dark Halo of Polar Ring Galaxy NGC 4650A: A Conspiracy of Shapes? *Penny D. Sackett, Hans-Walter Rix, Brian J. Jarvis, & Kenneth C. Freeman.* 436, 629, 274-C1 (1994)

The *Hubble Space Telescope* Medium Deep Survey with the Wide Field and Planetary Camera. I. Methodology and Results on the Field near 3C 273. *R. E. Griffiths, K. U. Ratnatunga, L. W. Neuschaefer, S. Casertano, M. Im, E. W. Wyckoff, R. S. Ellis, G. F. Gilmore, R. A. W. Elson, K. Glazebrook, D. J. Schade, R. A. Windhorst, P. C. Schmidtke, J. M. Gordon, S. M. Pascarelle, G. D. Illingworth, D. C. Koo, M. A. Bershady, D. A. Forbes, A. C. Phillips, R. F. Green, V. Sarajedini, J. P. Huchra, & A. J. Tyson.* 437, 67, 284-B3 (1994)

The Mass-to-Light Ratios of Low Surface Brightness Spiral Galaxies: Clues from the Tully-Fisher Relation. *D. Sprayberry, G. M. Bernstein, C. D. Impey, & G. D. Bothun.* 438, 72, 2-C10 (1995)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. III. Ground-based Observations in 1991 November. *T. J.-L. Courvoisier, A. Blecha, P. Bouchet, P. Bratschi, M. T. Carini, M. Donahue, R. Edelson, E. D. Feigelson, A. V. Filippenko, I. S. Glass, J. Heidt, R. I. Kollgaard, T. Matheson, H. R. Miller, J. C. Noble, K. Sekiguchi, P. S. Smith, C. M. Urry, & S. J. Wagner.* 438, 108, 2-G2 (1995)

Deep Galaxy Counts in the K Band with the Keck Telescope. *S. Djorgovski, B. T. Soifer, M. A. Pahre, J. E. Larkin, J. D. Smith, G. Neugebauer, I. Smail, K. Matthews, D. W. Hogg, R. D. Blandford, J. Cohen, W. Harrison, & J. Nelson.* 438, L13, 9-F13 (1995)

Colors, Luminosities, and Masses of Disk Galaxies. II. Environmental Dependencies. *Giuseppe Gavazzi, Isabella Randone, & Enzo Branchini.* 438, 590, 12-C10 (1995)

Color Evolution from $z = 0$ to $z = 1$. *Karl D. Rakos & James M. Schombert.* 439, 47, 21-G7 (1995)

ROSAT Observations of Coma Cluster Galaxies. *K. L. Dow & S. D. M. White.* 439, 113, 22-F9 (1995)

Stellar Photometry in the Inner Bulge of M31 Using the *Hubble Space Telescope* Wide Field Camera. *R. M. Rich & K. J. Mighell.* 439, 145, 23-B12 (1995)

Recalibration of the $H_{-0.5}$ Magnitudes of Spiral Galaxies. *Giuseppe Tormen & David Burstein.* 96, 123, 3-C7 (1995)

The Luminous Starburst Galaxy UGC 8387. *Denise A. Smith, Terry Herter, Martha P. Haynes, C. A. Beichman, & T. N. Gautier III.* 439, 623, 33-A4 (1995)

Estimating the Cramér-Rao Bound for Restored Astronomical Observations. *T. S. Zaccheo, R. A. Gonsalves, S. M. Ebstein, & P. Nisenson.* 439, L43, 40-C11 (1995)

Brightest Cluster Galaxies as Standard Candles. *Marc Postman & Tod R. Lauer.* 440, 28, 41-E9 (1995)

New Synthetic Mg_2 Indices. *M. Chavez, M. L. Malagnini, & C. Morossi.* 440, 210, 44-B3 (1995)

Resurrection of Traditional Luminosity Evolution Models to Explain Faint Field Galaxies. *Caryl Gronwall & David C. Koo.* 440, L1, 48-B1 (1995)

Millimeter Observations of a Complete Sample of *IRAS* Galaxies: Dust Emission and Absorption in Spirals. *Alberto Franceschini & Paola Andreani.* 440, L5, 48-B8 (1995)

The Contribution of Low Surface Brightness Galaxies to Faint Galaxy Counts. *Henry C. Ferguson & Stacy S. McGaugh.* 440, 470, 49-F11 (1995)

Surface Photometry of Spiral Galaxies in the Virgo Cluster Region. *Naoki Yasuda, Sadanori Okamura, & Masataka Fukugita.* 96, 359, 7-C6 (1995)

Observation and Reduction Methods of Deep Palomar 200 Inch 4-Shooter Mosaics. *Lyman W. Neuschaefer & Rogier A. Windhorst.* 96, 371, 7-D9 (1995)

Near-Infrared Imaging of CfA Seyfert Galaxies. *K. K. McLeod & G. H. Rieke.* 441, 96, 60-F4 (1995)

An Estimate of the Gas Inflow Rate along the Bar in NGC 7479. *A. C. Quillen, Jay A. Frogel, Jeffrey D. P. Kenney, R. W. Pogge, & D. L. DePoy.* 441, 549, 69-E8 (1995)

A Technique for Determining the Extragalactic Distance Scale. *Masashi Chiba & Yuzuru Yoshii.* 442, 82, 78-C11 (1995)

Ultraviolet Radiation from Evolved Stellar Populations. II. The Ultraviolet Upturn Phenomenon in Elliptical Galaxies. *Ben Dorman, Robert W. O'Connell, & Robert T. Rood.* 442, 105, 78-F6 (1995)

Automated Software for Surface Photometry of Galaxies. *M. Doi, M. Fukugita, & S. Okamura.* 97, 59, 11-F8 (1995)

Automated Surface Photometry for the Coma Cluster Galaxies: The Catalog. *M. Doi, M. Fukugita, S. Okamura, & K. Tarusawa.* 97, 77, 12-A1 (1995)

The Luminosity Structure and Objective Classification of Galaxies. *Mingsheng Han.* 442, 504, 86-G12 (1995)

Blue Lobes in the Hydra A Cluster Central Galaxy. *Brian R. McNamara.* 443, 77, 96-C8 (1995)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VIII. An Intensive *HST*, *IUE*, and Ground-based Study of NGC 5548. *K. T. Korista, D. Alloin, P. Barr, J. Clavel, R. D. Cohen, D. M. Crenshaw, I. N. Evans, K. Horne, A. P. Koratkar, G. A. Kriss, J. H. Krolik, M. A. Malkan, S. L. Morris, H. Netzer, P. T. O'Brien, B. M. Peterson, G. A. Reichert, P. M. Rodríguez-Pascual, W. Wamsteker, K. S. J. Anderson, D. J. Axon, E. Benitez, P. Berlind, R. Bertram, J. H. Blackwell, Jr., N. G. Bochkarev, C. Boisson, M. Carini, R. Carrillo, T. E. Carone, F.-Z. Cheng, J. A. Christensen, K. K. Chuvaev, M. Dietrich, J. J. Dokter, V. Doroshenko, D. Dultzin-Hacyan, M. N. England, B. R. Espey, A. V. Filippenko, C. M. Gaskell, M. R. Goad, L. C. Ho, J. P. Huchra, X. J. Jiang, S. Kaspi, W. Kollatschny, A. Laor, J.-P. Luminet, G. M. MacAlpine, J. W. MacKenty, Yu. F. Malkov, D. Maoz, P. G. Martin, T. Matheson, B. McCollum, N. Merkulova, L. Metik, M. Mignoli, H. R. Miller, M. G. Pastoriza, D. Pelat, J. Penfold, M. Perez, G. C. Perola, J. L. Persaud, J. Peters, R. Pitts, R. W. Pogge, I. Pronik, V. I. Pronik, R. L. Ptak, L. Rawley, M. C. Recondo-González, J. M. Rodríguez-Espinosa, W. Romanishin, A. C. Sadun, I. Salamanca, M. Santos-Lleó, K. Sekiguchi, S. G. Sergeev, A. I. Shapovalova, J. C. Shields, C. Shrader, J. M. Shull, N. A. Silbermann, M. L. Sitko, D. R. Skillman, H. A. Smith, S. M. Smith, M. A. J. Snijders, L. S. Sparke, G. M. Stirpe, R. E. Stoner, W.-H. Sun, U. Thiele, S. Tokarz, Z. I. Tsvetanov, D. A. Turnshek, S. Veilleux, R. M. Wagner, S. J. Wagner, I. Wanders, T. Wang, W. F. Welsh, R. J. Weymann, R. J. White, B. J. Wilkes, B. J. Wills, C. Winge, H. Wu, & Z. L. Zou.* 97, 285, 15-F7 (1995)

Structure and Photometry of an $I < 20.5$ Galaxy Sample from the *Hubble Space Telescope* Medium Deep Survey. *Andrew C. Phillips, Matthew A. Bershady, Duncan A. Forbes, David C. Koo, Garth D. Illingworth, David B. Reitzel, Richard E. Griffiths, & Rogier A. Windhorst.* 444, 21, 113-E2 (1995)

Small Deviations from the $R^{1/4}$ Law, the Fundamental Plane, and Phase Densities of Elliptical Galaxies. *Jens Hjorth & Jes Madsen.* 445, 55, 133-B6 (1995)

Evolutionary Population Synthesis in Stellar Systems. II. Early-Type Galaxies. *Alberto Buzzoni.* 98, 69, 21-G7 (1995)

Ultraviolet to Near-Infrared Spectral Distributions of Star-forming and Seyfert 2 Galaxies. *Thaisa Storchi-Bergmann, Anne L. Kinney, & Peter Challis.* 98, 103, 22-C2 (1995)

The Spatial Variation of the Infrared-to-Radio Ratio in Spiral Galaxies. *K. A. Marsh & G. Helou.* 445, 599, 143-C9 (1995)

On the Origin of Blue Lobes in Central Cooling Flow Galaxies. *David S. De Young.* 446, 521, 163-C7 (1995)

A Near-Infrared Faint Galaxy Survey: The Catalog. *J. P. Gardner.* 98, 441, 29-B6 (1995)

Ultraviolet and Optical Observations of OB Associations in M31. *Jesse K. Hill, Joan E. Isensee, Ralph C. Bohlin, K. P. Cheng, P. M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 98, 595, 31-F10 (1995)

Nonaxisymmetric Structures in the Stellar Disks of Galaxies. *Hans-Walter Rix & Dennis Zaritsky.* 447, 82, 173-C9 (1995)

Collisions of Ellipticals and the Onset of Fanaroff-Riley Type I Radio Sources. *Luis Colina & Lourdes de Juan.* 448, 548, 202-C4 (1995)

Two-dimensional Decomposition of Bulge and Disk. *Y. I. Byun & K. C. Freeman.* 448, 563, 202-D12 (1995)

Deep Optical Galaxy Counts with the Keck Telescope. *Ian Smail, David W. Hogg, Lin Yan, & Judith G. Cohen.* 449, L105, 226-F8 (1995)

Near-Infrared Imaging and Spectroscopy of the Bright *IRAS* Galaxy VV 114. *René Doyon, Daniel Nadeau, R. D. Joseph, J. D. Goldader, D. B. Sanders, & Neil Rowlands.* 450, 111, 229-E8 (1995)

Evolution of Infrared-selected Galaxies in $z \sim 0.4$ Clusters. *S. A. Stanford, P. R. M. Eisenhardt, & Mark Dickinson.* 450, 512, 237-G4 (1995)

NGC 7217: A Spheroid-dominated, Early-Type Resonance Ring Spiral Galaxy. *R. Buta, W. van Driel, J. Braine, F. Combes, K. Wakamatsu, Y. Sofue, & A. Tomita.* 450, 593, 238-G13 (1995)

A Near-Infrared Faint Galaxy Survey. *J. P. Gardner.* 452, 538, 272-B2 (1995)

The Nature of the Ultraviolet Continuum in Type 2 Seyfert Galaxies. *T. Heckman, J. Krolik, G. Meurer, D. Calzetti, A. Kinney, A. Koratkar, C. Leitherer, C. Robert, & A. Wilson.* 452, 549, 272-C3 (1995)

The Examination of Optical Microvariability in Radio-quiet and Radio-loud Quasi-stellar Objects. *Minhwan Jang & H. Richard Miller.* 452, 582, 272-F1 (1995)

Galaxy Clustering Statistics of *Hubble Space Telescope* Medium Deep Survey WF/PC Images. *L. W. Neuschaefer, K. U. Ratnatunga, R. E. Griffiths, S. Casertano, & M. Im.* 453, 559, 291-E10 (1995)

Multiwavelength Energy Distributions and Bolometric Luminosities of the 12 Micron Galaxy Sample. *Luigi Spinoglio, Matthew A. Malkan, Brian Rush, Luis Carrasco, & Elsa Recillas-Cruz.* 453, 616, 292-D4 (1995)

Testing Models for the Quasar Big Blue Bump via Color-Color Diagrams. *Aneta Siemiginowska, Olga Kuhn, Martin Elvis, Fabrizio Fiore, Jonathan McDowell, & Belinda J. Wilkes.* 454, 77, 300-C7 (1995)

The Effects of Starbursts and Low Surface Brightness Galaxies on Faint Galaxy Models. *B. A. McLeod & M. J. Rieke.* 454, 611, 310-A3 (1995)

The Central Region in M100: Observations and Modeling. *J. H. Knapen, J. E. Beckman, C. H. Heller, I. Shlosman, & R. S. de Jong.* 454, 623, 310-B4 (1995)

Luminous Quasars in Luminous Early-Type Host Galaxies. *K. K. McLeod & G. H. Rieke.* 454, L77, 315-C9 (1995)

The Canada-France Redshift Survey. I. Introduction to the Survey, Photometric Catalogs, and Surface Brightness Selection Effects. *S. J. Lilly, O. Le Fèvre, David Crampton, F. Hammer, & L. Tresse.* 455, 50, 318-G12 (1995)

The Destruction of a Compact Group of Galaxies. *Rachel A. Pildis.* 455, 492, 328-F8 (1995)

The Galaxy Component and Nuclear Flux Measurements of NGC 5548 from Direct Imaging. *W. Romanishin, T. J. Balonek, R. Ciardullo, H. R. Miller, B. M. Peterson, A. C. Sadun, G. M. Stirpe, K. Takagishi, B. W. Taylor, & V. Zitelli.* 455, 516, 329-B1 (1995)

Near-Infrared Observations of Extended Emission around PG 1545+210. *G. Neugebauer, K. Matthews, & L. Armus.* 455, L123, 333-F4 (1995)

GALAXIES: QUASARS: ABSORPTION LINES

Lyman-Alpha Emission from the Damped Lyman-Alpha System toward H0836+113. *A. M. Wolfe, D. A. Turnshek, K. M. Lanzetta, & J. B. Oke.* 385, 151, 13-G7 (1992)

Magnetic Fields in Damped Lyα Systems. *A. M. Wolfe, K. M. Lanzetta, & A. L. Oren.* 388, 17, 49-C5 (1992)

Detection of Ca II Absorption in the QSO 0958+559 Due to a Heiles Shell in NGC 3079. *Donna S. Womble, Vesa T. Junkkarinen, & E. Margaret Burbidge.* 388, 55, 49-G1 (1992)

A Spectroscopic Study of UM 673 A and B: On the Size of Lyman-Alpha Clouds. *A. Smette, J. Surdej, P. A. Shaver, C. B. Foltz, F. H. Chaffee, R. J. Weymann, R. E. Williams, & P. Magain.* 389, 39, 60-E1 (1992)

Quasar Absorption Lines with a Nonzero Cosmological Constant. *Edwin L. Turner & Satoru Ikeuchi.* 389, 478, 67-D7 (1992)

Extinction in Low-Ionization Broad Absorption Line Quasi-stellar Objects. *David Sprayberry & Craig B. Foltz.* 390, 39, 74-E6 (1992)

The Lyman Forest of 0014+813. *M. Rauch, R. F. Carswell, F. H. Chaffee, C. B. Foltz, J. K. Webb, R. J. Weymann, J. Bechtold, & R. F. Green.* 390, 387, 80-B11 (1992)

The Kinematics of Intermediate-Redshift Gaseous Galaxy Halos. *Kenneth M. Lanzetta & David V. Bowen.* 391, 48, 86-E14 (1992)

Mg II Absorption in the Spectra of 103 QSOs: Implications for the Evolution of Gas in High-Redshift Galaxies. *Charles C. Steidel & Wallace L. W. Sargent.* 80, 1, 22-B1 (1992)

He I Absorption by Lyman-Alpha Clouds and Low-Redshift Lyman-Alpha Clouds. *Jordi Miralda-Escudé & Jeremiah P. Ostriker.* 392, 15, 101-C1 (1992)

Observations of 10 Faint Quasar Candidates in the Field of the Tololo 1037−2703/1038−2712 Quasar Pair. *Peter Jakobsen & M. A. C. Perryman.* 392, 432, 107-F3 (1992)

The Unusual Field of the Quasar 3C 336: Identification of Three Foreground Mg II Absorbing Galaxies. *Charles C. Steidel & Mark Dickinson.* 394, 81, 129-A13 (1992)

QSO Absorbers: Evidence for a Primeval Galaxy Population. *Arati Chokshi.* 395, 21, 140-D5 (1992)

Mg II Absorption by Previously Known Galaxies at $z \approx 0.5$. *Jill Bechtold & Erica Ellingson.* 396, 20, 155-C13 (1992)

The Radio Properties of the Broad-Absorption-Line QSOs. *John T. Stocke, Simon L. Morris, Ray J. Weymann, & Craig B. Foltz.* 396, 487, 163-E5 (1992)

The Ultraviolet Absorption Spectrum of the Quasar H1821+643 ($z = 0.297$). *John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, George F. Hartig, & Richard F. Green.* 397, 68, 168-G10 (1992)

Broad Absorption-Line Time Variability in the QSO CSO 203. *Thomas A. Barlow, Vesa T. Junkkarinen, E. Margaret Burbidge, Ray J. Weymann, Simon L. Morris, & Kirk T. Korista.* 397, 81, 169-A11 (1992)

The Optical Properties of IR-selected and Mg II Broad Absorption Line Quasars. *Todd A. Boroson & Karie A. Meyers.* 397, 442, 176-B13 (1992)

The Redshift Evolution of the Lyman-Alpha Forest: Blending Effects. *Dario Trevese, Emanuele Giallongo, & Luca Camurani.* 398, 491, 190-C1 (1992)

Low-Redshift Lyman-Alpha Absorption Lines and the Dark Matter Halos of Disk Galaxies. *Philip Maloney.* 398, L89, 194-C1 (1992)

A Photometric Search for [O II] Lines in Mg II Quasar Absorption Systems. *Brant O. Nelson & Matthew A. Malkan.* 82, 447, 55-B1 (1992)

H I Imaging of Four Quasar-Galaxy Pairs: The Parent Galaxies of Low-Redshift Quasar Absorption Systems. *C. L. Carilli & J. H. van Gorkom.* 399, 373, 202-E7 (1992)

Pressure-confined Lyα Clouds: Simulation Results versus Observations. *Gerard M. Williger & Arif Babul.* 399, 385, 202-G1 (1992)

Observations of Zn II, Cr II, Fe II, and Ca II in the Damped Lyman-Alpha Absorber at $z = 0.692$ toward 3C 286. *David M. Meyer & Donald G. York.* 399, L121, 207-G7 (1992)

Discovery of Neutral Hydrogen 21 Centimeter Absorption at Redshift 0.25 toward PKS 1413+135. *C. L. Carilli, Eric S. Perlman, & John T. Stocke.* 400, L13, 214-C1 (1992)

Search for Partial Systemic Lyman Edges in Nearby Quasars. *A. P. Koratkar, A. L. Kinney, & R. C. Bohlin.* 400, 435, 215-F9 (1992)

Hubble Space Telescope Faint Object Spectrograph and Ground-based Observations of the Broad Absorption Line Quasar 0226−1024. *Kirk T. Korista, Ray J. Weymann, Simon L. Morris, Michael Kopko, Jr., David A. Turnshek, George F. Hartig, Craig B. Foltz, E. Margaret Burbidge, & Vesa T. Junkkarinen.* 401, 529, 229-C1 (1992)

Clustering of Galaxies near Damped Lyman-Alpha Systems with $\langle z \rangle = 2.6$. *A. M. Wolfe.* 402, 411, 7-F11 (1993)

Obscuration of Quasars by Dust in Damped Lyman-Alpha Systems. *S. Michael Fall & Yichuan C. Pei.* 402, 479, 8-E5 (1993)

Equilibrium Slab Models of Lyman-Alpha Clouds. *Jane C. Charlton, Edwin E. Salpeter, & Craig J. Hogan.* 402, 493, 8-F8 (1993)

Clear Evidence for the Presence of O VI Absorption in QSO Metal Systems. *Limin Lu & Blair D. Savage.* 403, 127, 15-E10 (1993)

A Spectroscopic Study of Damped Lyman-α Systems in the Las Campanas/Palomar Survey. *Limin Lu, Arthur M. Wolfe, David A. Turnshek, & Kenneth M. Lanzetta.* 84, 1, 1-B1 (1993)

Interstellar Mg II and C IV Absorption toward Markarian 205 by NGC 4319: An "Optically Thick" QSO Absorption System. *David V. Bowen & J. Chris Blades.* 403, L55, 27-B8 (1993)

Damped Lyman-Alpha Absorption by Disk Galaxies with Large Redshifts. IV. More Intermediate-Resolution Spectroscopy. *Arthur M. Wolfe, David A. Turnshek, Kenneth M. Lanzetta, & Limin Lu.* 404, 480, 35-A1 (1993)

Lyman-Alpha Absorption Spectrum of the Primordial Intergalactic Medium. *Hongguang Bi.* 405, 479, 49-A11 (1993)

The Ultraviolet Absorption Spectrum of the Quasar PKS 0405−12 and the Local Density of Lyman-Alpha Absorption Systems. *John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, & George F. Hartig.* 405, 491, 49-B11 (1993)

Damped Lyman-Alpha Absorption in Q0957+561A, B. *David A. Turnshek & Ralph C. Bohlin.* 407, 60, 69-G7 (1993)

On the Origin of H I Absorption Systems of Quasars. *Izumi Murakami & Satoru Ikeuchi.* 409, 42, 97-E1 (1993)

The Galactic Halo and Local Intergalactic Medium toward PKS 2155−304. *Frederick C. Bruhweiler, A. Boggess, Dara J. Norman, C. A. Grady, C. Megan Urry, & Yoji Kondo.* 409, 199, 99-D6 (1993)

The Influence of QSO Emission-Line Velocity Shifts on Estimates of the Intergalactic Background Intensity. *Brian R. Espey.* 411, L59, 142-B7 (1993)

CO Emission from the $z = 2.14$ Damped Lyman-Alpha System toward 0528−250. *Robert L. Brown & P. A. Vanden Bout.* 412, L21, 148-C6 (1993)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. I. First Observational Results, Including Lyman-Alpha and Lyman-Limit Systems. *John N. Bahcall, Jacqueline Bergeron, Alec Boksenberg, George F. Hartig, Buell T. Jannuzi, Sofia Kirhakos, W. L. W. Sargent, Blair D. Savage, Donald P. Schneider, David A. Turnshek, Ray J. Weymann, & Arthur M. Wolfe.* 87, 1, 27-B1 (1993)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. II. Data Calibration and Absorption-Line Selection. *Donald P. Schneider, George F. Hartig, Buell T. Jannuzi, Sofia Kirhakos, David H. Saxe, Ray J. Weymann, John N. Bahcall, Jacqueline Bergeron, Alec Boksenberg, W. L. W. Sargent, Blair D. Savage, David A. Turnshek, & Arthur M. Wolfe.* 87, 45, 27-E9 (1993)

Neutral Hydrogen 21 Centimeter Absorption at $z = 0.6847$ toward the "Smallest Einstein Ring." *C. L. Carilli, M. P. Rupen, & Brian Yanny.* 412, L59, 155-C10 (1993)

Halo Model for Mg II Absorption Lines in the Spectra of Quasars. *R. Srianand & Pushpa Khare.* 413, 486, 162-E9 (1993)

The Proximity Effect and the Mean Intensity of Ionizing Radiation at Low Redshifts. *Varsha P. Kulkarni & S. Michael Fall.* 413, L63, 168-B13 (1993)

A Dwarf Galaxy near the Sight Line to PKS 0454+0356: A Fading "Faint Blue Galaxy"? *Charles C. Steidel, Mark Dickinson, & David V. Bowen.* 413, L77, 168-D4 (1993)

Properties of High-Redshift Lyman-Alpha Clouds. I. Statistical Analysis of the Schneider-Schmidt-Gunn Quasars. *William H. Press, George B. Rybicki, & Donald P. Schneider.* 414, 64, 170-G7 (1993)

QSO Heavy-Element Absorption Line Systems and Large Galactic Halos by Satellite Accretion. *Boqi Wang.* 415, 174, 187-B12 (1993)

The Two-Point Correlation Function of Randomly Distributed Lyman-Alpha Clouds. *Mark A. Fardal & J. Michael Shull.* 415, 524, 194-D1 (1993)

The Origin of Mg II Absorption-Line Systems of Quasi-stellar Objects. *Ruth Gruenwald & Sueli M. Viegas.* 415, 534, 194-E1 (1993)

On the Geometry, Covering Factor, and Scattering-Emission Properties of QSO Broad Absorption-Line Regions. *Fred Hamann, Kirk T. Korista, & Simon L. Morris.* 415, 541, 194-E11 (1993)

The Lyman-Alpha Forest of PKS 2126−158 at High Resolution. *Emanuele Giallongo, Stefano Cristiani, Adriano Fontana, & Dario Trèvese.* 416, 137, 202-F10 (1993)

Detection of Far-Ultraviolet High-Excitation Line Emission and Lyman-β Absorption in the Gravitational Lens Q0957+561. *A. G. Michalitsianos, J. Nichols-Bohlin, F. C. Bruhweiler, D. Kazanas, Y. Kondo, M. De La Peña, S. P. Maran, T. Meylan, M. Perez, & R. Thompson.* 417, L57, 230-B1 (1993)

Absorption by Discrete Intergalactic Clouds: Theory and Some Applications. *Lin Zuo & E. Sterl Phinney.* 418, 28, 231-D4 (1993)

Properties of High-Redshift Lyman-Alpha Clouds. II. Statistical Properties of the Clouds. *William H. Press & George B. Rybicki.* 418, 585, 239-F12 (1993)

Measurements of D_A for a Large QSO Sample and Determination of Evolution of Lyman-Alpha Clouds. *Lin Zuo & Limin Lu.* 418, 601, 240-A1 (1993)

Upper Limits to Balmer-Line Emission in Three $z \sim 2$ Damped Lyman-α Systems. *E. M. Hu, A. Songaila, L. L. Cowie, & K.-W. Hodapp.* 419, L13, 252-C5 (1993)

The Environment of Lyman-α Absorbers in the Sight Line toward 3C 273. *S. L. Morris, R. J. Weymann, Alan Dressler, P. J. McCarthy, B. A. Smith, R. J. Terrile, R. Giovanelli, & M. Irwin.* 419, 524, 254-C9 (1993)

Diffuse Hα Emission in the Virgo Cluster Associated with the 3C 273 Lyman-Alpha Clouds. *T. B. Williams & R. A. Schommer.* 419, L53, 259-B11 (1993)

Mass Stripping of Lyman-Alpha Clouds by Ram Pressure under the Minihalo Model. *Izumi Murakami & Satoru Ikeuchi.* 420, 68, 1-G8 (1994)

The Nature of Distant Galaxies Producing Multiple C IV Absorption Lines in the Spectra of High-Redshift Quasars. *A. Aragón-Salamanca, R. S. Ellis, J.-M. Schwartzenberg, & J. A. Bergeron.* 421, 27, 16-D5 (1994)

Conditions in the $z = 0.692$ Absorber toward 3CR 286. *Ross D. Cohen, Thomas A. Barlow, E. A. Beaver, Vesa T. Junkkarinen, Ronald W. Lyons, & Harding E. Smith.* 421, 453, 23-G1 (1994)

Evolution of Lyman-Alpha Clouds at Low Redshifts. *Izumi Murakami & Satoru Ikeuchi.* 421, L79, 29-E5 (1994)

Absorption in X-Ray Spectra of High-Redshift Quasars. *Martin Elvis, Fabrizio Fiore, Belinda Wilkes, Jonathan McDowell, & Jill Bechtold.* 422, 60, 30-G1 (1994)

Decaying Neutrinos and the Abundance of He I in Lyman Limit Systems and Lyman-Alpha Clouds. *D. W. Sciama.* 422, L49, 44-F11 (1994)

The Transmission Correlation in the QSO Lyα Forest Produced by Finite Width Lines. *Lin Zuo & J. Richard Bond.* 423, 73, 47-A13 (1994)

The Lyman-Alpha Forest near 34 Quasi-stellar Objects with $z > 2.6$. *Jill Bechtold.* 91, 1, 17-B1 (1994)

Upper Limits on Metals in Quasar Lyman-α Forest Clouds: Absence of C IV Lines in Echelle Spectra. *David Tytler & Xiao-Ming Fan.* 424, L87, 78-G9 (1994)

The Gunn-Peterson Effect in the Spectrum of the $z = 4.7$ QSO 1202−0725: The Intergalactic Medium at Very High Redshifts. *E. Giallongo, S. D'Odorico, A. Fontana, R. G. McMahon, S. Savaglio, S. Cristiani, P. Molaro, & D. Trevese.* 425, L1, 85-B1 (1994)

Metal Enrichment, Dust, and Star Formation in Galaxies at High Redshifts. III. Zn and Cr Abundances for 17 Damped Lyman-Alpha Systems. *Max Pettini, Linda J. Smith, Richard W. Hunstead, & David L. King.* 426, 79, 97-A12 (1994)

Toward Unbiased Determination of the Redshift Evolution of Lyman-Alpha Forest Clouds. *Limin Lu & Lin Zuo.* 426, 502, 104-E12 (1994)

The Temperature of the Lyman-α Clouds and the Ultraviolet Ionizing Backgrounds at High Redshifts. *Emanuele Giallongo & Patrick Petitjean.* 426, L61, 109-B7 (1994)

Decaying Neutrinos and the Opacity of the Universe at the He II Edge. *D. W. Sciama.* 426, L65, 109-B13 (1994)

Reionization in a Cold Dark Matter Universe: The Feedback of Galaxy Formation on the Intergalactic Medium. *Paul R. Shapiro, Mark L. Giroux, & Arif Babul.* 427, 25, 110-D1 (1994)

Evolution of Lyman-Limit Absorption Systems over the Redshift Range $0.40 < z < 4.69$. *L. J. Storrie-Lombardi, R. G. McMahon, M. J. Irwin, & C. Hazard.* 427, L13, 117-C1 (1994)

Lyman-Alpha Absorption and Tidal Debris. *Simon L. Morris & Sidney van den Bergh.* 427, 696, 121-D1 (1994)

Halo Model for Intermediate-Redshift Quasar Absorption Systems. *R. Srianand & Pushpa Khare.* 428, 82, 129-C2 (1994)

The *HST* Quasar Absorption Line Key Project. IV. *HST* Faint Object Spectrograph and Ground-based Observations of the Unusual Low-Redshift Broad Absorption Line Quasi-stellar Object PG 0043+039. *David A. Turnshek, Brian R. Espey, Michael Kopko, Jr., Michael Rauch, Ray J. Weymann, Buell T. Jannuzi, Alec Boksenberg, Jacqueline Bergeron, George F. Hartig, W. L. W. Sargent, Blair D. Savage, Donald P. Schneider, & Arthur M. Wolfe.* 428, 93, 129-D1 (1994)

Lyman-Alpha Absorption in the Spectrum of the $z = 4.5$ QSO BR 1033−0327. *G. M. Williger, J. A. Baldwin, R. F. Carswell, A. J. Cooke, C. Hazard, M. J. Irwin, R. G. McMahon, & L. J. Storrie-Lombardi.* 428, 574, 137-D4 (1994)

Far-Ultraviolet Absorption Spectra of Quasars: How to Find Missing Hot Gas and Metals. *D. A. Verner, David Tytler, & P. D. Barthel.* 430, 186, 161-D3 (1994)

Damped Lyman-Alpha Systems and Galaxy Formation. *H. J. Mo & J. Miralda-Escudé.* 430, L25, 165-D7 (1994)

Competition between Pressure and Gravity Confinement in Lyα Forest Observations. *Jane C. Charlton, Edwin E. Salpeter, & Suzanne M. Linder.* 430, L29, 165-D13 (1994)

Mg II Absorption in a Sample of 56 Steep-Spectrum Quasars. *Thomas L. Aldcroft, Jill Bechtold, & Martin Elvis.* 93, 1, 42-B1 (1994)

Constraints on Models of Galaxy Formation from the Evolution of Damped Lyman-Alpha Absorption Systems. *Guinevere Kauffmann & Stéphane Charlot.* 430, L97, 174-E5 (1994)

The Structure and Evolution of Lyman-Alpha Forest Clouds in the Minihalo Model. *Avery Meiksin.* 431, 109, 177-E3 (1994)

Absorption in 3C 212. *Smita Mathur.* 431, L75, 191-C11 (1994)

Radiative Acceleration in Outflows from Broad Absorption-Line Quasi-stellar Objects. II. Wind Models. *Nahum Arav, Zhi-Yun Li, & Mitchell C. Begelman.* 432, 62, 194-A6 (1994)

Soft X-Ray Spectrum of BL Lacertae Object AO 0235+164 as a Tracer of Elemental Abundances at $z \sim 0.5$. *Greg Madejski.* 432, 554, 202-G6 (1994)

Hawaii 167: A Compact Absorption-Line Object at $z = 2.35$. *L. L. Cowie, A. Songaila, E. M. Hu, E. Egami, J.-S. Huang, A. J. Pickles, S. E. Ridgway, R. J. Wainscoat, & R. J. Weymann.* 432, L83, 206-E1 (1994)

CO Emission from the $z = 3.137$ Damped Lyα System toward PC 1643+4631A. *David T. Frayer, Robert L. Brown, & P. A. Vanden Bout.* 433, L5, 214-D9 (1994)

Lick Optical Spectra of Quasar HS 1946+7658 at 10 Kilometers per Second Resolution: Lyman-Alpha Forest and Metal Absorption Systems. *Xiao-Ming Fan & David Tytler.* 94, 17, 52-C5 (1994)

The He II Lyman-Alpha Opacity of the Universe. *Piero Madau & Avery Meiksin.* 433, L53, 223-D1 (1994)

Do Galactic Systems Form too Late in Cold + Hot Dark Matter Models? *Chung-Pei Ma & Edmund Bertschinger.* 434, L5, 232-B7 (1994)

Modeling the Double-Trough Structure Observed in Broad Absorption Line QSOs Using Radiative Acceleration. *Nahum Arav & Mitchell C. Begelman.* 434, 479, 234-C8 (1994)

The *HST* Quasar Absorption Line Key Project. IX. An Emission-Line Study of PG 2251+113. *Brian R. Espey, David A. Turnshek, Lincoln Lee, Jacqueline Bergeron, Alec Boksenberg, George F. Hartig, Buell T. Jannuzi, W. L. W. Sargent, Blair D. Savage, Donald P. Schneider, Ray J. Weymann, & Arthur M. Wolfe.* 434, 484, 234-D2 (1994)

The X-Ray and Ultraviolet Absorbing Outflow in 3C 351. *Smita Mathur, Belinda Wilkes, Martin Elvis, & Fabrizio Fiore.* 434, 493, 234-E1 (1994)

The Polarization and Nuclear Structure of the Broad Absorption Line QSO CSO 755. *Jason Glenn, Gary D. Schmidt, & Craig B. Foltz.* 434, L47, 241-D1 (1994)

Multiphase Gas in Quasar Absorption-Line Systems. *Mark L. Giroux, Ralph S. Sutherland, & J. Michael Shull.* 435, L97, 259-E2 (1994)

Metal Abundances and Kinematics of a High-Redshift Galaxy Obtained with the Keck Telescope. *Arthur M. Wolfe, Xiao-Ming Fan, David Tytler, Steven S. Vogt, Michael J. Keane, & Kenneth M. Lanzetta.* 435, L101, 259-E9 (1994)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. VI. Properties of the Metal-rich Systems. *Jacqueline Bergeron, Patrick Petitjean, W. L. W. Sargent, John N. Bahcall, Alec Boksenberg, George F. Hartig, Buell T. Jannuzi, Sofia Kirhakos, Blair D. Savage, Donald P. Schneider, David A. Turnshek, Ray J. Weymann, & Arthur M. Wolfe.* 436, 33, 261-F4 (1994)

Gravitational Collapse of Small-Scale Structure as the Origin of the Lyman-Alpha Forest. *Renyue Cen, Jordi Miralda-Escudé, Jeremiah P. Ostriker, & Michael Rauch.* 437, L9, 291-C1 (1994)

X-Ray Constraints on the Intergalactic Medium. *Thomas Aldcroft, Martin Elvis, Jonathan McDowell, & Fabrizio Fiore.* 437, 584, 293-G4 (1994)

A Study of the Ultraviolet Absorption Lines through the Complete Galactic Halo by the Analysis of *HST* Faint Object Spectrograph Spectra of Active Galactic Nuclei. I. *Geoffrey S. Burks, Frank Bartko, J. Michael Shull, John T. Stocke, Elise R. Sachs, E. Margaret Burbidge, Ross D. Cohen, Vesa T. Junkkarinen, Richard J. Harms, & Derck Massa.* 437, 630, 294-D7 (1994)

Field Galaxy Evolution Since $z \sim 1$ from a Sample of QSO Absorption-selected Galaxies. *Charles C. Steidel, Mark Dickinson, & S. E. Persson.* 437, L75, 298-E8 (1994)

Spectroscopy of the Double Quasars Q1343+266A, B: The Relationship between Galaxies and C IV Absorption Lines. *Arlin P. S. Crotts, Jill Bechtold, Yihu Fang, & Robert C. Duncan.* 437, L79, 298-F1 (1994)

Spectroscopy of the Double Quasars Q1343+266A, B: A New Determination of the Size of Lyman-Alpha Forest Absorbers. *Jill Bechtold, Arlin P. S. Crotts, Robert C. Duncan, & Yihu Fang.* 437, L83, 298-F8 (1994)

Common Lyman-Alpha Absorption toward the Quasar Pair Q1343+2640A, B: Evidence for Large and Quiescent Clouds. *Nadine Dinshaw, Chris D. Impey, Craig B. Foltz, Ray J. Weymann, & Frederic H. Chaffee.* 437, L87, 298-G1 (1994)

A Search for Diffuse Hα Emission from Lyα Absorption Clouds toward 3C 273. *J. Bland-Hawthorn, K. Taylor, S. Veilleux, & P. L. Shopbell.* 437, L95, 299-A1 (1994)

New Observations with the *HST* Goddard High Resolution Spectrograph of the Low-Redshift Lyman-Alpha Clouds in the 3C 273 Line of Sight. *Ray Weymann, Michael Rauch, Robert Williams, Simon Morris, & Sally Heap.* 438, 650, 13-B4 (1995)

The Ultraviolet Spectrum of the Gravitational Lens Candidate UM 425 = QSO 1120+019: Evidence for Broad Absorption Line (BAL) Structure. *A. G. Michalitsianos & R. J. Oliversen.* 439, 599, 32-E13 (1995)

Medium-Resolution Far-Ultraviolet Spectroscopy of PKS 2155−304. *I. Appenzeller, H. Mandel, J. Krautter, S. Bowyer, M. Hurwitz, M. Grewing, G. Krämer, & N. Kappelmann.* 439, L33, 40-B9 (1995)

A New Method for Measuring the H I Gunn-Peterson Effect at High Redshift. *Yihu Fang & Arlin P. S. Crotts.* 440, 69, 42-B8 (1995)

Evidence for Small-Scale Clustering in a Column-Density–limited Sample of the Lyman-Alpha Forest. *Victor V. Chernomordik.* 440, 431, 49-C1 (1995)

The *IUE* Survey for Damped Lyman-α and Lyman-Limit Absorption Systems: Evolution of the Gaseous Content of the Universe. *Kenneth M. Lanzetta, Arthur M. Wolfe, & David A. Turnshek.* 440, 435, 49-C8 (1995)

Search for Correlations of Lyman-Alpha Clouds and Metal Systems on Closely Spaced Lines of Sight. *R. M. Elowitz, Richard F. Green, & Chris D. Impey.* 440, 458, 49-E7 (1995)

The $z = 0.8596$ Damped Lyα Absorbing Galaxy toward PKS 0454+039. *Charles C. Steidel, David V. Bowen, J. Chris Blades, & Mark Dickinson.* 440, L45, 57-C9 (1995)

Radiative Transfer in a Clumpy Universe: The Colors of High-Redshift Galaxies. *Piero Madau.* 441, 18, 59-D13 (1995)

The Large-Scale Distribution of Late-Type Galaxies between Virgo and the Great Wall. *G. Lyle Hoffman, B. M. Lewis, & E. E. Salpeter.* 441, 28, 59-F2 (1995)

Disk Galaxies near the Line of Sight to 3C 273 and Conjectures on Lyman-Alpha Absorption. *E. E. Salpeter & G. Lyle Hoffman.* 441, 51, 60-A7 (1995)

On Observational Constraints on the Shapes of the Dark Matter Density and Temperature Distributions in the Model of Dark Matter–confined Lyα Clouds. *Valery K. Khersonsky & David A. Turnshek.* 442, 76, 78-C2 (1995)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. X. Galactic H I 21 Centimeter Emission toward 143 Quasars and Active Galactic Nuclei. *Felix J. Lockman & Blair D. Savage.* 97, 1, 11-B1 (1995)

The Gaseous Extent of Galaxies and the Origin of Lyman-Alpha Absorption Systems: A Survey of Galaxies in the Fields of *Hubble Space Telescope* Spectroscopic Target QSOs. *Kenneth M. Lanzetta, David V. Bowen, David Tytler, & John K. Webb.* 442, 538, 87-D1 (1995)

The Absorption Spectrum of Nuclear Gas in Q0059−2735. *E. Joseph Wampler, Nikolai N. Chugai, & Patrick Petitjean.* 443, 586, 106-A4 (1995)

Ne VIII λ774 and Time Variable Associated Absorption in the QSO UM 675. *Fred Hamann, Thomas A. Barlow, E. A. Beaver, E. M. Burbidge, Ross D. Cohen, Vesa Junkkarinen, & R. Lyons.* 443, 606, 106-C1 (1995)

Damped Lyman-Alpha Systems versus Cold + Hot Dark Matter. *Anatoly Klypin, Stefano Borgani, Jon Holtzman, & Joel Primack.* 444, 1, 113-C1 (1995)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. V. Redshift Evolution of Lyman Limit Absorption in the Spectra of a Large Sample of Quasars. *Erik A. Stengler-Larrea, Alec Boksenberg, Charles C. Steidel, W. L. W. Sargent, John N. Bahcall, Jacqueline Bergeron, George F. Hartig,*

Buell T. Jannuzi, Sofia Kirhakos, Blair D. Savage, Donald P. Schneider, David A. Turnshek, & Ray J. Weymann. 444, 64, 114-B7 (1995)

Lyα Forests and Cooling Outflow from Dwarf Galaxies. *Boqi Wang.* 444, L17, 121-D1 (1995)

Consequences of H II Region Models for Absorption Systems in the Quasar Spectra. *R. Srianand & Pushpa Khare.* 444, 643, 125-B10 (1995)

A Critical Analysis of Interstellar Zn and Cr as Galactic Abundance Benchmarks for Quasar Absorbers. *Kenneth R. Sembach, Charles C. Steidel, Robert J. Macke, & David M. Meyer.* 445, L27, 140-E10 (1995)

A Faraday Rotation Search for Magnetic Fields in Quasar-damped Lyα Absorption Systems. *Abraham L. Oren & Arthur M. Wolfe.* 445, 624, 143-F7 (1995)

An *HST* Archival Study of Galactic Interstellar Zinc and Chromium. *Katherine C. Roth & J. Chris Blades.* 445, L95, 150-F11 (1995)

Metal Abundances and Physical Conditions in Two Damped Lyα Systems toward HS 1946+7658. *Limin Lu, Blair D. Savage, Todd M. Tripp, & David M. Meyer.* 447, 597, 184-D2 (1995)

Extragalactic Ionized Hydrogen in the Fornax Cluster. *J. Bland-Hawthorn, R. D. Ekers, W. van Breugel, A. Koekemoer, & K. Taylor.* 447, L77, 190-C13 (1995)

Probing Early Clustering with Lyα Absorption Lines beyond the Quasar Redshift. *Abraham Loeb & Daniel J. Eisenstein.* 448, 17, 192-D10 (1995)

High-Resolution Spectroscopy of the Bright Quasar HS 1700+6416. *P. M. Rodríguez-Pascual, A. de la Fuente, J. L. Sanz, M. C. Recondo, J. Clavel, M. Santos-Lleó, & W. Wamsteker.* 448, 575, 202-F1 (1995)

Interstellar Mg II Absorption Lines from Low-Redshift Galaxies. *David V. Bowen, J. Chris Blades, & Max Pettini.* 448, 634, 203-E5 (1995)

The Polarized Spectrum of the Fe II–rich Broad Absorption Line QSO IRAS 07598+6508. *Dean C. Hines & Beverley J. Wills.* 448, L69, 208-F8 (1995)

Polarization Clues to the Structure of Broad Absorption Line Quasi-stellar Objects. *Robert W. Goodrich & Joseph S. Miller.* 448, L73, 208-G1 (1995)

Spectropolarimetry of Two Broad Absorption Line Quasars with the W. M. Keck Telescope. *M. H. Cohen, P. M. Ogle, H. D. Tran, R. C. Vermeulen, J. S. Miller, R. W. Goodrich, & A. R. Martel.* 448, L77, 208-G8 (1995)

Lyman-Alpha Forest Correlations Using Neighbor Counts. *Avery Meiksin & François R. Bouchet.* 448, L85, 209-A8 (1995)

On the Origin of the Clustered Quasi-stellar Object Metal Absorption Lines. *Xiangdong Shi.* 449, 140, 212-B3 (1995)

Probing the Galactic Disk and Halo. III. The Galactic and Intergalactic Sight Line to H1821+643. *Blair D. Savage, Kenneth R. Sembach, & Limin Lu.* 449, 145, 212-B11 (1995)

The Gunn-Peterson Effect from Underdense Regions in a Photoionized Intergalactic Medium. *Andreas Reisenegger & Jordi Miralda-Escudé.* 449, 476, 219-D5 (1995)

The Incidence of Damped Lyα Systems in the Redshift Interval $0 < z < 4$. *Sandhya M. Rao, David A. Turnshek, & Franklin H. Briggs.* 449, 488, 219-E6 (1995)

The Local Lyα Forest: Association of Clouds with Superclusters and Voids. *John T. Stocke, J. Michael Shull, Steve Penton, Megan Donahue, & Chris Carilli.* 451, 24, 246-E2 (1995)

Element Abundances at High Redshifts: The N/O Ratio in a Primeval Galaxy. *Max Pettini, Keith Lipman, & Richard W. Hunstead.* 451, 100, 247-E1 (1995)

The Iron Group Abundance Pattern of the Damped Lyman-Alpha Absorber at $z = 1.3726$ toward the QSO 0935+417. *David M. Meyer, Kenneth M. Lanzetta, & Arthur M. Wolfe.* 451, L13, 252-C4 (1995)

Abundance Histories for QSO Absorption-Line Systems. *F. X. Timmes, J. T. Lauroesch, & J. W. Truran.* 451, 468, 253-F12 (1995)

Intergalactic Helium Absorption toward High-Redshift Quasars. *Mark L. Giroux, Mark A. Fardal, & J. Michael Shull.* 451, 477, 253-G10 (1995)

Imaging and Spectroscopy of Damped Lyα Quasi-stellar Object Absorption-Line Clouds. *James D. Lowenthal, Craig J. Hogan, Richard F. Green, Bruce Woodgate, Adeline Caulet, Larry Brown, & Jill Bechtold.* 451, 484, 254-A6 (1995)

Accretion Disk Winds from Active Galactic Nuclei. *N. Murray, J. Chiang, S. A. Grossman, & G. M. Voit.* 451, 498, 254-B9 (1995)

Stellar Contrails in Quasi-stellar Objects: The Origin of Broad Absorption Lines. *Nick Scoville & Colin Norman.* 451, 510, 254-C10 (1995)

A Simulation of Lyα Absorption Forests in Linear Approximation of Cold Dark Matter and Cold Plus Hot Dark Matter Models. *Hongguang Bi, Jian Ge, & Li-Zhi Fang.* 452, 90, 263-D1 (1995)

Probing Lyα Absorbers with Double Lines of Sight. *Jane C. Charlton, Christopher W. Churchill, & Suzanne M. Linder.* 452, L81, 279-D1 (1995)

Implications of Nonthermal Motions for Statistics of Lyman-Alpha Forest Clouds. *Varsha P. Kulkarni & S. Michael Fall.* 453, 65, 281-B2 (1995)

Astrophysical Limits on the Evolution of Dimensionless Physical Constants over Cosmological Time. *Lennox L. Cowie & Antoinette Songaila.* 453, 596, 292-B3 (1995)

A Multispecies Model for Hydrogen and Helium Absorbers in Lyman-Alpha Forest Clouds. *Yu Zhang, Peter Anninos, & Michael L. Norman.* 453, L57, 298-A6 (1995)

The Large Bright QSO Survey for Damped Lyα Absorption Systems. *Arthur M. Wolfe, Kenneth M. Lanzetta, Craig B. Foltz, & Frederic H. Chaffee.* 454, 698, 311-C9 (1995)

Active Galactic Nuclei Disk Winds, Absorption Lines, and Warm Absorbers. *N. Murray & J. Chiang.* 454, L105, 315-G7 (1995)

Strong X-Ray Absorption in a Broad Absorption Line Quasar: PHL 5200. *Smita Mathur, Martin Elvis, & K. P. Singh.* 455, L9, 324-D1 (1995)

Radiation Pressure–driven Magnetic Disk Winds in Broad Absorption Line Quasi-stellar Objects. *Martijn de Kool & Mitchell C. Begelman.* 455, 448, 328-B3 (1995)

GALAXIES: QUASARS: EMISSION LINES

Statistical Tests of Peaks and Periodicities in the Observed Redshift Distribution of Quasi-stellar Objects. *Debiprosad Duari, Patrick Das Gupta, & Jayant V. Narlikar.* 384, 35, 1-D9 (1992)

Anisotropic Line Emission and the Geometry of the Broad-Line Region in Active Galactic Nuclei. *G. J. Ferland, B. M. Peterson, K. Horne, W. F. Welsh, & S. N. Nahar.* 387, 95, 38-C1 (1992)

Systematic QSO Emission-Line Velocity Shifts and New Unbiased Redshifts. *David Tytler & Xiao-Ming Fan.* 79, 1, 12-B1 (1992)

The Age and Chemical Evolution of High-Redshift QSOs. *Fred Hamann & Gary Ferland.* 391, L53, 99-C7 (1992)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. III. Further Observations of NGC 5548 at Optical Wavelengths. *B. M. Peterson, D. Alloin, D. Axon, T. J. Balonek, R. Bertram, T. A. Boroson, J. A. Christensen, S. D. Clements, M. Dietrich, M. Elvis, A. V. Filippenko, C. M. Gaskell, C. A. Haswell, J. P. Huchra, N. Jackson, W. Kollatschny, K. T. Korista, N. J. Lame, R. J. Leacock, S.-N. Lin, M. A. Malkan, A. S. Monk, M. V. Penston, R. W. Pogge, A. Robinson, E. I. Rosenblatt, J. C. Shields, A. G. Smith, G. M. Stirpe, W.-H. Sun, T. J. Turner, R. M. Wagner, B. J. Wilkes, & B. J. Wills.* 392, 470, 108-B7 (1992)

The Stability of QSO/AGN Broad Emission Line Clouds. *I. S. Krinsky & R. C. Puetter.* 394, 472, 135-C1 (1992)

Lyα and C IV Narrow-Band Imaging of the Gravitational Lens 2237+030. *H. K. C. Yee & M. M. De Robertis.* 398, L21, 187-D1 (1992)

Evidence against Some Orientation Effects in Radio-quiet Quasars. *Todd A. Boroson.* 399, L15, 200-A11 (1992)

Faint Object Spectrograph Observations of the Large-Redshift Gravitational Lens Candidate 1208+1011. *John N. Bahcall, George F. Hartig, Buell T. Jannuzi, Dan Maoz, & Donald P. Schneider.* 400, L51, 220-C1 (1992)

The Structure of the Broad-Line Region in the Seyfert Galaxy Markarian 590. *Bradley M. Peterson, Babar Ali, Keith Horne, Ray Bertram, Nancy J. Lame, Richard W. Pogge, & R. Mark Wagner.* 402, 469, 8-D7 (1993)

Consistency of Spherical, Gravity-dominated Dynamics with Quasar High-Ionization Emission-Line Profiles. *T. R. Kallman, B. J. Wilkes, J. H. Krolik, & Richard Green.* 403, 45, 14-E13 (1993)

On the Relation of the X-Ray and Emission-Line Properties of Low-Redshift QSOs. *Michael R. Corbin.* 403, L9, 20-B1 (1993)

Dust in the Narrow-Line Region of Active Galactic Nuclei. *Hagai Netzer & Ari Laor.* 404, L51, 40-C11 (1993)

Quasar X-Ray Spectra Revisited. *P. Shastri, B. J. Wilkes, M. Elvis, & J. McDowell.* 410, 29, 112-D11 (1993)

The Influence of QSO Emission-Line Velocity Shifts on Estimates of the Intergalactic Background Intensity. *Brian R. Espey.* 411, L59, 142-B7 (1993)

Bouncing Clouds: A Model for the Quasar Broad-Line Region. *William G. Mathews.* 412, L17, 148-C1 (1993)

The X-Ray Baldwin Effect. *Kazushi Iwasawa & Yoshiaki Taniguchi.* 413, L15, 162-C8 (1993)

Optical Lines in High-Redshift Quasi-stellar Objects: Balmer Lines, [O III], and Fe II. *Gary J. Hill, Keith L. Thompson, & Richard Elston.* 414, L1, 175-C1 (1993)

The "Baldwin Effect" in Wolf-Rayet Stars. *Patrick Morris, Peter S. Conti, Henny J. G. L. M. Lamers, & Gloria Koenigsberger.* 414, L25, 175-E7 (1993)

Detection of Far-Ultraviolet High-Excitation Line Emission and Lyman-β Absorption in the Gravitational Lens Q0957+561. *A. G. Michalitsianos, J. Nichols-Bohlin, F. C. Bruhweiler, D. Kazanas, Y. Kondo, M. De La Peña, S. P. Maran, T. Meylan, M. Perez, & R. Thompson.* 417, L57, 230-B1 (1993)

The Ultraviolet Emission Properties of Five Low-Redshift Active Galactic Nuclei at High Signal-to-Noise Ratio and Spectral Resolution. *Ari Laor, John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, Richard F. Green, & George F. Hartig.* 420, 110, 2-C12 (1994)

Statistics of QSO Broad Emission-Line Profiles. II. The C IV λ1549, C III] λ1909, and Mg II λ2798 Lines. *M. S. Brotherton, Beverley J. Wills, Charles C. Steidel, & Wallace L. W. Sargent.* 423, 131, 47-F9 (1994)

The Intermediate Line Region of QSOs. *M. S. Brotherton, Beverley J. Wills, Paul J. Francis, & Charles C. Steidel.* 430, 495, 167-G9 (1994)

Luminosity Effects and the Emission-Line Properties of Quasars with $0 < z < 3.8$. *Patrick S. Osmer, Alain C. Porter, & Richard F. Green.* 436, 678, 274-G7 (1994)

Pictor A: A New Double-peaked Emission-Line Quasar. *J. W. Sulentic, P. Marziani, T. Zwitter, & M. Calvani.* 438, L1, 9-E1 (1995)

Possible Detection of a CO Emission Line from a Quasar at $z = 2.88$. *Toru Yamada, Kentaro Aoki, Akihiko Tomita, Tadafumi Takata, Kouji Ohta, & Michitoshi Yoshida.* 438, L5, 9-E9 (1995)

The Origin of N III λ990 and C III λ977 Emission in AGN Narrow-Line Region Gas. *J. W. Ferguson, G. J. Ferland, & A. K. Pradhan.* 438, L55, 19-B11 (1995)

Relation between O VI Emission and X-Ray Intensity in Active Galactic Nuclei. *Wei Zheng, Gerard A. Kriss, & Arthur F. Davidsen.* 440, 606, 51-E2 (1995)

Optically Thin Broad-Line Clouds in Active Galactic Nuclei. *Joseph C. Shields, Gary J. Ferland, & Bradley M. Peterson.* 441, 507, 69-A13 (1995)

Broad Ne VIII λ774 Emission from Quasars in the *HST*-FOS Snapshot Survey (ABSNAP). *Fred Hamann, Lin Zuo, & David Tytler.* 444, L69, 130-C1 (1995)

First Direct Comparison of High and Low Ionization Line Kinematics in Active Galactic Nuclei. *J. W. Sulentic, P. Marziani, D. Dultzin-Hacyan, M. Calvani, & M. Moles.* 445, L85, 150-E9 (1995)

Hubble Space Telescope Sample of Radio-loud Quasars: Ultraviolet Spectra of the First 31 Quasars. *Beverley J. Wills, Keith L. Thompson, Mingsheng Han, H. Netzer, D. Wills, J. A. Baldwin, G. J. Ferland, I. W. A. Browne, & M. S. Brotherton.* 447, 139, 174-A11 (1995)

QSO Broad Emission Line Asymmetries: Evidence of Gravitational Redshift? *Michael R. Corbin.* 447, 496, 182-F2 (1995)

The *Hubble Space Telescope* Sample of Radio-loud Quasars: The Lyα/Hβ Ratio. *Hagai Netzer, M. S. Brotherton, Beverley J. Wills, Mingsheng Han, D. Wills, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 448, 27, 192-E10 (1995)

The Polarized Spectrum of the Fe II–rich Broad Absorption Line QSO IRAS 07598+6508. *Dean C. Hines & Beverley J. Wills.* 448, L69, 208-F8 (1995)

Spectropolarimetry of Two Broad Absorption Line Quasars with the W. M. Keck Telescope. *M. H. Cohen, P. M. Ogle, H. D. Tran, R. C. Vermeulen, J. S. Miller, R. W. Goodrich, & A. R. Martel.* 448, L77, 208-G8 (1995)

An Improved Measure of Quasar Orientation. *Beverley J. Wills & M. S. Brotherton.* 448, L81, 209-A1 (1995)

A Near-Infrared Search for Line Emission from Protogalaxies Using the W. M. Keck Telescope. *Michael A. Pahre & S. G. Djorgovski.* 449, L1, 216-A1 (1995)

Revealing the Effects of Orientation in Composite Quasar Spectra. *Joanne C. Baker & Richard W. Hunstead.* 452, L95, 279-F1 (1995)

On Correlations between the Broad Absorption Lines and Adjacent Broad Emission Lines in QSO Spectra. *Lincoln W. Lee & David A. Turnshek.* 453, L61, 298-A13 (1995)

The Geometry and Kinematics of the Broad-Line Region in NGC 5548 from *HST* and *IUE* Observations. *Ignaz Wanders, Mike R. Goad, Kirk T. Korista, Bradley M. Peterson, Keith Horne, Gary J. Ferland, Anuradha P. Koratkar, Richard W. Pogge, & Joseph C. Shields.* 453, L87, 298-E2 (1995)

Broad Ne VIII λ744 Emission from the Quasar PG 1148+549. *Fred Hamann, Joseph C. Shields, Gary J. Ferland, & Kirk T. Korista.* 454, 688, 311-B9 (1995)

Locally Optimally Emitting Clouds and the Origin of Quasar Emission Lines. *Jack Baldwin, Gary Ferland, Kirk Korista, & Dima Verner.* 455, L119, 333-E11 (1995)

GALAXIES: QUASARS: GENERAL

EXOSAT X-Ray Spectra of Quasars. *Andrea Comastri, Giancarlo Setti, Giovanni Zamorani, Martin Elvis, Paolo Giommi, Belinda J. Wilkes, & Jonathan C. McDowell.* 384, 62, 1-G1 (1992)

Gas Clouds from Tidally Disrupted Stars in Active Galactic Nuclei. *Nico Roos.* 385, 108, 13-C11 (1992)

Inner Shell of Optically Thin Gas in Active Galactic Nuclei. *Wei Zheng.* 385, 127, 13-E4 (1992)

Probability Distributions for the Magnification of Quasars due to Microlensing. *Joachim Wambsganss.* 386, 19, 24-C7 (1992)

Caustic-induced Features in Microlensing Magnification Probability Distributions. *Kevin P. Rauch, Shude Mao, Joachim Wambsganss, & Bohdan Paczyński.* 386, 30, 24-D10 (1992)

The Angular Correlation of Quasars and Abell Clusters. *Roger W. Romani & Dan Maoz.* 386, 36, 24-E3 (1992)

Compact Steep Spectrum Sources and Linear Size Evolution. *L. I. Onuora.* 386, 452, 31-A7 (1992)

Spectroscopy and Spectral Types for 387 Stellar Objects from the Large, Bright QSO Survey. *Christopher Berg, Gary Wegner, Craig B. Foltz, Frederic H. Chaffee, Jr., & Paul C. Hewett.* 78, 409, 8-B7 (1992)

The Snapshot Survey: A Search for Gravitationally Lensed Quasars with the *Hubble Space Telescope*. *J. N. Bahcall, D. Maoz, R. Doxsey, D. P. Schneider, N. A. Bahcall, O. Lahav, & B. Yanny.* 387, 56, 37-F6 (1992)

A Deficiency of Large-Scale Pairs among Nearby Quasars. *Robert C. Roeder.* 387, L13, 43-B8 (1992)

Standing Shocks in Accretion Disks and the Spectra of Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 387, L21, 43-C4 (1992)

Coronal Lines and Starburst Features in Two New *IRAS* Active Galactic Nuclei: IRAS 04493−6441 and IRAS 22419−6049. *Sebastian Lípari & F. Macchetto.* 387, 522, 45-B9 (1992)

Multiple Quasars with Large Magnitude Differences: Extreme Magnification by Gravitational Lenses? *Aggeliki Kassiola & Israel Kovner.* 388, 33, 49-D10 (1992)

The X-Ray Spectra of High-Luminosity Active Galactic Nuclei Observed by *Ginga*. *O. R. Williams, M. J. L. Turner, G. C. Stewart, R. D. Saxton, T. Ohashi, K. Makishima, T. Kii, H. Inoue, F. Makino, K. Hayashida, & K. Koyama.* 389, 157, 62-A5 (1992)

The Contribution of Quasars to the Ultraviolet Extragalactic Background. *Piero Madau.* 389, L1, 66-B1 (1992)

The Properties of X-Ray Selected Active Galactic Nuclei. II. A Deeper Look at the Cosmological Evolution. *Roberto Della Ceca, Tommaso Maccacaro, Isabella M. Gioia, Anna Wolter, & John T. Stocke.* 389, 491, 67-E8 (1992)

Formation of a Giant Galactic Gaseous Halo: Metal Absorption Lines and High-Velocity Clouds. *Fan Li & Satoru Ikeuchi.* 390, 405, 80-D7 (1992)

TeV Gamma Rays from 3C 279: A Possible Probe of Origin and Intergalactic Infrared Radiation Fields. *F. W. Stecker, O. C. De Jager, & M. H. Salamon.* 390, L49, 84-D7 (1992)

The Infrared Properties of Quasars and Radio Galaxies: Testing the Unification Schemes. *Timothy M. Heckman, Kenneth C. Chambers, & Marc Postman.* 391, 39, 86-E3 (1992)

The Emission-Line Properties of Low-Redshift Quasi-stellar Objects. *Todd A. Boroson & Richard F. Green.* 80, 109, 23-G9 (1992)

The *Einstein* Slew Survey. *Martin Elvis, David Plummer, Jonathan Schachter, & G. Fabbiano.* 80, 257, 25-E9 (1992)

Time Series Analysis in Astronomy: An Application to Quasar Variability Studies. *R. Vio, S. Cristiani, O. Lessi, & A. Provenzale.* 391, 518, 94-D5 (1992)

Active Galactic Nuclei. IV. Supplying Black Hole Clusters by Tidal Disruption and by Tidal Capture of Stars. *W. R. Stoeger, S.J., A. G. Pacholczyk, & T. F. Stepinski.* 391, 550, 94-F13 (1992)

Radio Properties of Optically Selected Quasars. *K. L. Visnovsky, C. D. Impey, C. B. Foltz, P. C. Hewett, R. J. Weymann, & S. L. Morris.* 391, 560, 94-G11 (1992)

Emission-Line Objects near Quasi-stellar Object Absorbers. III. Clustering and Colors of Moderate-Redshift H II Regions. *Brian Yanny & Donald G. York.* 391, 569, 95-A8 (1992)

Comparisons of the Emission-Line Properties of Radio-loud and Radio-quiet QSOs at High Redshift. *Michael R. Corbin.* 391, 577, 95-B5 (1992)

The Milliarcsecond Structure of Highly Variable Radio Sources. *Ann E. Wehrle, Marshall H. Cohen, Stephen C. Unwin, Hugh D. Aller, Margo F. Aller, & George Nicolson.* 391, 589, 95-C5 (1992)

Collective Emission from Rapidly Variable Quasars. *Gregory Benford.* 391, L59, 99-D1 (1992)

HRCam Survey for Closely Spaced Gravitational Lenses. *David Crampton, Robert D. McClure, & J. Murray Fletcher.* 392, 23, 101-C10 (1992)

Ram-Pressure Confinement of a Hypersonic Jet. *Chris Loken, Jack O. Burns, David A. Clarke, & Michael L. Norman.* 392, 54, 101-F1 (1992)

Gravitational Microlensing: The Effect of a Single Lens and the Impact of Sparse Sampling. *Joachim Wambsganss.* 392, 424, 107-E8 (1992)

Observations of 10 Faint Quasar Candidates in the Field of the Tololo 1037−2703/1038−2712 Quasar Pair. *Peter Jakobsen & M. A. C. Perryman.* 392, 432, 107-F3 (1992)

Multicolor Images of Spatially Resolved Structures around High-Redshift Quasars. *Matthew D. Lehnert, Timothy M. Heckman, Kenneth C. Chambers, & George K. Miley.* 393, 68, 114-G12 (1992)

Gravitational Lensing of Quasars as Seen by the *Hubble Space Telescope* Snapshot Survey. *D. Maoz, J. N. Bahcall, R. Doxsey, D. P. Schneider, N. A. Bahcall, O. Lahav, & B. Yanny.* 394, 51, 128-F6 (1992)

Identification and Spectroscopy of Radio Sources from the Third Bologna Survey. *D. J. Thompson, S. Djorgovski, M. Vigotti, & G. Grueff.* 81, 1, 35-B1 (1992)

Electromagnetically Driven Relativistic Jets: A Class of Self-similar Solutions. *Zhi-Yun Li, Tzihong Chiueh, & Mitchell C. Begelman.* 394, 459, 135-B1 (1992)

Near-Infrared Broad-Line Profiles in Low-Redshift QSOs. *Keith L. Thompson.* 395, 403, 147-C13 (1992)

Active Galactic Nuclei with Ultrasoft X-Ray Emission. *F. A. Córdova, J. F. Kartje, R. J. Thompson, Jr., K. O. Mason, E. M. Puchnarewicz, & F. R. Harnden, Jr.* 81, 661, 45-A11 (1992)

The Evolution of the QSO Luminosity Function Up to $z = 4$: The Role of *K*-Correction Uncertainties. *Emanuele Giallongo & Fausto Vagnetti.* 396, 411, 162-E5 (1992)

The University of Michigan Radio Astronomy Data Base. I. Structure Function Analysis and the Relation between BL Lacertae Objects and Quasi-stellar Objects. *P. A. Hughes, H. D. Aller, & M. F. Aller.* 396, 469, 163-C9 (1992)

Microlensed Light Curves for Thin Accretion Disks around Schwarzschild and Kerr Black Holes. *M. Jaroszyński, J. Wambsganss, & B. Paczyński.* 396, L65, 167-A1 (1992)

A Direct Gravitational Lensing Test for 10^6 $M_\odot$ Black Holes in Halos of Galaxies. *Joachim Wambsganss & Bohdan Paczyński.* 397, L1, 173-A8 (1992)

Optical Identification, Radio Galaxy Environment, and Statistical Properties for a Homogeneous Sample of 3196 Radio Sources from the Texas Survey. *Elizabeth P. Bozyan.* 82, 1, 49-B1 (1992)

A Direct Measure of the Gunn-Peterson Effect at $z = 3$: Limits on the Baryon Density of the Intergalactic Medium at High Redshifts. *Emanuele Giallongo, Stefano Cristiani, & Dario Trevese.* 398, L9, 187-B7 (1992)

The Evolution of Quasar Clustering. *Paola Andreani & Stefano Cristiani.* 398, L13, 187-C1 (1992)

A Survey for High Optical Polarization in Quasars with Core-dominant Radio Structure: Is There a Beamed Optical Continuum? *Beverley J. Wills, D. Wills, Michel Breger, R. R. J. Antonucci, & Richard Barvainis.* 398, 454, 189-F10 (1992)

An Objective Classification Scheme for QSO Spectra. *Paul J. Francis, Paul C. Hewett, Craig B. Foltz, & Frederic H. Chaffee.* 398, 476, 190-A13 (1992)

The Case Low-Dispersion Northern Sky Survey. XIII. A Region in Central Bootes and Corona Borealis. *C. B. Stephenson, Peter Pesch, & D. Jack MacConnell.* 82, 471, 55-D3 (1992)

Pearson-Readhead Survey Sources: Properties of the Centimeter-Wavelength Flux and Polarization of a Complete Radio Sample. *M. F. Aller, H. D. Aller, & P. A. Hughes.* 399, 16, 195-C8 (1992)

Submillimeter Observations of Radio-quiet Quasars and a Luminous Seyfert 1 Galaxy Including the First Detections. *Richard Barvainis, Robert Antonucci, & Paul Coleman.* 399, L19, 200-B1 (1992)

The Colorado *IUE* Active Galaxy Survey. I. Blazars. *Rick Edelson, Gregory F. Pike, Jon M. Saken, Anne Kinney, & J. Michael Shull.* 83, 1, 57-B1 (1992)

Analysis of Soft X-Ray Excesses of Quasi-stellar Objects by Using Their IPC Spectra. *Y. Y. Zhou & K. N. Yu.* 400, 430, 215-F1 (1992)

Radiative Acceleration by Synchrotron Sources. *G. Ghisellini, G. Bodo, & E. Trussoni.* 401, 87, 222-B5 (1992)

On the Uncertainties in the Properties of Quasar Host Galaxies. *R. G. Abraham, C. S. Crawford, & I. M. McHardy.* 401, 474, 228-E9 (1992)

A Survey of Ultraviolet Variability in Blazars. *Rick Edelson.* 401, 516, 229-B1 (1992)

The *Hubble Space Telescope* Snapshot Survey. III. Further Observations in Search of Gravitationally Lensed Quasars. *D. Maoz, J. N. Bahcall, R. Doxsey, D. P. Schneider, N. A. Bahcall, O. Lahav, & B. Yanny.* 402, 69, 2-A1 (1993)

A Search for Dead Quasars among Nearby Luminous Galaxies. I. The Stellar Kinematics in the Nuclei of NGC 2613, NGC 4699, NGC 5746, and NGC 7331. *Gary A. Bower, Douglas O. Richstone, Gregory D. Bothun, & Timothy M. Heckman.* 402, 76, 2-A12 (1993)

Dense Clouds near the Central Engine of Active Galactic Nuclei. *R. Sivron & S. Tsuruta.* 402, 420, 7-G7 (1993)

Implications of Lyman-Alpha Equivalent Widths in Active Galactic Nuclei. *Joseph C. Shields & Gary J. Ferland.* 402, 425, 8-A1 (1993)

The Detection of Gravitational Lenses by Radio Autocorrelation. *E. J. Spillar.* 403, 20, 14-C10 (1993)

Clear Evidence for the Presence of O VI Absorption in QSO Metal Systems. *Limin Lu & Blair D. Savage.* 403, 127, 15-E10 (1993)

On the Relation of the X-Ray and Emission-Line Properties of Low-Redshift QSOs. *Michael R. Corbin.* 403, L9, 20-B1 (1993)

Search for Large-Scale Structure in Quasar Distributions at Redshifts $z \approx 2.2$. *Michael J. Longo.* 403, 466, 21-D1 (1993)

The Influence of Core Radius on Gravitational Lensing by Elliptical Lenses. *Sylvanie Wallington & Ramesh Narayan.* 403, 517, 22-A9 (1993)

Cosmological Formation of Quasar Black Holes. *Abraham Loeb.* 403, 542, 22-C12 (1993)

An Infrared Study of Hot Dust in Quasars Using Prism Spectrophotometry. *Yukiyasu Kobayashi, Shuji Sato, Takuya Yamashita, Hisashi Shiba, & Hideki Takami.* 404, 94, 29-B11 (1993)

The Quasar Proximity Effect in an Equivalent-Width–limited Sample of the Lyman-Alpha Forest. *Victor V. Chernomordik & Leonid M. Ozernoy.* 404, L5, 33-D1 (1993)

Evolution of the Luminosity-Color Distribution of Quasar Accretion Disks. *David Caditz.* 404, 539, 35-F7 (1993)

Gamma-Ray Emission of Active Galactic Nuclei as a Signature of Relativistic Electron-Positron Beams. *G. Henri, G. Pelletier, & J. Roland.* 404, L41, 40-B10 (1993)

A Cluster of Nascent Galaxies at $z = 2$? *Alan Dressler, Augustus Oemler, Jr., James E. Gunn, & Harvey Butcher.* 404, L45, 40-C1 (1993)

Ultraviolet Spectra of QSOs, BL Lacertae Objects, and Seyfert Galaxies. *Kenneth M. Lanzetta, David A. Turnshek, & Jennifer Sandoval.* 84, 109, 3-B1 (1993)

Upper Limit on Periodicity in the Three-dimensional Large-Scale Distribution of Matter. *David Tytler, John Sandoval, & Xiao-Ming Fan.* 405, 57, 41-G1 (1993)

Orientation Effects in QSO Spectra. *Paul J. Francis.* 405, 119, 42-D13 (1993)

Magnetic Field Strengths in High-Redshift Galaxies: Can the Galactic Dynamo Be Tested? *Judith J. Perry, Alan M. Watson, & Philipp P. Kronberg.* 406, 407, 62-F12 (1993)

Accretion Disk Models for Optical and Ultraviolet Microvariability in Active Galactic Nuclei. *Arun V. Mangalam & Paul J. Wiita.* 406, 420, 63-A1 (1993)

The Evolution of Bright, Optically Selected QSOs. *Paul C. Hewett, Craig B. Foltz, & Frederic H. Chaffee.* 406, L43, 68-B1 (1993)

The Continuum Slopes and Evolution of Active Galactic Nuclei. *Paul J. Francis.* 407, 519, 77-A12 (1993)

Optical Polarimetry and Photometry of X-Ray Selected BL Lacertae Objects. *Buell T. Jannuzi, Paul S. Smith, & Richard Elston.* 85, 265, 10-F1 (1993)

The *Hubble Space Telescope* Snapshot Survey. IV. A Summary of the Search for Gravitationally Lensed Quasars. *D. Maoz, J. N. Bahcall, D. P. Schneider, N. A. Bahcall, S. Djorgovski, R. Doxsey, A. Gould, S. Kirhakos, G. Meylan, & B. Yanny.* 409, 28, 97-D1 (1993)

Star Trapping and Metallicity Enrichment in Quasars and Active Galactic Nuclei. *Paweł Artymowicz, D. N. C. Lin, & E. Joseph Wampler.* 409, 592, 106-C12 (1993)

Quasar X-Ray Spectra Revisited. *P. Shastri, B. J. Wilkes, M. Elvis, & J. McDowell.* 410, 29, 112-D11 (1993)

Self-absorbed Active Galactic Nuclei and the Cosmic X-Ray Background. *Piero Madau, Gabriele Ghisellini, & A. C. Fabian.* 410, L7, 117-F8 (1993)

Quasar Clustering on Large Scales. *H. J. Mo & L. Z. Fang.* 410, 493, 119-G1 (1993)

The Narrow-Line Region of High-Luminosity Active Galactic Nuclei. *Beverley J. Wills, H. Netzer, M. S. Brotherton, Mingsheng Han, D. Wills, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 410, 534, 120-C11 (1993)

The High-Energy Diffuse Cosmic Gamma-Ray Background Radiation from Blazars. *F. W. Stecker, M. H. Salamon, & M. A. Malkan.* 410, L71, 125-F5 (1993)

VLA Observations of 91 Quasars at $0.35 < z < 1$. *Rob Price, Ann C. Gower, J. B. Hutchings, S. Talon, D. Duncan, & G. Ross.* 86, 365, 19-D9 (1993)

Quasars and Active Galactic Nuclei in Rich Environments. III. The Rapid Evolution of Active Galactic Nucleus Activity in Rich Clusters. *H. K. C. Yee & E. Ellingson.* 411, 43, 127-E13 (1993)

The Time Variability of the Ultraviolet Continuum and Lyman-Alpha in 3C 273. *M.-H. Ulrich, T. J.-L. Courvoisier, & W. Wamsteker.* 411, 125, 128-E13 (1993)

The Proto-Galaxy, Globular Clusters, and Quasars. *Sidney van den Bergh.* 411, 178, 129-C13 (1993)

Abundance and Evolution of Quasars in Cold Dark Matter Models. *Adi Nusser & Joseph Silk.* 411, L1, 133-D1 (1993)

Nuclear Winds and the Narrow-Line Emission from Active Galaxies. *Steven J. Smith.* 411, 570, 136-F10 (1993)

On the Photoionization of the Intergalactic Medium by Quasars at High Redshift. *Avery Meiksin & Piero Madau.* 412, 34, 142-D12 (1993)

Angular Correlations of the X-Ray Background and Clustering of Extragalactic X-Ray Sources. *L. Danese, L. Toffolatti, A. Franceschini, J. M. Martín-Mirones, & G. De Zotti.* 412, 56, 142-F9 (1993)

The Radio Properties of High-Redshift Quasars. I. Dual-Frequency Observations of 79 Steep-Spectrum Quasars at $z > 1.5$. *C. J. Lonsdale, P. D. Barthel, & G. K. Miley.* 87, 63, 27-G1 (1993)

Low-Ionization Broad Absorption Lines in Quasars. *G. Mark Voit, Ray J. Weymann, & Kirk T. Korista.* 413, 95, 157-C7 (1993)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. III. First Observational Results on Milky Way Gas. *Blair D. Savage, Limin Lu, John N. Bahcall, Jacqueline Bergeron, Alec Boksenberg, George F. Hartig, Buell T. Jannuzi, Sofia Kirhakos, Felix J. Lockman, W. L. W. Sargent, Donald P. Schneider, David Turnshek, Ray J. Weymann, & Arthur M. Wolfe.* 413, 116, 157-E6 (1993)

On the Redshift–Apparent Size Diagram of Double Radio Sources. *K. Nilsson, M. J. Valtonen, J. Kotilainen, & T. Jaakkola.* 413, 453, 162-C1 (1993)

Halo Model for Mg II Absorption Lines in the Spectra of Quasars. *R. Srianand & Pushpa Khare.* 413, 486, 162-E9 (1993)

A Revised and Updated Catalog of Quasi-stellar Objects. *A. Hewitt & G. Burbidge.* 87, 451, 34-B1 (1993)

Formation of Quasar Clouds by Thermal Instability in the Presence of Alfvén Wave Heating. *D. R. Gonçalves, V. Jatenco-Pereira, & R. Opher.* 414, 57, 170-F12 (1993)

Effects of Gas on the Global Stability of Galactic Disks: Radial Flows. *Isaac Shlosman & Masafumi Noguchi.* 414, 474, 177-B2 (1993)

X-Ray Variability of Active Galactic Nuclei: A Universal Power Spectrum with Luminosity-dependent Amplitude. *A. Lawrence & I. Papadakis.* 414, L85, 185-F1 (1993)

The Einsteinian Gravitational Field of the Rigidly Rotating Disk of Dust. *G. Neugebauer & R. Meinel.* 414, L97, 185-G5 (1993)

The Highly Polarized Hidden Quasar IRAS 09104+4109: A Double-lobed Radio Source in a Rich Cluster. *Dean C. Hines & Beverley J. Wills.* 415, 82, 186-A10 (1993)

EGRET Observations of Active Galactic Nuclei: 0836+710, 0454−234, 0804+499, 0906+430, 1510−089, and 2356+196. *D. J. Thompson, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. J. Schneid, & P. Sreekumar.* 415, L13, 191-F13 (1993)

Does a Luminosity-dependent Continuum Shape Cause the Baldwin Effect? *Wei Zheng & Matthew A. Malkan.* 415, 517, 194-C6 (1993)

Statistics of QSO Broad Emission-Line Profiles. I. The C IV λ1549 Line and the λ1400 Feature. *Beverley J. Wills, M. S. Brotherton, D. Fang, Charles C. Steidel, & Wallace L. W. Sargent.* 415, 563, 194-G8 (1993)

New Upper Limits on Intergalactic Infrared Radiation from High-Energy Astrophysics. *F. W. Stecker & O. C. De Jager.* 415, L71, 199-E1 (1993)

CO Emission in the Radio-loud Quasar 3C 48. *N. Z. Scoville, S. Padin, D. B. Sanders, B. T. Soifer, & M. S. Yun.* 415, L75, 199-E7 (1993)

Stellar Mass Loss in Elliptical Galaxies and the Fueling of Active Galactic Nuclei. *Paolo Padovani & Francesca Matteucci.* 416, 26, 201-D2 (1993)

The Ultraviolet Continua of Blazars: A Reconsideration of *IUE* Archives. *E. Pian & A. Treves.* 416, 130, 202-E14 (1993)

Early-Type Galaxies, Dark Halos, and Gravitational Lensing Statistics. *Dan Maoz & Hans-Walter Rix.* 416, 425, 208-F1 (1993)

Smoothed Nonparametric Estimation of the Luminosity Function for Flux-limited Samples. *David Caditz & Vahé Petrosian.* 416, 450, 209-A1 (1993)

Model for the High-Energy Emission from Blazars. *Charles D. Dermer & Reinhard Schlickeiser.* 416, 458, 209-A11 (1993)

Structure Function Analysis of High Radio Frequency Variability in the Metsähovi Monitoring Sample of Active Galactic Nuclei. *M. Lainela & E. Valtaoja.* 416, 485, 209-C12 (1993)

Milliarcsecond Polarization Structure of 24 Objects from the Pearson-Readhead Sample of Bright Extragalactic Radio Sources. I. The Images. *T. V. Cawthorne, J. F. C. Wardle, D. H. Roberts, D. C. Gabuzda, & L. F. Brown.* 416, 496, 209-D11 (1993)

Milliarcsecond Polarization Structure of 24 Objects from the Pearson-Readhead Sample of Bright Extragalactic Radio Sources. II. Discussion. *T. V. Cawthorne, J. F. C. Wardle, D. H. Roberts, & D. C. Gabuzda.* 416, 519, 209-G5 (1993)

Variable C IV Absorption in the Seyfert Galaxy NGC 5548: A Connection to Broad Absorption Line Quasi-stellar Objects? *J. Michael Shull & Elise R. Sachs.* 416, 536, 210-A10 (1993)

Double Troughs in Broad Absorption Line Quasars and Lyα–N V Line Locking. *Kirk T. Korista, G. Mark Voit, Simon L. Morris, & Ray J. Weymann.* 88, 357, 45-B1 (1993)

Formation of P Cygni Line Profiles in Relativistically Expanding Atmospheres. II. The Effect of the Continuum Frequency Shape and Limb Darkening of the Core. *Damien Hutsemékers.* 417, 97, 218-D12 (1993)

Elliptic Mass Distributions versus Elliptic Potentials in Gravitational Lenses. *Aggeliki Kassiola & Israel Kovner.* 417, 450, 225-A1 (1993)

Faint Object Camera Far-Ultraviolet Objective Prism Observations of 12 $z > 3$ Quasars. *P. Jakobsen, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 417, 528, 225-G10 (1993)

The Chemical Evolution of QSOs and the Implications for Cosmology and Galaxy Formation. *Fred Hamann & Gary Ferland.* 418, 11, 231-B13 (1993)

The Extended 12 Micron Galaxy Sample. *Brian Rush, Matthew A. Malkan, & Luigi Spinoglio.* 89, 1, 49-B1 (1993)

Measurements of D_A for a Large QSO Sample and Determination of Evolution of Lyman-Alpha Clouds. *Lin Zuo & Limin Lu.* 418, 601, 240-A1 (1993)

Chemical Evolution of Galaxies and Quasar Metallicities. *Francesca Matteucci & Paolo Padovani.* 419, 485, 253-G1 (1993)

The Wavelength Dependence of Polarization of Active Galaxies and Quasars. *Wayne Webb, Matthew Malkan, Gary Schmidt, & Chris Impey.* 419, 494, 253-G12 (1993)

Near-Infrared Imaging of Low-Redshift Quasar Host Galaxies. *K. K. McLeod & G. H. Rieke.* 420, 58, 1-F10 (1994)

X-Ray Bumps, Iron Kα Lines, and X-Ray Suppression by Obscuring Tori in Seyfert Galaxies. *Julian H. Krolik, Piero Madau, & Piotr T. Życki.* 420, L57, 15-B13 (1994)

How Fast Do Quasar Emission Lines Vary? First Results from a Program to Monitor the Balmer Lines of the Palomar-Green Quasars. *Dan Maoz, Paul S. Smith, Buell T. Jannuzi, Shai Kaspi, & Hagai Netzer.* 421, 34, 16-E1 (1994)

Double-peaked Emission Lines in Active Galactic Nuclei. *Michael Eracleous & Jules P. Halpern.* 90, 1, 1-B1 (1994)

A Wide-Field Multicolor Survey for High-Redshift Quasars, $z \geq 2.2$. III. The Luminosity Function. *Stephen J. Warren, Paul C. Hewett, & Patrick S. Osmer.* 421, 412, 23-C11 (1994)

High-Energy Gamma-Ray Observations of Active Galaxies. *Carl E. Fichtel.* 90, 917, 15-B12 (1994)

Statistics of QSO Broad Emission-Line Profiles. II. The C IV λ1549, C III] λ1909, and Mg II λ2798 Lines. *M. S. Brotherton, Beverley J. Wills, Charles C. Steidel, & Wallace L. W. Sargent.* 423, 131, 47-F9 (1994)

A New Method for Determining the Hubble Constant from Sub-TeV Gamma-Ray Observations. *M. H. Salamon, F. W. Stecker, & O. C. de Jager.* 423, L1, 53-B1 (1994)

Do the More Powerful Monsters Live in the More Actively Star-forming Host Galaxies? *Toru Yamada.* 423, L27, 53-D11 (1994)

Application of the Loh-Spillar Cosmological Test to Quasars. *David Schade & F. D. A. Hartwick.* 423, L85, 60-B13 (1994)

Observational Evidence Linking a Quasar with an Optical Transient. *F. J. Vrba, C. B. Luginbuhl, D. H. Hartmann, R. Hudec, F. H. Chaffee, C. B. Foltz, & K. C. Hurley.* 424, 68, 62-G8 (1994)

Intermediate-Resolution Spectropolarimetry of a Small Sample of Quasars. *J. A. de Diego, M. R. Kidger, E. Pérez, & L. O. Takalo.* 424, 76, 63-A4 (1994)

Fueling Nuclear Activity in Disk Galaxies: Starbursts and Monsters. *Clayton H. Heller & Isaac Shlosman.* 424, 84, 63-B1 (1994)

Observational Limits on Ω in Stars, Brown Dwarfs, and Stellar Remnants from Gravitational Microlensing. *Julianne J. Dalcanton, Claude R. Canizares, Arno Granados, Charles C. Steidel, & John T. Stocke.* 424, 550, 71-E5 (1994)

Orientation Modeling of Radio Galaxy and Quasar Properties: Evidence for a Unified Model. *Matthew L. Lister, J. B. Hutchings, & Ann C. Gower.* 427, 125, 111-D13 (1994)

Galaxies with Extreme Infrared and Fe II Emission. I. Markarian 231: The Signature of a Young Infrared QSO. *Sebastian Lípari, Luis Colina, & F. Macchetto.* 427, 174, 112-B12 (1994)

A Redshift Survey in Quasar Fields. I. Photometric and Spectroscopic Catalog. *E. Ellingson & H. K. C. Yee.* 92, 33, 31-D8 (1994)

The *Einstein* Database of IPC X-Ray Observations of Optically Selected and Radio-selected Quasars. I. *Belinda J. Wilkes, Harvey Tananbaum, D. M. Worrall, Yoram Avni, M. S. Oey, & Joan Flanagan.* 92, 53, 31-G2 (1994)

The Role of Radiative Acceleration in Outflows from Broad Absorption Line QSOs. I. Comparison with O Star Winds. *Nahum Arav & Zhi-Yun Li.* 427, 700, 121-D7 (1994)

Obscuration, Orientation, and the Infrared Properties of Radio-loud Active Galaxies. *Timothy M. Heckman, Christopher P. O'Dea, Stefi A. Baum, & Eija Laurikainen.* 428, 65, 129-A11 (1994)

Compton Cooling of Jets as the Origin of Radio-quiet Quasars. *Aneta Siemiginowska & Martin Elvis.* 92, 603, 39-G11 (1994)

Gamma-Ray Bright Quasars and BL Lacertae Objects: EGRET Data. *Jonathan Schachter & Martin Elvis.* 92, 623, 40-B9 (1994)

Do Active Galactic Nuclei Produce the Cosmic X-Ray Background? *Amri Wandel.* 92, 633, 40-C10 (1994)

The Blazar Gamma-Ray Luminosity Function and the Diffuse Extragalactic Gamma-Ray Background. *M. H. Salamon & F. W. Stecker.* 430, L21, 165-D1 (1994)

The Variance of Quasar Counts in Cells. *Paola Andreani, Stefano Cristiani, Francesco Lucchin, Sabino Matarrese, & Lauro Moscardini.* 430, 458, 167-D3 (1994)

Superluminal Motion Statistics and Cosmology. *R. C. Vermeulen & M. H. Cohen.* 430, 467, 167-E3 (1994)

The Intermediate Line Region of QSOs. *M. S. Brotherton, Beverley J. Wills, Paul J. Francis, & Charles C. Steidel.* 430, 495, 167-G9 (1994)

Galactic Structures Associated with Extreme Scattering Events in the Radio Light Curves of NRAO 140, 0954+658, and 2352+495. *R. Fiedler, T. Pauls, K. J. Johnston, & B. Dennison.* 430, 595, 169-C1 (1994)

Misdirected Quasars and Evolved Stars in Distant Radio Galaxies. *Sperello di Serego Alighieri, Andrea Cimatti, & Robert A. E. Fosbury.* 431, 123, 177-F5 (1994)

Near-Infrared Imaging of Low-Redshift Quasar Host Galaxies. II. High-Luminosity Quasars. *K. K. McLeod & G. H. Rieke.* 431, 137, 177-G8 (1994)

Typical Scales in the Spatial Distribution of QSOs. *Zugan Deng, Xiaoyang Xia, & Li-Zhi Fang.* 431, 506, 184-G9 (1994)

The Complex Optical to Soft X-Ray Spectrum of Low-Redshift Radio-quiet Quasars. I. The X-Ray Data. *Fabrizio Fiore, Martin Elvis, Jonathan C. McDowell, Aneta Siemiginowska, & Belinda J. Wilkes.* 431, 515, 185-A6 (1994)

Results of a Five-Year Program of Multifrequency Monitoring of Low-Frequency Variable Radio Sources. *K. J. Mitchell, Brian Dennison, J. J. Condon, Daniel R. Altschuler, H. E. Payne, S. L. O'Dell, & J. J. Broderick.* 93, 441, 48-F6 (1994)

Collapse of Primordial Gas Clouds and the Formation of Quasar Black Holes. *Abraham Loeb & Frederic A. Rasio.* 432, 52, 193-G8 (1994)

Radiative Acceleration in Outflows from Broad Absorption-Line Quasi-stellar Objects. II. Wind Models. *Nahum Arav, Zhi-Yun Li, & Mitchell C. Begelman.* 432, 62, 194-A6 (1994)

Compton Scattering of the Microwave Background by Quasar-blown Bubbles. *G. Mark Voit.* 432, L19, 199-C13 (1994)

Gravitational Lensing and Superluminal Motions in Quasars: The Linear Approximation. *J. A. Muñoz & M. Portilla.* 432, 448, 201-D13 (1994)

The Ensemble Variability Properties of Faint QSOs. *Dario Trevese, Richard G. Kron, Steven R. Majewski, Matthew A. Bershady, & David C. Koo.* 433, 494, 217-B5 (1994)

Spectral Energy Distributions of the Brightest Palomar-Green Quasars at Intermediate Redshifts. *Todd M. Tripp, Jill Bechtold, & Richard F. Green.* 433, 533, 217-E12 (1994)

Star-Disk Collisions and the Origin of the Broad Lines in Quasars. *Wojciech H. Zurek, Aneta Siemiginowska, & Stirling A. Colgate.* 434, 46, 225-G2 (1994)

Do Galactic Systems Form too Late in Cold + Hot Dark Matter Models? *Chung-Pei Ma & Edmund Bertschinger.* 434, L5, 232-B7 (1994)

The X-Ray Spectra of Blazars Observed with *EXOSAT*. *Rita M. Sambruna, Paul Barr, Paolo Giommi, Laura Maraschi, Gianpiero Tagliaferri, & Aldo Treves.* 434, 468, 234-B6 (1994)

The Polarization and Nuclear Structure of the Broad Absorption Line QSO CSO 755. *Jason Glenn, Gary D. Schmidt, & Craig B. Foltz.* 434, L47, 241-D1 (1994)

High-Energy Spectra of Active Galactic Nuclei. I. The Catalog. *G. Malaguti, L. Bassani, & E. Caroli.* 94, 517, 59-B7 (1994)

The Soft X-Ray Properties of a Complete Sample of Optically Selected Quasars. I. First Results. *Ari Laor, Fabrizio Fiore, Martin Elvis, Belinda J. Wilkes, & Jonathan C. McDowell.* 435, 611, 254-E3 (1994)

The 1993 Multiwavelength Campaign on 3C 279: The Radio to Gamma-Ray Energy Distribution in Low State. *L. Maraschi, P. Grandi, C. M. Urry, A. E. Wehrle, G. M. Madejski, H. H. Fink, G. Ghisellini, R. C. Hartman, A. P. Koratkar, C. von Montigny, E. Pian, H. C. Thomas, A. Treves, M. F. Aller, H. D. Aller, C. D. Bailyn, T. J. Balonek, H. Bock, W. Collmar, I. S. Glass, S. J. Litchfield, I. M. McHardy, R. Méndez, J. Pesce, H. P. Reuter, E. I. Robson, H. Steppe, J. A. Stevens, H. Teräsranta, & S. J. Wagner.* 435, L91, 259-D8 (1994)

A Unified Relativistic Beaming Model for BL Lacertae Objects and Flat Spectrum Radio Quasars. *Laura Maraschi & Fausto Rovetti.* 436, 79, 262-C13 (1994)

Galaxies with Extreme Infrared and Fe II Emission. II. IRAS 07598+6508: A Starburst/Young Broad Absorption Line QSO. *Sebastian Lípari.* 436, 102, 262-F1 (1994)

An *ASCA* GIS Spectrum of S5 0014+813 at $z = 3.384$. *Martin Elvis, M. Matsuoka, A. Siemiginowska, F. Fiore, T. Mihara, & W. Brinkmann.* 436, L55, 269-C3 (1994)

Atlas of Quasar Energy Distributions. *Martin Elvis, Belinda J. Wilkes, Jonathan C. McDowell, Richard F. Green, Jill Bechtold, S. P. Willner, M. S. Oey, Elisha Polomski, & Roc Cutri.* 95, 1, 64-A2 (1994)

The Evolutionary Unified Scheme. I. Quasars and Radio Galaxies in the Viewing Angle–Redshift Plane. *F. Vagnetti & R. Spera.* 436, 611, 274-A4 (1994)

Multifrequency Observations of Blazars. V. Long-Term Millimeter, Submillimeter, and Infrared Monitoring. *J. A. Stevens, S. J. Litchfield, E. I. Robson, D. H. Hughes, W. K. Gear, H. Teräsranta, E. Valtaoja, & M. Tornikoski.* 437, 91, 284-F1 (1994)

X-Ray Constraints on the Intergalactic Medium. *Thomas Aldcroft, Martin Elvis, Jonathan McDowell, & Fabrizio Fiore.* 437, 584, 293-G4 (1994)

Common Lyman-Alpha Absorption toward the Quasar Pair Q1343+2640A, B: Evidence for Large and Quiescent Clouds. *Nadine Dinshaw, Chris D. Impey, Craig B. Foltz, Ray J. Weymann, & Frederic H. Chaffee.* 437, L87, 298-G1 (1994)

The Second Caltech–Jodrell Bank VLBI Survey. I. Observations of 91 of 193 Sources. *G. B. Taylor, R. C. Vermeulen, T. J. Pearson, A. C. S. Readhead, D. R. Henstock, I. W. A. Browne, & P. N. Wilkinson.* 95, 345, 69-B1 (1994)

The X-Ray Spectra of Blazars: Analysis of the Complete *EXOSAT* Archive. *Rita M. Sambruna, Paul Barr, Paolo Giommi, Laura Maraschi, Gianpiero Tagliaferri, & Aldo Treves.* 95, 371, 69-D1 (1994)

The Difference between Radio-loud and Radio-quiet Active Galaxies. *A. S. Wilson & E. J. M. Colbert.* 438, 62, 2-B10 (1995)

The Luminosity Function of Quasars. *Yichuan C. Pei.* 438, 623, 12-F10 (1995)

Ultraluminous Infrared Galaxies and the Radio-optical Correlation for Quasars. *Carol J. Lonsdale, Harding E. Smith, & Colin J. Lonsdale.* 438, 632, 12-G8 (1995)

Imaging the Host Galaxies of High-Redshift Radio-quiet QSOs. *James D. Lowenthal, Timothy M. Heckman, Matthew D. Lehnert, & J. H. Elias.* 439, 588, 32-D11 (1995)

Ultraviolet Spectropolarimetry of High-Redshift Quasars with the *Hubble Space Telescope*. *C. D. Impey, Matthew A. Malkan, Wayne Webb, & C. E. Petry.* 440, 80, 42-C8 (1995)

Magnification of Quasars by Cosmologically Distributed Gravitational Lenses. *Yichuan C. Pei.* 440, 485, 50-A4 (1995)

High-Energy Gamma-Ray Emission from Active Galaxies: EGRET Observations and Their Implications. *C. von Montigny, D. L. Bertsch, J. Chiang, B. L. Dingus, J. A. Esposito, C. E. Fichtel, J. M. Fierro, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, P. L. Nolan, H. D. Radecke, E. Schneid, P. Sreekumar, D. J. Thompson, & T. Willis.* 440, 525, 50-E4 (1995)

Near-Infrared Imaging of CfA Seyfert Galaxies. *K. K. McLeod & G. H. Rieke.* 441, 96, 60-F4 (1995)

The Quasar Distribution in a Static Universe. *David F. Crawford.* 441, 488, 68-F13 (1995)

Origin of Quasar Progenitors from the Collapse of Low-Spin Cosmological Perturbations. *Daniel J. Eisenstein & Abraham Loeb.* 443, 11, 95-D3 (1995)

On the Universality of Microlensing in Quadruple Gravitational Lenses. *Hans J. Witt, Shude Mao, & Paul L. Schechter.* 443, 18, 95-D13 (1995)

Gravitational Microlensing Is Not Required to Explain Quasar Variability. *Frederick K. Baganoff & Matthew A. Malkan.* 444, L13, 121-C8 (1995)

Higher Order Correlation Functions for Quasars. *M. J. Pons-Borderia & S. A. Bonometto.* 444, 548, 124-A2 (1995)

Transverse Velocities of Galaxies from Microlens Parallaxes. *Andrew Gould.* 444, 556, 124-A13 (1995)

Broad Ne VIII λ774 Emission from Quasars in the *HST*-FOS Snapshot Survey (ABSNAP). *Fred Hamann, Lin Zuo, & David Tytler.* 444, L69, 130-C1 (1995)

Radio Properties of Optically Selected Quasars. *Eric J. Hooper, Chris D. Impey, Craig B. Foltz, & Paul C. Hewett.* 445, 62, 133-C3 (1995)

The First Caltech–Jodrell Bank VLBI Survey. I. λ = 18 Centimeter Observations of 87 Sources. *A. G. Polatidis, P. N. Wilkinson, W. Xu, A. C. S. Readhead, T. J. Pearson, G. B. Taylor, & R. C. Vermeulen.* 98, 1, 21-B1 (1995)

The First Caltech–Jodrell Bank VLBI Survey. II. λ = 18 Centimeter Observations of 25 Sources. *D. D. Thakkar, W. Xu, A. C. S. Readhead, T. J. Pearson, G. B. Taylor, R. C. Vermeulen, A. G. Polatidis, & P. N. Wilkinson.* 98, 33, 21-D8 (1995)

The Case Low-Dispersion Northern Sky Survey. XV. A Region in Ursa Major and Canes Venatici. *Peter Pesch, C. B. Stephenson, & D. Jack MacConnell.* 98, 41, 21-E5 (1995)

Quasar Populations in a Cosmological Constant–dominated Flat Universe. *Sangeeta Malhotra & Edwin L. Turner.* 445, 553, 142-F3 (1995)

Deep Optical Counterpart Searches of Gamma-Ray Burst Localizations. *Frederick J. Vrba, Dieter H. Hartmann, & Mark C. Jennings.* 446, 115, 154-G4 (1995)

Hubble Space Telescope Sample of Radio-loud Quasars: Ultraviolet Spectra of the First 31 Quasars. *Beverley J. Wills, Keith L. Thompson, Mingsheng Han, H. Netzer, D. Wills, J. A. Baldwin, G. J. Ferland, I. W. A. Browne, & M. S. Brotherton.* 447, 139, 174-A11 (1995)

QSO Broad Emission Line Asymmetries: Evidence of Gravitational Redshift? *Michael R. Corbin.* 447, 496, 182-F2 (1995)

The *Hubble Space Telescope* Sample of Radio-loud Quasars: The Lyα/Hβ Ratio. *Hagai Netzer, M. S. Brotherton, Beverley J. Wills, Mingsheng Han, D. Wills, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 448, 27, 192-E10 (1995)

The Ultraviolet Emission Properties of 13 Quasars. *Ari Laor, John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, & Richard F. Green.* 99, 1, 34-C1 (1995)

The Polarized Spectrum of the Fe II–rich Broad Absorption Line QSO IRAS 07598+6508. *Dean C. Hines & Beverley J. Wills.* 448, L69, 208-F8 (1995)

Polarization Clues to the Structure of Broad Absorption Line Quasi-stellar Objects. *Robert W. Goodrich & Joseph S. Miller.* 448, L73, 208-G1 (1995)

An Improved Measure of Quasar Orientation. *Beverley J. Wills & M. S. Brotherton.* 448, L81, 209-A1 (1995)

A Search for Optically Quiet Quasars. *R. I. Kollgaard, E. D. Feigelson, S. A. Laurent-Muehleisen, H. Spinrad, A. Dey, & W. Brinkmann.* 449, 61, 211-A13 (1995)

The Complex Optical to Soft X-Ray Spectrum of Low-Redshift Radio-quiet Quasars. II. Comparison with Free-Free and Accretion Disk Models. *Fabrizio Fiore, Martin Elvis, Aneta Siemiginowska, Belinda J. Wilkes, Jonathan C. McDowell, & Smita Mathur.* 449, 74, 211-C1 (1995)

The First Caltech–Jodrell Bank VLBI Survey. III. VLBI and MERLIN Observations at 5 GHz and VLA Observations at 1.4 GHz. *W. Xu, A. C. S. Readhead, T. J. Pearson, A. G. Polatidis, & P. N. Wilkinson.* 99, 297, 39-B1 (1995)

The Soft X-Ray Properties of a Large Optical QSO Sample: *ROSAT* Observations of the Large Bright Quasar Survey. *Paul J. Green, Norbert Schartel, Scott F. Anderson, Paul C. Hewett, Craig B. Foltz, Wolfgang Brinkmann, Henner Fink, Joachim Trümper, & Bruce Margon.* 450, 51, 228-G1 (1995)

Hubble Space Telescope Images of Nearby Luminous Quasars. II. Results for Eight Quasars and Tests of the Detection Sensitivity. *John N. Bahcall, Sofia Kirhakos, & Donald P. Schneider.* 450, 486, 237-C13 (1995)

Quasar Lyman Edge Regions in Polarized Light. *A. Koratkar, R. R. J. Antonucci, R. W. Goodrich, H. Bushouse, & A. L. Kinney.* 450, 501, 237-F1 (1995)

The Second Caltech–Jodrell Bank VLBI Survey. II. Observations of 102 of 193 Sources. *D. R. Henstock, I. W. A. Browne, P. N. Wilkinson, G. B. Taylor, R. C. Vermeulen, T. J. Pearson, & A. C. S. Readhead.* 100, 1, 46-B1 (1995)

Multifrequency Spectra of *EXOSAT* Blazars. *K. K. Ghosh & S. Soundararajaperumal.* 100, 37, 46-D12 (1995)

The FKS Gravitational Lens Survey. *Christopher S. Kochanek, Emilio E. Falco, & Rudolph Schild.* 452, 109, 263-E12 (1995)

The Evolution of Gamma-Ray–loud Active Galactic Nuclei. *J. Chiang, C. E. Fichtel, C. von Montigny, P. L. Nolan, & V. Petrosian.* 452, 156, 264-B12 (1995)

Models of the Optical/Ultraviolet Continuum Polarization in Active Galactic Nuclei: Implications for Unification Schemes. *John F. Kartje.* 452, 565, 272-D8 (1995)

The Examination of Optical Microvariability in Radio-quiet and Radio-loud Quasi-stellar Objects. *Minhwan Jang & H. Richard Miller.* 452, 582, 272-F1 (1995)

Probing Lyα Absorbers with Double Lines of Sight. *Jane C. Charlton, Christopher W. Churchill, & Suzanne M. Linder.* 452, L81, 279-D1 (1995)

Hubble Space Telescope and MERLIN Observations of the Jet in 3C 273. *J. N. Bahcall, S. Kirhakos, D. P. Schneider, R. J. Davis, T. W. B. Muxlow, S. T. Garrington, R. G. Conway, & S. C. Unwin.* 452, L91, 279-E4 (1995)

Revealing the Effects of Orientation in Composite Quasar Spectra. *Joanne C. Baker & Richard W. Hunstead.* 452, L95, 279-F1 (1995)

Testing Models for the Quasar Big Blue Bump via Color-Color Diagrams. *Aneta Siemiginowska, Olga Kuhn, Martin Elvis, Fabrizio Fiore, Jonathan McDowell, & Belinda J. Wilkes.* 454, 77, 300-C7 (1995)

Faint Blue Objects at High Galactic Latitude. VII. Spectroscopy of Narrow-Line Objects and the Morphological Selection Criterion of the US Survey. *P. D. Usher, K. J. Mitchell, & K.-L. Huang.* 454, 654, 310-F4 (1995)

The Underlying Distribution of Optical to X-Ray Spectral Index for Quasars in the Presence of Detection Thresholds. *Y. Avni, D. M. Worrall, & W. A. Morgan, Jr.* 454, 673, 311-A1 (1995)

Evidence for an Obscured Quasar in the Giant Radio Galaxy PKS 0634−205. *Chris Simpson, M. J. Ward, & A. S. Wilson.* 454, 683, 311-B1 (1995)

Quasar Constraints on the Cosmic String Models. *P. Mähönen, T. Hara, & S. J. Miyoshi.* 454, L81, 315-D2 (1995)

Microlensing Search of 10^6 Quasars. *Andrew Gould.* 455, 37, 318-F7 (1995)

Detection of the Angular Correlation of Faint X-Ray Sources. *A. Vikhlinin & W. Forman.* 455, L109, 333-D10 (1995)

Limits on Dust in Rich Clusters of Galaxies from the Color of Background Quasars. *Dan Maoz.* 455, L115, 333-E4 (1995)

Near-Infrared Observations of Extended Emission around PG 1545+210. *G. Neugebauer, K. Matthews, & L. Armus.* 455, L123, 333-F4 (1995)

Identification and Spectroscopy of Radio Sources from the B3VLA Survey. *S. G. Djorgovski, D. Thompson, L. Maxfield, M. Vigotti, & G. Grueff.* 101, 255, 57-B1 (1995)

GALAXIES: QUASARS: INDIVIDUAL

Name: GQ Comae

Multifrequency Observations of the Optically Active Radio-quiet Quasar GQ Comae. II. Ultraviolet, Optical, and Infrared Continuum Variability. *Michael L. Sitko, Annamaria K. Sitko, Aneta Siemiginowska, & R. Szczerba.* 409, 139, 98-F5 (1993)

Name: Fairall 9

Dust Reverberation: A Model for the Infrared Variations of Fairall 9. *Richard Barvainis.* 400, 502, 216-E5 (1992)

Name: Kaz 102

Multifrequency Observations of Kaz 102 during the *ROSAT* All-Sky Survey. *A. Treves, H. H. Fink, M. Malkan, S. J. Wagner, B. J. Wilkes, F. Baganoff, J. Heidt, E. Pian, A. Sadun, S. Schaeidt, J. T. Bonnell, W. Brinkmann, D. de Martino, L. Maraschi, E. G. Tanzi, M. H. Ulrich, & W. Wamsteker.* 442, 589, 88-A9 (1995)

Name: Markarian 205

Interstellar Mg II and C IV Absorption toward Markarian 205 by NGC 4319: An "Optically Thick" QSO Absorption System. *David V. Bowen & J. Chris Blades.* 403, L55, 27-B8 (1993)

Name: Markarian 421

New Upper Limits on Intergalactic Infrared Radiation from High-Energy Astrophysics. *F. W. Stecker & O. C. De Jager.* 415, L71, 199-E1 (1993)

Search for 10 TeV Gamma-Ray Emission from Active Galactic Nuclei with the Tibet Air Shower Array. *M. Amenomori, Z. Cao, B. Z. Dai, L. K. Ding, Y. X. Feng, Z. Y. Feng, K. Hibino, N. Hotta, Q. Huang, A. X. Huo, H. Y. Jia, G. Z. Jiang, S. Q. Jiao, F. Kajino, K. Kasahara, Labaciren, S. M. Liu, D. M. Mei, L. Meng, X. R. Meng, Mimaciren, K. Mizutani, J. Mu, H. Nanjo, M. Nishizawa, A. Oguro, M. Ohnishi, I. Ohta, T. Ouchi, J. R. Ren, To. Saito, M. Sakata, Z. Z. Shi, M. Shibata, T. Shirai, H. Sugimoto, X. X. Sun, K. Taira, Y. H. Tan, N. Tateyama, S. Torii, H. Wang, C. Z. Wen, Y. Yamamoto, G. C. Yu, P. Yuan, T. Yuda, C. S. Zhang, H. M. Zhang, L. Zhang, Zhasang, Zhaxiciren, & W. D. Zhou (The Tibet ASγ Collaboration).* 429, 634, 153-E11 (1994)

Name: Pictor A

Pictor A: A New Double-peaked Emission-Line Quasar. *J. W. Sulentic, P. Marziani, T. Zwitter, & M. Calvani.* 438, L1, 9-E1 (1995)

Alphanumeric: 0014+813

The Lyman Forest of 0014+813. *M. Rauch, R. F. Carswell, F. H. Chaffee, C. B. Foltz, J. K. Webb, R. J. Weymann, J. Bechtold, & R. F. Green.* 390, 387, 80-B11 (1992)

Alphanumeric: 0226−1024

Hubble Space Telescope Faint Object Spectrograph and Ground-based Observations of the Broad Absorption Line Quasar 0226−1024. *Kirk T. Korista, Ray J. Weymann, Simon L. Morris, Michael Kopko, Jr., David A. Turnshek, George F. Hartig, Craig B. Foltz, E. Margaret Burbidge, & Vesa T. Junkkarinen.* 401, 529, 229-C1 (1992)

Alphanumeric: 0241+62

SIGMA Observation of Two Quasars: 3C 273 and 0241+62. *L. Bassani, E. Jourdain, J. P. Roques, L. Bouchet, J. Ballet, F. Lebrun, Ph. Laurent, B. Cordier, R. Sunyaev, E. Churazov, M. Gilfanov, A. Finogenov, A. Dyachkov, N. Khavenson, B. Novikov, & I. Chulkov.* 396, 504, 163-F11 (1992)

Alphanumeric: 0453−423

The Kinematics of Intermediate-Redshift Gaseous Galaxy Halos. *Kenneth M. Lanzetta & David V. Bowen.* 391, 48, 86-E14 (1992)

Alphanumeric: 0528−250

Upper Limits to Balmer-Line Emission in Three $z \sim 2$ Damped Lyman-α Systems. *E. M. Hu, A. Songaila, L. L. Cowie, & K.-W. Hodapp.* 419, L13, 252-C5 (1993)

Alphanumeric: 0836+113

Upper Limits to Balmer-Line Emission in Three $z \sim 2$ Damped Lyman-α Systems. *E. M. Hu, A. Songaila, L. L. Cowie, & K.-W. Hodapp.* 419, L13, 252-C5 (1993)

Alphanumeric: 0933+733

Optical Lines in High-Redshift Quasi-stellar Objects: Balmer Lines, [O III], and Fe II. *Gary J. Hill, Keith L. Thompson, & Richard Elston.* 414, L1, 175-C1 (1993)

Alphanumeric: 0957+561

The Radio Time Delay in the Double Quasar 0957+561. *J. Lehár, J. N. Hewitt, D. H. Roberts, & B. F. Burke.* 384, 453, 7-G1 (1992)

The Time Delay of Gravitational Lens 0957+561. I. Methodology and Analysis of Optical Photometric Data. *William H. Press, George B. Rybicki, & Jacqueline N. Hewitt.* 385, 404, 18-C4 (1992)

The Time Delay of Gravitational Lens 0957+561. II. Analysis of Radio Data and Combined Optical-Radio Analysis. *William H. Press, George B. Rybicki, & Jacqueline N. Hewitt.* 385, 416, 18-D4 (1992)

Reconciling the Image Brightness Ratios in the Gravitational Lens System 0957+561. *Samuel R. Conner, Joseph Lehár, & Bernard F. Burke.* 387, L61, 48-B7 (1992)

A Direct Gravitational Lensing Test for 10^6 $M_\odot$ Black Holes in Halos of Galaxies. *Joachim Wambsganss & Bohdan Paczyński.* 397, L1, 173-A8 (1992)

Discovery of a New Component in the Gravitationally Lensed Quasar 0957+561. *C. Jones, C. Stern, E. Falco, W. Forman, L. David, I. Shapiro, & A. C. Fabian.* 410, 21, 112-D1 (1993)

Detection of Far-Ultraviolet High-Excitation Line Emission and Lyman-β Absorption in the Gravitational Lens Q0957+561. *A. G. Michalitsianos, J. Nichols-Bohlin, F. C. Bruhweiler, D. Kazanas, Y. Kondo, M. De La Peña, S. P. Maran, T. Meylan, M. Perez, & R. Thompson.* 417, L57, 230-B1 (1993)

Toward Estimation of H_0 from VLBI Observations of the Gravitational Lens System 0957+561. *R. M. Campbell, B. E. Corey, E. E. Falco, I. I. Shapiro, M. V. Gorenstein, P. Elósegui, J. M. Marcaide, & K. Alvi.* 426, 486, 104-D5 (1994)

The Gravitational Lens System Q0957+561 in the Ultraviolet. *J. F. Dolan, A. G. Michalitsianos, R. W. Thompson, P. T. Boyd, K. G. Wolinski, R. C. Bless, M. J. Nelson, J. W. Percival, M. J. Taylor, J. L. Elliot, & G. W. van Citters.* 442, 87, 78-D5 (1995)

ROSAT Observations of the Gravitationally Lensed System 0957+561. *G. Chartas, E. Falco, W. Forman, C. Jones, R. Schild, & I. Shapiro.* 445, 140, 134-C7 (1995)

An Event in the Light Curve of 0957+561A and Prediction of the 1996 Image B Light Curve. *Tomislav Kundić, Wesley N. Colley, J. Richard Gott III, Sangeeta Malhotra, Ue-Li Pen, James E. Rhoads, Krzysztof Z. Stanek, Edwin L. Turner, & Joachim Wambsganss.* 455, L5, 324-C8 (1995)

Alphanumeric: 0958+559

Detection of Ca II Absorption in the QSO 0958+559 Due to a Heiles Shell in NGC 3079. *Donna S. Womble, Vesa T. Junkkarinen, & E. Margaret Burbidge.* 388, 55, 49-G1 (1992)

Alphanumeric: 1208+101

A Gravitational Lens Candidate Discovered with the *Hubble Space Telescope*. *Dan Maoz, John N. Bahcall, Donald P. Schneider, Rodger Doxsey, Neta A. Bahcall, Alexei V. Filippenko, W. Miller Goss, Ofer Lahav, & Brian Yanny.* 386, L1, 29-B1 (1992)

Alphanumeric: 1208+1011

Hubble Space Telescope Imaging of the Large-Redshift Gravitational Lens Candidate 1208+1011. *John N. Bahcall, Dan Maoz, Donald P. Schneider, Brian Yanny, & Rodger Doxsey.* 392, L1, 106-A7 (1992)

Alphanumeric: 1225+317

Optical Lines in High-Redshift Quasi-stellar Objects: Balmer Lines, [O III], and Fe II. *Gary J. Hill, Keith L. Thompson, & Richard Elston.* 414, L1, 175-C1 (1993)

Alphanumeric: 1229−021

Discovery of Extended Faraday Rotation Compatible with Spiral Structure in an Intervening Galaxy at $z = 0.395$: New Observations of PKS 1229−021. *Philipp P. Kronberg, Judith J. Perry, & Edwin L. H. Zukowski.* 387, 528, 45-C1 (1992)

The Kinematics of Intermediate-Redshift Gaseous Galaxy Halos. *Kenneth M. Lanzetta & David V. Bowen.* 391, 48, 86-E14 (1992)

Alphanumeric: 1229+204

HST Imaging of Quasi-stellar Objects with WFPC2. *J. B. Hutchings, Jon Holtzman, W. B. Sparks, S. C. Morris, R. J. Hanisch, & J. Mo.* 429, L1, 150-A8 (1994)

Alphanumeric: 1246−057

Optical Lines in High-Redshift Quasi-stellar Objects: Balmer Lines, [O III], and Fe II. *Gary J. Hill, Keith L. Thompson, & Richard Elston.* 414, L1, 175-C1 (1993)

Alphanumeric: 1308+326

Is 1308+326 a BL Lacertae Object or a Quasar? *D. C. Gabuzda, R. I. Kollgaard, D. H. Roberts, & J. F. C. Wardle.* 410, 39, 112-E12 (1993)

Alphanumeric: 1413+117

Optical Lines in High-Redshift Quasi-stellar Objects: Balmer Lines, [O III], and Fe II. *Gary J. Hill, Keith L. Thompson, & Richard Elston.* 414, L1, 175-C1 (1993)

Alphanumeric: 1633+382

The EGRET Detection of Quasar 1633+382. *J. R. Mattox, D. L. Bertsch, J. Chiang, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. Schneid, P. Sreekumar, & D. J. Thompson.* 410, 609, 121-C5 (1993)

A New Method for Determining the Hubble Constant from Sub-TeV Gamma-Ray Observations. *M. H. Salamon, F. W. Stecker, & O. C. de Jager.* 423, L1, 53-B1 (1994)

New Superluminal Quasar 1633+382 and the Blazar–Gamma-Ray Connection. *P. D. Barthel, J. E. Conway, S. T. Myers, T. J. Pearson, & A. C. S. Readhead.* 444, L21, 121-D8 (1995)

Alphanumeric: 1928+738

A Massive Binary Black Hole in 1928+738? *Nico Roos, Jelle S. Kaastra, & Christian A. Hummel.* 409, 130, 98-E8 (1993)

Alphanumeric: 2126−158

The Lyman-Alpha Forest of PKS 2126−158 at High Resolution. *Emanuele Giallongo, Stefano Cristiani, Adriano Fontana, & Dario Trèvese.* 416, 137, 202-F10 (1993)

Alphanumeric: 2128−123

The Kinematics of Intermediate-Redshift Gaseous Galaxy Halos. *Kenneth M. Lanzetta & David V. Bowen.* 391, 48, 86-E14 (1992)

Alphanumeric: 2141+175

HST Imaging of Quasi-stellar Objects with WFPC2. *J. B. Hutchings, Jon Holtzman, W. B. Sparks, S. C. Morris, R. J. Hanisch, & J. Mo.* 429, L1, 150-A8 (1994)

Alphanumeric: 2237+030

Lyα and C IV Narrow-Band Imaging of the Gravitational Lens 2237+030. *H. K. C. Yee & M. M. De Robertis.* 398, L21, 187-D1 (1992)

Alphanumeric: 2237+0305

Continuum and C III] Microlensing in Q2237+0305 and the Quasar Geometry. *René Racine.* 395, L65, 153-F1 (1992)

Microlensed Light Curves for Thin Accretion Disks around Schwarzschild and Kerr Black Holes. *M. Jaroszyński, J. Wambsganss, & B. Paczyński.* 396, L65, 167-A1 (1992)

Gravitational Microlensing: The Effect of Random Motion of Individual Stars in the Lensing Galaxy. *Tomislav Kundić & Joachim Wambsganss.* 404, 455, 34-F1 (1993)

Interpretation of Microlensing Events in Q2237+0305. *Hans J. Witt & Shude Mao.* 429, 66, 145-A8 (1994)

Alphanumeric: BR 1033−0327

Lyman-Alpha Absorption in the Spectrum of the $z = 4.5$ QSO BR 1033−0327. *G. M. Williger, J. A. Baldwin, R. F. Carswell, A. J. Cooke, C. Hazard, M. J. Irwin, R. G. McMahon, & L. J. Storrie-Lombardi.* 428, 574, 137-D4 (1994)

Alphanumeric: 3C 47

Superluminal Motion in the Large, Strongly Lobe-dominated Quasar 3C 47. *R. C. Vermeulen, R. A. Bernstein, D. H. Hough, & A. C. S. Readhead.* 417, 541, 226-A11 (1993)

Alphanumeric: 3C 48

CO Emission in the Radio-loud Quasar 3C 48. *N. Z. Scoville, S. Padin, D. B. Sanders, B. T. Soifer, & M. S. Yun.* 415, L75, 199-E7 (1993)

Alphanumeric: 3C 212

X-Ray Absorption toward the Red Quasar 3C 212. *Martin Elvis, Fabrizio Fiore, Smita Mathur, & Belinda J. Wilkes.* 425, 103, 81-D10 (1994)

Absorption in 3C 212. *Smita Mathur.* 431, L75, 191-C11 (1994)

Alphanumeric: 3C 273

A New Hard X-Ray Source 15′ Away from 3C 273? *E. Jourdain, L. Bassani, J. P. Roques, P. Mandrou, J. Ballet, A. Claret, A. Goldwurm, F. Lebrun, A. Finogenov, E. Churazov, M. Gilfanov, R. Sunyaev, A. Dyachkov, N. Khavenson, B. Novikov, & N. Kuleshova.* 395, L69, 153-F6 (1992)

Intermediate-Resolution Spectropolarimetry of 3C 273. *J. A. de Diego, E. Pérez, M. R. Kidger, & L. O. Takalo.* 396, L19, 160-D10 (1992)

SIGMA Observation of Two Quasars: 3C 273 and 0241+62. *L. Bassani, E. Jourdain, J. P. Roques, L. Bouchet, J. Ballet, F. Lebrun, Ph. Laurent, B. Cordier, R. Sunyaev, E. Churazov, M. Gilfanov, A. Finogenov, A. Dyachkov, N. Khavenson, B. Novikov, & I. Chulkov.* 396, 504, 163-F11 (1992)

Observations of the Gaseous Galactic Halo toward 3C 273 with the Goddard High Resolution Spectrograph. *Blair D. Savage, Limin Lu, Ray J. Weymann, Simon L. Morris, & Ronald L. Gilliland.* 404, 124, 29-E5 (1993)

The Time Variability of the Ultraviolet Continuum and Lyman-Alpha in 3C 273. *M.-H. Ulrich, T. J.-L. Courvoisier, & W. Wamsteker.* 411, 125, 128-E13 (1993)

The Environment of Lyman-α Absorbers in the Sight Line toward 3C 273. *S. L. Morris, R. J. Weymann, Alan Dressler, P. J. McCarthy, B. A. Smith, R. J. Terrile, R. Giovanelli, & M. Irwin.* 419, 524, 254-C9 (1993)

Diffuse Hα Emission in the Virgo Cluster Associated with the 3C 273 Lyman-Alpha Clouds. *T. B. Williams & R. A. Schommer.* 419, L53, 259-B11 (1993)

Is the X-Ray Source of 3C 273 Really Compact? *Roland Walter.* 92, 619, 40-B3 (1994)

A Search for Diffuse Hα Emission from Lyα Absorption Clouds toward 3C 273. *J. Bland-Hawthorn, K. Taylor, S. Veilleux, & P. L. Shopbell.* 437, L95, 299-A1 (1994)

New Observations with the *HST* Goddard High Resolution Spectrograph of the Low-Redshift Lyman-Alpha Clouds in the 3C 273 Line of Sight. *Ray Weymann, Michael Rauch, Robert Williams, Simon Morris, & Sally Heap.* 438, 650, 13-B4 (1995)

OSSE Observations of 3C 273. *W. N. Johnson, C. D. Dermer, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, K. McNaron-Brown, E. Jourdain, G. V. Jung, D. A. Grabelsky, W. R. Purcell, & M. P. Ulmer.* 445, 182, 135-A6 (1995)

Hubble Space Telescope and MERLIN Observations of the Jet in 3C 273. *J. N. Bahcall, S. Kirhakos, D. P. Schneider, R. J. Davis, T. W. B. Muxlow, S. T. Garrington, R. G. Conway, & S. C. Unwin.* 452, L91, 279-E4 (1995)

Alphanumeric: 3C 275.1

Neutral Hydrogen Absorption and Emission in the Quasar/Galaxy Pair 3C 275.1/NGC 4651. *Stephen E. Schneider & Edvige Corbelli.* 414, 500, 177-D7 (1993)

Alphanumeric: 3C 279

Detection of High-Energy Gamma Radiation from Quasar 3C 279 by the *EGRET* Telescope on the *Compton Gamma Ray Observatory*. *R. C. Hartman, D. L. Bertsch, C. E. Fichtel, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, H. I. Nel, P. L. Nolan, K. Pinkau, H. Rothermel, E. Schneid, M. Sommer, P. Sreekumar, & D. J. Thompson.* 385, L1, 17-A8 (1992)

TeV Gamma Rays from 3C 279: A Possible Probe of Origin and Intergalactic Infrared Radiation Fields. *F. W. Stecker, O. C. De Jager, & M. H. Salamon.* 390, L49, 84-D7 (1992)

A Jet Model for the Gamma-Ray–emitting Blazar 3C 279. *L. Maraschi, G. Ghisellini, & A. Celotti.* 397, L5, 173-B4 (1992)

Time Variability in the Gamma-Ray Emission of 3C 279. *D. A. Kniffen, D. L. Bertsch, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. Schneid, P. Sreekumar, & D. J. Thompson.* 411, 133, 128-F10 (1993)

Ultraviolet Observations of the Gamma-Ray Blazar 3C 279 following the Gamma-Ray Flare of 1991 June. *Jerry T. Bonnell, W. Thomas Vestrand, & J. Gregory Stacy.* 420, 545, 9-D3 (1994)

Relativistic Particle Transport in Hot Accretion Disks. *Peter A. Becker, Menas Kafatos, & Michael Maisack.* 90, 949, 15-E13 (1994)

The Optical–Ultraviolet–Gamma-Ray Spectrum of 3C 279. *Hagai Netzer, D. Kazanas, Beverley J. Wills, D. Wills, Mingsheng Han, M. S. Brotherton, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 430, 191, 161-D10 (1994)

Alphanumeric: 3C 334

Three-Epoch VLBI Observations of the Nucleus in the Lobe-dominated Quasar 3C 334. *D. H. Hough, A. C. S. Readhead, D. A. Wood, Jr., & J. J. Feldmeier.* 393, 81, 115-B1 (1992)

Alphanumeric: 3C 336

The Unusual Field of the Quasar 3C 336: Identification of Three Foreground Mg II Absorbing Galaxies. *Charles C. Steidel & Mark Dickinson.* 394, 81, 129-A13 (1992)

Alphanumeric: 3C 345

Kinematics of the Parsec-Scale Relativistic Jet in 3C 345. *Stephen C. Unwin & Ann E. Wehrle.* 398, 74, 183-A1 (1992)

Optical Photometry and Polarimetry and Infrared Photometry of 3C 345 in Outburst. *Mark R. Kidger, José Antonio de Diego, Leo O. Takalo, Aimo Sillanpää, & Masami Okyudo.* 407, L1, 75-A7 (1993)

The Multifrequency Spectral Evolution of Blazar 3C 345 during the 1991 Outburst. *J. R. Webb, C. R. Shrader, T. J. Balonek, D. M. Crenshaw, D. Kazanas, S. Clements, A. G. Smith, A. D. Nair, R. J. Leacock, P. P. Gombola, A. Sadun, H. R. Miller, I. Robson, R. Fujimoto, F. Makino, T. Kii, H. Aller, M. Aller, P. Hughes, E. Valtaoja, H. Teräsranta, E. Salonen, M. Tornikoski, & W. Chism.* 422, 570, 38-G11 (1994)

Luminosity Variations of 3C 345: Is There Any Evidence of Low-dimensional Chaos? *A. Provenzale, R. Vio, & S. Cristiani.* 428, 591, 137-E9 (1994)

Inverse-Compton X-Ray Emission from the Superluminal Quasar 3C 345. *S. C. Unwin, A. E. Wehrle, C. M. Urry, D. M. Gilmore, E. J. Barton, B. C. Kjerulf, J. A. Zensus, & C. R. Rabaça.* 432, 103, 194-E1 (1994)

The Linear Polarization of 3C 345 in the Ultraviolet. *Joseph F. Dolan, Patricia T. Boyd, Karen G. Wolinski, Paul S. Smith, C. D. Impey, Robert C. Bless, M. J. Nelson, J. W. Percival, M. J. Taylor, J. L. Elliot, Edward L. Robinson, & G. W. van Citters.* 432, 560, 203-A1 (1994)

Evolution of the Parsec-Scale Linear Polarization Structure of the Superluminal Quasar 3C 345. *L. F. Brown, D. H. Roberts, & J. F. C. Wardle.* 437, 108, 284-F7 (1994)

Interpretation of VLBI Kinematic and Polarization Data: Application to 3C 345. *J. F. C. Wardle, T. V. Cawthorne, D. H. Roberts, & L. F. Brown.* 437, 122, 284-G10 (1994)

The Parsec-Scale Jet in Quasar 3C 345. *J. Anton Zensus, Marshall H. Cohen, & Stephen C. Unwin.* 443, 35, 95-F9 (1995)

Alphanumeric: 3C 351

The *ROSAT* Spectrum of 3C 351: A Warm Absorber in an X-Ray–"quiet" Quasar? *Fabrizio Fiore, Martin Elvis, Smita Mathur, Belinda J. Wilkes, & Jonathan C. McDowell.* 415, 129, 186-F1 (1993)

The X-Ray and Ultraviolet Absorbing Outflow in 3C 351. *Smita Mathur, Belinda Wilkes, Martin Elvis, & Fabrizio Fiore.* 434, 493, 234-E1 (1994)

Alphanumeric: 3C 454.3

EGRET Detection of High-Energy Gamma Radiation from the OVV Quasar 3C 454.3. *R. C. Hartman, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, B. G. Piner, E. Schneid, P. Sreekumar, & D. J. Thompson.* 407, L41, 82-B1 (1993)

Alphanumeric: 4C 34.47

X-Ray Spectra of Bright Core-dominant Quasars: NRAO 140 and 4C 34.47. *T. Ohashi, M. Tashiro, K. Makishima, T. Kii, F. Makino, M. J. L. Turner, & O. R. Williams.* 398, 87, 183-B1 (1992)

Alphanumeric: 4C 39.25

The Parsec-Scale Radio Jet of 4C 39.25. *A. Alberdi, J. M. Marcaide, A. P. Marscher, Y. F. Zhang, P. Elósegui, J. L. Gómez, & D. B. Shaffer.* 402, 160, 3-A13 (1993)

Alphanumeric: 3CR 286

Conditions in the $z = 0.692$ Absorber toward 3CR 286. *Ross D. Cohen, Thomas A. Barlow, E. A. Beaver, Vesa T. Junkkarinen, Ronald W. Lyons, & Harding E. Smith.* 421, 453, 23-G1 (1994)

Alphanumeric: CSO 203

Broad Absorption-Line Time Variability in the QSO CSO 203. *Thomas A. Barlow, Vesa T. Junkkarinen, E. Margaret Burbidge, Ray J. Weymann, Simon L. Morris, & Kirk T. Korista.* 397, 81, 169-A11 (1992)

Alphanumeric: CSO 755

The Polarization and Nuclear Structure of the Broad Absorption Line QSO CSO 755. *Jason Glenn, Gary D. Schmidt, & Craig B. Foltz.* 434, L47, 241-D1 (1994)

Alphanumeric: CTA 102

Observation of High-Energy Gamma Rays from the Quasi-stellar Object CTA 102. *P. L. Nolan, D. L. Bertsch, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, E. Schneid, P. Sreekumar, & D. J. Thompson.* 414, 82, 171-A13 (1993)

Alphanumeric: H0836+113

Lyman-Alpha Emission from the Damped Lyman-Alpha System toward H0836+113. *A. M. Wolfe, D. A. Turnshek, K. M. Lanzetta, & J. B. Oke.* 385, 151, 13-G7 (1992)

Alphanumeric: H1413+117

The Broadband Spectral Energy Distributions of the Cloverleaf Quasar and IRAS F10214+4724. *Richard Barvainis, Robert Antonucci, Todd Hurt, Paul Coleman, & H.-P. Reuter.* 451, L9, 252-B11 (1995)

Alphanumeric: H1821+643

The Ultraviolet Absorption Spectrum of the Quasar H1821+643 ($z = 0.297$). *John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, George F. Hartig, & Richard F. Green.* 397, 68, 168-G10 (1992)

Simultaneous *ROSAT*, *GINGA*, VLA, *IUE*, and Optical Observations of the Bright Quasar H1821+643. *Michiel Kolman, Jules P. Halpern, Chris R. Shrader, Alexei V. Filippenko, Henner H. Fink, & Stephan G. Schaeidt.* 402, 514, 9-A1 (1993)

A BBXRT Observation of the High-Luminosity Quasar H1821+643. *T. Yaqoob, P. J. Serlemitsos, R. F. Mushotzky, K. A. Weaver, F. E. Marshall, & R. Petre.* 418, 638, 240-D6 (1993)

Probing the Galactic Disk and Halo. III. The Galactic and Intergalactic Sight Line to H1821+643. *Blair D. Savage, Kenneth R. Sembach, & Limin Lu.* 449, 145, 212-B11 (1995)

Alphanumeric: HS 1700+6416

High-Resolution Spectroscopy of the Bright Quasar HS 1700+6416. *P. M. Rodríguez-Pascual, A. de la Fuente, J. L. Sanz, M. C. Recondo, J. Clavel, M. Santos-Lleó, & W. Wamsteker.* 448, 575, 202-F1 (1995)

Alphanumeric: HS 1946+7658

Lick Optical Spectra of Quasar HS 1946+7658 at 10 Kilometers per Second Resolution: Lyman-Alpha Forest and Metal Absorption Systems. *Xiao-Ming Fan & David Tytler.* 94, 17, 52-C5 (1994)

The Spectral Energy Distribution of the $z = 3$ Quasar: HS 1946+7658. *O. Kuhn, J. Bechtold, R. Cutri, M. Elvis, & M. Rieke.* 438, 643, 13-A8 (1995)

Metal Abundances and Physical Conditions in Two Damped Lyα Systems toward HS 1946+7658. *Limin Lu, Blair D. Savage, Todd M. Tripp, & David M. Meyer.* 447, 597, 184-D2 (1995)

Alphanumeric: IRAS 07598+6508

Fe II and Fe I Emission in IRAS 07598+6508 and PHL 1092. *John Kwan, Fu-zhen Cheng, Li-zhi Fang, Wei Zheng, & Jian Ge.* 440, 628, 51-G6 (1995)

The Polarized Spectrum of the Fe II–rich Broad Absorption Line QSO IRAS 07598+6508. *Dean C. Hines & Beverley J. Wills.* 448, L69, 208-F8 (1995)

Alphanumeric: IRAS 13349+2438

Polarimetry and Spectrophotometry of the QSO IRAS 13349+2438 and the Unification of Active Galaxies. *Beverley J. Wills, D. Wills, Neal J. Evans II, A. Natta, K. L. Thompson, M. Breger, & M. L. Sitko.* 400, 96, 210-B10 (1992)

Alphanumeric: IRAS F15307+3252

The Buried QSO in IRAS F15307+3252 and the Nature of Hyperluminous Infrared Galaxies. *Dean C. Hines, Gary D. Schmidt, Paul S. Smith, Roc M. Cutri, & Frank J. Low.* 450, L1, 235-D1 (1995)

Alphanumeric: MG 0414+0534

On the Universality of Microlensing in Quadruple Gravitational Lenses. *Hans J. Witt, Shude Mao, & Paul L. Schechter.* 443, 18, 95-D13 (1995)

Alphanumeric: MG 1131+0456

Near-Infrared Images of MG 1131+0456 with the W. M. Keck Telescope: Another Dusty Gravitational Lens? *J. E. Larkin, K. Matthews, C. R. Lawrence, J. R. Graham, W. Harrison, G. Jernigan, S. Lin, J. Nelson, G. Neugebauer, G. Smith, B. T. Soifer, & C. Ziomkowski.* 420, L9, 7-B10 (1994)

Alphanumeric: NRAO 140

X-Ray Spectra of Bright Core-dominant Quasars: NRAO 140 and 4C 34.47. *T. Ohashi, M. Tashiro, K. Makishima, T. Kii, F. Makino, M. J. L. Turner, & O. R. Williams.* 398, 87, 183-B1 (1992)

ASCA and *ROSAT* Observations of NRAO 140 and IX Persei. *T. J. Turner, I. M. George, G. M. Madejski, S. Kitamoto, & T. Suzuki.* 445, 660, 144-B11 (1995)

Alphanumeric: OI 287

Hubble Space Telescope Ultraviolet Spectroscopy of the Highly Polarized but Quiescent Quasar OI 287. *Robert Antonucci, Anne L. Kinney, & Todd Hurt.* 414, 506, 177-E1 (1993)

Alphanumeric: PC 1247+3406

Deep Imaging of the Field of the $z = 4.9$ Quasar PC 1247+3406, and Faint Galaxy Counts in the K Band with the Keck Telescope. *B. T. Soifer, K. Matthews, S. Djorgovski, J. Larkin, J. R. Graham, W. Harrison, G. Jernigan, S. Lin, J. Nelson, G. Neugebauer, G. Smith, J. D. Smith, & C. Ziomkowski.* 420, L1, 7-A7 (1994)

Alphanumeric: PG 0043+039

The *HST* Quasar Absorption Line Key Project. IV. *HST* Faint Object Spectrograph and Ground-based Observations of the Unusual Low-Redshift Broad Absorption Line Quasi-stellar Object PG 0043+039. *David A. Turnshek, Brian R. Espey, Michael Kopko, Jr., Michael Rauch, Ray J. Weymann, Buell T. Jannuzi, Alec Boksenberg, Jacqueline Bergeron, George F. Hartig, W. L. W. Sargent, Blair D. Savage, Donald P. Schneider, & Arthur M. Wolfe.* 428, 93, 129-D1 (1994)

Alphanumeric: PG 0953+414

HST Images of Nearby Luminous Quasars. *John N. Bahcall, Sofia Kirhakos, & Donald P. Schneider.* 435, L11, 251-C7 (1994)

Alphanumeric: PG 1114+445

Detection of Gamma-Ray Emission from the Quasar PKS 0208−512. *D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. Schneid, P. Sreekumar, & D. J. Thompson.* 405, L21, 47-D8 (1993)

Optical and *Hubble Space Telescope* Ultraviolet Spectropolarimetry of 3C 273 and PG 1114+445. *Paul S. Smith, Gary D. Schmidt, & Richard G. Allen.* 409, 604, 106-D13 (1993)

Optical and *Hubble Space Telescope* Ultraviolet Spectropolarimetry of 3C 273 and PG 1114+445. *Paul S. Smith, Gary D. Schmidt, & Richard G. Allen.* 409, 604, 106-D13 (1993)

Alphanumeric: PG 1116+215

HST Images of Nearby Luminous Quasars. *John N. Bahcall, Sofia Kirhakos, & Donald P. Schneider.* 435, L11, 251-C7 (1994)

Alphanumeric: PG 1138+222

Evidence for a Very Broad Line Region in PG 1138+222. *Paolo Marziani & Jack W. Sulentic.* 409, 612, 106-E10 (1993)

Alphanumeric: PG 1148+549

Broad Ne VIII λ744 Emission from the Quasar PG 1148+549. *Fred Hamann, Joseph C. Shields, Gary J. Ferland, & Kirk T. Korista.* 454, 688, 311-B9 (1995)

Alphanumeric: PG 1202+281

HST Images of Nearby Luminous Quasars. *John N. Bahcall, Sofia Kirhakos, & Donald P. Schneider.* 435, L11, 251-C7 (1994)

Alphanumeric: PG 1307+085

HST Images of Nearby Luminous Quasars. *John N. Bahcall, Sofia Kirhakos, & Donald P. Schneider.* 435, L11, 251-C7 (1994)

Alphanumeric: PG 1407+265

The Unusual Quasar PG 1407+265. *Jonathan C. McDowell, Claude Canizares, Martin Elvis, Andrew Lawrence, Sera Markoff, Smita Mathur, & Belinda J. Wilkes.* 450, 585, 238-G2 (1995)

Alphanumeric: PG 1545+210

Near-Infrared Observations of Extended Emission around PG 1545+210. *G. Neugebauer, K. Matthews, & L. Armus.* 455, L123, 333-F4 (1995)

Alphanumeric: PG 2251+113

The *HST* Quasar Absorption Line Key Project. IX. An Emission-Line Study of PG 2251+113. *Brian R. Espey, David A. Turnshek, Lincoln Lee, Jacqueline Bergeron, Alec Boksenberg, George F. Hartig, Buell T. Jannuzi, W. L. W. Sargent, Blair D. Savage, Donald P. Schneider, Ray J. Weymann, & Arthur M. Wolfe.* 434, 484, 234-D2 (1994)

Alphanumeric: PHL 957

Upper Limits to Balmer-Line Emission in Three $z \sim 2$ Damped Lyman-α Systems. *E. M. Hu, A. Songaila, L. L. Cowie, & K.-W. Hodapp.* 419, L13, 252-C5 (1993)

Alphanumeric: PHL 1092

Fe II and Fe I Emission in IRAS 07598+6508 and PHL 1092. *John Kwan, Fu-zhen Cheng, Li-zhi Fang, Wei Zheng, & Jian Ge.* 440, 628, 51-G6 (1995)

Alphanumeric: PHL 5200

The Polarization and Nuclear Structure of the Broad Absorption Line QSO CSO 755. *Jason Glenn, Gary D. Schmidt, & Craig B. Foltz.* 434, L47, 241-D1 (1994)

Polarization Clues to the Structure of Broad Absorption Line Quasi-stellar Objects. *Robert W. Goodrich & Joseph S. Miller.* 448, L73, 208-G1 (1995)

Spectropolarimetry of Two Broad Absorption Line Quasars with the W. M. Keck Telescope. *M. H. Cohen, P. M. Ogle, H. D. Tran, R. C. Vermeulen, J. S. Miller, R. W. Goodrich, & A. R. Martel.* 448, L77, 208-G8 (1995)

Strong X-Ray Absorption in a Broad Absorption Line Quasar: PHL 5200. *Smita Mathur, Martin Elvis, & K. P. Singh.* 455, L9, 324-D1 (1995)

Alphanumeric: PKS 0208−512

Detection of Gamma-Ray Emission from the Quasar PKS 0208−512. *D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. Schneid, P. Sreekumar, & D. J. Thompson.* 405, L21, 47-D8 (1993)

Alphanumeric: PKS 0405−12

The Ultraviolet Absorption Spectrum of the Quasar PKS 0405−12 and the Local Density of Lyman-Alpha Absorption Systems. *John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, & George F. Hartig.* 405, 491, 49-B11 (1993)

Alphanumeric: PKS 0420−014

EGRET Detection of the Blazar PKS 0420−014. *H.-D. Radecke, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. Schneid, & D. J. Thompson.* 438, 659, 13-C2 (1995)

Alphanumeric: PKS 0438−436

PKS 0438−436: A High-Redshift Quasar with Strong X-Ray Absorption. *Belinda J. Wilkes, Martin Elvis, Fabrizio Fiore, Jonathan C. McDowell, Harvey Tananbaum, & Andrew Lawrence.* 393, L1, 120-A9 (1992)

Alphanumeric: PKS 0518−45

Pictor A: A New Double-peaked Emission-Line Quasar. *J. W. Sulentic, P. Marziani, T. Zwitter, & M. Calvani.* 438, L1, 9-E1 (1995)

Alphanumeric: PKS 0528+134

Detection of High-Energy Gamma Rays from Quasar PKS 0528+134 by EGRET on the *Compton Gamma Ray Observatory*. *S. D. Hunter, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, P. Møller, C. von Montigny, P. L. Nolan, K. Pinkau, H.-D. Radecke, H. Rothermel, P. Shaver, E. Schneid, M. Sommer, P. Sreekumar, & D. J. Thompson.* 409, 134, 98-E13 (1993)

Radio and X-Ray Observations of the Gamma-Ray Bright Quasar PKS 0528+134. *Yun Fei Zhang, Alan P. Marscher, Hugh D. Aller, Margo F. Aller, Harri Teräsranta, & Esko Valtaoja.* 432, 91, 194-D1 (1994)

Alphanumeric: PKS 1034−293

ROSAT Observations of the Two Radio-selected Blazars PKS 1034−293 and PKS 1335−127. *L. Maraschi, A. Ciapi, G. Fossati, G. Tagliaferri, & A. Treves.* 443, 29, 95-E13 (1995)

Alphanumeric: PKS 1335−127

ROSAT Observations of the Two Radio-selected Blazars PKS 1034−293 and PKS 1335−127. *L. Maraschi, A. Ciapi, G. Fossati, G. Tagliaferri, & A. Treves.* 443, 29, 95-E13 (1995)

Alphanumeric: PKS 1406−076

High-Energy Gamma Rays from PKS 1406−076 and the Observation of Correlated Gamma-Ray and Optical Emission. *Stefan J. Wagner, John R. Mattox, Ulrich Hopp, H. Bock, J. Heidt, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C.*

Lin, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, P. Sreekumar, & D. J. Thompson. 454, L97, 315-F4 (1995)

Alphanumeric: PKS 1502+106

The X-Ray Spectrum of the Highly Polarized Quasar PKS 1502+106. *I. M. George, K. Nandra, T. J. Turner, & A. Celotti.* 436, L59, 269-C11 (1994)

Alphanumeric: PKS 1546+027

The Synchrotron Continuum of the Highly Polarized Quasar PKS 1546+027. *Paul S. Smith, Gary D. Schmidt, Buell T. Jannuzi, & Richard Elston.* 426, 535, 105-A12 (1994)

Alphanumeric: PKS 1622−253

Gamma-Ray Observations of Ophiuchus with EGRET: The Diffuse Emission and Point Sources. *S. D. Hunter, S. W. Digel, E. J. de Geus, & G. Kanbach.* 436, 216, 264-B12 (1994)

Alphanumeric: PKS 1937−101

A New Method for Measuring the H I Gunn-Peterson Effect at High Redshift. *Yihu Fang & Arlin P. S. Crotts.* 440, 69, 42-B8 (1995)

Alphanumeric: PKS 2349−014

PKS 2349−014: A Luminous Quasar with Thin Wisps, a Large Off-Center Nebulosity, and a Close Companion Galaxy. *John N. Bahcall, Sofia Kirhakos, & Donald P. Schneider.* 447, L1, 180-C1 (1995)

Alphanumeric: Q0059−2735

The Absorption Spectrum of Nuclear Gas in Q0059−2735. *E. Joseph Wampler, Nikolai N. Chugai, & Patrick Petitjean.* 443, 586, 106-A4 (1995)

Alphanumeric: Q0302−003

The Proximity Profile of Intergalactic He II Resonance Absorption toward High-Redshift QSOs. *Wei Zheng & Arthur Davidsen.* 440, L53, 57-D11 (1995)

Alphanumeric: Q0957+561A,B

Damped Lyman-Alpha Absorption in Q0957+561A, B. *David A. Turnshek & Ralph C. Bohlin.* 407, 60, 69-G7 (1993)

Alphanumeric: Q1343+266

Spectroscopy of the Double Quasars Q1343+266A, B: The Relationship between Galaxies and C IV Absorption Lines. *Arlin P. S. Crotts, Jill Bechtold, Yihu Fang, & Robert C. Duncan.* 437, L79, 298-F1 (1994)

Spectroscopy of the Double Quasars Q1343+266A, B: A New Determination of the Size of Lyman-Alpha Forest Absorbers. *Jill Bechtold, Arlin P. S. Crotts, Robert C. Duncan, & Yihu Fang.* 437, L83, 298-F8 (1994)

Alphanumeric: Q2345+007

Detection of Lens Candidates for the Double Quasar Q2345+007. *Philippe Fischer, J. Anthony Tyson, Gary M. Bernstein, & Puragra Guhathakurta.* 431, L71, 191-C1 (1994)

Infrared Observations of the Dark Matter Lens Candidate Q2345+007. *Brian McLeod, Marcia Rieke, & Daniel Weedman.* 433, 528, 217-E5 (1994)

Possible Detection of a CO Emission Line from a Quasar at $z = 2.88$. *Toru Yamada, Kentaro Aoki, Akihiko Tomita, Tadafumi Takata, Kouji Ohta, & Michitoshi Yoshida.* 438, L5, 9-E9 (1995)

Alphanumeric: Q2237+0305

Diffraction Effects in Microlensing of Q2237+0305. *M. Jaroszyński & B. Paczyński.* 455, 443, 328-A8 (1995)

Alphanumeric: QSO 1120+019

The Ultraviolet Spectrum of the Gravitational Lens Candidate UM 425 = QSO 1120+019: Evidence for Broad Absorption Line (BAL) Structure. *A. G. Michalitsianos & R. J. Oliversen.* 439, 599, 32-E13 (1995)

Alphanumeric: QSO 1821+643

The Nature of Radio Emission in QSO 1821+643, A Radio-quiet Quasar with Radio-loud Properties. *Padeli P. Papadopoulos, E. R. Seaquist, J. M. Wrobel, & L. Binette.* 446, 150, 155-C1 (1995)

Alphanumeric: S5 0014+813

An *ASCA* GIS Spectrum of S5 0014+813 at $z = 3.384$. *Martin Elvis, M. Matsuoka, A. Siemiginowska, F. Fiore, T. Mihara, & W. Brinkmann.* 436, L55, 269-C3 (1994)

Alphanumeric: UM 673

A Spectroscopic Study of UM 673 A and B: On the Size of Lyman-Alpha Clouds. *A. Smette, J. Surdej, P. A. Shaver, C. B. Foltz, F. H. Chaffee, R. J. Weymann, R. E. Williams, & P. Magain.* 389, 39, 60-E1 (1992)

Alphanumeric: UM 675

Ne VIII λ774 and Time Variable Associated Absorption in the QSO UM 675. *Fred Hamann, Thomas A. Barlow, E. A. Beaver, E. M. Burbidge, Ross D. Cohen, Vesa Junkkarinen, & R. Lyons.* 443, 606, 106-C1 (1995)

Alphanumeric: I Zw 1

Interstellar Medium and Star Formation in the Nearby QSO I Zw 1. *A. Eckart, P. P. van der Werf, R. Hofmann, & A. I. Harris.* 424, 627, 72-F3 (1994)

GALAXIES: REDSHIFTS

Bulk Flows, Shear, and the Great Attractor. *Nick Kaiser.* 366, 388, 7-F1 (1991)

Coherent Peculiar Velocities and Periodic Redshifts. *Christopher T. Hill, Paul J. Steinhardt, & Michael S. Turner.* 366, L57, 11-B7 (1991)

Lyman-α Companions to High-z Quasars. *Esther M. Hu, Antoinette Songaila, Lennox L. Cowie, & Alan Stockton.* 368, 28, 23-D9 (1991)

Properties of the Redshift. II. Radial Variation. *W. G. Tifft.* 368, 105, 24-D1 (1991)

Statistical Procedure and the Significance of Periodicities in Double-Galaxy Redshifts. *W. J. Cocke & W. G. Tifft.* 368, 383, 29-G6 (1991)

The Supergalactic Plane Redshift Survey. *Alan Dressler.* 75, 241, 4-C1 (1991)

An Optical Catalog of Extragalactic Emission-Line Objects Similar to Quasi-stellar Objects. *A. Hewitt & G. Burbidge.* 75, 297, 5-A5 (1991)

A Deep Imaging and Spectroscopic Survey of Faint Galaxies. *S. J. Lilly, L. L. Cowie, & J. P. Gardner.* 369, 79, 37-A1 (1991)

Measures of Large-Scale Structure in the CfA Redshift Survey Slices. *Valérie de Lapparent, Margaret J. Geller, & John P. Huchra.* 369, 273, 41-B5 (1991)

Discovery of a Normal Galaxy at $z = 1.018$. *D. J. Thompson & S. Djorgovski.* 371, L55, 73-B6 (1991)

Southern Sky Redshift Survey: The Catalog. *L. Nicolaci da Costa, Paulo S. Pellegrini, Marc Davis, Avery Meiksin, Wallace L. W. Sargent, & John L. Tonry.* 75, 935, 15-B1 (1991)

Faint Galaxies: Bounds on the Epoch of Galaxy Formation and the Cosmological Deceleration Parameter. *Yuzuru Yoshii & Bruce A. Peterson.* 372, 8, 74-B6 (1991)

Peculiar Cluster Velocities from Measurements of the Kinematic Sunyaev-Zeldovich Effect. *Yoel Rephaeli & Ofer Lahav.* 372, 21, 74-C7 (1991)

A Redshift Survey of *IRAS* Galaxies. II. Methods for Determining Self-consistent Velocity and Density Fields. *Amos Yahil, Michael A. Strauss, Marc Davis, & John P. Huchra.* 372, 380, 80-E5 (1991)

A Redshift Survey of *IRAS* Galaxies. III. Reconstruction of the Velocity and Density Fields in *N*-Body Model Universes. *Marc Davis, Michael A. Strauss, & Amos Yahil.* 372, 394, 80-F7 (1991)

Evidence for Structure in the Distribution of Active Galactic Nuclei with $z < 0.05$. *Michael J. Longo.* 372, L59, 85-B11 (1991)

Evolution of Velocity and Density Fields around Clusters of Galaxies. *Per B. Lilje & Ofer Lahav.* 374, 29, 98-D3 (1991)

Deep Spectroscopy under High Spatial Resolution of the High-Redshift Radio Source 3CR 368: The Monster Elucidated. *F. Hammer, O. Le Fèvre, & D. Proust.* 374, 91, 99-B7 (1991)

A Limit on the Cosmological Constant. *R. G. Carlberg.* 375, 429, 118-B1 (1991)

Galaxy Pairs in Redshift Catalogs as a Probe of Dark Matter. *Jane C. Charlton & Edwin E. Salpeter.* 375, 517, 119-C1 (1991)

Dynamics of the Microwave-Decrement Cluster Abell 665. *William R. Oegerle, Michael J. Fitchett, John M. Hill, & Paul Hintzen.* 376, 46, 125-E10 (1991)

The Evolution of Void-filled Cosmological Structures. *Enikő Regős & Margaret J. Geller.* 377, 14, 138-C1 (1991)

Radio Source Orientation and the Angular Diameter–Redshift Relation. *L. I. Onuora.* 377, 36, 138-E1 (1991)

The Peculiar Velocity Field in the Hercules Region. *Wolfram Freudling, Hugo Martel, & Martha P. Haynes.* 377, 349, 144-B12 (1991)

Clusters of Galaxies Associated with Quasars. II. Galaxy Cluster Dynamics. *E. Ellingson, R. F. Green, & H. K. C. Yee.* 378, 476, 158-D1 (1991)

Power-Spectrum Analysis of One-dimensional Redshift Surveys. *N. Kaiser & J. A. Peacock.* 379, 482, 170-F5 (1991)

The Luminosity Function and Cosmological Evolution of X-Ray–selected BL Lacertae Objects. *Simon L. Morris, John T. Stocke, Isabella M. Gioia, Rudy E. Schild, Anna Wolter, Tommaso Maccacaro, & Roberto Della Ceca.* 380, 49, 176-F1 (1991)

Spectroscopy of the Gravitational Arcs in Cl 2244−02, A370 (Arclet A5), and Cl 0024+1654. *Yannick Mellier, Bernard Fort, Geneviève Soucail, Guy Mathez, & Mireille Cailloux.* 380, 334, 182-D10 (1991)

A Catalog of Absorption in the Spectra of Quasi-stellar Objects. *V. Junkkarinen, A. Hewitt, & G. Burbidge.* 77, 203, 47-B1 (1991)

Discovery of a Low-Redshift Ultraluminous "E+A" Galaxy. *William R. Oegerle, John M. Hill, & John G. Hoessel.* 381, L9, 194-B7 (1991)

Systematic Bias in Cluster Galaxy Data, Affecting Galaxy Distances and Evolutionary History. *Donald H. Gudehus.* 382, 1, 200-A13 (1991)

Large-Scale Peculiar Velocity Fields in Superclusters of Galaxies. *G. Gavazzi, M. Scodeggio, A. Boselli, & G. Trinchieri.* 382, 19, 200-C5 (1991)

A Radio-quiet Galaxy at Redshift $z = 3.409$. *D. A. Turnshek, F. Macchetto, M. V. Bencke, C. Hazard, W. B. Sparks, & R. G. McMahon.* 382, 26, 200-D1 (1991)

Neutral Hydrogen Observations of Galaxies in Superclusters. *M. P. Haynes & R. Giovanelli.* 77, 331, 49-B1 (1991)

A Compilation of Redshifts and Velocity Dispersions for Abell Clusters (Epoch 1991.2). *Mitchell F. Struble & Herbert J. Rood.* 77, 363, 49-F1 (1991)

Properties of the Redshift. III. Temporal Variation. *W. G. Tifft.* 382, 396, 206-E1 (1991)

Bound Populations around cD Galaxies and cD Velocity Offsets in Clusters of Galaxies. *Karl Gebhardt & Timothy C. Beers.* 383, 72, 213-A1 (1991)

The Velocity Field of Clusters of Galaxies within 100 Megaparsecs. I. Southern Clusters. *J. R. Mould, L. Staveley-Smith, R. A. Schommer, G. D. Bothun, P. J. Hall, Ming Sheng Han, J. P. Huchra, J. Roth, W. Walsh, & A. E. Wright.* 383, 467, 220-B7 (1991)

Effects of Internal Absorption on Galaxy Number Count and Redshift Distribution. *Boqi Wang.* 383, L37, 226-B6 (1991)

Keck Observations of the Most Distant Galaxy: 8C 1435+63 at $z = 4.25$. *Hyron Spinrad, Arjun Dey, & James R. Graham.* 438, L51, 19-B1 (1995)

GALAXIES: SEYFERT

Kinematics and Ionization of Extended Gas in Active Galaxies. VI. The Seyfert 2 Galaxy NGC 1386. *K. A. Weaver, A. S. Wilson, & J. A. Baldwin.* 366, 50, 1-F5 (1991)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. I. An 8 Month Campaign of Monitoring NGC 5548 with *IUE*. *J. Clavel, G. A. Reichert, D. Alloin, D. M. Crenshaw, G. Kriss, J. H. Krolik, M. A. Malkan, H. Netzer, B. M. Peterson, W. Wamsteker, A. Altamore, T. Baribaud, P. Barr, S. Beck, L. Binette, G. E. Bromage, N. Brosch, A. I. Diaz, A. V. Filippenko, K. Fricke, C. M. Gaskell, P. Giommi, I. S. Glass, P. Gondhalekar, R. L. Hackney, J. P. Halpern, D. J. Hutter, S. Jörsäter, A. L. Kinney, W. Kollatschny, A. Koratkar, K. T. Korista, A. Laor, J.-P. Lasota, E. Leibowitz, D. Maoz, P. G. Martin, T. Mazeh, E. J. A. Meurs, A. D. Nair, P. O'Brien, D. Pelat, E. Perez, G. C. Perola, R. L. Ptak, P. Rodríguez-Pascual, E. I. Rosenblatt, A. C. Sadun, M. Santos-Lleo, R. A. Shaw, P. S. Smith, G. M. Stirpe, R. Stoner, W. H. Sun, M.-H. Ulrich, E. van Groningen, & W. Zheng.* 366, 64, 1-G7 (1991)

Echo Mapping of Broad Hβ Emission in NGC 5548. *Keith Horne, William F. Welsh, & Bradley M. Peterson.* 367, L5, 17-B10 (1991)

High-Rate Active Galaxy Monitoring at the Wise Observatory. III. The Broad-Line Region of NGC 4151. *D. Maoz, H. Netzer, T. Mazeh, S. Beck, E. Almoznino, E. Leibowitz, N. Brosch, H. Mendelson, & A. Laor.* 367, 493, 19-E1 (1991)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. II. An Intensive Study of NGC 5548 at Optical Wavelengths. *B. M. Peterson, T. J. Balonek, E. S. Barker, J. Bechtold, R. Bertram, N. G. Bochkarev, M. J. Bolte, D. Bond, T. A. Boroson, M. T. Carini, T. E. Carone, J. A. Christensen, S. D. Clements, A. L. Cochran, R. D. Cohen, D. Crampton, M. Dietrich, M. Elvis, A. Ferguson, A. V. Filippenko, K. J. Fricke, C. M. Gaskell, J. P. Halpern, J. P. Huchra, J. B. Hutchings, W. Kollatschny, A. P. Koratkar, K. T. Korista, J. H. Krolik, N. J. Lame, A. Laor, R. J. Leacock, G. M. MacAlpine, M. A. Malkan, D. Maoz, H. R. Miller, S. L. Morris, H. Netzer, C. L. M. Oliveira, J. Penfold, M. V. Penston, E. Pérez, R. W. Pogge, M. W. Richmond, W. Romanishin, E. I. Rosenblatt, L. Saddlemyer, A. Sadun, S. R. Sawyer, J. C. Shields, A. I. Shapovalova, A. G. Smith, H. A. Smith, P. S. Smith, W.-H. Sun, U. Thiele, T. J. Turner, S. Veilleux, R. M. Wagner, R. J. Weymann, B. J. Wilkes, B. J. Wills, D. Wills, & P. F. Younger.* 368, 119, 24-E3 (1991)

Coordinated X-Ray, Ultraviolet, and Optical Observations of 3C 120. *L. Maraschi, L. Chiappetti, R. Falomo, B. Garilli, M. Malkan, G. Tagliaferri, E. G. Tanzi, & A. Treves.* 368, 138, 24-F9 (1991)

On the Size of the Broad-Line Region in Arakelian 120. *Bradley M. Peterson & C. Martin Gaskell.* 368, 152, 25-A1 (1991)

The Line-emitting Regions of the Exceptional Seyfert Galaxy Markarian 359. *Sylvain Veilleux.* 368, 158, 25-A9 (1991)

High-Excitation Extranuclear Gas in Seyfert Galaxies. *Christopher A. Haniff, Martin J. Ward, & Andrew S. Wilson.* 368, 167, 25-B5 (1991)

An Optical Catalog of Extragalactic Emission-Line Objects Similar to Quasi-stellar Objects. *A. Hewitt & G. Burbidge.* 75, 297, 5-A5 (1991)

A Study of the Structure and Kinematics of the Narrow-Line Region in Seyfert Galaxies. I. Atlas of Line Profiles. *Sylvain Veilleux.* 75, 357, 5-F1 (1991)

A Study of the Structure and Kinematics of the Narrow-Line Region in Seyfert Galaxies. II. Analysis of the Line-Profile Parameters. *Sylvain Veilleux.* 75, 383, 6-A1 (1991)

A Study of the Structure and Kinematics of the Narrow-Line Region in Seyfert Galaxies. III. Individual Objects. *Sylvain Veilleux.* 369, 331, 42-A1 (1991)

High-Resolution Aperture Synthesis of Molecular Gas in NGC 1068. *P. Planesas, N. Scoville, & S. T. Myers.* 369, 364, 42-C9 (1991)

HST Imaging of the Inner 3 Arcseconds of NGC 1068 in the Light of [O III] λ5007. *I. N. Evans, H. C. Ford, A. L. Kinney, R. R. J. Antonucci, L. Armus, & S. Caganoff.* 369, L27, 45-C9 (1991)

NGC 1068: Resolution of Nuclear Structure in the Optical Continuum. *Roger Lynds, S. M. Faber, Edward J. Groth, Jon A. Holtzman, Robert M. Light, Earl J. O'Neil, Jr., William A. Baum, Douglas G. Currie, S. P. Ewald, J. Jeff Hester, Jerome A. Kristian, P. Kenneth Seidelmann, Edward J. Shaya, & James A. Westphal.* 369, L31, 45-D1 (1991)

The Appearance of a New Redshift System in Markarian 231. *Todd A. Boroson, Karie A. Meyers, Simon L. Morris, & S. E. Persson.* 370, L19, 53-D1 (1991)

An Ultraviolet Atlas of Quasar and Blazar Spectra. *A. L. Kinney, R. C. Bohlin, J. C. Blades, & D. G. York.* 75, 645, 10-C7 (1991)

Structure and Kinematics of the Broad-Line Regions in Active Galaxies from *IUE* Variability Data. *Anuradha P. Koratkar & C. Martin Gaskell.* 75, 719, 11-B5 (1991)

The Shape of the Ultraviolet Continuum of Quasars and Intergalactic Dust. *F. H. Cheng, C. Martin Gaskell, & Anuradha P. Koratkar.* 370, 487, 54-D9 (1991)

The Origin of the Far-Infrared Continuum in Active Galactic Nuclei. *L. K. Hunt.* 370, 511, 54-F9 (1991)

Radius-Luminosity and Mass-Luminosity Relationships for Active Galactic Nuclei. *Anuradha P. Koratkar & C. Martin Gaskell.* 370, L61, 59-B1 (1991)

Near-Infrared Long-Slit Spectra of NGC 1068. *M. Tamura, S. G. Kleinmann, N. Z. Scoville, & R. R. Joyce.* 371, 131, 61-F3 (1991)

C IV Line Profile Correlations in NGC 4151. *R. P. Fahey, A. G. Michalitsianos, & D. Kazanas.* 371, 136, 61-F9 (1991)

The Effect of Anisotropic Emission from Thick Accretion Disks on the Luminosity Functions of Active Galactic Nuclei. *C. M. Urry, P. Marziani, & M. Calvani.* 371, 510, 67-G7 (1991)

Ultraviolet Variability of NGC 5548: Dynamics of the Continuum Production Region and Geometry of the Broad-Line Region. *J. H. Krolik, Keith Horne, T. R. Kallman, M. A. Malkan, R. A. Edelson, & G. A. Kriss.* 371, 541, 68-C6 (1991)

X-Ray Luminosity and Spectral Variability in the Seyfert Type I Galaxy: PG 2130+099. *K. P. Singh, A. R. Rao, & M. N. Vahia.* 372, 49, 74-E13 (1991)

Evidence for Structure in the Distribution of Active Galactic Nuclei with $z < 0.05$. *Michael J. Longo.* 372, L59, 85-B11 (1991)

Hard X-Ray Variability of NGC 4151. *F. Perotti, P. Maggioli, E. Quadrini, A. Bazzano, P. Ubertini, L. Bassani, J. B. Stephen, A. J. Court, A. J. Dean, N. A. Dipper, & R. A. Lewis.* 373, 75, 87-A1 (1991)

Broad Paschen-Alpha Emission in Two Extremely Infrared Luminous Seyfert 2 Galaxies. *Dean C. Hines.* 374, L9, 103-C7 (1991)

Imaging Spectrophotometry of Ionized Gas in NGC 1068. II. Global Ionization of the Inner Disk. *Jonathan Bland-Hawthorn, James Sokolowski, & Gerald Cecil.* 375, 78, 112-A1 (1991)

IUE Observations of NGC 5548, 1978–1988: The Sizes and Kinematics of the Broad-Line Region. *Anuradha P. Koratkar & C. Martin Gaskell.* 375, 85, 112-A13 (1991)

Imaging Spectrophotometry of Ionized Gas in NGC 1068. III. Anisotropic Excitation of the Large-Scale Disk by Scattering of Nuclear Continuum. *James Sokolowski, Jonathan Bland-Hawthorn, & Gerald Cecil.* 375, 583, 120-A1 (1991)

Unique Broad-Line Profile Variations in the Radio Galaxy 3C 390.3. *Sylvain Veilleux & Wei Zheng.* 377, 89, 139-B7 (1991)

The Featureless Continua and Hydrogen Lines of Seyfert 2 Galaxies. *A. L. Kinney, R. R. J. Antonucci, M. J. Ward, A. S. Wilson, & M. Whittle.* 377, 100, 139-C5 (1991)

Faint Object Spectrograph Spectroscopy of Resolved Structure in the Nucleus of NGC 1068. *S. Caganoff, R. R. J. Antonucci, H. C. Ford, G. A. Kriss, G. Hartig, L. Armus, I. N. Evans, E. Rosenblatt, R. C. Bohlin, & A. L. Kinney.* 377, L9, 143-B11 (1991)

Faint Object Spectrograph Observations of the Low-Luminosity Seyfert Galaxy NGC 1566. *G. A. Kriss, G. F. Hartig, L. Armus, William P. Blair, S. Caganoff, & L. Dressel.* 377, L13, 143-C1 (1991)

First Results from the Goddard High-Resolution Spectrograph: Ultraviolet Spectra of a Starburst Knot in NGC 1068. *J. B. Hutchings, F. Bruhweiler, A. Boggess, S. R. Heap, D. Ebbets, E. Beaver, E. Rosenblatt, K. Q. Truong, M. Perez, & R. Westmacott.* 377, L25, 143-D1 (1991)

X-Ray Observations of the Bright Seyfert Galaxy IC 4329A. *K. P. Singh, A. R. Rao, & M. N. Vahia.* 377, 417, 145-A1 (1991)

Neutrino-heated Stars and Broad-Line Emission from Active Galactic Nuclei. *James MacDonald, Todor Stanev, & Peter L. Biermann.* 378, 30, 151-D4 (1991)

Multidirectional Views of the Active Nucleus of NGC 1068. *J. S. Miller, R. W. Goodrich, & William G. Mathews.* 378, 47, 151-E13 (1991)

Origin of Cosmic X-Ray Background Radiation. *Nobuo Terasawa.* 378, L11, 157-B8 (1991)

Massive Star Formation and Superwinds in IRAS 19254−7245 (The "Superantennae"). *Luis Colina, Sebastian Lípari, & F. Macchetto.* 379, 113, 164-D5 (1991)

X-Ray Irradiation of Interstellar Grains in Active Galaxies: Evaporation and Infrared Spectra. *G. Mark Voit.* 379, 122, 164-E1 (1991)

Echo Images of Broad-Line Regions in Active Galactic Nuclei. *William F. Welsh & Keith Horne.* 379, 586, 172-A1 (1991)

Modeling an Accretion Disk in NGC 985. *R. M. Stanga, J. M. Rodríguez Espinosa, & F. Mannucci.* 379, 592, 172-A9 (1991)

IUE Observations of NGC 1068: The Extremely Luminous Starburst Knots. *F. C. Bruhweiler, K. Q. Truong, & B. Altner.* 379, 596, 172-B1 (1991)

IUE Observations of NGC 1068: The Extended High-Ionization Emission Region. *K. Q. Truong & F. C. Bruhweiler.* 379, 609, 172-C1 (1991)

Search for Starbursts among X-Ray–selected Galaxies: Optical Spectroscopy. *Antonella Fruscione & Richard E. Griffiths.* 380, L13, 181-C1 (1991)

X-Ray Observations of the Seyfert 1 Galaxy Markarian 464. *L. Piro, G. Matt, E. Costa, D. Dal Fiume, F. Frontera, & E. Morelli.* 380, 357, 182-F9 (1991)

The Starburst Ring around the Seyfert Nucleus in NGC 7469. *A. S. Wilson, T. T. Helfer, C. A. Haniff, & M. J. Ward.* 381, 79, 190-A6 (1991)

Einstein Observatory SSS and MPC Observations of the Complex X-Ray Spectra of Seyfert Galaxies. *T. J. Turner, K. A. Weaver, R. F. Mushotzky, S. S. Holt, & G. M. Madejski.* 381, 85, 190-B1 (1991)

N III Line Emission in Planetary Nebulae: Not Bowen Fluorescence. *S. O. Kastner & A. K. Bhatia.* 381, L59, 199-D7 (1991)

Infrared Spectroscopy of Cygnus A: Implications for the Obscured Active Nucleus. *Martin J. Ward, Philip R. Blanco, Andrew S. Wilson, & Minoru Nishida.* 382, 115, 201-E11 (1991)

The Ultraviolet Spectrum of NGC 4151 from 1978 to 1990: General Characteristics and Evolution. *M.-H. Ulrich, A. Boksenberg, G. E. Bromage, J. Clavel, A. Elvius, M. V. Penston, G. C. Perola, & M. A. J. Snijders.* 382, 483, 207-E7 (1991)

EXOSAT Observations of the Seyfert 1 Galaxy NGC 3516. *K. K. Ghosh & S. Soundararajaperumal.* 383, 574, 221-D1 (1991)

EXOSAT X-Ray Spectra of Quasars. *Andrea Comastri, Giancarlo Setti, Giovanni Zamorani, Martin Elvis, Paolo Giommi, Belinda J. Wilkes, & Jonathan C. McDowell.* 384, 62, 1-G1 (1992)

X-Ray Spectral Variability of the Seyfert 1 Galaxy NGC 4051. *Hideyo Kunieda, Satio Hayakawa, Yuzuru Tawara, Katsuji Koyama, Sachiko Tsuruta, & Karen Leighly.* 384, 482, 8-B5 (1992)

Gas Clouds from Tidally Disrupted Stars in Active Galactic Nuclei. *Nico Roos.* 385, 108, 13-C11 (1992)

Inner Shell of Optically Thin Gas in Active Galactic Nuclei. *Wei Zheng.* 385, 127, 13-E4 (1992)

X-Ray Continuum and Line Emission of the Seyfert Galaxy MCG−5-23-16. *K. P. Singh, A. R. Rao, & M. N. Vahia.* 385, 132, 13-E10 (1992)

The Radio Source and Bipolar Nebulosity in the Seyfert Galaxy NGC 3516. *Takamitsu Miyaji, Andrew S. Wilson, & Ismael Pérez-Fournon.* 385, 137, 13-F1 (1992)

The Ionizing Radiation Field of NGC 4388 and Its Relation to the Extranuclear Emission-Line Regions. *Luis Colina.* 386, 59, 24-G5 (1992)

Origin of Far-Infrared Emission in Seyfert and Starburst Galaxies. *Hideaki Mouri & Yoshiaki Taniguchi.* 386, 68, 25-A1 (1992)

Anisotropic Ionizing Radiation in Seyfert Galaxies. I. The Extended Narrow-Line Region in Markarian 573. *Zlatan Tsvetanov & J. R. Walsh.* 386, 485, 31-D5 (1992)

Anisotropic Line Emission and the Geometry of the Broad-Line Region in Active Galactic Nuclei. *G. J. Ferland, B. M. Peterson, K. Horne, W. F. Welsh, & S. N. Nahar.* 387, 95, 38-C1 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. II. Galaxy Rotation as Virial Parameter. *Mark Whittle.* 387, 109, 38-D2 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. III. Galaxy Luminosity as Virial Parameter. *Mark Whittle.* 387, 121, 38-E1 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. I. A Compilation of Narrow Line Region and Host Galaxy Properties. *Mark Whittle.* 79, 49, 13-A9 (1992)

Fabry-Perot Images of NGC 1275 and Its Puzzling High-Velocity System. *Adeline Caulet, Bruce E. Woodgate, Larry W. Brown, Theodore R. Gull, Paul Hintzen, James D. Lowenthal, Ronald J. Oliversen, & Michael M. Ziegler.* 388, 301, 54-A12 (1992)

EXOSAT Observations of the Broad-Line Radio Galaxy 3C 382. *K. K. Ghosh & S. Soundararajaperumal.* 389, 179, 62-C1 (1992)

Near-Infrared Spectra and Classification Diagnostics of Seyfert Galaxies. *Donald E. Osterbrock, Hien D. Tran, & Sylvain Veilleux.* 389, 196, 62-D7 (1992)

The Broad Emission-Line Profiles and Profile Variability of the Seyfert 1 Galaxy Arakelian 120. *Kirk T. Korista.* 79, 285, 18-C7 (1992)

Hard X-Ray Tests of the Unified Model for an Ultraviolet-detected Sample of Seyfert 2 Galaxies. *John S. Mulchaey, Richard F. Mushotzky, & Kimberly A. Weaver.* 390, L69, 84-G1 (1992)

Evidence for an Ionized Reprocessor in NGC 6814. *T. Jane Turner, Christine Done, Richard Mushotzky, Greg Madejski, & Hideyo Kunieda.* 391, 102, 87-C4 (1992)

The Emission-Line Properties of Low-Redshift Quasi-stellar Objects. *Todd A. Boroson & Richard F. Green.* 80, 109, 23-G9 (1992)

Variability of Near-Infrared Emission Lines in NGC 4151: Implications for Nuclear Star Formation. *Andrea H. Prestwich, Gillian S. Wright, & Robert D. Joseph.* 80, 205, 25-A5 (1992)

An X-Ray Image of the Seyfert Galaxy NGC 1068. *A. S. Wilson, M. Elvis, A. Lawrence, & J. Bland-Hawthorn.* 391, L75, 99-E11 (1992)

From Fairall 9 to High-z Objects: Pattern of Change in Ionization Structure. *Wei Zheng, Li-Zhi Fang, & Luc Binette.* 392, 74, 102-A1 (1992)

Intergalactic Ionizing Flux from Active Galactic Nuclei. *Nobuo Terasawa.* 392, L15, 106-C1 (1992)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. III. Further Observations of NGC 5548 at Optical Wavelengths. *B. M. Peterson, D. Alloin, D. Axon, T. J. Balonek, R. Bertram, T. A. Boroson, J. A. Christensen, S. D. Clements, M. Dietrich, M. Elvis, A. V. Filippenko, C. M. Gaskell, C. A. Haswell, J. P. Huchra, N. Jackson, W. Kollatschny, K. T. Korista, N. J. Lame, R. J. Leacock, S.-N. Lin, M. A. Malkan, A. S. Monk, M. V. Penston, R. W. Pogge, A. Robinson, E. I. Rosenblatt, J. C. Shields, A. G. Smith, G. M. Stirpe, W.-H. Sun, T. J. Turner, R. M. Wagner, B. J. Wilkes, & B. J. Wills.* 392, 470, 108-B7 (1992)

Hopkins Ultraviolet Telescope Observations of the Far-Ultraviolet Spectrum of NGC 4151. *G. A. Kriss, A. F. Davidsen, William P. Blair, C. W. Bowers, W. V. Dixon, S. T. Durrance, P. D. Feldman, H. C. Ferguson, R. C. Henry, R. A. Kimble, J. W. Kruk, Knox S. Long, H. W. Moos, & O. Vancura.* 392, 485, 108-C10 (1992)

On the Use of Forbidden Lines as Density Diagnostics in Stratified Media. *Pedro N. Safier.* 392, 492, 108-D5 (1992)

The Spatial Distribution of Active Galactic Nuclei. I. The Density of Seyfert Galaxies and Liners. *John Huchra & Richard Burg.* 393, 90, 115-C1 (1992)

Optical Spectroscopy and Narrow-Band Images of the Variable Seyfert 1 Galaxy NGC 3783. *Claudia Winge, M. G. Pastoriza, T. Storchi-Bergmann, & S. Lípari.* 393, 98, 115-C11 (1992)

Correlated Hard X-Ray and Ultraviolet Variability in NGC 5548. *J. Clavel, K. Nandra, F. Makino, K. A. Pounds, G. A. Reichert, C. M. Urry,*

W. Wamsteker, M. Peracaula-Bosch, G. C. Stewart, & C. Otani. 393, 113, 115-E1 (1992)

Twin Peaks: IC 4329A and Arakelian 120. *P. Marziani, M. Calvani, & J. W. Sulentic.* 393, 658, 124-A5 (1992)

The Kinematics of the Extended Gas in the Seyfert Galaxy NGC 3516. *John S. Mulchaey, Zlatan Tsvetanov, Andrew S. Wilson, & Ismael Pérez-Fournon.* 394, 91, 129-B11 (1992)

Line Profile and Variability Data to Probe the Broad-Line Region Geometry: Of Disks and Nests. *F. Mannucci, M. Salvati, & R. M. Stanga.* 394, 98, 129-C6 (1992)

The Broad Emission Line and Continuum Variations of Seyfert Galaxies. I. Time Scales and Amplitudes. *Edward I. Rosenblatt, Matthew A. Malkan, Wallace L. W. Sargent, & Anthony C. S. Readhead.* 81, 59, 35-G9 (1992)

Evidence for Shock-heated Gas in the Hopkins Ultraviolet Telescope Spectrum of NGC 1068. *Gerard A. Kriss, Arthur F. Davidsen, William P. Blair, Henry C. Ferguson, & Knox S. Long.* 394, L37, 139-B7 (1992)

X-Ray Spectral Structure of the Seyfert Galaxy NGC 6814. *M. Yamauchi, M. Matsuoka, N. Kawai, & A. Yoshida.* 395, 453, 148-A13 (1992)

Infrared Emission in Seyfert 2 Galaxies: Reprocessed Radiation from a Dusty Torus? *Thaisa Storchi-Bergmann, John S. Mulchaey, & Andrew S. Wilson.* 395, L73, 153-F12 (1992)

The Ionization Cone, Obscured Nucleus, and Gaseous Outflow in NGC 3281: A Prototypical Seyfert 2 Galaxy? *Thaisa Storchi-Bergmann, Andrew S. Wilson, & Jack A. Baldwin.* 396, 45, 155-F1 (1992)

An Interacting Galaxy Pair in the Bootes Void. *D. Weistrop, P. Hintzen, R. C. Kennicutt, Jr., C. Liu, J. Lowenthal, K.-P. Cheng, R. Oliversen, & B. Woodgate.* 396, L23, 160-E1 (1992)

Bidimensional Spectroscopy of the Central Kiloparsec of NGC 4151. *E. Mediavilla, S. Arribas, & J. L. Rasilla.* 396, 517, 164-A1 (1992)

IRAS 03202−5150: A New Ring Active Galactic Nucleus with Obscured Seyfert 1 Nucleus. *Sebastian Lípari & F. Macchetto.* 397, 126, 169-E6 (1992)

The Optical Properties of IR-selected and Mg II Broad Absorption Line Quasars. *Todd A. Boroson & Karie A. Meyers.* 397, 442, 176-B13 (1992)

Detection of Obscured Broad-Line Regions in Four Seyfert 2 Galaxies. *Hien D. Tran, Joseph S. Miller, & Laura E. Kay.* 397, 452, 176-C12 (1992)

The Near-Ultraviolet Spectrum of Markarian 205. *John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, George F. Hartig, & Edward B. Jenkins.* 398, 495, 190-C7 (1992)

X-Ray Observations of the Seyfert 1 Galaxy MCG 2-58-22. *K. K. Ghosh & S. Soundararajaperumal.* 398, 501, 190-D1 (1992)

A Near-Infrared Study of a Homogeneous Sample of Optically Selected Active Galactic Nuclei. II. Analysis of the Results and Interpretation. *L. Danese, V. Zitelli, G. L. Granato, R. Wade, G. De Zotti, & N. Mandolesi.* 399, 38, 195-E8 (1992)

Polarization in the Narrow [O III] Lines in Seyfert 2 Galaxies. *Robert W. Goodrich.* 399, 50, 195-F8 (1992)

Submillimeter Observations of Radio-quiet Quasars and a Luminous Seyfert 1 Galaxy Including the First Detections. *Richard Barvainis, Robert Antonucci, & Paul Coleman.* 399, L19, 200-B1 (1992)

Radiation-Pressure–supported Obscuring Tori around Active Galactic Nuclei. *Edward A. Pier & Julian H. Krolik.* 399, L23, 200-B8 (1992)

Normal O Stars in Dense Media Generate LINERs. *Joseph C. Shields.* 399, L27, 200-C1 (1992)

Infrared Line Diagnostics of Active Galactic Nuclei. *Luigi Spinoglio & Matthew A. Malkan.* 399, 504, 204-B11 (1992)

Hard X-Ray Emission from a Narrow-Line Radio Galaxy IC 5063 and Obscured Active Nucleus. *Katsuji Koyama, Hisamitu Awaki, Kazushi Iwasawa, & Martin J. Ward.* 399, L129, 208-A9 (1992)

Accretion Disk Self-Eclipse: X-Ray Light Curve and Emission Line. *G. Bao & Z. Stuchlik.* 400, 163, 211-A1 (1992)

Infrared Spectra of Obscuring Dust Tori around Active Galactic Nuclei. I. Calculational Method and Basic Trends. *Edward A. Pier & Julian H. Krolik.* 401, 99, 222-C5 (1992)

Seyfert Galaxy Ultraviolet Emission-Line Intensities and Variability: A Self-consistent Photoionization Analysis Applied to Broad-Line–emitting Gas in NGC 3783. *Anuradha P. Koratkar & Gordon M. MacAlpine.* 401, 110, 222-D3 (1992)

Broad Band X-Ray Telescope Observations of NGC 4151: Iron Line Diagnostics. *K. A. Weaver, R. F. Mushotzky, K. A. Arnaud, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, E. A. Boldt, S. S. Holt, J. Swank, A. E. Szymkowiak, R. Kelley, A. P. Smale, & C. Done.* 401, L11, 227-B9 (1992)

Numerical Simulation of X-Ray–heated Winds in Seyfert Galaxies. I. The Case of Zero Angular Momentum. *Dinshaw S. Balsara & Julian H. Krolik.* 402, 109, 2-D9 (1993)

Dense Clouds near the Central Engine of Active Galactic Nuclei. *R. Sivron & S. Tsuruta.* 402, 420, 7-G7 (1993)

Implications of Lyman-Alpha Equivalent Widths in Active Galactic Nuclei. *Joseph C. Shields & Gary J. Ferland.* 402, 425, 8-A1 (1993)

The Structure of the Broad-Line Region in the Seyfert Galaxy Markarian 590. *Bradley M. Peterson, Babar Ali, Keith Horne, Ray Bertram, Nancy J. Lame, Richard W. Pogge, & R. Mark Wagner.* 402, 469, 8-D7 (1993)

Simultaneous *Ginga* and *IUE* Observations of the Seyfert Galaxy NGC 3516. *Michiel Kolman, Jules P. Halpern, Christopher Martin, Hisamitsu Awaki, & Katsuji Koyama.* 403, 592, 23-A8 (1993)

The First Ultraviolet Spectropolarimetric Study of NGC 1068. *Arthur D. Code, Marilyn R. Meade, Christopher M. Anderson, Kenneth H. Nordsieck, Geoffrey C. Clayton, Barbara A. Whitney, Antonio Mario Magalhães, Brian Babler, Karen S. Bjorkman, Regina E. Schulte-Ladbeck, & MaryJane Taylor.* 403, L63, 27-C8 (1993)

The Nature and Structure of Active Galactic Nuclei. *Donald E. Osterbrock.* 404, 551, 35-G7 (1993)

Extended Near-Ultraviolet Continuum Emission and the Nature of the Polarized Broad-Line Seyfert 2 Galaxies. *Richard W. Pogge & M. M. De Robertis.* 404, 563, 36-A7 (1993)

Does the Inner Broad-Line Region Dim Down When the Power Turns Up? *Linda S. Sparke.* 404, 570, 36-B1 (1993)

Variations of the Ultraviolet Fe II and Balmer Continuum Emission in the Seyfert Galaxy NGC 5548. *D. Maoz, H. Netzer, B. M. Peterson, J. Bechtold, R. Bertram, N. G. Bochkarev, T. E. Carone, M. Dietrich, A. V. Filippenko, W. Kollatschny, K. T. Korista, A. I. Shapovalova, J. C. Shields, P. S. Smith, U. Thiele, & R. M. Wagner.* 404, 576, 36-B8 (1993)

Dust in the Narrow-Line Region of Active Galactic Nuclei. *Hagai Netzer & Ari Laor.* 404, L51, 40-C11 (1993)

Ultraviolet Spectra of QSOs, BL Lacertae Objects, and Seyfert Galaxies. *Kenneth M. Lanzetta, David A. Turnshek, & Jennifer Sandoval.* 84, 109, 3-B1 (1993)

A Near-Infrared Study of a Homogeneous Sample of Optically Selected Active Galactic Nuclei. I. The Observations. *V. Zitelli, G. L. Granato, N. Mandolesi, R. Wade, & L. Danese.* 84, 185, 4-A3 (1993)

A Stochastic Model for the Variability of NGC 6814. *R. Vio, R. Turolla, S. Cristiani, & C. Barbieri.* 405, 163, 43-A13 (1993)

A New X-Ray Spectral Observation of NGC 1068. *F. E. Marshall, H. Netzer, K. A. Arnaud, E. A. Boldt, S. S. Holt, K. M. Jahoda, R. Kelley, R. F. Mushotzky, R. Petre, P. J. Serlemitsos, A. P. Smale, J. H. Swank, A. E. Szymkowiak, & K. A. Weaver.* 405, 168, 43-B7 (1993)

Soft Variability and Reflection Features in the X-Ray Spectrum of the Seyfert Galaxy NGC 5506. *I. A. Bond, M. Matsuoka, & M. Yamauchi.* 405, 179, 43-C7 (1993)

High-Resolution Study of Luminous Infrared Galaxies. I. The Composite Nature of the Seyfert 1 Galaxy IRAS 20044−6114 (NGC 6860). *Sebastian Lípari, Zlatan Tsvetanov, & F. Macchetto.* 405, 186, 43-D3 (1993)

The Excitation Mechanism of [Fe II] 1.644 Micron Emission in Seyfert and Starburst Galaxies Revisited. *Hideaki Mouri, Kimiaki Kawara, & Yoshiaki Taniguchi.* 406, 52, 55-F5 (1993)

BBXRT and *Ginga* Observations of the Seyfert 1 Galaxy Markarian 335. *T. J. Turner, K. Nandra, A. A. Zdziarski, K. Jahoda, G. M. Madejski, F. Marshall, R. F. Mushotzky, R. Petre, K. A. Pounds, A. P. Smale, P. Serlemitsos, & K. Weaver.* 407, 556, 77-D13 (1993)

OSSE Observations of NGC 4151. *M. Maisack, W. N. Johnson, R. L. Kinzer, M. S. Strickman, J. D. Kurfess, R. A. Cameron, G. V. Jung, D. A. Grabelsky, W. R. Purcell, & M. P. Ulmer.* 407, L61, 82-C10 (1993)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. IV. Intensity Variations of the Optical Emission Lines of NGC 5548. *M. Dietrich, W. Kollatschny, B. M. Peterson, J. Bechtold, R. Bertram, N. G. Bochkarev, T. A Boroson, T. E. Carone, M. Elvis, A. V. Filippenko, C. M. Gaskell, J. P. Huchra, J. B. Hutchings, A. P. Koratkar, K. T. Korista, N. J. Lame, A. Laor, G. M. MacAlpine, M. A. Malkan, C. Mendes de Oliveira, H. Netzer, J. Penfold, M. V. Penston, E. Pérez, R. W. Pogge, M. W. Richmond, E. I. Rosenblatt, A. I. Shapovalova, J. C. Shields, H. A. Smith, P. S. Smith, W.-H. Sun,*

U. Thiele, S. Veilleux, R. M. Wagner, B. J. Wilkes, B. J. Wills, & D. Wills. 408, 416, 90-D1 (1993)

X-Ray Evidence for Seyfert Activity Buried in the Infrared Galaxy NGC 4945. *K. Iwasawa, K. Koyama, H. Awaki, H. Kunieda, K. Makishima, T. Tsuru, T. Ohashi, & N. Nakai.* 409, 155, 98-G9 (1993)

High-Resolution Mid-Infrared Imaging and Astrometry of the Nucleus of the Seyfert Galaxy NGC 1068. *J. A. Braatz, A. S. Wilson, D. Y. Gezari, F. Varosi, & C. A. Beichman.* 409, L5, 104-B1 (1993)

An Atlas of Ultraviolet Spectra of Star-forming Galaxies. *A. L. Kinney, R. C. Bohlin, D. Calzetti, N. Panagia, & Rosemary F. G. Wyse.* 86, 5, 14-B9 (1993)

A Search for Rapid Variability in the Broad Hα Profiles of Seyfert and Radio Galaxies. *Michael Eracleous & Jules P. Halpern.* 409, 584, 106-C1 (1993)

The Peculiar Balmer Line Profiles of OQ 208. *P. Marziani, J. W. Sulentic, M. Calvani, E. Perez, M. Moles, & M. V. Penston.* 410, 56, 112-G4 (1993)

Self-absorbed Active Galactic Nuclei and the Cosmic X-Ray Background. *Piero Madau, Gabriele Ghisellini, & A. C. Fabian.* 410, L7, 117-F8 (1993)

Double-peaked Broad Line Emission from the LINER Nucleus of NGC 1097. *Thaisa Storchi-Bergmann, Jack A. Baldwin, & Andrew S. Wilson.* 410, L11, 117-G1 (1993)

The Narrow-Line Region of High-Luminosity Active Galactic Nuclei. *Beverley J. Wills, H. Netzer, M. S. Brotherton, Mingsheng Han, D. Wills, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 410, 534, 120-C11 (1993)

The Circumnuclear Region of NGC 5728. *S. Arribas & E. Mediavilla.* 410, 552, 120-E5 (1993)

The Ionizing Radiation of Seyfert 2 Galactic Nuclei. *Luis C. Ho, Joseph C. Shields, & Alexei V. Filippenko.* 410, 567, 120-F9 (1993)

HST Observations of NGC 4395, the Least Luminous Seyfert 1 Nucleus: Evidence against the Starburst Hypothesis for Broad-lined Active Galactic Nuclei. *Alexei V. Filippenko, Luis C. Ho, & Wallace L. W. Sargent.* 410, L75, 125-F11 (1993)

The Time Variability of the Ultraviolet Continuum and Lyman-Alpha in 3C 273. *M.-H. Ulrich, T. J.-L. Courvoisier, & W. Wamsteker.* 411, 125, 128-E13 (1993)

Nuclear Winds and the Narrow-Line Emission from Active Galaxies. *Steven J. Smith.* 411, 570, 136-F10 (1993)

Nuclear Winds in Active Elliptical Galaxies. I. Interaction. *Steven J. Smith, C. F. Kennel, & F. V. Coroniti.* 411, 581, 136-G9 (1993)

ROSAT Position Sensitive Proportional Counter Spectra of Six Seyfert 1 Galaxies. *T. J. Turner, I. M. George, & R. F. Mushotzky.* 412, 72, 143-A1 (1993)

Bouncing Clouds: A Model for the Quasar Broad-Line Region. *William G. Mathews.* 412, L17, 148-C1 (1993)

The Case for an Optically Thin Thermal Big Blue Bump. *Richard Barvainis.* 412, 513, 150-A10 (1993)

The X-Ray Baldwin Effect. *Kazushi Iwasawa & Yoshiaki Taniguchi.* 413, L15, 162-C8 (1993)

Formation of Quasar Clouds by Thermal Instability in the Presence of Alfvén Wave Heating. *D. R. Gonçalves, V. Jatenco-Pereira, & R. Opher.* 414, 57, 170-F12 (1993)

Soft X-Ray Spectra of Seyfert 2 Galaxies. *John S. Mulchaey, Edward Colbert, Andrew S. Wilson, Richard F. Mushotzky, & Kimberly A. Weaver.* 414, 144, 171-G1 (1993)

Effects of Gas on the Global Stability of Galactic Disks: Radial Flows. *Isaac Shlosman & Masafumi Noguchi.* 414, 474, 177-B2 (1993)

Strong [Fe II] Emission from NGC 1275. *Richard J. Rudy, Ross D. Cohen, George S. Rossano, Peter Erwin, R. C. Puetter, Matthew A. Greenhouse, & Charles E. Woodward.* 414, 527, 177-F13 (1993)

Effects of Internal Dust on the Narrow-Line Region Lyman and Balmer Decrements. *Luc Binette, John Wang, Montserrat Villar-Martin, Peter G. Martin, & Gladis Magris C.* 414, 535, 177-G9 (1993)

Spectroscopic Study of the CfA Sample of Seyfert Galaxies. *Donald E. Osterbrock & André Martel.* 414, 552, 178-B2 (1993)

X-Ray Variability of Active Galactic Nuclei: A Universal Power Spectrum with Luminosity-dependent Amplitude. *A. Lawrence & I. Papadakis.* 414, L85, 185-F1 (1993)

Acceleration Efficiency in Nonthermal Sources and the Soft Gamma Rays from NGC 4151 Observed by OSSE and SIGMA. *Andrzej A. Zdziarski, Alan P. Lightman, & Andrzej Maciołek-Niedźwiecki.* 414, L93, 185-F13 (1993)

Infrared Coronal Emission Lines and the Possibility of Their Laser Emission in Seyfert Nuclei. *Matthew A. Greenhouse, Uri Feldman, Howard A. Smith, Marcel Klapisch, Anand K. Bhatia, & Avi Bar-Shalom.* 88, 23, 40-C11 (1993)

A Masing [Fe XI] Line. *G. J. Ferland.* 88, 49, 40-F13 (1993)

Does a Luminosity-dependent Continuum Shape Cause the Baldwin Effect? *Wei Zheng & Matthew A. Malkan.* 415, 517, 194-C6 (1993)

Radio and Near-Infrared [Fe II] Emission from Active Galaxies. *Duncan A. Forbes & Martin J. Ward.* 416, 150, 202-G12 (1993)

The Iron K Line as a Probe of Beamed X-Ray Emission in Active Galactic Nuclei. *T. Yaqoob, B. McKernan, C. Done, P. J. Serlemitsos, & K. A. Weaver.* 416, L5, 207-B7 (1993)

Variable C IV Absorption in the Seyfert Galaxy NGC 5548: A Connection to Broad Absorption Line Quasi-stellar Objects? *J. Michael Shull & Elise R. Sachs.* 416, 536, 210-A10 (1993)

EGRET Limits on High-Energy Gamma-Ray Emission from X-Ray– and Low-Energy Gamma-Ray–selected Seyfert Galaxies. *Y. C. Lin, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. Schneid, P. Sreekumar, & D. J. Thompson.* 416, L53, 216-B11 (1993)

OSSE Observations of the Bright Seyfert 1 Galaxy IC 4329A. *A. C. Fabian, K. Nandra, A. Celotti, M. J. Rees, J. E. Grove, & W. N. Johnson.* 416, L57, 216-C1 (1993)

Faint Object Spectrograph Spectra of the UV Emission Lines in NGC 5548: Detection of Strong Narrow Components. *D. Michael Crenshaw, Albert Boggess, & Chi-Chao Wu.* 416, L67, 216-D1 (1993)

A Reevaluation of the Excitation Mechanism of LINERs. *Luis C. Ho, Alexei V. Filippenko, & Wallace L. W. Sargent.* 417, 63, 217-G8 (1993)

Hubble Space Telescope Imaging of the Narrow-Line Region of NGC 4151. *I. N. Evans, Z. Tsvetanov, G. A. Kriss, H. C. Ford, S. Caganoff, & A. P. Koratkar.* 417, 82, 218-B1 (1993)

Infrared Observations of the Seyfert Ring Galaxy NGC 985. *P. N. Appleton & P. M. Marcum.* 417, 90, 218-C9 (1993)

Dense Molecular Gas toward the Nucleus of the Seyfert Galaxy NGC 1068. *James M. Jackson, Timothy A. D. Paglione, Sumio Ishizuki, & Nguyen-Q-Rieu.* 418, L13, 238-B11 (1993)

The Extended 12 Micron Galaxy Sample. *Brian Rush, Matthew A. Malkan, & Luigi Spinoglio.* 89, 1, 49-B1 (1993)

A Study of a Homogeneous Sample of Optically Selected Active Galactic Nuclei. III. Optical Observations. *G. L. Granato, V. Zitelli, F. Bonoli, L. Danese, C. Bonoli, & F. Delpino.* 89, 35, 49-D9 (1993)

The Broad-Band X-Ray Spectrum of the Nucleus of M81. *R. Petre, R. F. Mushotzky, P. J. Serlemitsos, K. Jahoda, & F. E. Marshall.* 418, 644, 240-E1 (1993)

Position Sensitive Proportional Counter Soft X-Ray Observations of Seyfert 2 Galaxies. *T. J. Turner, C. M. Urry, & R. F. Mushotzky.* 418, 653, 240-E13 (1993)

New Evidence for an Anisotropic Radiation Field in NGC 5252. *M. Almudena Prieto & Wolfram Freudling.* 418, 668, 240-G2 (1993)

Infrared Spectra of Obscuring Dust Tori around Active Galactic Nuclei. II. Comparison with Observations. *Edward A. Pier & Julian H. Krolik.* 418, 673, 240-G10 (1993)

X-Ray Observations of the Warm Absorber in NGC 3783. *T. J. Turner, K. Nandra, I. M. George, A. C. Fabian, & K. A. Pounds.* 419, 127, 247-F8 (1993)

Subarcsecond Mid-Infrared Imaging of Warm Dust in the Narrow-Line Region of NGC 1068. *Murray Cameron, John W. V. Storey, Valentin Rotaciuc, Reinhard Genzel, Laurent Verstraete, Siegfried Drapatz, Ralf Siebenmorgen, & Terry J. Lee.* 419, 136, 247-G5 (1993)

The Wavelength Dependence of Polarization of Active Galaxies and Quasars. *Wayne Webb, Matthew Malkan, Gary Schmidt, & Chris Impey.* 419, 494, 253-G12 (1993)

Kiloparsec-Scale Radio Emission in Seyfert Galaxies: Evidence for Starburst-driven Superwinds? *S. A. Baum, C. P. O'Dea, D. Dallacassa, A. G. de Bruyn, & A. Pedlar.* 419, 553, 254-F1 (1993)

The Ionization Cones in the Seyfert Galaxy NGC 5728. *A. S. Wilson, J. A. Braatz, T. M. Heckman, J. H. Krolik, & G. K. Miley.* 419, L61, 259-C7 (1993)

The Ultraviolet Emission Properties of Five Low-Redshift Active Galactic Nuclei at High Signal-to-Noise Ratio and Spectral Resolution. *Ari Laor, John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, Richard F. Green, & George F. Hartig.* 420, 110, 2-C12 (1994)

X-Ray Bumps, Iron Kα Lines, and X-Ray Suppression by Obscuring Tori in Seyfert Galaxies. *Julian H. Krolik, Piero Madau, & Piotr T. Życki.* 420, L57, 15-B13 (1994)

Optical Caustics in a Kerr Spacetime and the Origin of Rapid X-Ray Variability in Active Galactic Nuclei. *Kevin P. Rauch & Roger D. Blandford.* 421, 46, 16-F1 (1994)

Evidence for X-Ray Flux and Spectral Modulation by Absorption in NGC 6814. I. The Nature of the Most Rapid Variability. *Karen Leighly, Hideyo Kunieda, Yoshiyuki Tsusaka, Hisamitsu Awaki, & Sachiko Tsuruta.* 421, 69, 16-G12 (1994)

HST Observations of the [O III] Emission-Line Region in Markarian 78. *A. Capetti, F. Macchetto, W. B. Sparks, & A. Boksenberg.* 421, 87, 17-B4 (1994)

Near-Infrared Spectroscopic Imaging of the Circumnuclear Environment of NGC 1068. *M. Blietz, M. Cameron, S. Drapatz, R. Genzel, A. Krabbe, P. van der Werf, A. Sternberg, & M. Ward.* 421, 92, 17-B13 (1994)

3.3 Micron Emission Feature in Infrared Galaxies. *Kohei Mizutani, Hiroshi Suto, & Toshinori Maihara.* 421, 475, 24-B1 (1994)

Neutral Hydrogen Absorption in NGC 1068 and NGC 3079. *J. F. Gallimore, S. A. Baum, C. P. O'Dea, E. Brinks, & A. Pedlar.* 422, L13, 36-C9 (1994)

Infrared Spectroscopy of Seyfert 2 Galaxies: A Look through the Obscuring Torus? *Robert W. Goodrich, Sylvain Veilleux, & Gary J. Hill.* 422, 521, 38-C12 (1994)

Anisotropic High-Excitation Emission and Chemical Abundances in the Seyfert 2 Galaxy NGC 5643. *Henrique R. Schmitt, Thaisa Storchi-Bergmann, & Jack A. Baldwin.* 423, 237, 49-A9 (1994)

Do the More Powerful Monsters Live in the More Actively Star-forming Host Galaxies? *Toru Yamada.* 423, L27, 53-D11 (1994)

New Infrared Observations of Seyfert 2 Galaxies and Unification Theories. *M. Ruiz, G. H. Rieke, & G. D. Schmidt.* 423, 608, 56-A11 (1994)

The Complex Soft X-Ray Excess in NGC 4151. *K. A. Weaver, R. F. Mushotzky, K. A. Arnaud, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, A. P. Smale, & H. Netzer.* 423, 621, 56-C1 (1994)

Fueling Nuclear Activity in Disk Galaxies: Starbursts and Monsters. *Clayton H. Heller & Isaac Shlosman.* 424, 84, 63-B1 (1994)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. V. Variability of the Ultraviolet Continuum and Emission Lines of NGC 3783. *G. A. Reichert, P. M. Rodríguez-Pascual, D. Alloin, J. Clavel, D. M. Crenshaw, G. A. Kriss, J. H. Krolik, M. A. Malkan, H. Netzer, B. M. Peterson, W. Wamsteker, A. Altamore, B. Altieri, K. S. Anderson, J. H. Blackwell, Jr., C. Boisson, N. Brosch, T. E. Carone, M. Dietrich, M .N. England, I. N. Evans, A. V. Filippenko, C. M. Gaskell, M. Goad, P. M. Gondhalekar, K. Horne, D. Kazanas, W. Kollatschny, A. P. Koratkar, K. T. Korista, G. M. MacAlpine, D. Maoz, T. Mazeh, B. McCollum, H. R. Miller, C. Mendes de Oliveira, P. T. O'Brien, M. G. Pastoriza, D. Pelat, E. Pérez, G. C. Perola, R. W. Pogge, R. L. Ptak, M. C. Recondo-González, J. Rodríguez-Espinosa, E. I. Rosenblatt, A. C. Sadun, M. Santos-Lleó, J. C. Shields, C. R. Shrader, J. M. Shull, S. M. Simkin, M. L. Sitko, M. A. J. Snijders, L. S. Sparke, G. M. Stirpe, R. Stoner, T. Storchi-Bergmann, W.-H. Sun, T. Wang, W. F. Welsh, R. J. White, C. Winge, & W. Zheng.* 425, 582, 89-A1 (1994)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VI. Variability of NGC 3783 from Ground-based Data. *G. M. Stirpe, C. Winge, B. Altieri, D. Alloin, E. L. Aguero, G. C. Anupama, R. Ashley, R. Bertram, J. H. Calderon, R. M. Catchpole, R. L. M. Corradi, E. Covino, H. A. Dottori, M. W. Feast, K. K. Ghosh, R. Gil Hutton, I. S. Glass, E. K. Grebel, L. Jorda, C. Koen, C. D. Laney, M. Maia, F. Marang, Y. D. Mayya, N. Morrell, Y. Nakada, M. G. Pastoriza, A. K. Pati, D. Pelat, B. M. Peterson, T. P. Prabhu, G. Roberts, R. Sagar, I. Salamanca, K. Sekiguchi, T. Storchi-Bergmann, A. Subramaniam, H. van Winckel, F. van Wyk, M. Villada, R. M. Wagner, P. A. Whitelock, H. Winkler, J. Clavel, M. Dietrich, W. Kollatschny, P. T. O'Brien, G. C. Perola, M. C. Recondo-González, P. Rodríguez-Pascual, & M. Santos-Lleo.* 425, 609, 89-C1 (1994)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VII. Variability of the Optical Spectrum of NGC 5548 over 4 Years. *B. M. Peterson, P. Berlind, R. Bertram, N. G. Bochkarev, D. Bond, M. S. Brotherton, J. R. Busler, K. K. Chuvaev, R. D. Cohen, M. Dietrich, M. Elvis, A. V. Filippenko, C. B. Foltz, P. M. Garnavich, L. C. Ho, E. Horine, K. Horne, J. P. Huchra, W. Kollatschny, K. T. Korista, M. A. Malkan, T. Matheson, M. Mignoli, S. L. Morris, L. Nazarova, J. Penfold, J. Peters, R. W. Pogge, V. I. Pronik, B. Rush, S. G. Sergeev, A. I. Shapovalova, J. C. Shields, G. M. Stirpe, S. Tokarz, R. M. Wagner, R. J. Weymann, R. J. White, B. J. Wilkes, D. Wills, B. J. Wills, C. Winge, & P. F. Younger.* 425, 622, 89-D1 (1994)

Probing the Galactic Disk and Halo. I. The NGC 3783 Sight Line. *Limin Lu, Blair D. Savage, & Kenneth R. Sembach.* 426, 563, 105-D7 (1994)

The Nuclear 10 Micron Emission of Spiral Galaxies. *Giuliano Giuricin, Laura Tamburini, Fabio Mardirossian, Marino Mezzetti, & Pierluigi Monaco.* 427, 202, 112-E1 (1994)

The *Einstein* Database of IPC X-Ray Observations of Optically Selected and Radio-selected Quasars. I. *Belinda J. Wilkes, Harvey Tananbaum, D. M. Worrall, Yoram Avni, M. S. Oey, & Joan Flanagan.* 92, 53, 31-G2 (1994)

Molecular Hydrogen Emission in Galaxies: Determination of Excitation Mechanism. *Hideaki Mouri.* 427, 777, 122-C12 (1994)

The *HST* Quasar Absorption Line Key Project. IV. *HST* Faint Object Spectrograph and Ground-based Observations of the Unusual Low-Redshift Broad Absorption Line Quasi-stellar Object PG 0043+039. *David A. Turnshek, Brian R. Espey, Michael Kopko, Jr., Michael Rauch, Ray J. Weymann, Buell T. Jannuzi, Alec Boksenberg, Jacqueline Bergeron, George F. Hartig, W. L. W. Sargent, Blair D. Savage, Donald P. Schneider, & Arthur M. Wolfe.* 428, 93, 129-D1 (1994)

A Diagnosis of Dust in Active Galactic Nuclei through Analysis of the Infrared Bump. *S. M. Viegas & M. Contini.* 428, 113, 129-E9 (1994)

The Intrinsic Nuclear Spectrum of NGC 1068. *Edward A. Pier, Robert Antonucci, Todd Hurt, Gerard Kriss, & Julian Krolik.* 428, 124, 129-F8 (1994)

Nonthermal Pair Models, Reflection, and X-Ray Spectral Variability of Active Galaxies. *P. Grandi, C. Done, & C. M. Urry.* 428, 599, 137-F5 (1994)

The Nonthermal Pair Model for the X-Ray and Gamma-Ray Spectra from Active Galactic Nuclei. *Roland Svensson.* 92, 585, 39-E12 (1994)

Gamma-Ray Properties of Active Galactic Nuclei. *V. Schönfelder.* 92, 593, 39-F8 (1994)

Multiwavelength Analysis of Quasars, Seyfert Galaxies, and Starbursts. *J. Miguel Mas-Hesse, Pedro M. Rodríguez-Pascual, Lourdes Sanz Fernández de Córdoba, & I. Félix Mirabel.* 92, 599, 39-G4 (1994)

Extended Infrared Line Emission Excited by Starburst and Seyfert Activity in NGC 3256 and NGC 4945. *A. F. M. Moorwood & E. Oliva.* 429, 602, 153-B9 (1994)

On Thermal Comptonization in $e^{\pm}$ Pair Plasmas. *Gabriele Ghisellini & Francesco Haardt.* 429, L53, 157-G7 (1994)

Blue Spectropolarimetry of Seyfert 2 Galaxies. I. Analysis and Basic Results. *Laura E. Kay.* 430, 196, 161-E3 (1994)

HST Ultraviolet Spectropolarimetry of NGC 1068. *Robert Antonucci, Todd Hurt, & Joseph Miller.* 430, 210, 161-F5 (1994)

The Broad Emission Line and Continuum Variations of Seyfert Galaxies. II. Broad-Line Region Structure and Kinematics. *Edward I. Rosenblatt, Matthew A. Malkan, Wallace L. W. Sargent, & Anthony C. S. Readhead.* 93, 73, 43-A1 (1994)

Ultraviolet Imaging of the AGN + Starburst Galaxy NGC 1068. *Susan G. Neff, Michael N. Fanelli, Laura J. Roberts, Robert W. O'Connell, Ralph Bohlin, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 430, 545, 168-E1 (1994)

On the Origin of Obscuring Tori in the Galactic Nucleus and Active Galactic Nuclei. *Insu Yi, George B. Field, & Eric G. Blackman.* 432, L31, 199-E2 (1994)

Compact Radio Cores in Seyfert Galaxies. *A. L. Roy, R. P. Norris, M. J. Kesteven, E. R. Troup, & J. E. Reynolds.* 432, 496, 202-B7 (1994)

A Model for the X-Ray and Ultraviolet Emission from Seyfert Galaxies and Galactic Black Holes. *Francesco Haardt, Laura Maraschi, & Gabriele Ghisellini.* 432, L95, 206-F7 (1994)

The Nuclear Superbubble of NGC 3079. *S. Veilleux, G. Cecil, J. Bland-Hawthorn, R. B. Tully, A. V. Filippenko, & W. L. W. Sargent.* 433, 48, 208-G2 (1994)

Hard X-Rays from NGC 4151: A Thermal Origin? *Lev Titarchuk & Apostolos Mastichiadis.* 433, L33, 215-A7 (1994)

MEPSICRON Spectrophotometry of Seyfert Galaxies. I. Spectral Atlas. *Irene Cruz-González, Luis Carrasco, Alfonso Serrano, José Guichard, Deborah Dultzin-Hacyan, & Gian Franco Bisiacchi.* 94, 47, 52-E9 (1994)

Narrow-Line Region Kinematics in Seyfert Nuclei. *David Moore & Ross D. Cohen.* 433, 602, 218-D13 (1994)

Hubble Space Telescope Imaging of the Seyfert 2 Galaxy NGC 2110. *John S. Mulchaey, Andrew S. Wilson, Gary A. Bower, Timothy M. Heckman, Julian H. Krolik, & George K. Miley.* 433, 625, 218-F10 (1994)

The True Nature of *IRAS*-selected, X-Ray–luminous "Normal" Galaxies in the *ROSAT* All-Sky Survey. *Edward C. Moran, Jules P. Halpern, & David J. Helfand.* 433, L65, 223-E10 (1994)

Spectropolarimetry of High-Polarization Seyfert 1 Galaxies: Geometry and Kinematics of the Scattering Regions. *R. W. Goodrich & J. S. Miller.* 434, 82, 226-C7 (1994)

Active Galactic Nuclei. V. X-Ray Variability and the Black Hole Cluster Paradigm. *A. G. Pacholczyk & W. R. Stoeger, S.J.* 434, 435, 233-F9 (1994)

Disk-driven Hydromagnetic Winds as a Key Ingredient of Active Galactic Nuclei Unification Schemes. *Arieh Königl & John F. Kartje.* 434, 446, 233-G9 (1994)

High-Energy Spectra of Active Galactic Nuclei. I. The Catalog. *G. Malaguti, L. Bassani, & E. Caroli.* 94, 517, 59-B7 (1994)

Markarian 315: A Test Case for the Active Galactic Nucleus–Merger Hypothesis? *John W. MacKenty, Susan M. Simkin, Richard E. Griffiths, James S. Ulvestad, & Andrew S. Wilson.* 435, 71, 244-C3 (1994)

IUE Spectra and Photoionization Models of the Seyfert 2 Galaxies NGC 7674 and 1 Zw 92. *Steven B. Kraemer, Chi-Chao Wu, D. Michael Crenshaw, & J. Patrick Harrington.* 435, 171, 245-F1 (1994)

HST/FOC Imaging of the Narrow-Line Region of NGC 1068. *F. Macchetto, A. Capetti, W. B. Sparks, D. J. Axon, & A. Boksenberg.* 435, L15, 251-D2 (1994)

Is a Black Hole Accretion Disk in a Self-organized Critical State? *S. Mineshige, M. Takeuchi, & H. Nishimori.* 435, L125, 260-A10 (1994)

New X-Ray Spectral Observations of NGC 4151 with *ASCA*. *K. A. Weaver, T. Yaqoob, S. S. Holt, R. F. Mushotzky, M. Matsuoka, & M. Yamauchi.* 436, L27, 268-F8 (1994)

Rapid X-Ray Spectral Variability in NGC 3227. *A. Ptak, T. Yaqoob, P. J. Serlemitsos, R. Mushotzky, & C. Otani.* 436, L31, 268-G2 (1994)

Iron Line Emission and Two-Component Spectral Behavior in the *ASCA* Observation of the Seyfert 1 Galaxy NGC 7469. *Matteo Guainazzi, Masaru Matsuoka, Luigi Piro, Tatehiro Mihara, & Makoto Yamauchi.* 436, L35, 268-G10 (1994)

Environmental Effects on Local Active Galactic Nuclei. *Pierluigi Monaco, Giuliano Giuricin, Fabio Mardirossian, & Marino Mezzetti.* 436, 576, 273-D11 (1994)

Multiwavelength Tests of the Dusty Torus Model for Seyfert Galaxies. *John S. Mulchaey, Anuradha Koratkar, Martin J. Ward, Andrew S. Wilson, Mark Whittle, Robert R. J. Antonucci, Anne L. Kinney, & Todd Hurt.* 436, 586, 273-E10 (1994)

Water Maser Emission from X-Ray–heated Circumnuclear Gas in Active Galaxies. *David A. Neufeld, Philip R. Maloney, & Sarah Conger.* 436, L127, 281-A13 (1994)

HCN and CO in the Nucleus of NGC 1068. *A. Sternberg, R. Genzel, & L. Tacconi.* 436, L131, 281-B7 (1994)

Complex Ionization Structure and Kinematics in the Circumnuclear Region of NGC 3227. *S. Arribas & E. Mediavilla.* 437, 149, 285-C4 (1994)

X-Ray Reflection from Photoionized Media in Active Galactic Nuclei. *Piotr T. Życki, Julian H. Krolik, Andrzej A. Zdziarski, & Timothy R. Kallman.* 437, 597, 294-A6 (1994)

The Discovery of Five New H_2O Megamasers in Active Galaxies. *J. A. Braatz, A. S. Wilson, & C. Henkel.* 437, L99, 299-A8 (1994)

Probing the Galactic Disk and Halo: Metal Abundances in the Magellanic Stream. *Limin Lu, Blair D. Savage, & Kenneth R. Sembach.* 437, L119, 299-D1 (1994)

Survey of Emission-Line Galaxies: Universidad Complutense de Madrid List 1. *J. Zamorano, M. Rego, J. Gallego, A. G. Vitores, R. González-Riestra, & G. Rodríguez-Caderot.* 95, 387, 69-E10 (1994)

Joint *ROSAT*–*Compton GRO* Observations of the X-Ray–bright Seyfert Galaxy IC 4329A. *G. M. Madejski, A. A. Zdziarski, T. J. Turner, C. Done, R. F. Mushotzky, R. C. Hartman, N. Gehrels, A. Connors, A. C. Fabian, K. Nandra, A. Celotti, M. J. Rees, W. N. Johnson, J. E. Grove, & C. H. Starr.* 438, 672, 13-D7 (1995)

The Origin of N III λ990 and C III λ977 Emission in AGN Narrow-Line Region Gas. *J. W. Ferguson, G. J. Ferland, & A. K. Pradhan.* 438, L55, 19-B11 (1995)

The Average X-Ray/Gamma-Ray Spectra of Seyfert Galaxies from *Ginga* and OSSE and the Origin of the Cosmic X-Ray Background. *Andrzej A. Zdziarski, W. Neil Johnson, Chris Done, David Smith, & Kellie McNaron-Brown.* 438, L63, 19-C11 (1995)

Active Galaxies Observed during the *Extreme Ultraviolet Explorer* All-Sky Survey. *H. L. Marshall, A. Fruscione, & T. E. Carone.* 439, 90, 22-D6 (1995)

Extended Soft X-Ray Emission in Seyfert Galaxies: *ROSAT* HRI Observations of NGC 3516, NGC 4151, and Markarian 3. *Jon A. Morse, Andrew S. Wilson, Martin Elvis, & Kimberly A. Weaver.* 439, 121, 22-G6 (1995)

Pure Scattered Emission as an Explanation for the Hard X-Ray Spectra of Active Galactic Nuclei. *E. Jourdain & J. P. Roques.* 440, 128, 43-A2 (1995)

Low-Luminosity Active Galaxies: Are They Similar to Seyfert Galaxies? *A. Koratkar, S. E. Deustua, T. Heckman, A. V. Filippenko, L. C. Ho, & M. Rao.* 440, 132, 43-A9 (1995)

Dust in the Broad-Line Regions of Seyfert Galaxies. *Robert W. Goodrich.* 440, 141, 43-B7 (1995)

Faint Object Camera Imaging and Spectroscopy of NGC 4151. *A. Boksenberg, R. M. Catchpole, F. Macchetto, R. Albrecht, C. Barbieri, J. C. Blades, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kampermann, I. R. King, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 440, 151, 43-C6 (1995)

Reverberation Mapping by Regularized Linear Inversion. *Julian H. Krolik & Christine Done.* 440, 166, 43-D13 (1995)

The Nature of Seyfert 2 Galaxies with Obscured Broad-Line Regions. I. Observations. *Hien D. Tran.* 440, 565, 51-A8 (1995)

The Nature of Seyfert 2 Galaxies with Obscured Broad-Line Regions. II. Individual Objects. *Hien D. Tran.* 440, 578, 51-B10 (1995)

The Nature of Seyfert 2 Galaxies with Obscured Broad-Line Regions. III. Interpretation. *Hien D. Tran.* 440, 597, 51-D4 (1995)

Near-Infrared Imaging of CfA Seyfert Galaxies. *K. K. McLeod & G. H. Rieke.* 441, 96, 60-F4 (1995)

Optically Thin Broad-Line Clouds in Active Galactic Nuclei. *Joseph C. Shields, Gary J. Ferland, & Bradley M. Peterson.* 441, 507, 69-A13 (1995)

The Origin of the Soft X-Ray Excess in the Seyfert 2 Galaxy NGC 2110. *K. A. Weaver, R. F. Mushotzky, P. J. Serlemitsos, A. S. Wilson, M. Elvis, & U. Briel.* 442, 597, 88-B7 (1995)

The Nuclear X-Ray Source in NGC 3628: A Strange Active Galactic Nucleus or the Most Luminous High-Mass X-Ray Binary Known? *Michael Dahlem, Timothy M. Heckman, & Giuseppina Fabbiano.* 442, L49, 94-C9 (1995)

The Variability of the Double-peaked Balmer Lines in the Active Nucleus of NGC 1097. *Thaisa Storchi-Bergmann, Michael Eracleous, Mario Livio, Andrew S. Wilson, Alexei V. Filippenko, & Jules P. Halpern.* 443, 617, 106-D2 (1995)

Near-Infrared and Optical Spectroscopy of FSC 10214+4724. *B. T. Soifer, J. G. Cohen, L. Armus, K. Matthews, G. Neugebauer, & J. B. Oke.* 443, L65, 111-F1 (1995)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VIII. An Intensive *HST*, *IUE*, and Ground-based Study of NGC 5548. *K. T. Korista, D. Alloin, P. Barr, J. Clavel, R. D. Cohen, D. M. Crenshaw, I. N. Evans, K. Horne, A. P. Koratkar, G. A. Kriss, J. H. Krolik, M. A. Malkan, S. L. Morris, H. Netzer, P. T. O'Brien, B. M. Peterson, G. A. Reichert, P. M. Rodríguez-Pascual, W. Wamsteker, K. S. J. Anderson, D. J. Axon, E. Benitez, P. Berlind, R. Bertram, J. H. Blackwell, Jr., N. G. Bochkarev, C. Boisson, M. Carini, R. Carrillo, T. E. Carone, F.-Z. Cheng, J. A. Christensen, K. K. Chuvaev, M. Dietrich, J. J. Dokter, V. Doroshenko, D. Dultzin-Hacyan, M. N. England, B. R. Espey, A. V. Filippenko, C. M. Gaskell, M. R. Goad, L. C. Ho, J. P. Huchra, X. J. Jiang, S. Kaspi, W. Kollatschny, A. Laor, J.-P. Luminet, G. M. MacAlpine, J. W. MacKenty, Yu. F. Malkov, D. Maoz, P. G. Martin, T. Matheson, B. McCollum, N. Merkulova, L. Metik, M. Mignoli, H. R. Miller, M. G. Pastoriza, D. Pelat, J. Penfold, M. Perez, G. C. Perola, J. L. Persaud, J. Peters, R. Pitts, R. W. Pogge, I. Pronik, V. I. Pronik, R. L. Ptak, L. Rawley, M. C. Recondo-González, J. M. Rodríguez-Espinosa, W. Romanishin, A. C. Sadun, I. Salamanca, M. Santos-Lleó, K. Sekiguchi, S. G. Sergeev, A. I. Shapovalova, J. C. Shields, C. Shrader, J. M. Shull, N. A. Silbermann, M. L. Sitko, D. R. Skillman, H. A. Smith, S. M. Smith, M. A. J. Snijders, L. S. Sparke, G. M. Stirpe, R. E. Stoner, W.-H. Sun, U. Thiele, S. Tokarz, Z. I. Tsvetanov, D. A. Turnshek, S. Veilleux, R. M. Wagner, S. J. Wagner, I. Wanders, T. Wang, W. F. Welsh, R. J. Weymann, R. J. White, B. J. Wilkes, B. J. Wills, C. Winge, H. Wu, & Z. L. Zou.* 97, 285, 15-F7 (1995)

Infrared Imaging and Spectroscopy of NGC 7469. *R. Genzel, L. Weitzel, L. E. Tacconi-Garman, M. Blietz, M. Cameron, A. Krabbe, D. Lutz, & A. Sternberg.* 444, 129, 115-B3 (1995)

The Polarization and Ultraviolet Spectrum of Markarian 231. *Paul S. Smith,*

Gary D. Schmidt, Richard G. Allen, & J. R. P. Angel. 444, 146, 115-D1 (1995)

Astro-1 and Ground-based Observations of Markarian 335: Evidence for an Accretion Disk. *W. Zheng, G. A. Kriss, A. F. Davidsen, G. Lee, A. D. Code, K. S. Bjorkman, P. S. Smith, D. Weistrop, M. A. Malkan, F. K. Baganoff, & B. M. Peterson.* 444, 632, 125-A10 (1995)

Detection of Soft Gamma-Ray Emission from the Seyfert 2 Galaxy NGC 4507 by the OSSE Telescope. *L. Bassani, G. Malaguti, E. Jourdain, J. P. Roques, & W. N. Johnson.* 444, L73, 130-C8 (1995)

Ultraviolet to Near-Infrared Spectral Distributions of Star-forming and Seyfert 2 Galaxies. *Thaisa Storchi-Bergmann, Anne L. Kinney, & Peter Challis.* 98, 103, 22-C2 (1995)

Spectroscopic Monitoring of Active Galactic Nuclei from CTIO. I. NGC 3227. *Cláudia Winge, Bradley M. Peterson, Keith Horne, Richard W. Pogge, Miriani G. Pastoriza, & Thaísa Storchi-Bergmann.* 445, 680, 144-E1 (1995)

High-Resolution Near-Infrared Spectra of NGC 4151: Line and Continuum Analysis. *Rodger I. Thompson.* 445, 700, 144-G5 (1995)

First Direct Comparison of High and Low Ionization Line Kinematics in Active Galactic Nuclei. *J. W. Sulentic, P. Marziani, D. Dultzin-Hacyan, M. Calvani, & M. Moles.* 445, L85, 150-E9 (1995)

Thermal Comptonization in Mildly Relativistic Pair Plasmas. *J. G. Skibo, C. D. Dermer, R. Ramaty, & J. M. McKinley.* 446, 86, 154-D6 (1995)

A Mid-Infrared Test of the "Obscuring Torus" Model for Seyfert Nuclei. *Timothy M. Heckman.* 446, 101, 154-E10 (1995)

HST Imaging Polarimetry of NGC 1068. *A. Capetti, D. J. Axon, F. Macchetto, W. B. Sparks, & A. Boksenberg.* 446, 155, 155-C9 (1995)

Infrared Coronal Line Widths in Type 1 Seyfert Galaxies. *E. Giannuzzo, G. H. Rieke, & M. J. Rieke.* 446, L5, 160-B13 (1995)

The 10 Micron Emission of Seyfert Nuclei. *Giuliano Giuricin, Fabio Mardirossian, & Marino Mezzetti.* 446, 550, 163-F7 (1995)

New Constraints on the Unified Model of Seyfert Galaxies. *R. Maiolino, M. Ruiz, G. H. Rieke, & L. D. Keller.* 446, 561, 163-G7 (1995)

A Multifrequency Radio Continuum and *IRAS* Faint Source Survey of Markarian Galaxies. *M. D. Bicay, G. Kojoian, J. Seal, D. F. Dickinson, & M. A. Malkan.* 98, 369, 28-B1 (1995)

A Search for "Dwarf" Seyfert Nuclei. II. An Optical Spectral Atlas of the Nuclei of Nearby Galaxies. *Luis C. Ho, Alexei V. Filippenko, & Wallace L. W. Sargent.* 98, 477, 29-E2 (1995)

Two Classes of Gamma-Ray–emitting Active Galactic Nuclei. *Charles D. Dermer & Neil Gehrels.* 447, 103, 173-E7 (1995)

A Confirmation of 2–40 keV Spectral Complexity in Seyfert Galaxies. *K. A. Weaver, K. A. Arnaud, & R. F Mushotzky.* 447, 121, 173-G3 (1995)

The Mass Accretion Rate through the Masing Molecular Disk in the Active Galaxy NGC 4258. *David A. Neufeld & Philip R. Maloney.* 447, L17, 180-E11 (1995)

Discovery of Extreme-Ultraviolet Radiation from the Seyfert Galaxy Ton S180 (= EUVE J0057−223). *Stéphane Vennes, Elisha Polomski, Stuart Bowyer, & John R. Thorstensen.* 448, L9, 199-C3 (1995)

Stellar and Gaseous Kinematics of Seyfert Galaxies. I. Spectroscopic Data. *Charles H. Nelson & Mark Whittle.* 99, 67, 35-B5 (1995)

The Morphology of the Narrow-Line Region of Markarian 3. *A. Capetti, F. Macchetto, D. J. Axon, W. B. Sparks, & A. Boksenberg.* 448, 600, 203-A4 (1995)

On the Geometry of the X-Ray–Emitting Region in Seyfert Galaxies. *Boris E. Stern, Juri Poutanen, Roland Svensson, Marek Sikora, & Mitchell C. Begelman.* 449, L13, 216-B9 (1995)

High-Resolution Berkeley-Illinois-Maryland Association Observations of CO, HCN, and ^{13}CO in NGC 1068. *Tamara T. Helfer & Leo Blitz.* 450, 90, 229-C10 (1995)

Photoevaporation of Dusty Clouds near Active Galactic Nuclei. *Edward A. Pier & G. Mark Voit.* 450, 628, 239-D13 (1995)

An *ASCA* X-Ray Spectrum of a Prototype Bare Seyfert 1 Nucleus in MCG −2-58-22. *K. A. Weaver, J. Nousek, T. Yaqoob, K. Hayashida, & S. Murakami.* 451, 147, 248-B1 (1995)

Imaging Spectrophotometry of Markarian 573. *Richard W. Pogge & Michael M. De Robertis.* 451, 585, 255-C11 (1995)

A Comparison of Thermal Comptonization Models. *Lev Titarchuk & Xin-Min Hua.* 452, 226, 265-B9 (1995)

Testing Unified X-Ray/Ultraviolet Absorber Models with NGC 5548. *Smita Mathur, Martin Elvis, & Belinda Wilkes.* 452, 230, 265-C2 (1995)

The Nature of the Ultraviolet Continuum in Type 2 Seyfert Galaxies. *T. Heckman, J. Krolik, G. Meurer, D. Calzetti, A. Kinney, A. Koratkar, C. Leitherer, C. Robert, & A. Wilson.* 452, 549, 272-C3 (1995)

Models of the Optical/Ultraviolet Continuum Polarization in Active Galactic Nuclei: Implications for Unification Schemes. *John F. Kartje.* 452, 565, 272-D8 (1995)

Hubble Space Telescope Imaging Polarimetry of the Inner Nuclear Region of NGC 1068. *A. Capetti, F. Macchetto, D. J. Axon, W. B. Sparks, & A. Boksenberg.* 452, L87, 279-D9 (1995)

X-Ray Emission from the Supernova Remnant CTA 1. *F. D. Seward, B. Schmidt, & P. Slane.* 453, 284, 285-A11 (1995)

Disk-Corona Model of Active Galactic Nuclei with Nonthermal Pairs. *Sachiko Tsuruta & Michael Kellen.* 453, L9, 289-C7 (1995)

No X-Ray–luminous Starbursts in the *Einstein* Medium Sensitivity Survey, Either. *Jules P. Halpern, David J. Helfand, & Edward C. Moran.* 453, 611, 292-C10 (1995)

Multiwavelength Energy Distributions and Bolometric Luminosities of the 12 Micron Galaxy Sample. *Luigi Spinoglio, Matthew A. Malkan, Brian Rush, Luis Carrasco, & Elsa Recillas-Cruz.* 453, 616, 292-D4 (1995)

New Observations and a New Interpretation of CO(3–2) in IRAS F10214+4724. *D. Downes, P. M. Solomon, & S. J. E. Radford.* 453, L65, 298-B6 (1995)

Low-Luminosity and Obscured Seyfert Nuclei in Nearby Galaxies. *R. Maiolino & G. H. Rieke.* 454, 95, 300-E4 (1995)

Radio and Emission-Line Jets in the Type 2 Seyfert Galaxy Markarian 1066 (UGC 2456). *Gary Bower, Andrew Wilson, Jon A. Morse, Richard Gelderman, Mark Whittle, & John Mulchaey.* 454, 106, 300-F4 (1995)

The Far-Ultraviolet Spectrum of NGC 4151 as Observed with the Hopkins Ultraviolet Telescope on Astro-2. *Gerard A. Kriss, Arthur F. Davidsen, Wei Zheng, Jeffrey W. Kruk, & Brian R. Espey.* 454, L7, 307-C11 (1995)

Modeling the Multiwavelength Accretion Disk Spectrum of X-Ray–selected Active Galactic Nuclei. *R. J. Thompson, Jr.* 454, 660, 310-F13 (1995)

The Emission-Line Jet in Markarian 6. *A. Capetti, D. J. Axon, M. Kukula, F. Macchetto, A. Pedlar, W. B. Sparks, & A. Boksenberg.* 454, L85, 315-D9 (1995)

Active Galactic Nuclei Disk Winds, Absorption Lines, and Warm Absorbers. *N. Murray & J. Chiang.* 454, L105, 315-G7 (1995)

An Alignment between Optical Continuum and Emission-Line Structures in the Circumnuclear Regions of Seyfert Galaxies. *John S. Mulchaey & Andrew S. Wilson.* 455, L17, 324-E1 (1995)

High-Energy Spectral Complexity from Thermal Gradients in Black Hole Atmospheres. *J. G. Skibo & C. D. Dermer.* 455, L25, 324-F1 (1995)

Spectral Signatures of Fast Shocks. II. Optical Diagnostic Diagrams. *Michael A. Dopita & Ralph S. Sutherland.* 455, 468, 328-D5 (1995)

Hard X-Ray Emission from Extragalactic *IRAS* 12 Micron Sources: Constraints on the Unified Active Galactic Nucleus Model and the Synthesis of the X-Ray Background. *Xavier Barcons, Alberto Franceschini, Gianfranco De Zotti, Luigi Danese, & Takamitsu Miyaji.* 455, 480, 328-E7 (1995)

The H_2O Megamasers in NGC 2639—Evidence for an Accretion Disk in a LINER Nucleus. *A. S. Wilson, J. A. Braatz, & C. Henkel.* 455, L127, 333-F12 (1995)

H II Region Populations in Seyfert Galaxies. I. Database. *Zlatan I. Tsvetanov & Artashes R. Petrosian.* 101, 287, 57-F4 (1995)

GALAXIES: SPIRAL

^{13}CO in IC 342: Evidence for a Spiral Density Wave in the Nucleus. *Jean L. Turner & Robert L. Hurt.* 384, 72, 1-G13 (1992)

The Abundance Gradients across the Spiral Galaxies NGC 628 and NGC 6946. *Julien Belley & Jean-René Roy.* 78, 61, 2-C7 (1992)

Star Formation Efficiency Patterns in the Spiral Arms of M51. *Johan H. Knapen, John E. Beckman, Jordi Cepa, Thijs van der Hulst, & Richard J. Rand.* 385, L37, 23-B7 (1992)

Swing Amplification of Nonaxisymmetric Perturbations in Stars and Gas in a Sheared Galactic Disk. *Chanda J. Jog.* 390, 378, 80-B1 (1992)

Dissipational Galaxy Formation. II. Effects of Star Formation. *Neal Katz.* 391, 502, 94-B7 (1992)

The X-Ray Spectra of Galaxies. II. Average Spectral Properties and Emission Mechanisms. *D.-W. Kim, G. Fabbiano, & G. Trinchieri.* 393, 134, 115-F12 (1992)

The Structure of NGC 4565 at 100, 160, and 200 Microns: Continuum Dust Emission in a Quiescent Sb Galaxy. *G. Engargiola & D. A. Harper.* 394, 104, 129-C13 (1992)

Reproducing the Local and Global Morphological Segregation between S and S0 Galaxies in Rich Clusters by Simple Ram-Pressure Stripping. *José M. Solanes & Eduardo Salvador-Solé.* 395, 91, 141-C1 (1992)

Ultraviolet Imaging Telescope Observations of the Sc I Galaxy NGC 628 (M74). *Peter C. Chen, Robert H. Cornett, Morton S. Roberts, Ralph C. Bohlin, Susan G. Neff, Robert W. O'Connell, Ronald A. Parise, Andrew M. Smith, & Theodore P. Stecher.* 395, L41, 145-C5 (1992)

A Dynamical Analysis of the Barred Spiral Galaxy NGC 3359. *Roger Ball.* 395, 418, 147-E5 (1992)

Warm Ionized Gas in the Edge-on Galaxies NGC 4565 and NGC 4631. *Richard J. Rand, Shrinivas R. Kulkarni, & J. Jeff Hester.* 396, 97, 156-C6 (1992)

The Oxygen Abundance Gradient in the Barred Spiral Galaxy NGC 4303. *Pierre Martin & Jean-René Roy.* 397, 463, 176-D13 (1992)

Generalized Newtonian Force Law and Hidden Mass. *Richard L. Liboff.* 397, L71, 180-G1 (1992)

On the Distribution of Pitch Angles in External Galactic Spirals NGC 1232 and NGC 5457. *William S. Russell & William W. Roberts, Jr.* 398, 94, 183-B9 (1992)

The Opacity of Spiral Disks. *A. Bosma, Y. Byun, K. C. Freeman, & E. Athanassoula.* 400, L21, 214-C10 (1992)

On the Amplification of Large-Scale Magnetic Fields in Spiral Galaxies by Galactic Winds. *S. J. Spencer & L. E. Cram.* 400, 484, 216-C12 (1992)

NGC 4027: An Interacting One-armed Spiral Galaxy with a Warped Ring. *Bikram Phookun, Lee G. Mundy, Peter J. Teuben, & Richard J. Wainscoat.* 400, 516, 216-F10 (1992)

$H_0 = 43 \pm 11$ km s^{-1} Mpc^{-1} Based on Angular Diameters of High-Luminosity Field Spiral Galaxies. *Allan Sandage.* 402, 3, 1-B5 (1993)

Heating of Galactic Disks by Mergers. *P. J. Quinn, Lars Hernquist, & D. P. Fullagar.* 403, 74, 15-A3 (1993)

H_0 Found by Comparing Linear Diameters of M31 with Similar Field Galaxies. *Allan Sandage.* 404, 419, 34-B6 (1993)

A Molecular Spiral Arm Segment of M51 at 3.5 Arcsecond Resolution. *Richard J. Rand.* 404, 593, 36-C14 (1993)

Warm Molecular Gas in a Starburst: CO (3–2) Observations of Maffei 2. *Robert L. Hurt, Jean L. Turner, Paul T. P. Ho, & Robert N. Martin.* 404, 602, 36-D11 (1993)

The Scale Height and Radial Distribution of Molecular Gas in NGC 891. *N. Z. Scoville, D. Thakkar, J. E. Carlstrom, & A. I. Sargent.* 404, L59, 40-D7 (1993)

A Measurement of Ω_0 from the Internal Dynamics of Spiral Galaxies. *Paolo Salucci, Massimo Persic, & Stefano Borgani.* 405, 459, 48-G1 (1993)

Satellites of Spiral Galaxies. *Dennis Zaritsky, Rodney Smith, Carlos Frenk, & Simon D. M. White.* 405, 464, 48-G7 (1993)

The Ionized Gas in the Center and in the Bar of the Spiral Galaxy NGC 6946. *Jean-René Roy & Julien Belley.* 406, 60, 55-G1 (1993)

Spiral Structure of the Giant Galaxy UGC 2885: Hα Kinematics. *Blaise Canzian, R. J. Allen, & R. P. J. Tilanus.* 406, 457, 63-D7 (1993)

The Local Galaxy Density and the Bars of Spiral Galaxies. *Giuliano Giuricin, Fabio Mardirossian, Marino Mezzetti, & Pierluigi Monaco.* 407, 22, 69-D1 (1993)

An Hα Survey of Cluster Spirals: Comparison of Star Formation in Clusters and the Field. *C. Moss & M. Whittle.* 407, L17, 75-C1 (1993)

158 Micron [C II] Mapping of NGC 6946: Probing the Atomic Medium. *S. C. Madden, N. Geis, R. Genzel, F. Herrmann, J. Jackson, A. Poglitsch, G. J. Stacey, & C. H. Townes.* 407, 579, 77-F12 (1993)

21 Centimeter Study of Spiral Galaxies in Clusters. III. Neutral Gas Content, Star Formation, and Radio Continuum Properties. *Marco Scodeggio & Giuseppe Gavazzi.* 409, 110, 98-C8 (1993)

An Atlas of Ultraviolet Spectra of Star-forming Galaxies. *A. L. Kinney, R. C. Bohlin, D. Calzetti, N. Panagia, & Rosemary F. G. Wyse.* 86, 5, 14-B9 (1993)

The Circumnuclear Region of NGC 5728. *S. Arribas & E. Mediavilla.* 410, 552, 120-E5 (1993)

The Interacting System NGC 7753–7752 (Arp 86). II. *N*-Body Modeling. *Heikki Salo & Eija Laurikainen.* 410, 586, 121-A6 (1993)

Abundances of H II Regions in Early-Type Spiral Galaxies. *M. S. Oey & R. C. Kennicutt, Jr.* 411, 137, 128-G3 (1993)

H I Streamers around M82: Tidally Disrupted Outer Gas Disk. *Min S. Yun, Paul T. P. Ho, & K. Y. Lo.* 411, L17, 133-F1 (1993)

An Interaction Model for the Formation of Dwarf Galaxies and 10^8 $M_\odot$ Clouds in Spiral Disks. *B. G. Elmegreen, M. Kaufman, & M. Thomasson.* 412, 90, 143-B10 (1993)

Aperture Synthesis Mapping of CO (2–1) in IC 342. *Jean L. Turner, Robert L. Hurt, & David Y. Hudson.* 413, L19, 162-D1 (1993)

Analysis of the Distribution of Pitch Angles in Model Galactic Disks: Numerical Methods and Algorithms. *William S. Russell & William W., Jr. Roberts.* 414, 86, 171-B5 (1993)

Kiloparsec-Scale Molecular Gas Excitation in Spiral Galaxies. *W. F. Wall, D. T. Jaffe, F. N. Bash, F. P. Israel, P. R. Maloney, & F. Baas.* 414, 98, 171-C5 (1993)

Star Formation in the Spiral Arms of NGC 4321. II. H I Distribution and Kinematics. *Johan H. Knapen, Jordi Cepa, John E. Beckman, M. Soledad del Rio, & Alan Pedlar.* 416, 563, 210-D1 (1993)

An Hα Atlas of Nearby Southern Spiral Galaxies. *Stuart D. Ryder & Michael A. Dopita.* 88, 415, 45-F7 (1993)

NGC 4254: A Spiral Galaxy with an $m = 1$ Mode and Infalling Gas. *Bikram Phookun, Stuart N. Vogel, & Lee G. Mundy.* 418, 113, 232-D12 (1993)

Tracing the Stellar Mass in M51. *Hans-Walter Rix & Marcia J. Rieke.* 418, 123, 232-E10 (1993)

Dense Gas in the Bulges of External Galaxies. *Tamara T. Helfer & Leo Blitz.* 419, 86, 247-B13 (1993)

The Ionization Cones in the Seyfert Galaxy NGC 5728. *A. S. Wilson, J. A. Braatz, T. M. Heckman, J. H. Krolik, & G. K. Miley.* 419, L61, 259-C7 (1993)

H II Regions and the Abundance Properties of Spiral Galaxies. *Dennis Zaritsky, Robert C. Kennicutt, Jr., & John P. Huchra.* 420, 87, 2-B1 (1994)

X-Ray–emitting Gas Surrounding the Spiral Galaxy NGC 891. *Joel N. Bregman & Rachel A. Pildis.* 420, 570, 9-F7 (1994)

A ^{12}CO, ^{13}CO, and CS Study of NGC 2146 and IC 342. *Shuding Xie, Judith Young, & F. Peter Schloerb.* 421, 434, 23-E7 (1994)

Evolution of Spiral Galaxies. II. The Star Formation History in the Solar Neighborhood. *Maria Chiara Pardi & Federico Ferrini.* 421, 491, 24-C7 (1994)

An H I Survey of High-Velocity Clouds in Nearby Disk Galaxies. *Eric Schulman, Joel N. Bregman, & Morton S. Roberts.* 423, 180, 48-C9 (1994)

Extraplanar Emission-Line Gas in NGC 891. *Rachel A. Pildis, Joel N. Bregman, & James M. Schombert.* 423, 190, 48-D7 (1994)

On the Progenitors of Type Ia Supernovae in Early-Type and Late-Type Galaxies. *Massimo Della Valle & Mario Livio.* 423, L31, 53-E3 (1994)

The Influence of Bars on the Chemical Composition of Spiral Galaxies. *Pierre Martin & Jean-René Roy.* 424, 599, 72-B10 (1994)

On the Size and Formation Mechanism of the Largest Star-forming Complexes in Spiral and Irregular Galaxies. *Debra Meloy Elmegreen, Bruce G. Elmegreen, Cornelia Lang, & Carnella Stephens.* 425, 57, 80-G11 (1994)

Far-Infrared Emission from the Bulges of Early-Type Spirals: KAO Observations of NGC 4736 (M94) and NGC 3627 (M66). *Beverly J. Smith, P. M. Harvey, C. Colomé, C. Y. Zhang, J. DiFrancesco, & R. W. Pogge.* 425, 91, 81-C9 (1994)

The Local Galaxy Density and the Arm Class of Spiral Galaxies. *Giuliano Giuricin, Pierluigi Monaco, Fabio Mardirossian, & Marino Mezzetti.* 425, 450, 87-C11 (1994)

Far-Infrared Properties of Early-Type Galaxies. *P. Mazzei & G. De Zotti.* 426, 97, 97-C5 (1994)

A Very Metal poor H II Region in the Outer Disk of M101. *Donald R. Garnett & Robert C. Kennicutt, Jr.* 426, 123, 97-F1 (1994)

UIT: Ultraviolet Surface Photometry of the Spiral Galaxy M74 (NGC 628). *Robert H. Cornett, Robert W. O'Connell, Michael R. Greason, Joel D. Offenberg, Ronald J. Angione, Ralph C. Bohlin, K. P. Cheng, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, Fred D. Talbert, & Theodore P. Stecher.* 426, 553, 105-C7 (1994)

Formation of a Retrograde Spiral Arm Induced by a Ram Pressure. *Makoto Tosa.* 426, L81, 109-E1 (1994)

Radio-emitting Dust in the Free Electron Layer of Spiral Galaxies: Testing the Disk/Halo Interface. *A. Ferrara & R.-J. Dettmar.* 427, 155, 111-G7 (1994)

Modal Approach to the Morphology of Spiral Galaxies. III. Application to the Galaxy M81. *S. A. Lowe, W. W. Roberts, J. Yang, G. Bertin, & C. C. Lin.* 427, 184, 112-C11 (1994)

The Nuclear 10 Micron Emission of Spiral Galaxies. *Giuliano Giuricin, Laura Tamburini, Fabio Mardirossian, Marino Mezzetti, & Pierluigi Monaco.* 427, 202, 112-E1 (1994)

Evolution of Spiral Galaxies. III. Application of the Multiphase Model to the Galactic Disk. *Federico Ferrini, Mercedes Mollá, Maria Chiara Pardi, & Angeles I. Díaz.* 427, 745, 122-A3 (1994)

Do Spirals and Ellipticals Trace the Same Velocity Field? *Tsafrir Kolatt & Avishai Dekel.* 428, 35, 128-F1 (1994)

A Model for the Declining Rotation Curves of Cluster Spiral Galaxies. *Monica Valluri.* 430, 101, 160-C9 (1994)

The Byurakan Classification and the Far-Infrared Radiation of Spiral Galaxies. *H. M. Tovmassian.* 430, 139, 160-G3 (1994)

The Relationship between Past and Present Star Formation in Galactic Disks from CCD Surface Photometry. *Stuart D. Ryder & Michael A. Dopita.* 430, 142, 160-G8 (1994)

On the Law of Star Formation in Disk Galaxies. *Michael A. Dopita & Stuart D. Ryder.* 430, 163, 161-B3 (1994)

Interaction, Star Formation, and H I Deficiency in E + S Pairs. *A. V. Zasov & Jack W. Sulentic.* 430, 179, 161-C8 (1994)

Diffuse Ionized Gas in the Spiral Galaxy M31. *René A. M. Walterbos & Robert Braun.* 431, 156, 178-B3 (1994)

Diagnostics of Dust Content in Spiral Galaxies: Numerical Simulations of Radiative Transfer. *Y. I. Byun, K. C. Freeman, & N. D. Kylafis.* 432, 114, 194-F1 (1994)

Galaxy Properties in Different Environments. II. Star Formation in Bulges of Late-Type Spirals. *M. G. Pastoriza, E. Bica, M. Maia, Ch. Bonatto, & H. Dottori.* 432, 128, 194-G3 (1994)

Infrared Imaging of Spiral Galaxies: Colors and Luminosity Profiles. *Donald M. Terndrup, Roger L. Davies, Jay A. Frogel, D. L. DePoy, & Lisa A. Wells.* 432, 518, 202-D5 (1994)

Counterrotating Stars in the Disk of the Sab Galaxy NGC 7217. *Michael R. Merrifield & Konrad Kuijken.* 432, 575, 203-B6 (1994)

A *ROSAT* Observation of the Nearby Spiral Galaxy NGC 6946. *Eric M. Schlegel.* 434, 523, 235-A4 (1994)

Past and Future Star Formation in Disk Galaxies. *Robert C. Kennicutt, Jr., Peter Tamblyn, & Charles W. Congdon.* 435, 22, 243-E5 (1994)

The Massive Halos of Spiral Galaxies. *Dennis Zaritsky & Simon D. M. White.* 435, 599, 254-D1 (1994)

Complex Ionization Structure and Kinematics in the Circumnuclear Region of NGC 3227. *S. Arribas & E. Mediavilla.* 437, 149, 285-C4 (1994)

The Gravitational Potential of the Bar in NGC 4314. *A. C. Quillen, Jay A. Frogel, & Rosa A. González.* 437, 162, 285-D6 (1994)

Galactic Magnetism and the Rotation Curves of M31 and the Milky Way. *J. P. Vallée.* 437, 179, 285-F1 (1994)

The Mass-to-Light Ratios of Low Surface Brightness Spiral Galaxies: Clues from the Tully-Fisher Relation. *D. Sprayberry, G. M. Bernstein, C. D. Impey, & G. D. Bothun.* 438, 72, 2-C10 (1995)

The Relation between Dynamical Perturbations, Morphology, and Nuclear Activity in Spiral Galaxies. *Mariano Moles, Isabel Márquez, & Enrique Pérez.* 438, 604, 12-D13 (1995)

A Bowl-shaped Mode of Galactic Disks. *Linda S. Sparke.* 439, 42, 21-F13 (1995)

ROSAT Detection of Diffuse Hot Gas in the Edge-on Galaxy NGC 4631. *Q. Daniel Wang, René A. M. Walterbos, Michael F. Steakly, Colin A. Norman, & Robert Braun.* 439, 176, 23-E13 (1995)

Imaging the Host Galaxies of High-Redshift Radio-quiet QSOs. *James D. Lowenthal, Timothy M. Heckman, Matthew D. Lehnert, & J. H. Elias.* 439, 588, 32-D11 (1995)

Millimeter Observations of a Complete Sample of *IRAS* Galaxies: Dust Emission and Absorption in Spirals. *Alberto Franceschini & Paola Andreani.* 440, L5, 48-B8 (1995)

The Interaction between Hot and Cold Gas in Early-Type Galaxies. *Joel N. Bregman, David E. Hogg, & Morton S. Roberts.* 441, 561, 69-F9 (1995)

A Technique for Determining the Extragalactic Distance Scale. *Masashi Chiba & Yuzuru Yoshii.* 442, 82, 78-C11 (1995)

The Settling of Warped Disks in Oblate Dark Halos. *John Dubinski & Konrad Kuijken.* 442, 492, 86-F7 (1995)

Establishing the Connection between Peanut-shaped Bulges and Galactic Bars. *Konrad Kuijken & Michael R. Merrifield.* 443, L13, 102-C11 (1995)

Star Formation Activity in Spiral Galaxy Disks and the Properties of Radio Halos: Observational Evidence for a Direct Dependence. *Michael Dahlem, Ute Lisenfeld, & Götz Golla.* 444, 119, 115-A3 (1995)

The Local Metallicity–Surface Brightness Relationship in Galactic Disks. *Stuart D. Ryder.* 444, 610, 124-F12 (1995)

The Interstellar Disk–Halo Connection in the Spiral Galaxy NGC 3079. *Sylvain Veilleux, Gerald Cecil, & J. Bland-Hawthorn.* 445, 152, 134-D11 (1995)

The Oxygen Distribution in NGC 3359 or a Disk Galaxy in the Early Phase of Bar Formation. *Pierre Martin & Jean-René Roy.* 445, 161, 134-F3 (1995)

The Spatial Variation of the Infrared-to-Radio Ratio in Spiral Galaxies. *K. A. Marsh & G. Helou.* 445, 599, 143-C9 (1995)

A Supergiant Supernova-blown Bubble in the Spiral Galaxy NGC 1620. *J. Patricia Vader & Brian Chaboyer.* 445, 691, 144-F1 (1995)

Soft X-Ray Emission from the Spiral Galaxy NGC 1313. *Edward J. M. Colbert, Robert Petre, Eric M. Schlegel, & Stuart D. Ryder.* 446, 177, 155-F2 (1995)

The Structure of Dark Matter Halos in Dwarf Galaxies. *A. Burkert.* 447, L25, 180-G1 (1995)

Molecular Gas in the Inner 3.2 Kiloparsecs of NGC 2403: Star Formation at Subcritical Gas Surface Densities. *Michele D. Thornley & Christine D. Wilson.* 447, 616, 184-E10 (1995)

Type Ia Supernova Scenarios and the Hubble Sequence. *P. Ruiz-Lapuente, A. Burkert, & R. Canal.* 447, L69, 190-C1 (1995)

The Morphological Mix of Field Galaxies to $m_i = 24.25$ mag ($b_J \sim 26$ mag) From a Deep Hubble Space Telescope WFRC2 Image. *Simon P. Driver, Rogier A. Windhorst, Eric J. Ostrander, William C. Keel, Richard E. Griffiths, & Kavan U. Ratnatunga.* 449, L23, 216-C11 (1995)

Dust and Molecular Gas in the Barred Spiral Galaxy NGC 1530. *Michael W. Regan, Stuart N. Vogel, & Peter J. Teuben.* 449, 576, 220-F10 (1995)

Rotation Curves of 967 Spiral Galaxies. *Massimo Persic & Paolo Salucci.* 99, 501, 42-A11 (1995)

NGC 7217: A Spheroid-dominated, Early-Type Resonance Ring Spiral Galaxy. *R. Buta, W. van Driel, J. Braine, F. Combes, K. Wakamatsu, Y. Sofue, & A. Tomita.* 450, 593, 238-G13 (1995)

NGC 6946: Molecular Spiral Arms Masquerading as a Bar? *Michael W. Regan & Stuart N. Vogel.* 452, L21, 269-E11 (1995)

The Milky Way's Spiral Arms Traced by Magnetic Fields, Dust, Gas, and Stars. *J. P. Vallée.* 454, 119, 300-G9 (1995)

A Search for Far-Ultraviolet Emission Lines from Diffuse Hot Gas in the Halo of NGC 4631. *Henry C. Ferguson, W. Van Dyke Dixon, Arthur F. Davidsen, & Ralf-Juergen Dettmar.* 454, L23, 307-E13 (1995)

The Central Region in M100: Observations and Modeling. *J. H. Knapen, J. E. Beckman, C. H. Heller, I. Shlosman, & R. S. de Jong.* 454, 623, 310-B4 (1995)

Evolution of Spiral Galaxies. V. The Galactic Bulge. *Mercedes Mollá & Federico Ferrini.* 454, 726, 311-F9 (1995)

The Hard X-Ray Emission of NGC 3628 and the Contribution of Low-Luminosity Spiral Galaxies to the Cosmic X-Ray Background. *Tahir Yaqoob, Peter J. Serlemitsos, Andy Ptak, Richard Mushotzky, Hideyo Kunieda, & Yuichi Terashima.* 455, 508, 329-A4 (1995)

GALAXIES: STARBURST

Ultraluminous *IRAS* Galaxies: Formation of Elliptical Galaxies by Merger-induced Dissipative Collapse. *John Kormendy & David B. Sanders.* 390, L53, 84-E1 (1992)

Radio and Infrared Emission from Markarian Starburst Galaxies. *Peter C. Stine.* 81, 49, 35-F9 (1992)

High-Resolution 12.4 Micron Images of the Starburst Region in M82. *C. M. Telesco & D. Y. Gezari.* 395, 461, 148-B11 (1992)

Twin Peaks of CO Emission in the Central Regions of Barred Galaxies. *Jeffrey D. P. Kenney, Christine D. Wilson, Nick Z. Scoville, Nicholas A. Devereux, & Judith S. Young.* 395, L79, 153-G5 (1992)

An Interacting Galaxy Pair in the Bootes Void. *D. Weistrop, P. Hintzen, R. C. Kennicutt, Jr., C. Liu, J. Lowenthal, K.-P. Cheng, R. Oliversen, & B. Woodgate.* 396, L23, 160-E1 (1992)

The He I λ2.06 Microns/Brγ Ratio in Starburst Galaxies—An Objective Constraint on the Upper Mass Limit to the Initial Mass Function. *René Doyon, P. J. Puxley, & R. D. Joseph.* 397, 117, 169-D9 (1992)

Submillimeter Spectrum and Dust Mass of the Primeval Galaxy IRAS 10214+4724. *D. Downes, S. J. E. Radford, A. Greve, C. Thum, P. M. Solomon, & J. E. Wink.* 398, L25, 187-D7 (1992)

Warm Molecular Gas in the Primeval Galaxy IRAS 10214+4724. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 398, L29, 187-E1 (1992)

Lyman-Alpha Emission in Star-forming Galaxies: Low-Redshift Counterparts of Primeval Galaxies? *D. Calzetti & A. L. Kinney.* 399, L39, 200-D5 (1992)

Discovery of a Synchrotron-emitting Halo around NGC 253. *C. L. Carilli, M. A. Holdaway, P. T. P. Ho, & C. G. De Pree.* 399, L59, 200-F8 (1992)

Starbursts Triggered by Central Overpressure in Interacting Galaxies. *Chanda J. Jog & Mousumi Das.* 400, 476, 216-C1 (1992)

Optical Spectrophotometry of Wolf-Rayet Galaxies. *William D. Vacca & Peter S. Conti.* 401, 543, 229-D1 (1992)

Infrared Polarimetry of Galaxies. III. Global Comparisons. *Terry Jay Jones.* 403, 135, 15-F5 (1993)

NGC 4945: A Postburst Infrared Galaxy. *Jan Koornneef.* 403, 581, 22-G8 (1993)

Warm Molecular Gas in a Starburst: CO (3–2) Observations of Maffei 2. *Robert L. Hurt, Jean L. Turner, Paul T. P. Ho, & Robert N. Martin.* 404, 602, 36-D11 (1993)

Microjansky Source Counts and Spectral Indices at 8.44 GHz. *Rogier A. Windhorst, Edward B. Fomalont, R. Bruce Partridge, & James D. Lowenthal.* 405, 498, 49-C5 (1993)

Near-Infrared Line Imaging of NGC 6240: Collision Shock and Nuclear Starburst. *Paul P. van der Werf, R. Genzel, A. Krabbe, M. Blietz, D. Lutz, S. Drapatz, Martin J. Ward, & Duncan A. Forbes.* 405, 522, 49-E7 (1993)

The Excitation Mechanism of [Fe II] 1.644 Micron Emission in Seyfert and Starburst Galaxies Revisited. *Hideaki Mouri, Kimiaki Kawara, & Yoshiaki Taniguchi.* 406, 52, 55-F5 (1993)

Optical Imaging and Long-Slit Spectroscopy of Markarian Galaxies with Multiple Nuclei. I. Basic Data. *Joseph M. Mazzarella & Todd A. Boroson.* 85, 27, 6-E1 (1993)

The Stellar Velocity Dispersion in the Nucleus of M82. *Niall I. Gaffney, Dan F. Lester, & C. M. Telesco.* 407, L57, 82-C6 (1993)

An Atlas of Ultraviolet Spectra of Star-forming Galaxies. *A. L. Kinney, R. C. Bohlin, D. Calzetti, N. Panagia, & Rosemary F. G. Wyse.* 86, 5, 14-B9 (1993)

HST Observations of NGC 4395, the Least Luminous Seyfert 1 Nucleus: Evidence against the Starburst Hypothesis for Broad-lined Active Galactic Nuclei. *Alexei V. Filippenko, Luis C. Ho, & Wallace L. W. Sargent.* 410, L75, 125-F11 (1993)

H I Streamers around M82: Tidally Disrupted Outer Gas Disk. *Min S. Yun, Paul T. P. Ho, & K. Y. Lo.* 411, L17, 133-F1 (1993)

[Fe II] 1.64 Micron Emission in High-Luminosity and Ultraluminous *IRAS* Galaxies. *Luis Colina.* 411, 565, 136-F3 (1993)

Starburst Modeling of M82: Test Case for a Biased Initial Mass Function. *G. H. Rieke, K. Loken, M. J. Rieke, & P. Tamblyn.* 412, 99, 143-C9 (1993)

M82: The Saga Continues. *K. K. McLeod, G. H. Rieke, M. J. Rieke, & D. M. Kelly.* 412, 111, 143-D10 (1993)

Aperture Synthesis Mapping of CO (2–1) in IC 342. *Jean L. Turner, Robert L. Hurt, & David Y. Hudson.* 413, L19, 162-D1 (1993)

The Mid-Infrared Radio Correlation at High Angular Resolution: NGC 253. *Eric Keto, Roger Ball, John Arens, Garrett Jernigan, Margaret Meixner, Christopher Skinner, & James Graham.* 413, L23, 162-D7 (1993)

Cosmic-Ray–dominated Dense Molecular Gas in Normal and Starburst Galaxies. *Anatoly Suchkov, Ronald J. Allen, & Timothy M. Heckman.* 413, 542, 163-C1 (1993)

The Genesis of Starbursts and Infrared Emission in the Centers of Galaxies. *C. M. Telesco, L. L. Dressel, & R. D. Wolstencroft.* 414, 120, 171-E3 (1993)

Molecular Gas Mass and Far-Infrared Emission from Distant Luminous Galaxies. *D. Downes, P. M. Solomon, & S. J. E. Radford.* 414, L13, 175-D6 (1993)

CO Emission in the Radio-loud Quasar 3C 48. *N. Z. Scoville, S. Padin, D. B. Sanders, B. T. Soifer, & M. S. Yun.* 415, L75, 199-E7 (1993)

X-Ray Emission from the Starburst Galaxy IC 342. *Joel N. Bregman, Caroline V. Cox, & Kohji Tomisaka.* 415, L79, 199-E13 (1993)

Atomic Carbon in M82. *Peter Schilke, John E. Carlstrom, Jocelyn Keene, & T. G. Phillips.* 417, L67, 230-C3 (1993)

Contributions of Starburst Galaxies and Reflection-dominated Active Galactic Nuclei to the Cosmic X-Ray Background. *Paul M. Ricker & P. Mészáros.* 418, 49, 231-F8 (1993)

Molecular Gasdynamics of the Young Nuclear Starburst in the Barred Galaxy NGC 3504. *Jeffrey D. P. Kenney, John E. Carlstrom, & Judith S. Young.* 418, 687, 241-A13 (1993)

Synthetic UV Lines of Si IV, C IV, and He II from a Population of Massive Stars in Starburst Galaxies. *Carmelle Robert, Claus Leitherer, & Timothy M. Heckman.* 418, 749, 241-G7 (1993)

On the Lyman-Alpha Emission of Starburst Galaxies. *David Valls-Gabaud.* 419, 7, 246-B9 (1993)

The He I 2.06 Micron to Brackett γ Ratio as a Nebular Diagnostic. *Joseph C. Shields.* 419, 181, 248-D4 (1993)

Stellar Evolution in the Starburst Galaxy M82: Evidence for a Top-heavy Initial Mass Function. *Jay S. Doane & William G. Mathews.* 419, 573, 254-G9 (1993)

Truncated Initial Mass Function in Starburst Galaxies. *Stéphane Charlot, Frank Ferrari, G. J. Mathews, & Joseph Silk.* 419, L57, 259-C1 (1993)

High-Resolution Continuum and Brγ Imaging Observations of M82. *J. E. Larkin, J. R. Graham, K. Matthews, B. T. Soifer, S. Beckwith, T. M. Herbst, & A. C. Quillen.* 420, 159, 3-A1 (1994)

Near-Infrared Imaging of FSC 10214+4724 with the W. M. Keck Telescope. *K. Matthews, B. T. Soifer, J. Nelson, H. Boesgaard, J. R. Graham, W. Harrison, W. Irace, G. Jernigan, J. E. Larkin, H. Lewis, S. Lin, G. Neugebauer, M. Sirota, G. Smith, & C. Ziomkowski.* 420, L13, 7-C5 (1994)

A Near-Infrared Spectroscopic Study of the Luminous Merger NGC 3256. I. Constraints on the Initial Mass Function of the Starburst. *René Doyon, R. D. Joseph, & G. S. Wright.* 421, 101, 17-C10 (1994)

A Near-Infrared Spectroscopic Study of the Luminous Merger NGC 3256. II. Evidence for Fluorescent Molecular Hydrogen Emission. *René Doyon, G. S. Wright, & R. D. Joseph.* 421, 115, 17-D12 (1994)

3.3 Micron Emission Feature in Infrared Galaxies. *Kohei Mizutani, Hiroshi Suto, & Toshinori Maihara.* 421, 475, 24-B1 (1994)

Starburst Models of Merging Galaxies. *A. H. Prestwich, R. D. Joseph, & Gillian S. Wright.* 422, 73, 31-A3 (1994)

The Interstellar Medium in the Starburst Regions of NGC 253 and NGC 3256. *P. Carral, D. J. Hollenbach, S. D. Lord, S. W. J. Colgan, Michael R. Haas, R. H. Rubin, & E. F. Erickson.* 423, 223, 48-G7 (1994)

Do the More Powerful Monsters Live in the More Actively Star-forming Host Galaxies? *Toru Yamada.* 423, L27, 53-D11 (1994)

Complex Radio Structure in the Peculiar Pair of Interacting Starburst Galaxies NGC 3395 and NGC 3396. *Zhen-Ping Huang, Qi-Feng Yin, William C. Saslaw, & David S. Heeschen.* 423, 614, 56-B5 (1994)

HST UV Imaging of the Starburst Regions in the Wolf-Rayet Galaxy He 2-10: Newly Formed Globular Clusters? *Peter S. Conti & William D. Vacca.* 423, L97, 60-D5 (1994)

Fueling Nuclear Activity in Disk Galaxies: Starbursts and Monsters. *Clayton H. Heller & Isaac Shlosman.* 424, 84, 63-B1 (1994)

Compact Radio Structure in the Starburst Galaxy M82 and the $\Sigma - D$ Relation for Supernova Remnants. *Z. P. Huang, T. X. Thuan, R. A. Chevalier, J. J. Condon, & Q. F. Yin.* 424, 114, 63-D7 (1994)

Do the Compact Radio Sources in NGC 253 and M82 Fade over Time? *James S. Ulvestad & Robert R. J. Antonucci.* 424, L29, 69-D10 (1994)

IRAS F15307+3252: A Hyperluminous Infrared Galaxy at $z = 0.93$. *Roc M. Cutri, John P. Huchra, Frank J. Low, Robert L. Brown, & Paul A. Vanden Bout.* 424, L65, 78-E1 (1994)

Near-Infrared Spectral Imaging of NGC 1808: Probing the Starburst. *A. Krabbe, A. Sternberg, & R. Genzel.* 425, 72, 81-B2 (1994)

Triggering of Starbursts in Galaxies by Minor Mergers. *J. Christopher Mihos & Lars Hernquist.* 425, L13, 85-C5 (1994)

Starbursts by Gravitational Collapse in the Inner Lindblad Resonance Rings of Galaxies. *B. G. Elmegreen.* 425, L73, 94-C8 (1994)

HST Images of Very Compact Blue Galaxies at $z \sim 0.2$. *David C. Koo, Matthew A. Bershady, Gregory D. Wirth, S. Adam Stanford, & Steven R. Majewski.* 427, L9, 117-B8 (1994)

Molecular Hydrogen Emission in Galaxies: Determination of Excitation Mechanism. *Hideaki Mouri.* 427, 777, 122-C12 (1994)

The Reddening Law outside the Local Group Galaxies: The Case of NGC 7552 and NGC 5236. *Anne L. Kinney, Daniela Calzetti, Eduardo Bica, & Thaisa Storchi-Bergmann.* 429, 172, 146-C2 (1994)

Ultraviolet to Near-Infrared Spectral Distributions of Star-forming Galaxies: Metallicity and Age Effects. *Thaisa Storchi-Bergmann, Daniela Calzetti, & Anne L. Kinney.* 429, 572, 152-G5 (1994)

Dust Extinction of the Stellar Continua in Starburst Galaxies: The Ultraviolet and Optical Extinction Law. *Daniela Calzetti, Anne L. Kinney, & Thaisa Storchi-Bergmann.* 429, 582, 153-A1 (1994)

Extended Infrared Line Emission Excited by Starburst and Seyfert Activity in NGC 3256 and NGC 4945. *A. F. M. Moorwood & E. Oliva.* 429, 602, 153-B9 (1994)

Millimeter Recombination Lines and the State of Ionized Gas in M82. *E. R. Seaquist, C. R. Kerton, & M. B. Bell.* 429, 612, 153-C13 (1994)

The Hidden Nuclear Spectrum of the Luminous *IRAS* Source FSC 10214+4724. *Buell T. Jannuzi, Richard Elston, Gary D. Schmidt, Paul S. Smith, & H. S. Stockman.* 429, L49, 157-G1 (1994)

Dynamics and X-Ray Emission of a Galactic Superwind Interacting with Disk and Halo Gas. *Anatoly A. Suchkov, Dinshaw S. Balsara, Timothy M. Heckman, & Claus Leitherer.* 430, 511, 168-B5 (1994)

VV 114: Making of an Ultraluminous Galaxy? *M. S. Yun, N. Z. Scoville, & R. A. Knop.* 430, L109, 174-F9 (1994)

Ultraluminous Starbursts in Major Mergers. *J. Christopher Mihos & Lars Hernquist.* 431, L9, 182-C13 (1994)

Stellar Kinematics in the Nucleus of NGC 6240: A Massive Galaxy Revealed. *Dan F. Lester & Niall I. Gaffney.* 431, L13, 182-D7 (1994)

The Effect of Central Starbursts on the Interstellar Medium of Dwarf Galaxies. *David S. De Young & Timothy M. Heckman.* 431, 598, 186-A6 (1994)

A More Direct Measure of Supernova Rates in Starburst Galaxies. *Dave Van Buren & Matthew A. Greenhouse.* 431, 640, 186-E5 (1994)

Soft X-Ray Observations of the Interacting Galaxies NGC 1808 and NGC 1792. *Michael Dahlem, Gisela D. Hartner, & Norbert Junkes.* 432, 598, 203-D7 (1994)

Hawaii 167: A Compact Absorption-Line Object at $z = 2.35$. *L. L. Cowie, A. Songaila, E. M. Hu, E. Egami, J.-S. Huang, A. J. Pickles, S. E. Ridgway, R. J. Wainscoat, & R. J. Weymann.* 432, L83, 206-E1 (1994)

Hubble Space Telescope Imaging of Super–Star Clusters in NGC 1569 and NGC 1705. *Robert W. O'Connell, John S. Gallagher III, & Deidre A. Hunter.* 433, 65, 209-A13 (1994)

The True Nature of *IRAS*-selected, X-Ray–luminous "Normal" Galaxies in the *ROSAT* All-Sky Survey. *Edward C. Moran, Jules P. Halpern, & David J. Helfand.* 433, L65, 223-E10 (1994)

Near-Infrared Observations of FSC 15307+3252. *B. T. Soifer, G. Neugebauer, K. Matthews, & L. Armus.* 433, L69, 223-F5 (1994)

The Radio Emission from the Ultraluminous Far-Infrared Galaxy NGC 6240. *Edward J. M. Colbert, Andrew S. Wilson, & Jonathan Bland-Hawthorn.* 436, 89, 262-D12 (1994)

Galaxies with Extreme Infrared and Fe II Emission. II. IRAS 07598+6508: A Starburst/Young Broad Absorption Line QSO. *Sebastian Lípari.* 436, 102, 262-F1 (1994)

Gamma-Ray Observations of NGC 253 and M82 with OSSE. *D. Bhattacharya, L.-S. The, J. D. Kurfess, D. D. Clayton, N. Gehrels, M. D. Leising, D. A. Grabelsky, W. N. Johnson, G. V. Jung, R. L. Kinzer, W. R. Purcell, M. S. Strickman, & M. P. Ulmer.* 437, 173, 285-E6 (1994)

Dense Stellar Cores in Merger Remnants. *J. Christopher Mihos & Lars Hernquist.* 437, L47, 292-A1 (1994)

Possible Detection of a CO Emission Line from a Quasar at $z = 2.88$. *Toru Yamada, Kentaro Aoki, Akihiko Tomita, Tadafumi Takata, Kouji Ohta, & Michitoshi Yoshida.* 438, L5, 9-E9 (1995)

Observations of the Impact of Starbursts on the Interstellar Medium in Dwarf Galaxies. *Amanda T. Marlowe, Timothy M. Heckman, Rosemary F. G. Wyse, & Robert Schommer.* 438, 563, 12-A3 (1995)

The Detection of Molecular Gas in the Ring Galaxy Arp 143. *James L. Higdon, Beverly J. Smith, Steven D. Lord, & Richard J. Rand.* 438, L79, 19-F7 (1995)

High-Resolution X-Ray Imaging of the Starburst Galaxy M82. *Joel N. Bregman, Eric Schulman, & Kohji Tomisaka.* 439, 155, 23-C13 (1995)

Synthetic Properties of Starburst Galaxies. *Claus Leitherer & Timothy M. Heckman.* 96, 9, 1-B12 (1995)

The Starburst Galaxy NGC 7714. *Rosa González-Delgado, Enrique Pérez, Ángeles I. Díaz, María Luisa García-Vargas, Elena Terlevich, & José M. Vílchez.* 439, 604, 32-F9 (1995)

The Luminous Starburst Galaxy UGC 8387. *Denise A. Smith, Terry Herter, Martha P. Haynes, C. A. Beichman, & T. N. Gautier III.* 439, 623, 33-A4 (1995)

Millimeter Observations of a Complete Sample of *IRAS* Galaxies: Dust Emission and Absorption in Spirals. *Alberto Franceschini & Paola Andreani.* 440, L5, 48-B8 (1995)

Hubble Space Telescope Imaging of a Radio-quiet Galaxy at Redshift $z = 3.4$. *Mauro Giavalisco, F. Duccio Macchetto, Piero Madau, & William B. Sparks.* 441, L13, 66-D12 (1995)

Ionized Gas in the Halos of Edge-on, Starburst Galaxies: Data and Results. *Matthew D. Lehnert & Timothy M. Heckman.* 97, 89, 12-B3 (1995)

The Nuclear X-Ray Source in NGC 3628: A Strange Active Galactic Nucleus or the Most Luminous High-Mass X-Ray Binary Known? *Michael Dahlem, Timothy M. Heckman, & Giuseppina Fabbiano.* 442, L49, 94-C9 (1995)

The Heating of Dust in Starburst Galaxies: The Contribution of the Nonionizing Radiation. *Daniela Calzetti, Ralph C. Bohlin, Anne L. Kinney, Thaisa Storchi-Bergmann, & Timothy M. Heckman.* 443, 136, 97-A12 (1995)

The Striking Near-Infrared Morphology of the Inner Region in M100. *J. H. Knapen, J. E. Beckman, I. Shlosman, R. F. Peletier, C. H. Heller, & R. S. de Jong.* 443, L73, 111-G3 (1995)

Ultraviolet to Optical Spectral Distributions of Northern Star-forming Galaxies. *Kerry McQuade, Daniela Calzetti, & Anne L. Kinney.* 97, 331, 16-C5 (1995)

The Tully-Fisher Relation of the *IRAS* Minisurvey Galaxies. *W. van Driel, A. C. van den Broek, & W. A. Baan.* 444, 80, 114-D4 (1995)

Spectroscopy of Luminous Infrared Galaxies at 2 Microns. I. The Ultraluminous Galaxies ($L_{IR} \geq 10^{12}\ L_{\odot}$). *Jeffrey D. Goldader, R. D. Joseph, René Doyon, & D. B. Sanders.* 444, 97, 114-F2 (1995)

Compton X-Ray Emission from NGC 253. *Oleg Goldshmidt & Yoel Rephaeli.* 444, 113, 114-G8 (1995)

Ultraviolet to Near-Infrared Spectral Distributions of Star-forming and Seyfert 2 Galaxies. *Thaisa Storchi-Bergmann, Anne L. Kinney, & Peter Challis.* 98, 103, 22-C2 (1995)

ROSAT Observations of NGC 2146: Evidence for a Starburst-driven Superwind. *L. Armus, T. M. Heckman, K. A. Weaver, & M. D. Lehnert.* 445, 666, 144-C8 (1995)

Locations of Starbursts in M82. *Jianjun Shen & K. Y. Lo.* 445, L99, 150-G5 (1995)

Hubble Space Telescope Imaging of Super Star Clusters in M82. *Robert W. O'Connell, John S. Gallagher III, Deidre A. Hunter, & Wesley N. Colley.* 446, L1, 160-B2 (1995)

A Multifrequency Radio Continuum and *IRAS* Faint Source Survey of Markarian Galaxies. *M. D. Bicay, G. Kojoian, J. Seal, D. F. Dickinson, & M. A. Malkan.* 98, 369, 28-B1 (1995)

The Nuclear Energy Sources Powering Bright Infrared-selected Galaxies. *M. L. N. Ashby, J. R. Houck, & K. Matthews.* 447, 545, 183-C9 (1995)

Excitation of Activity in Galaxies by Minor Mergers. *Lars Hernquist & J. Christopher Mihos.* 448, 41, 192-G1 (1995)

An X-Ray and Optical Study of the Dwarf Galaxy NGC 1569: Evidence for a Starburst-driven Outflow. *Timothy M. Heckman, Michael Dahlem, Matthew D. Lehnert, Giuseppina Fabbiano, Diane Gilmore, & William H. Waller.* 448, 98, 193-E1 (1995)

High-Resolution Infrared Imaging of FSC 10214+4724: Evidence for Gravitational Lensing. *James R. Graham & Michael C. Liu.* 449, L29, 216-D7 (1995)

Nuclear Rings and Mass Inflow in Hydrodynamic Simulations of Barred Galaxies. *B. Glenn Piner, James M. Stone, & Peter J. Teuben.* 449, 508, 219-G5 (1995)

The Brown Dwarf Candidate 0918−0023B Is a Distant Compact Galaxy. *E. E. Becklin, B. Macintosh, & B. Zuckerman.* 449, L117, 227-A2 (1995)

Hubble Space Telescope Images of the Nuclear Star-forming Region in the Interacting Galaxy NGC 5930. *Gary A. Bower & Andrew S. Wilson.* 99, 543, 42-E11 (1995)

An Extended Molecular Gas Distribution in Markarian 273 and Merger-Luminosity Evolution. *M. S. Yun & N. Z. Scoville.* 451, L45, 260-E2 (1995)

No X-Ray–luminous Starbursts in the *Einstein* Medium Sensitivity Survey, Either. *Jules P. Halpern, David J. Helfand, & Edward C. Moran.* 453, 611, 292-C10 (1995)

Multiwavelength Energy Distributions and Bolometric Luminosities of the 12 Micron Galaxy Sample. *Luigi Spinoglio, Matthew A. Malkan, Brian Rush, Luis Carrasco, & Elsa Recillas-Cruz.* 453, 616, 292-D4 (1995)

The Lyman Continuum in Starburst Galaxies Observed with the Hopkins Ultraviolet Telescope. *Claus Leitherer, Henry C. Ferguson, Timothy M. Heckman, & James D. Lowenthal.* 454, L19, 307-E5 (1995)

The Effects of Starbursts and Low Surface Brightness Galaxies on Faint Galaxy Models. *B. A. McLeod & M. J. Rieke.* 454, 611, 310-A3 (1995)

The Central Region in M100: Observations and Modeling. *J. H. Knapen, J. E. Beckman, C. H. Heller, I. Shlosman, & R. S. de Jong.* 454, 623, 310-B4 (1995)

The Distribution of the Dense Clouds in the Starburst Nucleus of NGC 253. *Timothy A. D. Paglione, Tomoka Tosaki, & James M. Jackson.* 454, L117, 316-A10 (1995)

The Hard X-Ray Emission of NGC 3628 and the Contribution of Low-Luminosity Spiral Galaxies to the Cosmic X-Ray Background. *Tahir*

Yaqoob, Peter J. Serlemitsos, Andy Ptak, Richard Mushotzky, Hideyo Kunieda, & Yuichi Terashima. 455, 508, 329-A4 (1995)

Wheels of Fire. I. Massive Star Formation in the Cartwheel Ring Galaxy. *James L. Higdon.* 455, 524, 329-B12 (1995)

GALAXIES: STAR CLUSTERS

On the Origin of Globular Clusters in Elliptical Galaxies. *S. Djorgovski & Basilio X. Santiago.* 391, L85, 99-F13 (1992)

The Young Large Magellanic Cloud Cluster NGC 2214 with a Single Supergiant Branch. *Myung Gyoon Lee.* 399, L133, 208-B1 (1992)

The First Detection of a Collapsed Core Globular Cluster in M31. *O. Bendinelli, C. Cacciari, S. Djorgovski, L. Federici, F. R. Ferraro, F. Fusi Pecci, G. Parmeggiani, N. Weir, & F. Zavatti.* 409, L17, 104-C7 (1993)

Globular Clusters and cD Formation: The Case of M87. *Dean E. McLaughlin, William E. Harris, & David A. Hanes.* 409, L45, 111-C8 (1993)

Spectra of Two Luminous Young Globular Clusters in the Merger Remnant NGC 7252. *François Schweizer & Patrick Seitzer.* 417, L29, 223-B1 (1993)

The Velocity Dispersion of Globular Clusters in NGC 1399. *Carl J. Grillmair, K. C. Freeman, G. V. Bicknell, D. Carter, Warrick J. Couch, J. Sommer-Larsen, & K. Taylor.* 422, L9, 36-C3 (1994)

HST UV Imaging of the Starburst Regions in the Wolf-Rayet Galaxy He 2-10: Newly Formed Globular Clusters? *Peter S. Conti & William D. Vacca.* 423, L97, 60-D5 (1994)

Globular Cluster Systems Associated with cD Galaxies in Poor Clusters. *Terry J. Bridges & David A. Hanes.* 431, 625, 186-C13 (1994)

Are Globular Clusters the Nuclei of Cannibalized Dwarf Galaxies? *Lilia P. Bassino, Juan C. Muzzio, & Mónica Rabolli.* 431, 634, 186-D10 (1994)

Possible Correlations between the Radii and Orbital Characteristics of Halo Globular Clusters. *Sidney van den Bergh.* 432, L105, 206-G7 (1994)

Hubble Space Telescope Imaging of Super–Star Clusters in NGC 1569 and NGC 1705. *Robert W. O'Connell, John S. Gallagher III, & Deidre A. Hunter.* 433, 65, 209-A13 (1994)

A Comparison of the Intrinsic Shapes of Globular Clusters in Four Different Galaxies. *Cheongho Han & Barbara S. Ryden.* 433, 80, 209-C4 (1994)

The Distance to the Large Magellanic Cloud Cluster NGC 1866 from Its Cepheid Members. *Wolfgang P. Gieren, Tom Richtler, & Michael Hilker.* 433, L73, 223-F13 (1994)

GHRS Spectroscopy of Individual Stars in R136a. *Sara R. Heap, Dennis Ebbets, Eliot M. Malumuth, Stephen P. Maran, Alex de Koter, & Ivan Hubeny.* 435, L39, 252-A11 (1994)

The Richness of the Globular Cluster System of NGC 3923: Clues to Elliptical Galaxy Formation. *Stephen E. Zepf, Doug Geisler, & Keith M. Ashman.* 435, L117, 259-G10 (1994)

Structural Parameters of Globular Clusters in the Fornax Cluster. *Rebecca A. W. Elson & David J. Schade.* 437, 625, 294-C12 (1994)

The Fundamental Plane Correlations for Globular Clusters. *S. Djorgovski.* 438, L29, 10-B3 (1995)

Globular Cluster Systems in Three cD Galaxies within Rich Abell Clusters. *William E. Harris, Christopher J. Pritchet, & Robert D. McClure.* 441, 120, 61-A8 (1995)

Measurements of Globular Cluster Specific Frequencies and Luminosity Function Widths in Coma. *John P. Blakeslee & John L. Tonry.* 442, 579, 87-G8 (1995)

Constraints on the Formation History of the Elliptical Galaxy NGC 3923 from the Colors of Its Globular Clusters. *Stephen E. Zepf, Keith M. Ashman, & Doug Geisler.* 443, 570, 105-F7 (1995)

Building a Better Leapfrog. *Piet Hut, Jun Makino, & Steve McMillan.* 443, L93, 112-C5 (1995)

Spectroscopy of Candidate Young Globular Clusters in NGC 1275. *Stephen E. Zepf, Dave Carter, Ray M. Sharples, & Keith M. Ashman.* 445, L19, 140-D6 (1995)

Steps toward the Hubble Constant. X. The Distance of the Virgo Cluster Core Using Globular Clusters. *Allan Sandage & G. A. Tammann.* 446, 1, 153-C1 (1995)

Hubble Space Telescope Imaging of Super Star Clusters in M82. *Robert W. O'Connell, John S. Gallagher III, Deidre A. Hunter, & Wesley N. Colley.* 446, L1, 160-B2 (1995)

Ultraviolet and Optical Observations of OB Associations in M31. *Jesse K. Hill, Joan E. Isensee, Ralph C. Bohlin, K. P. Cheng, P. M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 98, 595, 31-F10 (1995)

The Planetary Nebula System and Dynamics of NGC 5128. III. Kinematics and Halo Mass Distributions. *Xiaohui Hui, Holland C. Ford, Kenneth C. Freeman, & Michael A. Dopita.* 449, 592, 221-A1 (1995)

Hubble Space Telescope Images of the Nuclear Star-forming Region in the Interacting Galaxy NGC 5930. *Gary A. Bower & Andrew S. Wilson.* 99, 543, 42-E11 (1995)

The Massive Star Populations in Ionized Gas Shells in M33 and M31. *Deidre A. Hunter, Danielle M. Boyd, & Walter N. Hawley.* 99, 551, 42-F9 (1995)

Supernovae, Globular Clusters, and Galaxy Mergers. *Sidney van den Bergh.* 450, 27, 228-D9 (1995)

Coronal Gas in the Galactic Halo: ORFEUS Observations of NGC 346 No. 1 and PKS 2155−304. *M. Hurwitz, S. Bowyer, R.-P. Kudritzki, & D. J. Lennon.* 450, 149, 230-B2 (1995)

Triggered Star Formation and the Dynamics of a Superbubble in the LMC: The OB Association LH 47/48 in DEM 152. *M. S. Oey & Philip Massey.* 452, 210, 264-G11 (1995)

Intracluster Globular Clusters. *Michael J. West, Patrick Côté, Christine Jones, William Forman, & Ronald O. Marzke.* 453, L77, 298-D1 (1995)

Mergers, Accretions, and the Globular Cluster Mean Metallicity-Number per Unit Mass Relation. *Jean-Marc Perelmuter.* 454, 762, 312-C1 (1995)

Hubble Space Telescope Observations of Globular Clusters in M87 and an Estimate of H_0. *Bradley C. Whitmore, William B. Sparks, Ray A. Lucas, F. Duccio Macchetto, & John A. Biretta.* 454, L73, 315-C1 (1995)

The Star Formation Histories and Efficiencies of Two Giant H II Regions in M33. *Christine D. Wilson & Brenda C. Matthews.* 455, 125, 320-A1 (1995)

GALAXIES: STATISTICS

Groups of Galaxies in the *ROSAT* North Ecliptic Pole Survey. *J. P. Henry, I. M. Gioia, J. P. Huchra, R. Burg, B. McLean, H. Böhringer, R. G. Bower, U. G. Briel, W. Voges, H. MacGillivray, & R. G. Cruddace.* 449, 422, 218-E6 (1995)

Matched Filter Source Detection Applied to the *ROSAT* PSPC and the Determination of the Number-Flux Relation. *A. Vikhlinin, W. Forman, C. Jones, & S. Murray.* 451, 542, 254-F10 (1995)

The Contribution of Late-Type/Irregulars to the Faint Galaxy Counts from *Hubble Space Telescope* Medium-Deep Survey Images. *Simon P. Driver, Rogier A. Windhorst, & Richard E. Griffiths.* 453, 48, 281-G10 (1995)

Interpreting New Data on Large-Scale Bulk Flows. *Richard Watkins & Hume A. Feldman.* 453, L73, 298-C8 (1995)

A Method for Extracting Maximum Resolution Power Spectra from Galaxy Surveys. *Max Tegmark.* 455, 429, 327-G1 (1995)

GALAXIES: STELLAR CONTENT

Galactic Microlensing as a Method of Detecting Massive Compact Halo Objects. *Kim Griest.* 366, 412, 8-A5 (1991)

Stellar Population Synthesis Revisited. *Stéphane Charlot & Gustavo Bruzual A.* 367, 126, 13-E5 (1991)

Effect of a QSO on the Interstellar Medium of Its Host Galaxy. *Smita Shanbhag.* 367, 462, 19-B5 (1991)

Metal Abundances of RR Lyrae Variables in Selected Galactic Star Fields. V. The Lick Astrographic Fields at Intermediate Galactic Latitudes. *Nicholas B. Suntzeff, T. D. Kinman, & Robert P. Kraft.* 367, 528, 19-G13 (1991)

Star Clusters in the Clouds of Magellan. *Sidney van den Bergh.* 369, 1, 36-A11 (1991)

Evolution of the Interstellar Medium in Elliptical Galaxies. II. X-Ray Properties. *L. P. David, W. Forman, & C. Jones.* 369, 121, 37-D9 (1991)

A Cosmos Study of IC 1613. *Paul W. Hodge, Toby R. Smith, Paul B. Eskridge, Harvey T. MacGillivray, & Steven M. Beard.* 369, 372, 42-D5 (1991)

Relics of an Eruptive Starburst in NGC 1569. *William H. Waller.* 370, 144, 48-G12 (1991)

Extragalactic Globular Clusters. II. The M31 Globular Cluster System. *John P. Huchra, Jean P. Brodie, & Stephen M. Kent.* 370, 495, 54-E5 (1991)

A Study of Star Formation in the Disks of Sa Galaxies. *Nelson Caldwell, Robert Kennicutt, Andrew C. Phillips, & Robert A. Schommer.* 370, 526, 54-G12 (1991)

Multicolor CCD Imaging of Supergiants in the Disk of NGC 253. *T. J. Davidge, O. Le Fèvre, & C. C. Clark.* 370, 559, 55-D7 (1991)

Near-Infrared Long-Slit Spectra of NGC 1068. *M. Tamura, S. G. Kleinmann, N. Z. Scoville, & R. R. Joyce.* 371, 131, 61-F3 (1991)

Si IV and C IV Resonance Lines as Indicators of Massive Stars in Starburst Galaxies. *Claus Leitherer & Henny J. G. L. M. Lamers.* 373, 89, 87-B6 (1991)

Surface Brightness Fluctuations: A Bridge from M31 to the Hubble Constant. *John L. Tonry.* 373, L1, 91-A8 (1991)

Infrared Emission in Paired Galaxies. II. Luminosity Functions and Far-Infrared Properties. *Cong Xu & Jack W. Sulentic.* 374, 407, 104-C5 (1991)

Wolf-Rayet Galaxies: An Introduction and a Catalog. *Peter S. Conti.* 377, 115, 139-D7 (1991)

First Results from the Goddard High-Resolution Spectrograph: Ultraviolet Spectra of a Starburst Knot in NGC 1068. *J. B. Hutchings, F. Bruhweiler, A. Boggess, S. R. Heap, D. Ebbets, E. Beaver, E. Rosenblatt, K. Q. Truong, M. Perez, & R. Westmacott.* 377, L25, 143-D1 (1991)

Narrow-Band Photometry and the Evolution of Galaxies. III. The Intermediate-Redshift Sample. *Karl D. Rakos, James M. Schombert, & Tobias J. Kreidl.* 377, 382, 144-E7 (1991)

Compact Starbursts in Ultraluminous Infrared Galaxies. *J. J. Condon, Z.-P. Huang, Q. F. Yin, & T. X. Thuan.* 378, 65, 151-G5 (1991)

Galaxy Formation through Hierarchical Clustering. *Simon D. M. White & Carlos S. Frenk.* 379, 52, 163-F3 (1991)

The Dark Matter Content of Spiral Galaxies. *Paolo Salucci, Keith M. Ashman, & Massimo Persic.* 379, 89, 164-B1 (1991)

Extragalactic Globular Clusters. III. Metallicity Comparisons and Anomalies. *Jean P. Brodie & John P. Huchra.* 379, 157, 165-A1 (1991)

Collapse of Population III Objects Induced by Cold Collisionless Dark Matter. *J. C. N. de Araujo & R. Opher.* 379, 461, 170-D10 (1991)

A COSMOS Study of the Structure and Content of NGC 6822. *Paul Hodge, Toby Smith, Paul Eskridge, Harvey MacGillivray, & Steven Beard.* 379, 621, 172-D1 (1991)

JHK Imaging of a Field in Baade's Window. *T. J. Davidge.* 380, 116, 177-E1 (1991)

The Discovery of a Young Radio Galaxy at $z = 2.390$: Probing Initial Star Formation at $z \leq 3.0$. *Rogier A. Windhorst, David Burstein, Doug F. Mathis, Lyman W. Neuschaefer, F. Bertola, L. M. Buson, David C. Koo, Keith Matthews, Peter D. Barthel, & K. C. Chambers.* 380, 362, 182-G1 (1991)

Population Studies. XI. The Extended Disk, Halo Configuration. *John E. Norris & Sean G. Ryan.* 380, 403, 183-C6 (1991)

Tidally Triggered Galaxy Formation. I. Evolution of the Galaxy Luminosity Function. *Cedric Lacey & Joseph Silk.* 381, 14, 189-C1 (1991)

Advanced Evolutionary Phases of Large-Metallicity Low-Mass Stars and the Problem of the Ultraviolet Excess of Elliptical Galaxies. *Marco Castellani & Amedeo Tornambè.* 381, 393, 195-E9 (1991)

Detection of the Helium Flash Gap in the Integrated $(U - B)$ versus $(B - V)$ Diagram for 624 Large Magellanic Cloud Clusters. *E. Bica, J. J. Clariá, H. Dottori, J. F. C. Santos, Jr., & A. Piatti.* 381, L51, 199-C7 (1991)

Wide Binaries in the Woolley Catalog. *Ira Wasserman & Martin D. Weinberg.* 382, 149, 202-A12 (1991)

Constraints on the Origin of the Ultraviolet Upturn in Elliptical Galaxies from Hopkins Ultraviolet Telescope Observations of NGC 1399. *Henry C. Ferguson, Arthur F. Davidsen, Gerard A. Kriss, William P. Blair, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Richard C. Henry, Jeffrey W. Kruk, H. Warren Moos, Olaf Vancura, Knox S. Long, & Randy A. Kimble.* 382, L69, 211-C1 (1991)

Near-Infrared [Fe II] Emission of M82 Supernova Remnants: Implications for Tracing the Supernova Content of Galaxies. *Matthew A. Greenhouse, Charles E. Woodward, Harley A. Thronson, Jr., Richard J. Rudy, George S. Rossano, Peter Erwin, & R. C. Puetter.* 383, 164, 214-B1 (1991)

Planetary Nebulae as Standard Candles. VII. A Test versus Hubble Type in the NGC 1023 Group. *Robin Ciardullo, George H. Jacoby, & William E. Harris.* 383, 487, 220-D1 (1991)

Stellar Population–induced Peculiar Velocities of Elliptical Galaxies. *Michael D. Gregg.* 384, 43, 1-E5 (1992)

High Rate for Type Ic Supernovae. *Richard A. Muller, Heidi Jo Marvin Newberg, Carlton R. Pennypacker, Saul Perlmutter, Timothy P. Sasseen, & Craig K. Smith.* 384, L9, 6-B7 (1992)

A Comparison of the Properties of an Unbiased Sample of OB Associations in the Local Group Galaxies M33 and NGC 6822. *Christine D. Wilson.* 384, L29, 11-B1 (1992)

Infrared and Optical Morphologies of Distant Radio Galaxies. *M. A. Rigler, S. J. Lilly, A. Stockton, F. Hammer, & O. Le Fèvre.* 385, 61, 12-G1 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. III. Galaxy Luminosity as Virial Parameter. *Mark Whittle.* 387, 121, 38-E1 (1992)

Evolution of Spiral Galaxies. I. Halo-Disk Connection for the Evolution of the Solar Neighborhood. *Federico Ferrini, Francesca Matteucci, Chiara Pardi, & Umberto Penco.* 387, 138, 38-F5 (1992)

Coronal Lines and Starburst Features in Two New *IRAS* Active Galactic Nuclei: IRAS 04493−6441 and IRAS 22419−6049. *Sebastian Lípari & F. Macchetto.* 387, 522, 45-B9 (1992)

Spatially Resolved Ultraviolet Spectroscopy of the Liner Galaxy NGC 3998. *G. A. Reichert, G. Branduardi-Raymont, A. V. Filippenko, K. O. Mason, E. M. Puchnarewicz, & C.-C. Wu.* 387, 536, 45-C11 (1992)

X-Ray Properties of Bright Far-Infrared Galaxies. *L. P. David, C. Jones, & W. Forman.* 388, 82, 50-B4 (1992)

The Integrated Spectra of Nearby Galaxies: General Properties and Emission-Line Spectra. *Robert C. Kennicutt, Jr.* 388, 310, 54-C1 (1992)

Evidence for Dwarf Stars at $D \sim 100$ Kiloparsecs near the Sextans Dwarf Spheroidal Galaxy. *Andrew Gould, Puragra Guhathakurta, Douglas Richstone, & Chris Flynn.* 388, 345, 54-F1 (1992)

The Star Formation History of the Large Magellanic Cloud. *Gianpaolo Bertelli, Mario Mateo, Cesare Chiosi, & Alessandro Bressan.* 388, 400, 55-C11 (1992)

The Evolution of High-Metallicity Horizontal-Branch Stars and the Origin of the Ultraviolet Light in Elliptical Galaxies. *E. Horch, P. Demarque, & M. Pinsonneault.* 388, L53, 59-B7 (1992)

Local Dark Matter from a Carefully Selected Sample. *John N. Bahcall, Chris Flynn, & Andrew Gould.* 389, 234, 62-G9 (1992)

Systematic Differences between the Field and Cluster Elliptical Galaxies. *R. R. de Carvalho & S. Djorgovski.* 389, L49, 73-B11 (1992)

A Spectrophotometric Atlas of Galaxies. *Robert C. Kennicutt, Jr.* 79, 255, 17-F7 (1992)

Variability of Near-Infrared Emission Lines in NGC 4151: Implications for Nuclear Star Formation. *Andrea H. Prestwich, Gillian S. Wright, & Robert D. Joseph.* 80, 205, 25-A5 (1992)

A VLBI Search for AGN Radio Cores in Starburst Galaxies. *Colin J. Lonsdale, Carol J. Lonsdale, & Harding E. Smith.* 391, 629, 95-G6 (1992)

Multicolor Images of Spatially Resolved Structures around High-Redshift Quasars. *Matthew D. Lehnert, Timothy M. Heckman, Kenneth C. Chambers, & George K. Miley.* 393, 68, 114-G12 (1992)

Comment on Red Giant Envelopes as Broad Emission-Line Clouds in Active Galactic Nuclei. *John Kwan, F. Z. Cheng, & Zongwei Li.* 393, 87, 115-B9 (1992)

Optical Spectroscopy and Narrow-Band Images of the Variable Seyfert 1 Galaxy NGC 3783. *Claudia Winge, M. G. Pastoriza, T. Storchi-Bergmann, & S. Lípari.* 393, 98, 115-C11 (1992)

High-Resolution Imaging of Virgo Cluster Galaxies. I. The Distance Based on the Brightest Stars in NGC 4571. *Michael J. Pierce, Robert D. McClure, & René Racine.* 393, 523, 122-C9 (1992)

Color Gradients in Cooling Flows in Clusters of Galaxies. *Brian R. McNamara & Robert W. O'Connell.* 393, 579, 123-B1 (1992)

A 2.18 to 2.28 Micron Study of the Stellar Population in the Nucleus of M82. *Niall I. Gaffney & Dan F. Lester.* 394, 139, 129-F9 (1992)

Star Formation in Protogalactic Clouds. *Douglas N. C. Lin & Stephen D. Murray.* 394, 523, 135-G8 (1992)

Ultraviolet Imaging of Old Populations in Nearby Galaxies. *Robert W. O'Connell, Ralph C. Bohlin, Nicholas R. Collins, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Wayne B. Landsman, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L45, 145-D1 (1992)

Detection of WC9 Stars in NCG 1365. *Andrew C. Phillips & Peter S. Conti.* 395, L91, 154-A6 (1992)

Preliminary Analysis of an Ultraviolet *Hubble Space Telescope* Faint Object Camera Image of the Center of M31. *I. R. King, J. M. Deharveng, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, M. J. Disney, P. Jakobsen, T. M. Kamperman, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, & S. A. Stanford.* 397, L35, 173-E5 (1992)

The Distribution and Age of Asymptotic Giant Branch Stars in NGC 205. *T. J. Davidge.* 397, 457, 176-D5 (1992)

Mg and Fe Absorption Features in Elliptical Galaxies. *Guy Worthey, S. M. Faber, & J. Jesús Gonzalez.* 398, 69, 182-G9 (1992)

A Photometric Search for [O II] Lines in Mg II Quasar Absorption Systems. *Brant O. Nelson & Matthew A. Malkan.* 82, 447, 55-B1 (1992)

Large Infrared and Optical Color Gradients in the Cartwheel Ring Galaxy: Evidence for the First Epoch of Star Formation in the Wake of an

Expanding Ring. *P. M. Marcum, P. N. Appleton, & J. L. Higdon.* 399, 57, 195-G3 (1992)
Infrared Emission and Mass Loss from Evolved Stars in Elliptical Galaxies. *G. R. Knapp, J. E. Gunn, & C. G. Wynn-Williams.* 399, 76, 196-B3 (1992)
Stellar Population Gradients in Early-Type Galaxies. *Jeffrey A. Munn.* 399, 444, 203-E1 (1992)
The Young Large Magellanic Cloud Cluster NGC 2214 with a Single Supergiant Branch. *Myung Gyoon Lee.* 399, L133, 208-B1 (1992)
The Stellar Content of Central Dominant Galaxies. II. Colors of cD Envelopes. *Glen Mackie.* 400, 65, 209-G1 (1992)
Optical Spectrophotometry of Wolf-Rayet Galaxies. *William D. Vacca & Peter S. Conti.* 401, 543, 229-D1 (1992)
NGC 5018: A Metal-poor Giant Elliptical. *Francesco Bertola, David Burstein, & Lucio M. Buson.* 403, 573, 22-F10 (1993)
An *IUE* Search for Star Formation in Ellipticals with Gaseous Disks. *Francesco Bertola, David Burstein, Lucio M. Buson, & Alvio Renzini.* 403, 577, 22-G1 (1993)
The Evolution of Galaxies in Radio-selected Groups. *Jeremy R. Allington-Smith, Richard S. Ellis, Esther L. Zirbel, & Augustus Oemler, Jr.* 404, 521, 35-E1 (1993)
Spectral Evolution of Stellar Populations Using Isochrone Synthesis. *Gustavo Bruzual A., & Stéphane Charlot.* 405, 538, 49-F11 (1993)
The Low-Mass Stellar Content of Galaxies: Constraints through Hybrid Population Synthesis near 1 Micron. *Jean Couture & Eduardo Hardy.* 406, 142, 56-G11 (1993)
Extreme Optical Fe II Emission in Luminous *IRAS* Active Galactic Nuclei. *Sebastian Lípari, Roberto Terlevich, & F. Macchetto.* 406, 451, 63-C12 (1993)
Far-Ultraviolet Radiation from Disk Globular Clusters. *R. Michael Rich, Dante Minniti, & James W. Liebert.* 406, 489, 63-G9 (1993)
The Stellar Velocity Dispersion in the Nucleus of M82. *Niall I. Gaffney, Dan F. Lester, & C. M. Telesco.* 407, L57, 82-C6 (1993)
The Hot Stellar Component in Elliptical Galaxies and Spiral Bulges. I. The Far-Ultraviolet Spectrum of the Bulge of M31. *Henry C. Ferguson & Arthur F. Davidsen.* 408, 92, 84-C4 (1993)
21 Centimeter Study of Spiral Galaxies in Clusters. III. Neutral Gas Content, Star Formation, and Radio Continuum Properties. *Marco Scodeggio & Giuseppe Gavazzi.* 409, 110, 98-C8 (1993)
Imaging of Fields in the Inner Halo and Outer Disk of M31. *T. J. Davidge.* 409, 190, 99-C8 (1993)
The Dependence of the Brightness Fluctuation Distance Indicator on Stellar Population Age and Metallicity. *Guy Worthey.* 409, 530, 105-E3 (1993)
An Optically Luminous Radio Galaxy at $z = 3.22$ and the K-z Diagram at High Redshift. *Stephen A. Eales, Steve Rawlings, Mark Dickinson, Hyron Spinrad, Gary J. Hill, & Mark Lacy.* 409, 578, 106-B7 (1993)
Star Trapping and Metallicity Enrichment in Quasars and Active Galactic Nuclei. *Paweł Artymowicz, D. N. C. Lin, & E. Joseph Wampler.* 409, 592, 106-C12 (1993)
Evolution of Elliptical Galaxies. I. The Multiphase Model. *Federico Ferrini & Bianca Maria Poggianti.* 410, 44, 112-F4 (1993)
The Bulge of M33. *Dante Minniti, Edward W. Olszewski, & Marcia Rieke.* 410, L79, 125-G3 (1993)
Dynamically Hot Galaxies. II. Global Stellar Populations. *Ralf Bender, David Burstein, & S. M. Faber.* 411, 153, 129-A8 (1993)
A Search for Young Stars in the Halo of M31. *R. J. H. McCausland, E. S. Conlon, P. L. Dufton, A. Fitzsimmons, M. J. Irwin, & F. P. Keenan.* 411, 650, 137-G1 (1993)
The Ultraviolet Radiation in Metal-rich Elliptical Galaxies. *Uffe Gråe Jørgensen & Peter Thejll.* 411, L67, 142-C5 (1993)
Synthesis of Stellar Mg and Fe Absorption Indices for Stellar Population Studies. *R. K. Gulati, M. L. Malagnini, & C. Morossi.* 413, 166, 158-B10 (1993)
Threshold Star-Formation Effects in the Peculiar Galaxy Arp 10 (= VV 362). *V. Charmandaris, P. N. Appleton, & A. P. Marston.* 414, 154, 172-A1 (1993)
On the Specific Frequencies of Globular Clusters in the Galaxy and in Messier 31. *G. de Vaucouleurs.* 415, 40, 185-E3 (1993)
Lyman-Alpha Emission from Galaxies. *Stéphane Charlot & S. Michael Fall.* 415, 580, 195-A13 (1993)
A Method for Quantitative Detection of Hot Horizontal Branches in Early-Type Galaxies. *Guy Worthey.* 415, L91, 199-G6 (1993)
Population Synthesis and the Ultraviolet Spectrum of Elliptical Galaxies. *Gladis Magris C., & Gustavo Bruzual A.* 417, 102, 218-E6 (1993)
Modeling the Spatial Distribution of Star Formation in Interacting Disk Galaxies. *J. Christopher Mihos, Gregory D. Bothun, & Douglas O. Richstone.* 418, 82, 232-B5 (1993)
Spectroscopy of Giants in the Sextans Dwarf Spheroidal Galaxy. *Nicholas B. Suntzeff, Mario Mateo, Donald M. Terndrup, Edward W. Olszewski, Doug Geisler, & W. Weller.* 418, 208, 233-E12 (1993)
A Catalog of Blue and Red Supergiants in M33. *Georgi R. Ivanov, Wendy L. Freedman, & Barry F. Madore.* 89, 85, 50-A9 (1993)
On the Lyman-Alpha Emission of Starburst Galaxies. *David Valls-Gabaud.* 419, 7, 246-B9 (1993)
Colors, Luminosities, and Masses of Disk Galaxies. *Giuseppe Gavazzi.* 419, 469, 253-E11 (1993)
A Comparison of the Planetary Nebula Luminosity Function and Surface Brightness Fluctuation Distance Scales. *Robin Ciardullo, George H. Jacoby, & John L. Tonry.* 419, 479, 253-F9 (1993)
Kiloparsec-Scale Radio Emission in Seyfert Galaxies: Evidence for Starburst-driven Superwinds? *S. A. Baum, C. P. O'Dea, D. Dallacassa, A. G. de Bruyn, & A. Pedlar.* 419, 553, 254-F1 (1993)
Ultraviolet Radiation from Evolved Stellar Populations. I. Models. *Ben Dorman, Robert T. Rood, & Robert W. O'Connell.* 419, 596, 255-B8 (1993)
Truncated Initial Mass Function in Starburst Galaxies. *Stéphane Charlot, Frank Ferrari, G. J. Mathews, & Joseph Silk.* 419, L57, 259-C1 (1993)
The Clumpy Galaxy Markarian 297 and Its Supernova Activity. *Q. F. Yin.* 420, 152, 2-G6 (1994)
High-Resolution Continuum and Brγ Imaging Observations of M82. *J. E. Larkin, J. R. Graham, K. Matthews, B. T. Soifer, S. Beckwith, T. M. Herbst, & A. C. Quillen.* 420, 159, 3-A1 (1994)
Counterrotating Gaseous Disks in NGC 4826. *Robert Braun, René A. M. Walterbos, Robert C. Kennicutt, Jr., & Linda J. Tacconi.* 420, 558, 9-E6 (1994)
On the Determination of the Number of O Stars in H II Regions and Starburst Galaxies. *William D. Vacca.* 421, 140, 17-F13 (1994)
Starburst Models of Merging Galaxies. *A. H. Prestwich, R. D. Joseph, & Gillian S. Wright.* 422, 73, 31-A3 (1994)
Models for the Evolution of the Spectral Energy Distribution of Elliptical Galaxies for Ultraviolet to Far-Infrared Wavelengths. *P. Mazzei, G. De Zotti, & C. Xu.* 422, 81, 31-A13 (1994)
Anisotropic High-Excitation Emission and Chemical Abundances in the Seyfert 2 Galaxy NGC 5643. *Henrique R. Schmitt, Thaisa Storchi-Bergmann, & Jack A. Baldwin.* 423, 237, 49-A9 (1994)
Compact Radio Sources in the Starburst Galaxy M82 and the $\Sigma - D$ Relation for Supernova Remnants. *Z. P. Huang, T. X. Thuan, R. A. Chevalier, J. J. Condon, & Q. F. Yin.* 424, 114, 63-D7 (1994)
Interstellar Medium and Star Formation in the Nearby QSO I Zw 1. *A. Eckart, P. P. van der Werf, R. Hofmann, & A. I. Harris.* 424, 627, 72-F3 (1994)
On the Size and Formation Mechanism of the Largest Star-forming Complexes in Spiral and Irregular Galaxies. *Debra Meloy Elmegreen, Bruce G. Elmegreen, Cornelia Lang, & Carnella Stephens.* 425, 57, 80-G11 (1994)
Asymptotic Giant Branch Stars in NGC 6822: Probes of Star Formation History. *C. Gallart, A. Aparicio, C. Chiosi, G. Bertelli, & J. M. Vílchez.* 425, L9, 85-B13 (1994)
Far-Infrared Properties of Early-Type Galaxies. *P. Mazzei & G. De Zotti.* 426, 97, 97-C5 (1994)
Oxygen Abundances in Low Surface Brightness Disk Galaxies. *Stacy S. McGaugh.* 426, 135, 97-G3 (1994)
Emission-Line Ratios of the Integrated Spectra of Galaxies: Evidence for a Diffuse Ionized Medium in Other Galaxies? *Matthew D. Lehnert & Timothy M. Heckman.* 426, L27, 103-D3 (1994)
Induced Population Gradients in Galaxy Merger Remnants. *J. Christopher Mihos & Lars Hernquist.* 427, 112, 111-C12 (1994)
Galaxies with Extreme Infrared and Fe II Emission. I. Markarian 231: The Signature of a Young Infrared QSO. *Sebastian Lípari, Luis Colina, & F. Macchetto.* 427, 174, 112-B12 (1994)
Infrared Surface Photometry of 3C 65: Stellar Evolution and the Tolman Signal. *M. A. Rigler & S. J. Lilly.* 427, L79, 126-G5 (1994)
Gravitational Microlensing by Dark Clusters in the Galactic Halo. *Eyal Maoz.* 428, L5, 134-B6 (1994)
Probing Radial Age/Metallicity Degeneracy in Early-Type Galaxies. *David R. Silva & Richard Elston.* 428, 511, 136-E7 (1994)
The Evolutionary History of Low-Luminosity Local Group Dwarf Galaxies. *Sidney van den Bergh.* 428, 617, 137-G13 (1994)

Morphological Studies of the Galaxy Populations in Distant "Butcher-Oemler" Clusters with *HST*. I. AC 114 at $z = 0.31$ and Abell 370 at $z = 0.37$. *Warrick J. Couch, Richard S. Ellis, Ray M. Sharples, & Ian Smail.* 430, 121, 160-E8 (1994)

The Relationship between Past and Present Star Formation in Galactic Disks from CCD Surface Photometry. *Stuart D. Ryder & Michael A. Dopita.* 430, 142, 160-G8 (1994)

On the Law of Star Formation in Disk Galaxies. *Michael A. Dopita & Stuart D. Ryder.* 430, 163, 161-B3 (1994)

A Calibration of Mg_2 versus [Fe/H] and [Mg/Fe]. *B. Barbuy.* 430, 218, 161-G1 (1994)

Star Formation in NGC 4449: MAMA-Detector UV Imagery and Fabry-Perot Balmer-Line Imagery. *Robert S. Hill, Allen T. Home, Andrew M. Smith, Fred C. Bruhweiler, K. P. Cheng, Paul M. N. Hintzen, & Ronald J. Oliversen.* 430, 568, 168-G5 (1994)

The Global Second Parameter Phenomenon and the Origin of the Ultraviolet Radiation from Elliptical Galaxies. *Young-Wook Lee.* 430, L113, 174-G3 (1994)

Stellar Kinematics in the Nucleus of NGC 6240: A Massive Galaxy Revealed. *Dan F. Lester & Niall I. Gaffney.* 431, L13, 182-D7 (1994)

A More Direct Measure of Supernova Rates in Starburst Galaxies. *Dave Van Buren & Matthew A. Greenhouse.* 431, 640, 186-E5 (1994)

A Morphological and Color Study of Fornax Low Surface Brightness Galaxies in the Washington System. *Sergio A. Cellone, Juan Carlos Forte, & Doug Geisler.* 93, 397, 48-B1 (1994)

Galaxy Properties in Different Environments. II. Star Formation in Bulges of Late-Type Spirals. *M. G. Pastoriza, E. Bica, M. Maia, Ch. Bonatto, & H. Dottori.* 432, 128, 194-G3 (1994)

Evolution of Galaxies in Clusters. *Stéphane Charlot & Joseph Silk.* 432, 453, 201-E6 (1994)

Infrared Imaging of Spiral Galaxies: Colors and Luminosity Profiles. *Donald M. Terndrup, Roger L. Davies, Jay A. Frogel, D. L. DePoy, & Lisa A. Wells.* 432, 518, 202-D5 (1994)

The Distribution and Nature of Star Formation Regions in NGC 1792. *Michael Dahlem, Dominik J. Bomans, & Jean-Marie Will.* 432, 590, 203-C10 (1994)

Soft X-Ray Observations of the Interacting Galaxies NGC 1808 and NGC 1792. *Michael Dahlem, Gisela D. Hartner, & Norbert Junkes.* 432, 598, 203-D7 (1994)

Spectrophotometric Evolution of Elliptical Galaxies. I. Ultraviolet Excess and Color-Magnitude-Redshift Relations. *Alessandro Bressan, Cesare Chiosi, & Franco Fagotto.* 94, 63, 53-G4 (1994)

Observations and Models of the Sacred Mushroom: AM 1724−622. *John F. Wallin & Curtis Struck-Marcell.* 433, 631, 218-G8 (1994)

Radio Observations of M83 and Its Supernova Remnants. *John J. Cowan, Douglas A. Roberts, & David Branch.* 434, 128, 226-G10 (1994)

The Near-Infrared Structure of M33. *Michael W. Regan & Stuart N. Vogel.* 434, 536, 235-B8 (1994)

Old Stellar Populations. V. Absorption Feature Indices for the Complete Lick/IDS Sample of Stars. *Guy Worthey, S. M. Faber, J. Jesús González, & D. Burstein.* 94, 687, 61-E4 (1994)

Past and Future Star Formation in Disk Galaxies. *Robert C. Kennicutt, Jr., Peter Tamblyn, & Charles W. Congdon.* 435, 22, 243-E5 (1994)

Deep *HST* Imaging of Distant Weak Radio and Field Galaxies. *R. A. Windhorst, J. M. Gordon, S. M. Pascarelle, P. C. Schmidtke, William C. Keel, J. M. Burkey, & James S. Dunlop.* 435, 577, 254-B2 (1994)

Comprehensive Stellar Population Models and the Disentanglement of Age and Metallicity Effects. *Guy Worthey.* 95, 107, 65-E2 (1994)

The Distance to the Pegasus Dwarf Irregular Galaxy: An Open Question. *A. Aparicio.* 437, L27, 291-E6 (1994)

Star-forming Galaxy Models: Blending Star Formation into TREESPH. *J. Christopher Mihos & Lars Hernquist.* 437, 611, 294-B9 (1994)

Ultraviolet Imaging Telescope and Optical Emission-Line Observations of H II Regions in M81. *Jesse K. Hill, K. P. Cheng, Ralph C. Bohlin, Robert H. Cornett, P. M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 438, 181, 3-G2 (1995)

Hubble Space Telescope Far-Ultraviolet Imaging of M31, M32, and NGC 205. *F. Bertola, A. Bressan, D. Burstein, L. M. Buson, C. Chiosi, & S. di Serego Alighieri.* 438, 680, 13-E4 (1995)

Stellar Photometry in the Inner Bulge of M31 Using the *Hubble Space Telescope* Wide Field Camera. *R. M. Rich & K. J. Mighell.* 439, 145, 23-B12 (1995)

Synthetic Properties of Starburst Galaxies. *Claus Leitherer & Timothy M. Heckman.* 96, 9, 1-B12 (1995)

The Starburst Galaxy NGC 7714. *Rosa González-Delgado, Enrique Pérez, Ángeles I. Díaz, María Luisa García-Vargas, Elena Terlevich, & José M. Vílchez.* 439, 604, 32-F9 (1995)

New Synthetic Mg_2 Indices. *M. Chavez, M. L. Malagnini, & C. Morossi.* 440, 210, 44-B3 (1995)

Ultraviolet Radiation from Evolved Stellar Populations. II. The Ultraviolet Upturn Phenomenon in Elliptical Galaxies. *Ben Dorman, Robert W. O'Connell, & Robert T. Rood.* 442, 105, 78-F6 (1995)

Infrared Line Emission from High-Redshift Galaxies. I. Calculations. *Filippo Mannucci & Steven V. W. Beckwith.* 442, 569, 87-F8 (1995)

The Influence of Stellar Populations on Elliptical Galaxy Distance Estimates. *Michael D. Gregg.* 443, 527, 105-B4 (1995)

Ultraviolet to Optical Spectral Distributions of Northern Star-forming Galaxies. *Kerry McQuade, Daniela Calzetti, & Anne L. Kinney.* 97, 331, 16-C5 (1995)

The Tully-Fisher Relation of the *IRAS* Minisurvey Galaxies. *W. van Driel, A. C. van den Broek, & W. A. Baan.* 444, 80, 114-D4 (1995)

Infrared Imaging and Spectroscopy of NGC 7469. *R. Genzel, L. Weitzel, L. E. Tacconi-Garman, M. Blietz, M. Cameron, A. Krabbe, D. Lutz, & A. Sternberg.* 444, 129, 115-B3 (1995)

The Polarization and Ultraviolet Spectrum of Markarian 231. *Paul S. Smith, Gary D. Schmidt, Richard G. Allen, & J. R. P. Angel.* 444, 146, 115-D1 (1995)

An Extended Galactic Population of Low-Luminosity X-Ray Sources (CVs?) and the Diffuse X-Ray Background. *Eyal Maoz & Jonathan E. Grindlay.* 444, 183, 115-G11 (1995)

The Stellar Content of 30 Doradus Derived from Spatially Integrated Ultraviolet Spectra: A Test of Spectral Synthesis Models. *William D. Vacca, Carmelle Robert, Claus Leitherer, & Peter S. Conti.* 444, 647, 125-C3 (1995)

Evolutionary Population Synthesis in Stellar Systems. II. Early-Type Galaxies. *Alberto Buzzoni.* 98, 69, 21-G7 (1995)

Optical Spectroscopy of Luminous Infrared Galaxies. I. Nuclear Data. *D.-C. Kim, D. B. Sanders, S. Veilleux, J. M. Mazzarella, & B. T. Soifer.* 98, 129, 22-E5 (1995)

Optical Spectroscopy of Luminous Infrared Galaxies. II. Analysis of the Nuclear and Long-Slit Data. *S. Veilleux, D.-C. Kim, D. B. Sanders, J. M. Mazzarella, & B. T. Soifer.* 98, 171, 23-A8 (1995)

Spectroscopic Monitoring of Active Galactic Nuclei from CTIO. I. NGC 3227. *Cláudia Winge, Bradley M. Peterson, Keith Horne, Richard W. Pogge, Miriani G. Pastoriza, & Thaísa Storchi-Bergmann.* 445, 680, 144-E1 (1995)

New Age Indicators for Old Stellar Populations. *Lewis A. Jones & Guy Worthey.* 446, L31, 160-E13 (1995)

New Constraints on the Unified Model of Seyfert Galaxies. *R. Maiolino, M. Ruiz, G. H. Rieke, & L. D. Keller.* 446, 561, 163-G7 (1995)

Are Nuclear Hot Spots in Galaxies Sites of Sequential Star Formation? *V. Korchagin, A. K. Kembhavi, Y. D. Mayya, & T. P. Prabhu.* 446, 574, 164-A10 (1995)

Line Strength Gradients in Elliptical and Brightest Cluster Galaxies. *David Fisher, Marijn Franx, & Garth Illingworth.* 448, 119, 193-G2 (1995)

The Massive Star Populations in Ionized Gas Shells in M33 and M31. *Deidre A. Hunter, Danielle M. Boyd, & Walter N. Hawley.* 99, 551, 42-F9 (1995)

Spectrophotometric Properties of Merging Galaxies. *Charles T. Liu & Robert C. Kennicutt, Jr.* 450, 547, 238-C9 (1995)

H II Regions in Four Galaxies in and near the Local Group. *Paul Hodge & Bryan W. Miller.* 451, 176, 248-D9 (1995)

The Massive Stars of I Zw 18 as Seen in *Hubble Space Telescope* Images. *Deidre A. Hunter & Harley A. Thronson, Jr.* 452, 238, 265-D1 (1995)

Evolutionary Tests of the Planetary Nebula Luminosity Function. *Letizia Stanghellini.* 452, 515, 271-G1 (1995)

The Nature of the Ultraviolet Continuum in Type 2 Seyfert Galaxies. *T. Heckman, J. Krolik, G. Meurer, D. Calzetti, A. Kinney, A. Koratkar, C. Leitherer, C. Robert, & A. Wilson.* 452, 549, 272-C3 (1995)

A Spectrophotometric Survey of Merging Galaxies. *Charles T. Liu & Robert C. Kennicutt, Jr.* 100, 325, 50-E8 (1995)

Are Galaxies Optically Thin to Their Own Lyman-Continuum Radiation? II. NGC 6822. *Kanan Patel & Christine D. Wilson.* 453, 162, 283-D13 (1995)

Hopkins Ultraviolet Telescope Observations of Six Elliptical and S0 Galaxies. *Thomas H. Brown, Henry C. Ferguson, & Arthur F. Davidsen.* 454, L15, 307-D11 (1995)

The Effects of Starbursts and Low Surface Brightness Galaxies on Faint Galaxy Models. *B. A. McLeod & M. J. Rieke.* 454, 611, 310-A3 (1995)

Detection of Extended Polarized Ultraviolet Radiation from the $z = 1.82$ Radio Galaxy 3C 256. *Buell T. Jannuzi, Richard Elston, Gary D. Schmidt, Paul S. Smith, & H. S. Stockman.* 454, L111, 316-A1 (1995)

The Star Formation Histories and Efficiencies of Two Giant H II Regions in M33. *Christine D. Wilson & Brenda C. Matthews.* 455, 125, 320-A1 (1995)

Wheels of Fire. I. Massive Star Formation in the Cartwheel Ring Galaxy. *James L. Higdon.* 455, 524, 329-B12 (1995)

Stellar Abundances and Winds of A-Type Supergiant Stars in M33: First Results from the Keck HIRES Spectrograph. *James K. McCarthy, Daniel J. Lennon, Kim A. Venn, Rolf-Peter Kudritzki, Joachim Puls, & Francisco Najarro.* 455, L135, 333-G11 (1995)

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Hamiltonian Dynamics of Self-gravitating Ellipsoids. *G. Rosensteel & Huy Q. Tran.* 366, 30, 1-D9 (1991)

The Physical Properties of Giant Molecular Cloud Complexes in the Outer Galaxy: Implications for the Ratio of H_2 Column Density to ^{12}CO Intensity. *T. J. Sodroski.* 366, 95, 2-C1 (1991)

The Luminosity-Diameter Relation for Disk Galaxies in Different Environments. *M. Girardi, A. Biviano, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 366, 393, 7-F7 (1991)

The Star-forming Disk and CO Bar in M101. *Jeffrey D. P. Kenney, Nick Z. Scoville, & Christine D. Wilson.* 366, 432, 8-C1 (1991)

Hollow Galactic Halos of Fermionic Dark Matter. *John P. Ralston & Lesley L. Smith.* 367, 54, 12-F4 (1991)

On the Interpretation of the Morphology-Density Relation for Galaxies in Clusters. *Bradley C. Whitmore & Diane M. Gilmore.* 367, 64, 12-G1 (1991)

Evidence for Environmental Effects on Early-Type Galaxy X-Ray Halos. *Raymond E. White III & Craig L. Sarazin.* 367, 476, 19-C9 (1991)

Simulated Optical Images of Galaxies at $z \sim 1$ Using Ultraviolet Images of Nearby Galaxies. *Ralph C. Bohlin, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Wayne B. Landsman, Robert W. O'Connell, Susan G. Neff, Andrew M. Smith, & Theodore P. Stecher.* 368, 12, 23-C1 (1991)

Lyman-α Companions to High-z Quasars. *Esther M. Hu, Antoinette Songaila, Lennox L. Cowie, & Alan Stockton.* 368, 28, 23-D9 (1991)

The Universal Galaxy Rotation Curve. *Massimo Persic & Paolo Salucci.* 368, 60, 23-G9 (1991)

A Search for Instability in Two Families of Spherical Stellar Models. *Martin D. Weinberg.* 368, 66, 24-A1 (1991)

Extended Stellar Hydrodynamics for Galactic Disks. *Peter Amendt & Phil Cuddeford.* 368, 79, 24-B1 (1991)

Dissipationless Collapse in an Expanding Universe. *Neal Katz.* 368, 325, 29-B4 (1991)

Hydrodynamic Constraints on the Radial Structure of Late-Type Galaxy Disks. *Curtis Struck-Marcell.* 368, 348, 29-D5 (1991)

Statistical-Mechanical Selection of the Shapes of Disk Galaxies. *David Montgomery & Y. C. Lee.* 368, 380, 29-G1 (1991)

The Ring Instability in Radially Cold Oblate Galaxy Models. *Tim de Zeeuw & Martin Schwarzschild.* 369, 57, 36-F7 (1991)

A Merger Scenario for NGC 7252: A Tale of Two Tails. *Kirk D. Borne & Douglas O. Richstone.* 369, 111, 37-C11 (1991)

Infrared Mapping of M82: A Starburst in an Edge-on Barred Galaxy. *C. M. Telesco, H. Campins, M. Joy, K. Dietz, & R. Decher.* 369, 135, 37-E11 (1991)

A Nonthermal Radio Halo Surrounding M82. *E. R. Seaquist & Nils Odegard.* 369, 320, 41-F13 (1991)

High-Resolution Aperture Synthesis of Molecular Gas in NGC 1068. *P. Planesas, N. Scoville, & S. T. Myers.* 369, 364, 42-C9 (1991)

The Core of the Nearby S0 Galaxy NGC 7457 Imaged with the *HST* Planetary Camera. *Tod R. Lauer, S. M. Faber, Jon A. Holtzman, William A. Baum, Douglas G. Currie, S. P. Ewald, Edward J. Groth, J. Jeff Hester, T. Kelsall, Jerome Kristian, Robert M. Light, C. Roger Lynds, Earl J. O'Neil, Jr., Edward J. Shaya, & James A. Westphal.* 369, L41, 45-E9 (1991)

Compression of Dark Halos by Baryon Infall: Self-similar Solutions. *Barbara S. Ryden.* 370, 15, 47-C1 (1991)

Northern Dwarf and Low Surface Brightness Galaxies. IV. The Large-Scale Space Distribution. *Trinh X. Thuan, Jean-Michel Alimi, J. Richard Gott III, & Stephen E. Schneider.* 370, 25, 47-D1 (1991)

Dynamical Simulations of the Interacting Galaxies in the NGC 520/UGC 957 System. *S. A. Stanford & Marc Balcells.* 370, 118, 48-E5 (1991)

Weakly Barred Early-Type Ringed Galaxies. IV. The Double-ringed $S0^+$ Galaxy NGC 7702. *R. Buta.* 370, 130, 48-F6 (1991)

The Effect of Inclination-dependent Selection on *IRAS* Galaxy Detection Rates. *A. J. Connolly, R. D. Joseph, & P. A. James.* 370, 140, 48-G6 (1991)

Relics of an Eruptive Starburst in NGC 1569. *William H. Waller.* 370, 144, 48-G12 (1991)

The Shape of the Galaxy. *Leo Blitz & David N. Spergel.* 370, 205, 49-F11 (1991)

Fueling Starburst Galaxies with Gas-rich Mergers. *Joshua E. Barnes & Lars E. Hernquist.* 370, L65, 59-B7 (1991)

Three-dimensional Models of a Galactic Wind Expansion with Ellipsoidal Geometry. I. The Hydrodynamical Test Case. *H. Fichtner, W. Neutsch, H. J. Fahr, & R. Schlickeiser.* 371, 98, 61-C9 (1991)

The Infrared Properties of Compact Galactic Radio Sources: The Young and the Restless. *Richard L. White, Robert H. Becker, & David J. Helfand.* 371, 148, 62-A1 (1991)

Ultramassive ($\sim 10^{11}\ M_\odot$) Dark Core in the Luminous Infrared Galaxy NGC 6240? *Jonathan Bland-Hawthorn, Andrew S. Wilson, & R. Brent Tully.* 371, L19, 66-C7 (1991)

Statistical Analysis of Power-Size-Redshift Distributions of Extragalactic Jets. *Alexander Rosen & Paul J. Wiita.* 371, 501, 67-F10 (1991)

The Rate and Efficiency of High-Mass Star Formation along the Hubble Sequence. *Nicholas A. Devereux & Judith S. Young.* 371, 515, 68-A1 (1991)

OX 169: Evidence for a Recent Merger. *Alan Stockton & Tony Farnham.* 371, 525, 68-A13 (1991)

Is the Standard Elliptical NGC 3379 a Triaxial Disk Galaxy? *M. Capaccioli, M. Vietri, E. V. Held, & H. Lorenz.* 371, 535, 68-B12 (1991)

Hydrodynamics of the Hot Component of the Galactic Halo. I. Steady State Solutions. *G. Einaudi & A. Ferrara.* 371, 571, 68-E12 (1991)

The Distribution and Kinematics of Neutral Gas in M31. *Robert Braun.* 372, 54, 74-F6 (1991)

The Correlation Function of cD Clusters. *Michael J. West & Sidney van den Bergh.* 373, 1, 86-B1 (1991)

The Far-Infrared Morphology of the Double-ringed Galaxy NGC 4736 (M94): A Ring Surrounding an Extended Nucleus. *Beverly J. Smith, D. F. Lester, P. M. Harvey, & R. W. Pogge.* 373, 66, 86-G5 (1991)

Gaseous Halos of Elliptical Galaxies, the Cosmic Evolution of Their Radio Sizes, and the Phenomenon of Compact Steep-Spectrum Sources. *Gopal-Krishna & Paul J. Wiita.* 373, 325, 92-B1 (1991)

H I Mapping of Galaxies in the Cluster A1367. *John M. Dickey & Giuseppe Gavazzi.* 373, 347, 92-C12 (1991)

The Implications of Lenses for Galaxy Structure. *Christopher S. Kochanek.* 373, 354, 92-D7 (1991)

Testing the Gravitational Field in Elliptical Galaxies: NGC 5077. *Francesco Bertola, Daniela Bettoni, John Danziger, Elaine Sadler, Linda Sparke, & Tim de Zeeuw.* 373, 369, 92-E10 (1991)

Vertical Oscillation of the Galactic Disk. *Martin D. Weinberg.* 373, 391, 92-G7 (1991)

The 158 Micron [C II] Line: A Measure of Global Star Formation Activity in Galaxies. *G. J. Stacey, N. Geis, R. Genzel, J. B. Lugten, A. Poglitsch, A. Sternberg, & C. H. Townes.* 373, 423, 93-C1 (1991)

Background Correlation Functions from Galaxy Rotation Curves. *Stefano Borgani, Silvio A. Bonometto, Massimo Persic, & Paolo Salucci.* 374, 20, 98-C7 (1991)

A Catalog of Spin Orientation of Southern Galaxies. *Masanori Iye & Hajime Sugai.* 374, 112, 99-D3 (1991)

Triaxiality in Disk Galaxies. *F. Bertola, M. Vietri, & W. W. Zeilinger.* 374, L13, 103-D1 (1991)

Extraplanar Ionized Gas and Kinematics in the Edge-on Galaxy NGC 891. *Jean W. Keppel, Ralf-Jürgen Dettmar, John S. Gallagher III, & Morton S. Roberts.* 374, 507, 105-D6 (1991)

Large-Scale [C II] 158 Micron Emission from the Galaxy. *Hiroshi Shibai, Haruyuki Okuda, Takao Nakagawa, Hideo Matsuhara, Toshinori Maihara, Kohei Mizutani, Yukiyasu Kobayashi, Norihisa Hiromoto, Tetsuo Nishimura, & Frank J. Low.* 374, 522, 105-F1 (1991)

Evolution of High-Redshift Lyman-Limit Absorption Systems. *Kenneth M. Lanzetta.* 375, 1, 111-A11 (1991)

Ram-Pressure Stripping of the Multiphase Interstellar Medium of the Virgo Cluster Elliptical Galaxy M86 (NGC 4406). *David A. White, A. C. Fabian, W. Forman, C. Jones, & C. Stern.* 375, 35, 111-D9 (1991)

Imaging Spectrophotometry of Ionized Gas in NGC 1068. II. Global Ionization of the Inner Disk. *Jonathan Bland-Hawthorn, James Sokolowski, & Gerald Cecil.* 375, 78, 112-A1 (1991)

What Determines the Physical Quantities of Galaxies? A Two-Component Gas Model for Protogalaxies with Energy Input from Supernovae. *Satoru Ikeuchi & Colin A. Norman.* 375, 479, 118-F9 (1991)

Orbital Decay in Aspherical Galaxies. II. Triaxial Systems. *Thomas S. Statler.* 375, 544, 119-E1 (1991)

Resonance Excitation of Spiral Density Waves in a Gaseous Disk. II. A Nonlinear Theory and Application to the 3 Kiloparsec Arm. *Chi Yuan & Ye Cheng.* 376, 104, 126-C3 (1991)

Formation of Galactic Halos from Seeded Hot Dark Matter. *Anthony van Dalen & Jens Verner Villumsen.* 376, 371, 131-B1 (1991)

Winds, Outflows, and Inflows in X-Ray Elliptical Galaxies. I. *Luca Ciotti, Annibale D'Ercole, Silvia Pellegrini, & Alvio Renzini.* 376, 380, 131-B12 (1991)

Extremely Low Surface Brightness Galaxies in the Fornax Cluster: Properties, Stability, and Luminosity Fluctuations. *Gregory D. Bothun, Christopher D. Impey, & David F. Malin.* 376, 404, 131-D10 (1991)

Stability of Nonrotating Stellar Systems. II. Prolate Shell-Orbit Models. *David Merritt & Lars Hernquist.* 376, 439, 131-G13 (1991)

Arm Classification and Velocity Gradients in Spiral Galaxies. *A. Biviano, M. Girardi, G. Giuricin, F. Mardirossian, & M. Mezzetti.* 376, 458, 132-B7 (1991)

Galactic Disk Warps. *Konrad Kuijken.* 376, 467, 132-C4 (1991)

CO (3→2) Mapping and Gas Excitation in the Core of M82. *R. P. J. Tilanus, L. J. Tacconi, E. C. Sutton, S. Zhou, D. B. Sanders, C. G. Wynn-Williams, K. Y. Lo, & S. A. Stephens.* 376, 500, 132-E13 (1991)

Radio Source Orientation and the Angular Diameter–Redshift Relation. *L. I. Onuora.* 377, 36, 138-E1 (1991)

Modes of Oscillation of a Uniformly Rotating, Homogeneous Spheroid of Stars. *Peter O. Vandervoort.* 377, 49, 138-F1 (1991)

Neutral Hydrogen in the Outer Galaxy. *Athanassios Diplas & Blair D. Savage.* 377, 126, 139-E5 (1991)

Infrared Emission Regions in the Interacting Galaxy System Arp 299. *C. G. Wynn-Williams, S. A. Eales, E. E. Becklin, K.-W. Hodapp, R. D. Joseph, I. S. McLean, D. A. Simons, & G. S. Wright.* 377, 426, 145-A13 (1991)

Metallicity and Velocity Distribution of Giants toward the Galactic Poles. *Kavan U. Ratnatunga & Kenneth M. Yoss.* 377, 442, 145-C3 (1991)

Surface Photometry of a Sample of Elliptical and S0 Galaxies. *R. R. de Carvalho, S. Djorgovski, & L. N. da Costa.* 76, 1067, 40-E1 (1991)

The Discovery of a Long H I Plume near the Peculiar Galaxy NGC 2782 (Arp 215). *Beverly J. Smith.* 378, 39, 151-E1 (1991)

Compact Starbursts in Ultraluminous Infrared Galaxies. *J. J. Condon, Z.-P. Huang, Q. F. Yin, & T. X. Thuan.* 378, 65, 151-G5 (1991)

A Statistical Study of the Correlation of Galactic Supernova Remnants and Spiral Arms. *Zongwei Li, J. Craig Wheeler, Frank N. Bash, & W. H. Jefferys.* 378, 93, 152-B9 (1991)

Topography of the Galactic Disk: Z-Structure and Large-Scale Star Formation. *Emilio J. Alfaro, Jesús Cabrera-Caño, & Antonio J. Delgado.* 378, 106, 152-C10 (1991)

Galactic Structure from the *Spacelab* Infrared Telescope. II. Luminosity Models of the Milky Way. *S. M. Kent, T. M. Dame, & G. Fazio.* 378, 131, 152-F1 (1991)

The Structure of Cold Dark Matter Halos. *John Dubinski & R. G. Carlberg.* 378, 496, 158-E11 (1991)

Galaxy Formation through Hierarchical Clustering. *Simon D. M. White & Carlos S. Frenk.* 379, 52, 163-F3 (1991)

A COSMOS Study of the Structure and Content of NGC 6822. *Paul Hodge, Toby Smith, Paul Eskridge, Harvey MacGillivray, & Steven Beard.* 379, 621, 172-D1 (1991)

Direct Evidence for a Bar at the Galactic Center. *Leo Blitz & David N. Spergel.* 379, 631, 172-E1 (1991)

NGC 4286 and NGC 3377A: Galaxies with Mixed Morphologies between the Dwarf Im and dE/dSO Types. *Allan Sandage & G. Lyle Hoffman.* 379, L45, 175-A11 (1991)

Population Studies. X. Constraints on the Mass and Extent of the Galaxy's Dark Corona. *John E. Norris & M. R. S. Hawkins.* 380, 104, 177-C11 (1991)

Star Formation and the Molecular Content of IC 342. *Leslie J. Sage & P. M. Solomon.* 380, 392, 183-B7 (1991)

Population Studies. XI. The Extended Disk, Halo Configuration. *John E. Norris & Sean G. Ryan.* 380, 403, 183-C6 (1991)

Tidally Triggered Galaxy Formation. I. Evolution of the Galaxy Luminosity Function. *Cedric Lacey & Joseph Silk.* 381, 14, 189-C1 (1991)

Galaxy Evolution in Distant, X-Ray–Selected Clusters of Galaxies. I. Cl 1358+6245. *Daniel G. Fabricant, Jeffrey E. McClintock, & Marshall W. Bautz.* 381, 33, 189-D8 (1991)

Orbit Crowding of Molecular Gas at a Bar-Spiral Arm Transition Zone in M83. *Jeffrey D. P. Kenney & Steven D. Lord.* 381, 118, 190-D13 (1991)

Recent Star Formation in the Interacting Galaxy System NGC 520. *S. A. Stanford.* 381, 409, 195-G1 (1991)

Vertical Distribution and Support of Galactic H I. *Felix J. Lockman & Curtis S. Gehman.* 382, 182, 202-D12 (1991)

Is the Kinematically Distinct Core in NGC 5982 Necessarily the Remnant of an Accreted Companion? *Thomas S. Statler.* 382, L11, 205-B7 (1991)

Influence of a Dark Halo on the Stability of Elliptical Galaxies. *M. Stiavelli & L. S. Sparke.* 382, 466, 207-D1 (1991)

The Ordered Nature of Elliptical Galaxies: Implications for Their Intrinsic Angular Momenta and Shapes. *Marijn Franx, Garth Illingworth, & Tim de Zeeuw.* 383, 112, 213-D7 (1991)

Dark Matter in NGC 4472. *Michael Loewenstein.* 384, 474, 8-A9 (1992)

Ring Structure in Disk Galaxies. *C. E. Zaspel.* 385, 83, 13-A11 (1992)

The Radio Source and Bipolar Nebulosity in the Seyfert Galaxy NGC 3516. *Takamitsu Miyaji, Andrew S. Wilson, & Ismael Pérez-Fournon.* 385, 137, 13-F1 (1992)

A Multiwavelength Study of the Peculiar Interacting Galaxies Arp 143 = VV 117: Evidence for an Emerging Ring Galaxy? *P. N. Appleton, J. M. Schombert, & E. I. Robson.* 385, 491, 19-C8 (1992)

Projections of Box-shaped Galaxies. *Barbara S. Ryden.* 386, 42, 24-E10 (1992)

Infrared Imaging of $z > 2$ Radio Galaxies. *P. J. McCarthy, S. E. Persson, & S. C. West.* 386, 52, 24-F7 (1992)

The Structure and Dynamics of the Gaseous and Stellar Components in Centaurus A. *Richard A. Nicholson, Jonathan Bland-Hawthorn, & Keith Taylor.* 387, 503, 45-A1 (1992)

Discovery of Extended Faraday Rotation Compatible with Spiral Structure in an Intervening Galaxy at $z = 0.395$: New Observations of PKS 1229−021. *Philipp P. Kronberg, Judith J. Perry, & Edwin L. H. Zukowski.* 387, 528, 45-C1 (1992)

Optical Tracers of Spiral Wave Resonances in Galaxies. II. Hidden Three-Arm Spirals in a Sample of 18 Galaxies. *Bruce G. Elmegreen, Debra Meloy Elmegreen, & Luis Montenegro.* 79, 37, 12-E9 (1992)

Propagation of Cosmic-Ray Nuclei in a Diffusing Galaxy with Convective Halo and Thin Matter Disk. *W. R. Webber, M. A. Lee, & M. Gupta.* 390, 96, 75-C3 (1992)

Hubble Space Telescope Imaging of Distant Galaxies: 4C 41.17 at $z = 3.8$. *G. K. Miley, K. C. Chambers, W. J. M. van Breugel, & F. Macchetto.* 401, L69, 232-G10 (1992)

The External Origin of the Gas in S0 Galaxies. *F. Bertola, L. M. Buson, & W. W. Zeilinger.* 401, L79, 233-A12 (1992)

The Scale Height and Radial Distribution of Molecular Gas in NGC 891. *N. Z. Scoville, D. Thakkar, J. E. Carlstrom, & A. I. Sargent.* 404, L59, 40-D7 (1993)

The Im/dE,N Mixed Morphology Dwarf ESO 359-G29 as a Probe of a Massive Halo in NGC 1532. *Allan Sandage & Edward Fomalont.* 407, 14, 69-C1 (1993)

Softening in N-Body Simulations of Collisionless Systems. *Charles C. Dyer & Peter S. S. Ip.* 409, 60, 97-F7 (1993)

Self-consistent Models for Triaxial Galaxies with Flat Rotation Curves: The Disk Case. *Konrad Kuijken.* 409, 68, 97-G1 (1993)

Structure of Merger Remnants. II. Progenitors with Rotating Bulges. *Lars Hernquist.* 409, 548, 105-F12 (1993)

Self-consistent Models for Galactic Halos. *Martin Schwarzschild.* 409, 563, 106-A3 (1993)

The Interacting System NGC 7753–7752 (Arp 86). I. *BVRI* Photometry. *Eija Laurikainen, Heikki Salo, & Antonio Aparicio.* 410, 574, 120-G3 (1993)

The Bulge of M33. *Dante Minniti, Edward W. Olszewski, & Marcia Rieke.* 410, L79, 125-G3 (1993)

N-Body Realizations of Compound Galaxies. *Lars Hernquist.* 86, 389, 19-F7 (1993)
A Model for the Vertical Distribution of Stars in Disk Galaxies. *James B. Dove & Harley A. Thronson, Jr.* 411, 632, 137-E7 (1993)
The Mass Distribution in a Merger Model. *Nir J. Shaviv & Giora Shaviv.* 412, L25, 148-C11 (1993)
The Warped Disk of Centaurus A in the Near-Infrared. *A. C. Quillen, James R. Graham, & Jay A. Frogel.* 412, 550, 150-E7 (1993)
Broad-Band X-Ray Telescope Observations of the Hot Interstellar Media in NGC 1399 and NGC 4472. *P. J. Serlemitsos, M. Loewenstein, R. F. Mushotzky, F. E. Marshall, & R. Petre.* 413, 518, 163-A1 (1993)
The Genesis of Starbursts and Infrared Emission in the Centers of Galaxies. *C. M. Telesco, L. L. Dressel, & R. D. Wolstencroft.* 414, 120, 171-E3 (1993)
Effects of Gas on the Global Stability of Galactic Disks: Radial Flows. *Isaac Shlosman & Masafumi Noguchi.* 414, 474, 177-B2 (1993)
A New Way to Locate Corotation Resonances in Spiral Galaxies. *Blaise Canzian.* 414, 487, 177-C4 (1993)
QSO Heavy-Element Absorption Line Systems and Large Galactic Halos by Satellite Accretion. *Boqi Wang.* 415, 174, 187-B12 (1993)
3C 317: An Amorphous Radio Source in the Cooling Flow Cluster Abell 2052. *Jun-Hui Zhao, Dean M. Sumi, J. O. Burns, & Nebojsa Duric.* 416, 51, 201-F7 (1993)
Kinematical Modeling of Warps in the H I Disks of Galaxies. *Dimitris M. Christodoulou, Joel E. Tohline, & Thomas Y. Steiman-Cameron.* 416, 74, 202-A7 (1993)
Early-Type Galaxies, Dark Halos, and Gravitational Lensing Statistics. *Dan Maoz & Hans-Walter Rix.* 416, 425, 208-F1 (1993)
Star Formation in the Spiral Arms of NGC 4321. II. H I Distribution and Kinematics. *Johan H. Knapen, Jordi Cepa, John E. Beckman, M. Soledad del Rio, & Alan Pedlar.* 416, 563, 210-D1 (1993)
Dark Matter Halos in Elliptical Galaxies. *Francesco Bertola, Alessandro Pizzella, Massimo Persic, & Paolo Salucci.* 416, L45, 216-B1 (1993)
An Hα Atlas of Nearby Southern Spiral Galaxies. *Stuart D. Ryder & Michael A. Dopita.* 88, 415, 45-F7 (1993)
Infrared Observations of the Seyfert Ring Galaxy NGC 985. *P. N. Appleton & P. M. Marcum.* 417, 90, 218-C9 (1993)
Elliptic Mass Distributions versus Elliptic Potentials in Gravitational Lenses. *Aggeliki Kassiola & Israel Kovner.* 417, 450, 225-A1 (1993)
High-Resolution CO and H I Observations of the Interacting Galaxy NGC 3627. *Xiaolei Zhang, Melvyn Wright, & Paul Alexander.* 418, 100, 232-C11 (1993)
NGC 4254: A Spiral Galaxy with an $m = 1$ Mode and Infalling Gas. *Bikram Phookun, Stuart N. Vogel, & Lee G. Mundy.* 418, 113, 232-D12 (1993)
Tracing the Stellar Mass in M51. *Hans-Walter Rix & Marcia J. Rieke.* 418, 123, 232-E10 (1993)
A Complete CO Survey of M31. I. Distribution and Kinematics. *T. M. Dame, E. Koper, F. P. Israel, & P. Thaddeus.* 418, 730, 241-E8 (1993)
The Analysis of Gravitational Lens Surveys. II. Maximum Likelihood Models and Singular Potentials. *Christopher S. Kochanek.* 419, 12, 246-C2 (1993)
Dense Gas in the Bulges of External Galaxies. *Tamara T. Helfer & Leo Blitz.* 419, 86, 247-B13 (1993)
Mass Stripping of Lyman-Alpha Clouds by Ram Pressure under the Minihalo Model. *Izumi Murakami & Satoru Ikeuchi.* 420, 68, 1-G8 (1994)
High-Resolution Continuum and Brγ Imaging Observations of M82. *J. E. Larkin, J. R. Graham, K. Matthews, B. T. Soifer, S. Beckwith, T. M. Herbst, & A. C. Quillen.* 420, 159, 3-A1 (1994)
Photoionization of Disk Galaxies: An Explanation of the Sharp Edges in the H I Distribution. *James B. Dove & J. Michael Shull.* 423, 196, 48-E3 (1994)
Anisotropic High-Excitation Emission and Chemical Abundances in the Seyfert 2 Galaxy NGC 5643. *Henrique R. Schmitt, Thaisa Storchi-Bergmann, & Jack A. Baldwin.* 423, 237, 49-A9 (1994)
Orbital Evolution of Bodies Crossing Disks Due to Density and Bending Wave Excitation. *Pawel Artymowicz.* 423, 581, 55-F8 (1994)
Discovery of Neutral Hydrogen Associated with the Diffuse Shells of NGC 5128 (Centaurus A). *D. Schiminovich, J. H. van Gorkom, J. M. van der Hulst, & S. Kasow.* 423, L101, 60-D13 (1994)
Fueling Nuclear Activity in Disk Galaxies: Starbursts and Monsters. *Clayton H. Heller & Isaac Shlosman.* 424, 84, 63-B1 (1994)
Neutral Hydrogen and Optical Properties of Three Amorphous Galaxies. *Deidre A. Hunter, Hugo van Woerden, & John S. Gallagher III.* 91, 79, 18-A2 (1994)
The Influence of Bars on the Chemical Composition of Spiral Galaxies. *Pierre Martin & Jean-René Roy.* 424, 599, 72-B10 (1994)
Self-Gravity and Dissipation in Polar Rings. *John Dubinski & Dimitris M. Christodoulou.* 424, 615, 72-E3 (1994)
The Flattening Distribution of Dwarf Elliptical Galaxies in the Virgo Cluster. *Barbara S. Ryden & Donald M. Terndrup.* 425, 43, 80-F6 (1994)
Triggering of Starbursts in Galaxies by Minor Mergers. *J. Christopher Mihos & Lars Hernquist.* 425, L13, 85-C5 (1994)
The Local Galaxy Density and the Arm Class of Spiral Galaxies. *Giuliano Giuricin, Pierluigi Monaco, Fabio Mardirossian, & Marino Mezzetti.* 425, 450, 87-C11 (1994)
Instabilities of Counterrotating Stellar Disks. *J. A. Sellwood & David Merritt.* 425, 530, 88-C5 (1994)
Bending Instabilities in Stellar Systems. *David Merritt & J. A. Sellwood.* 425, 551, 88-E5 (1994)
Surface Photometry of Low-Luminosity Radio Galaxies. *Lourdes de Juan, Luis Colina, & Ismael Pérez-Fournon.* 91, 507, 26-C5 (1994)
Bar-induced Velocities in the Bulge of M31. *Antony A. Stark & James Binney.* 426, L31, 103-D9 (1994)
Imaging of "Butcher-Oemler" Blue Galaxies at a Redshift of 0.2. *Russell J. Lavery & J. Patrick Henry.* 426, 524, 104-G13 (1994)
Geometrical Evidence for Dark Matter: X-Ray Constraints on the Mass of the Elliptical Galaxy NGC 720. *David A. Buote & Claude R. Canizares.* 427, 86, 111-A12 (1994)
Extraplanar Emission-Line Gas in Edge-on Galaxies. *Rachel A. Pildis, Joel N. Bregman, & James M. Schombert.* 427, 160, 112-A1 (1994)
Structure of Merger Remnants. IV. Isophotal Shapes. *Jeremy S. Heyl, Lars Hernquist, & David N. Spergel.* 427, 165, 112-B1 (1994)
Modal Approach to the Morphology of Spiral Galaxies. III. Application to the Galaxy M81. *S. A. Lowe, W. W. Roberts, J. Yang, G. Bertin, & C. C. Lin.* 427, 184, 112-C11 (1994)
Observational and Theoretical Constraints on Singular Dark Matter Halos. *Ricardo A. Flores & Joel R. Primack.* 427, L1, 117-A8 (1994)
HST Images of Very Compact Blue Galaxies at $z \sim 0.2$. *David C. Koo, Matthew A. Bershady, Gregory D. Wirth, S. Adam Stanford, & Steven R. Majewski.* 427, L9, 117-B8 (1994)
Morphology of Galaxies in Compact Groups. *Cláudia Mendes de Oliveira & Paul Hickson.* 427, 684, 121-C1 (1994)
Lyman-Alpha Absorption and Tidal Debris. *Simon L. Morris & Sidney van den Bergh.* 427, 696, 121-D1 (1994)
Halo Model for Intermediate-Redshift Quasar Absorption Systems. *R. Srianand & Pushpa Khare.* 428, 82, 129-C2 (1994)
On the Sensitivity of the *N*-Body Problem toward Small Changes in Initial Conditions. IV. *Henry E. Kandrup, M. Elaine Mahon, & Haywood Smith, Jr.* 428, 458, 135-G12 (1994)
Time Evolution of Galactic Warps. *Peter Hofner & Linda S. Sparke.* 428, 466, 136-A8 (1994)
The Stability of Perfect Elliptic Disks. I. The Maximum Streaming Case. *Stephen E. Levine & Linda S. Sparke.* 428, 493, 136-D1 (1994)
Optical Luminosity Functions for Compact Groups of Galaxies. *Jack W. Sulentic & Carlos R. Rabaça.* 429, 531, 152-C8 (1994)
Arcs and Bridges in the Interacting Galaxies NGC 5775/NGC 5774. *Judith A. Irwin.* 429, 618, 153-D7 (1994)
The Morphology of Distant Cluster Galaxies. I. *HST* Observations of CL 0939+4713. *Alan Dressler, Augustus Oemler, Jr., Harvey R. Butcher, & James E. Gunn.* 430, 107, 160-D3 (1994)
The Byurakan Classification and the Far-Infrared Radiation of Spiral Galaxies. *H. M. Tovmassian.* 430, 139, 160-G3 (1994)
Dynamics and X-Ray Emission of a Galactic Superwind Interacting with Disk and Halo Gas. *Anatoly A. Suchkov, Dinshaw S. Balsara, Timothy M. Heckman, & Claus Leitherer.* 430, 511, 168-B5 (1994)
Modes of Elliptical Galaxies. *Ue-Li Pen.* 431, 104, 177-D10 (1994)
Diffuse Ionized Gas in the Spiral Galaxy M31. *René A. M. Walterbos & Robert Braun.* 431, 156, 178-B3 (1994)
Ultraluminous Starbursts in Major Mergers. *J. Christopher Mihos & Lars Hernquist.* 431, L9, 182-C13 (1994)
On the Evolution of Clustering and the Biased Galaxy Formation Scenario. *Tereasa G. Brainerd & Jens V. Villumsen.* 431, 477, 184-E1 (1994)

Large-Scale Structure after *COBE*: Peculiar Velocities and Correlations of Cold Dark Matter Halos. *Wojciech H. Zurek, Peter J. Quinn, John K. Salmon, & Michael S. Warren.* 431, 559, 185-E1 (1994)

The Effect of Central Starbursts on the Interstellar Medium of Dwarf Galaxies. *David S. De Young & Timothy M. Heckman.* 431, 598, 186-A6 (1994)

The Effect of Dissipation on the Shapes of Dark Halos. *John Dubinski.* 431, 617, 186-C3 (1994)

A Morphological and Color Study of Fornax Low Surface Brightness Galaxies in the Washington System. *Sergio A. Cellone, Juan Carlos Forte, & Doug Geisler.* 93, 397, 48-B1 (1994)

Galaxy Properties in Different Environments. I. The Sample. *Marcio A. G. Maia, Miriani G. Pastoriza, Eduardo Bica, & Horacio Dottori.* 93, 425, 48-D8 (1994)

Infrared Imaging of Spiral Galaxies: Colors and Luminosity Profiles. *Donald M. Terndrup, Roger L. Davies, Jay A. Frogel, D. L. DePoy, & Lisa A. Wells.* 432, 518, 202-D5 (1994)

Supercloud Formation by Gravitational Collapse of Magnetic Gas in the Crest of a Spiral Density Wave. *B. G. Elmegreen.* 433, 39, 208-F5 (1994)

The Nuclear Superbubble of NGC 3079. *S. Veilleux, G. Cecil, J. Bland-Hawthorn, R. B. Tully, A. V. Filippenko, & W. L. W. Sargent.* 433, 48, 208-G2 (1994)

Velocity Bias in Clusters. *R. G. Carlberg.* 433, 468, 216-G1 (1994)

Generation of Spatial Structures by Nonlinear Mass-Exchange Processes in a Multicomponent Rotating Disk. *V. I. Korchagin & A. D. Ryabtsev.* 433, 520, 217-D9 (1994)

Hubble Space Telescope Imaging of the Seyfert 2 Galaxy NGC 2110. *John S. Mulchaey, Andrew S. Wilson, Gary A. Bower, Timothy M. Heckman, Julian H. Krolik, & George K. Miley.* 433, 625, 218-F10 (1994)

Linear Stability of Spherical Collisionless Stellar Systems. *G. Bertin, F. Pegoraro, F. Rubini, & E. Vesperini.* 434, 94, 226-D8 (1994)

The Near-Infrared Structure of M33. *Michael W. Regan & Stuart N. Vogel.* 434, 536, 235-B8 (1994)

Pseudomoment Stellar Dynamics. I. Spheroidal Galactic Equilibria. *Peter Amendt & Phil Cuddeford.* 435, 93, 244-E12 (1994)

VLBI Observations of a Complete Sample of Radio Galaxies. IV. The Radio Galaxies NGC 2484, 3C 109, and 3C 382. *G. Giovannini, L. Feretti, T. Venturi, L. Lara, J. Marcaide, M. Rioja, S. R. Spangler, & A. E. Wehrle.* 435, 116, 245-A1 (1994)

The Morphology of Faint Galaxies in Medium Deep Survey Images Using WFPC2. *R. E. Griffiths, S. Casertano, K. U. Ratnatunga, L. W. Neuschaefer, R. S. Ellis, G. F. Gilmore, K. Glazebrook, B. Santiago, J. P. Huchra, R. A. Windhorst, S. M. Pascarelle, R. F. Green, G. D. Illingworth, D. C. Koo, & A. J. Tyson.* 435, L19, 251-E1 (1994)

Deep *HST* Imaging of Distant Weak Radio and Field Galaxies. *R. A. Windhorst, J. M. Gordon, S. M. Pascarelle, P. C. Schmidtke, William C. Keel, J. M. Burkey, & James S. Dunlop.* 435, 577, 254-B2 (1994)

The Massive Halos of Spiral Galaxies. *Dennis Zaritsky & Simon D. M. White.* 435, 599, 254-D1 (1994)

Hubble Space Telescope Observations of the Distant Cluster Cl 0016+16: Quantitative Morphology of Confirmed Cluster Members. *Gregory D. Wirth, David C. Koo, & Richard G. Kron.* 435, L105, 259-F2 (1994)

The Dynamics of Luminous Galaxies in Isothermal Halos. *Christopher S. Kochanek.* 436, 56, 262-A8 (1994)

Why Do Head-Tail Sources Exist in Poor Clusters of Galaxies? *T. C. A. Venkatesan, David J. Batuski, Robert J. Hanisch, & Jack O. Burns.* 436, 67, 262-B8 (1994)

Cold Dark Matter. I. The Formation of Dark Halos. *James M. Gelb & Edmund Bertschinger.* 436, 467, 272-A5 (1994)

Evidence for Axisymmetric Halos: The Case of IC 2006. *Marijn Franx, J. H. van Gorkom, & Tim de Zeeuw.* 436, 642, 274-D3 (1994)

The Nuclear Colors and Morphology of Field Galaxies at Moderate Redshift. *Duncan A. Forbes, Rebecca A. W. Elson, Andrew C. Phillips, Garth D. Illingworth, & David C. Koo.* 437, L17, 291-D1 (1994)

Dense Stellar Cores in Merger Remnants. *J. Christopher Mihos & Lars Hernquist.* 437, L47, 292-A1 (1994)

The Second Caltech–Jodrell Bank VLBI Survey. I. Observations of 91 of 193 Sources. *G. B. Taylor, R. C. Vermeulen, T. J. Pearson, A. C. S. Readhead, D. R. Henstock, I. W. A. Browne, & P. N. Wilkinson.* 95, 345, 69-B1 (1994)

Dark Matter in X-Ray–emitting Elliptical Galaxies. *F. De Paolis, G. Ingrosso, & F. Strafella.* 438, 83, 2-D11 (1995)

Gas Filaments in the Collisional Debris of NGC 4438. *Jeffrey D. P. Kenney, Vera C. Rubin, Pere Planesas, & Judith S. Young.* 438, 135, 3-B10 (1995)

Observations of the Impact of Starbursts on the Interstellar Medium in Dwarf Galaxies. *Amanda T. Marlowe, Timothy M. Heckman, Rosemary F. G. Wyse, & Robert Schommer.* 438, 563, 12-A3 (1995)

Morphology of Galaxy Mergers at Intermediate Redshift. *J. Christopher Mihos.* 438, L75, 19-E8 (1995)

Structure and Kinematics within the Starburst Nucleus of M82: Searching for a Bar. *J. M. Achtermann & J. H. Lacy.* 439, 163, 23-D10 (1995)

The Catalog of Southern Ringed Galaxies. *R. Buta.* 96, 39, 1-E4 (1995)

Faint Object Camera Imaging and Spectroscopy of NGC 4151. *A. Boksenberg, R. M. Catchpole, F. Macchetto, R. Albrecht, C. Barbieri, J. C. Blades, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kampermann, I. R. King, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 440, 151, 43-C6 (1995)

Hubble Space Telescope Observations of Gravitationally Lensed Features in the Rich Cluster AC 114. *Ian Smail, Warrick J. Couch, Richard S. Ellis, & Ray M. Sharples.* 440, 501, 50-B10 (1995)

Dark Matter in Elliptical Galaxies. *C. M. Carollo, P. T. de Zeeuw, R. P. van der Marel, I. J. Danziger, & E. E. Qian.* 441, L25, 66-F9 (1995)

A Test of Galaxy Evolutionary Models via Angular Sizes. *Myungshin Im, Stefano Casertano, Richard E. Griffiths, Kavan U Ratnatunga, & J. Anthony Tyson.* 441, 494, 68-G8 (1995)

The Potential-Energy Tensors for Subsystems. III. Mass Distributions with Ellipsoidal and Confocal Strata. *R. Caimmi.* 441, 533, 69-D3 (1995)

A Technique for Determining the Extragalactic Distance Scale. *Masashi Chiba & Yuzuru Yoshii.* 442, 82, 78-C11 (1995)

The Settling of Warped Disks in Oblate Dark Halos. *John Dubinski & Konrad Kuijken.* 442, 492, 86-F7 (1995)

A Multiparametric Analysis of the *Einstein* Sample of Early-Type Galaxies. II. Galaxy Formation History and Properties of the Interstellar Medium. *Paul B. Eskridge, Giuseppina Fabbiano, & Dong-Woo Kim.* 442, 523, 87-B8 (1995)

The Gaseous Extent of Galaxies and the Origin of Lyman-Alpha Absorption Systems: A Survey of Galaxies in the Fields of *Hubble Space Telescope* Spectroscopic Target QSOs. *Kenneth M. Lanzetta, David V. Bowen, David Tytler, & John K. Webb.* 442, 538, 87-D1 (1995)

Blue Lobes in the Hydra A Cluster Central Galaxy. *Brian R. McNamara.* 443, 77, 96-C8 (1995)

Establishing the Connection between Peanut-shaped Bulges and Galactic Bars. *Konrad Kuijken & Michael R. Merrifield.* 443, L13, 102-C11 (1995)

The Striking Near-Infrared Morphology of the Inner Region in M100. *J. H. Knapen, J. E. Beckman, I. Shlosman, R. F. Peletier, C. H. Heller, & R. S. de Jong.* 443, L73, 111-G3 (1995)

Competition of Supermassive Black Holes and Galactic Spheroids in the Destruction of Globular Clusters. *Jane C. Charlton & Pablo Laguna.* 444, 193, 116-A11 (1995)

Neutral Hydrogen Associated with Shells and Other Fine Structure in NGC 2865. A Dynamically Young Elliptical? *D. Schiminovich, J. H. van Gorkom, J. M. van der Hulst, & D. F. Malin.* 444, L77, 130-D1 (1995)

Small Deviations from the $R^{1/4}$ Law, the Fundamental Plane, and Phase Densities of Elliptical Galaxies. *Jens Hjorth & Jes Madsen.* 445, 55, 133-B6 (1995)

The Interstellar Disk–Halo Connection in the Spiral Galaxy NGC 3079. *Sylvain Veilleux, Gerald Cecil, & J. Bland-Hawthorn.* 445, 152, 134-D11 (1995)

The Oxygen Distribution in NGC 3359 or a Disk Galaxy in the Early Phase of Bar Formation. *Pierre Martin & Jean-René Roy.* 445, 161, 134-F3 (1995)

The Axis Ratio Distribution of Faint Galaxies: Evidence for a Population of Dwarf Galaxies at $I \sim 20.5$. *Myungshin Im, Kavan U. Ratnatunga, Richard E. Griffiths, & Stefano Casertano.* 445, L15, 140-C12 (1995)

Evidence for Dark Matter in MG 1654+134. *Christopher S. Kochanek.* 445, 559, 142-F13 (1995)

Inner Two-Arm Symmetry in Spiral Galaxies. *Debra Meloy Elmegreen & Bruce G. Elmegreen.* 445, 591, 143-B11 (1995)

Wavelet Transform Analysis of the Small-Scale X-Ray Structure of the Cluster Abell 1367. *S. A. Grebenev, W. Forman, C. Jones, & S. Murray.* 445, 607, 143-D12 (1995)

Models of Galaxies with Central Black Holes: Simulation Methods. *Steinn Sigurdsson, Lars Hernquist, & Gerald D. Quinlan.* 446, 75, 154-C6 (1995)

Phase-Transition Theory of Instabilities. II. Fourth-Harmonic Bifurcations and λ-Transitions. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 485, 162-G3 (1995)

On the Origin of Blue Lobes in Central Cooling Flow Galaxies. *David S. De Young.* 446, 521, 163-C7 (1995)

The Mass Distribution of the Lens Galaxy in MG 1131+0456. *G. H. Chen, C. S. Kochanek, & J. N. Hewitt.* 447, 62, 173-A13 (1995)

Nonaxisymmetric Structures in the Stellar Disks of Galaxies. *Hans-Walter Rix & Dennis Zaritsky.* 447, 82, 173-C9 (1995)

The Barred Spiral Galaxy NGC 1398 and Its Pattern Speed. *E. M. Moore & S. T. Gottesman.* 447, 159, 174-C8 (1995)

The Structure of Dark Matter Halos in Dwarf Galaxies. *A. Burkert.* 447, L25, 180-G1 (1995)

A Merger Origin for X Structures in S0 Galaxies. *J. Christopher Mihos, Ian R. Walker, Lars Hernquist, Claudia Mendes de Oliveira, & Michael Bolte.* 447, L87, 190-E1 (1995)

Inferring Galaxy Viewing Angles. *Jeremy S. Heyl, Lars Hernquist, & David N. Spergel.* 448, 64, 193-A13 (1995)

Pressure-supported Ionized Gas in S0 Galaxies. *Francesco Bertola, Pieratonio Cinzano, Enrico Maria Corsini, Hans-Walter Rix, & Werner W. Zeilinger.* 448, L13, 199-C11 (1995)

Emission-Line Imaging of 3CR Radio Galaxies. I. Imaging Data. *Patrick J. McCarthy, Hyron Spinrad, & Wil van Breugel.* 99, 27, 34-E4 (1995)

Two-dimensional Decomposition of Bulge and Disk. *Y. I. Byun & K. C. Freeman.* 448, 563, 202-D12 (1995)

Constraints on the Parsec-Scale Environment in NGC 1275. *A. Levinson, A. Laor, & R. C. Vermeulen.* 448, 589, 202-G4 (1995)

The Morphology of the Narrow-Line Region of Markarian 3. *A. Capetti, F. Macchetto, D. J. Axon, W. B. Sparks, & A. Boksenberg.* 448, 600, 203-A4 (1995)

Nuclear Rings and Mass Inflow in Hydrodynamic Simulations of Barred Galaxies. *B. Glenn Piner, James M. Stone, & Peter J. Teuben.* 449, 508, 219-G5 (1995)

VLA Maps of Radio Galaxies to $z = 1$. *S. G. Neff, L. Roberts, & J. B. Hutchings.* 99, 349, 39-F1 (1995)

The Morphology and Kinematics of 16 Markarian Galaxies with Multiple Nuclei. I. Basic Data. *Tyler E. Nordgren, George Helou, Jayaram N. Chengalur, Yervant Terzian, & Ed Khachikian.* 99, 461, 41-C12 (1995)

Hubble Space Telescope Images of the Nuclear Star-forming Region in the Interacting Galaxy NGC 5930. *Gary A. Bower & Andrew S. Wilson.* 99, 543, 42-E11 (1995)

The Local Galaxy Density and the Bulge-to-Disk Ratio of Disk Galaxies. *Giuliano Giuricin, Füsun Limboz Tektunali, Pierluigi Monaco, Fabio Mardirossian, & Marino Mezzetti.* 450, 41, 228-F1 (1995)

The Rotation Curves of the Polar Ring Galaxy NGC 4650A under Modified Newtonian Dynamics. *Takahiro Morishima & Hideyuki Saio.* 450, 70, 229-A12 (1995)

A Model of Nonlinear Dynamo Action in Lenticular Galaxies. *Matthew R. Walker & Carlo F. Barenghi.* 450, 540, 238-B12 (1995)

NGC 7217: A Spheroid-dominated, Early-Type Resonance Ring Spiral Galaxy. *R. Buta, W. van Driel, J. Braine, F. Combes, K. Wakamatsu, Y. Sofue, & A. Tomita.* 450, 593, 238-G13 (1995)

The Linear-Size Evolution of Classical Double Radio Sources. *Mark J. Neeser, Stephen A. Eales, J. Duncan Law-Green, J. Patrick Leahy, & Steve Rawlings.* 451, 76, 247-B12 (1995)

Toward Understanding the Fanaroff-Riley Dichotomy in Radio Source Morphology and Power. *Stefi A. Baum, Esther L. Zirbel, & Christopher P. O'Dea.* 451, 88, 247-C13 (1995)

H II Regions in Four Galaxies in and near the Local Group. *Paul Hodge & Bryan W. Miller.* 451, 176, 248-D9 (1995)

The Optimal N-Body Method for Stability Studies of Galaxies. *David J. D. Earn & J. A. Sellwood.* 451, 533, 254-E12 (1995)

Diffuse X-Ray Emission from M101. *S. L. Snowden & W. Pietsch.* 452, 627, 273-C12 (1995)

The Interaction between Spiral Galaxies IC 2163 and NGC 2207. I. Observations. *Debra Meloy Elmegreen, Michele Kaufman, Elias Brinks, Bruce G. Elmegreen, & Maria Sundin.* 453, 100, 282-E8 (1995)

The Interaction between Spiral Galaxies IC 2163 and NGC 2207. II. Models. *Bruce G. Elmegreen, Maria Sundin, Michele Kaufman, Elias Brinks, & Debra Meloy Elmegreen.* 453, 139, 283-B2 (1995)

Structural Parameters of Faint Galaxies from Prerefurbishment *Hubble Space Telescope* Medium Deep Survey Observations. *S. Casertano, K. U. Ratnatunga, R. E. Griffiths, M. Im, L. W. Neuschaefer, E. J. Ostrander, & R. A. Windhorst.* 453, 599, 292-B9 (1995)

Relativistic Jets and the Fanaroff-Riley Classification of Radio Galaxies. *Geoffrey V. Bicknell.* 101, 29, 53-D4 (1995)

The Central Region in M100: Observations and Modeling. *J. H. Knapen, J. E. Beckman, C. H. Heller, I. Shlosman, & R. S. de Jong.* 454, 623, 310-B4 (1995)

Evolution of Spiral Galaxies. V. The Galactic Bulge. *Mercedes Mollá & Federico Ferrini.* 454, 726, 311-F9 (1995)

VLBI Observations of a Complete Sample of Radio Galaxies. VI. The Two FR I Radio Galaxies B2 0836+29 and 3C 465. *T. Venturi, C. Castaldini, W. D. Cotton, L. Feretti, G. Giovannini, L. Lara, J. M. Marcaide, & A. E. Wehrle.* 454, 735, 311-G7 (1995)

An Alignment between Optical Continuum and Emission-Line Structures in the Circumnuclear Regions of Seyfert Galaxies. *John S. Mulchaey & Andrew S. Wilson.* 455, L17, 324-E1 (1995)

GALAXIES: THE GALAXY

The Physical Properties of Giant Molecular Cloud Complexes in the Outer Galaxy: Implications for the Ratio of H_2 Column Density to ^{12}CO Intensity. *T. J. Sodroski.* 366, 95, 2-C1 (1991)

Abundances in H II Regions at the Edge of the Galaxy. *Michel Fich & Mariabeth Silkey.* 366, 107, 2-D1 (1991)

VLA Radio Recombination Line Observations of Sagittarius A West. *D. A. Roberts, W. W. Goss, J. H. van Gorkom, & J. P. Leahy.* 366, L15, 6-B13 (1991)

Reversing the Axisymmetric ($m = 0$) Magnetic Fields in the Milky Way. *J. P. Vallée.* 366, 450, 8-D9 (1991)

High-Latitude Galactic Emission and the Search for Anisotropies of the Cosmic Background Radiation. *S. Masi, P. de Bernardis, M. De Petris, M. Epifani, M. Gervasi, & G. Guarini.* 366, L51, 11-B1 (1991)

The Galactic Disk Surface Mass Density and the Galactic Force K_z at $z = 1.1$ Kiloparsecs. *Konrad Kuijken & Gerard Gilmore.* 367, L9, 17-C1 (1991)

Metal Abundances of RR Lyrae Variables in Selected Galactic Star Fields. V. The Lick Astrographic Fields at Intermediate Galactic Latitudes. *Nicholas B. Suntzeff, T. D. Kinman, & Robert P. Kraft.* 367, 528, 19-G13 (1991)

Radial Velocity Distribution and Line Strengths of 33 Carbon Stars in the Galactic Bulge. *Neil D. Tyson & R. Michael Rich.* 367, 547, 20-B6 (1991)

The Shape of the Galaxy. *Leo Blitz & David N. Spergel.* 370, 205, 49-F11 (1991)

Far-Infrared Line and Continuum Observations of G0.095+0.012 and the E2 Thermal Radio Filament near the Galactic Center. *Edwin F. Erickson, Sean W. J. Colgan, J. P. Simpson, Robert H. Rubin, Mark Morris, & Michael R. Haas.* 370, L69, 59-C1 (1991)

Mapping of Infrared Helium and Hydrogen Line Profiles in the Central Few Arcseconds of the Galaxy. *T. R. Geballe, K. Krisciunas, J. A. Bailey, & R. Wade.* 370, L73, 59-C8 (1991)

Hydrodynamics of the Hot Component of the Galactic Halo. I. Steady State Solutions. *G. Einaudi & A. Ferrara.* 371, 571, 68-E12 (1991)

A Windswept Cometary Tail on the Galactic Center Supergiant IRS 7. *F. Yusef-Zadeh & Mark Morris.* 371, L59, 73-B10 (1991)

Gravitational Microlensing of the Galactic Bulge Stars. *B. Paczyński.* 371, L63, 73-C4 (1991)

Further Limits on Disklike Dark Matter from K Dwarf Kinematics. *Konrad Kuijken.* 372, 125, 75-E7 (1991)

Line Integrals of n_e and n_e^2 at High Galactic Latitude. *R. J. Reynolds.* 372, L17, 79-C1 (1991)

Coded-Aperture Imaging of the Galactic Center Region at Gamma-Ray Energies. *Walter R. Cook, John M. Grunsfeld, William A. Heindl, David M. Palmer, Thomas A. Prince, Stephen M. Schindler, & Edward C. Stone.* 372, L75, 85-D1 (1991)

Large-Scale [C II] 158 Micron Emission from the Galaxy. *Hiroshi Shibai, Haruyuki Okuda, Takao Nakagawa, Hideo Matsuhara, Toshinori Maihara, Kohei Mizutani, Yukiyasu Kobayashi, Norihisa Hiromoto, Tetsuo Nishimura, & Frank J. Low.* 374, 522, 105-F1 (1991)

A Survey of the 158 Micron [C II] Fine-Structure Line in the Central 50 Parsecs of The Galaxy. *A. Poglitsch, G. J. Stacey, N. Geis, M. Haggerty, J. Jackson, M. Rumitz, R. Genzel, & C. H. Townes.* 374, L33, 110-B5 (1991)

Gravitational Microlensing by Double Stars and Planetary Systems. *Shude Mao & Bohdan Paczyński.* 374, L37, 110-B11 (1991)

Detection of a Galactic Color Gradient for Blue Horizontal-Branch Stars of the Halo Field and Implications for the Halo Age and Density Distributions. *George W. Preston, Stephen A. Shectman, & Timothy C. Beers.* 375, 121, 112-E1 (1991)

GRIS Observations of ^{26}Al Gamma-Ray Line Emission from Two Points in the Galactic Plane. *B. J. Teegarden, S. D. Barthelmy, N. Gehrels, J. Tueller, M. Leventhal, & C. J. MacCallum.* 375, L9, 117-B4 (1991)

GRIS Observations of Positron Annihilation Radiation from the Galactic Center. *N. Gehrels, S. D. Barthelmy, B. J. Teegarden, J. Tueller, M. Leventhal, & C. J. MacCallum.* 375, L13, 117-B10 (1991)

Diameters of Galactic Globular Clusters. *Sidney van den Bergh, Christopher Morbey, & John Pazder.* 375, 594, 120-B1 (1991)

Resonance Excitation of Spiral Density Waves in a Gaseous Disk. II. A Nonlinear Theory and Application to the 3 Kiloparsec Arm. *Chi Yuan & Ye Cheng.* 376, 104, 126-C3 (1991)

Neutral Hydrogen in the Outer Galaxy. *Athanassios Diplas & Blair D. Savage.* 377, 126, 139-E5 (1991)

Metallicity and Velocity Distribution of Giants toward the Galactic Poles. *Kavan U. Ratnatunga & Kenneth M. Yoss.* 377, 442, 145-C3 (1991)

Topography of the Galactic Disk: Z-Structure and Large-Scale Star Formation. *Emilio J. Alfaro, Jesús Cabrera-Caño, & Antonio J. Delgado.* 378, 106, 152-C10 (1991)

The Metallicity of RR Lyrae Stars in Baade's Window. *Alistair R. Walker & Donald M. Terndrup.* 378, 119, 152-D13 (1991)

A Finger-like Extension of the 20 Kilometer per Second Cloud toward the Galactic Center. *Sachiko K. Okumura, Masato Ishiguro, Edward B. Fomalont, Tetsuo Hasegawa, Takashi Kasuga, Koh-Ichiro Morita, Ryohei Kawabe, & Hideyuki Kobayashi.* 378, 127, 152-E9 (1991)

Galactic Structure from the *Spacelab* Infrared Telescope. II. Luminosity Models of the Milky Way. *S. M. Kent, T. M. Dame, & G. Fazio.* 378, 131, 152-F1 (1991)

A Gaseous Tail Ablated from the Supergiant IRS 7 near the Galactic Center. *E. Serabyn, J. H. Lacy, & J. M. Achtermann.* 378, 557, 159-C9 (1991)

Direct Evidence for a Bar at the Galactic Center. *Leo Blitz & David N. Spergel.* 379, 631, 172-E1 (1991)

Location of the Thermal Continuum Source Sagittarius D. *Dariusz C. Lis.* 379, L53, 175-B10 (1991)

On the Distribution of the Diffuse Galactic Gamma-Ray Line Emissions at 1809 keV and 511 keV. *P. von Ballmoos.* 380, 98, 177-C1 (1991)

Population Studies. X. Constraints on the Mass and Extent of the Galaxy's Dark Corona. *John E. Norris & M. R. S. Hawkins.* 380, 104, 177-C11 (1991)

JHK Imaging of a Field in Baade's Window. *T. J. Davidge.* 380, 116, 177-E1 (1991)

Population Studies. XI. The Extended Disk, Halo Configuration. *John E. Norris & Sean G. Ryan.* 380, 403, 183-C6 (1991)

Polarimetric Imaging of the Galactic Center at 12.4 Microns: The Detailed Magnetic Field Structure in the Northern Arm and East-West Bar. *David K. Aitken, Daniel Gezari, Craig H. Smith, Mark McCaughrean, & Patrick F. Roche.* 380, 419, 183-D10 (1991)

Millimeter Continuum Observations of Galactic Center Giant Molecular Cloud Cores. *D. C. Lis, J. E. Carlstrom, & Jocelyn Keene.* 380, 429, 183-E7 (1991)

Galactic Center Gasdynamics: A One-armed Spiral in a Keplerian Disk. *J. H. Lacy, J. M. Achtermann, & E. Serabyn.* 380, L71, 188-D6 (1991)

Compton Backscattered 511 keV Annihilation Line Emission and the 170 keV Line from the Galactic Center Direction. *Richard E. Lingenfelter & Xin-Min Hua.* 381, 426, 196-A10 (1991)

A Search for the 2.223 MeV Neutron Capture Gamma-Ray Line from the Directions of Cygnus and the Galactic Center. *Michael J. Harris & Gerald H. Share.* 381, 439, 196-B10 (1991)

The Galactic Center Radio Source Shines below the Compton Limit. *C. R. Gwinn, R. M. Danen, J. Middleditch, L. M. Ozernoy, & T. Kh. Tran.* 381, L43, 199-B7 (1991)

H I Absorption Measurements toward 15 Pulsars and the Radial Distribution of Diffuse Ionized Gas in the Galaxy. *D. A. Frail, J. M. Cordes, T. H. Hankins, & J. M. Weisberg.* 382, 168, 202-C10 (1991)

Vertical Distribution and Support of Galactic H I. *Felix J. Lockman & Curtis S. Gehman.* 382, 182, 202-D12 (1991)

A Cluster of He I Emission-Line Stars in the Galactic Center. *A. Krabbe, R. Genzel, S. Drapatz, & V. Rotaciuc.* 382, L19, 205-C1 (1991)

Cosmic Microwave Background and Galactic Quadrupoles in the Millimeter Region. *Paolo de Bernardis, Silvia Masi, & Nicola Vittorio.* 382, 515, 208-A1 (1991)

Two Planetary Nebulae in the Direction of the Galactic Center. *A. Gutiérrez-Moreno, H. Moreno, & G. Cortés.* 383, 174, 214-C1 (1991)

Observations of Ca II Absorption along the Nearly Parallel Lines of Sight toward 3C 273 and SN 1991T. *David M. Meyer & Katherine C. Roth.* 383, L41, 226-B11 (1991)

SIGMA Discovery of Variable e^+-e^- Annihilation Radiation from the Near Galactic Center Variable Compact Source 1E 1740.7−2942. *L. Bouchet, P. Mandrou, J. P. Roques, G. Vedrenne, B. Cordier, A. Goldwurm, F. Lebrun, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, M. Pavlinsky, S. Grebenev, G. Babalyan, I. Dekhanov, & N. Khavenson.* 383, L45, 226-C1 (1991)

Three Spectral States of 1E 1740.7−2942: From Standard Cygnus X-1 Type Spectrum to the Evidence of Electron-Positron Annihilation Feature. *R. Sunyaev, E. Churazov, M. Gilfanov, M. Pavlinsky, S. Grebenev, G. Babalyan, I. Dekhanov, N. Khavenson, L. Bouchet, P. Mandrou, J. P. Roques, G. Vedrenne, B. Cordier, A. Goldwurm, F. Lebrun, & J. Paul.* 383, L49, 226-C6 (1991)

GALAXIES: X-RAYS

Comparison of VLBI Radio-Core and X-Ray Flux Densities of Extragalactic Radio Sources. *Steven D. Bloom & Alan P. Marscher.* 366, 16, 1-C5 (1991)

Ginga Observations of Three X-Ray–luminous Galaxies: NGC 4472, NGC 4636, and NGC 3998. *H. Awaki, K. Koyama, H. Kunieda, S. Takano, Y. Tawara, & T. Ohashi.* 366, 88, 2-B8 (1991)

X-Ray Continuum and Evidence for an Iron Emission Line from the Quasar E1821+643. *T. Kii, O. R. Williams, T. Ohashi, H. Awaki, K. Hayashida, H. Inoue, H. Kondo, K. Koyama, F. Makino, K. Makishima, R. D. Saxton, G. C. Stewart, S. Takano, Y. Tanaka, & M. J. L. Turner.* 367, 455, 19-A11 (1991)

Evidence for Environmental Effects on Early-Type Galaxy X-Ray Halos. *Raymond E. White III & Craig L. Sarazin.* 367, 476, 19-C9 (1991)

Coordinated X-Ray, Ultraviolet, and Optical Observations of 3C 120. *L. Maraschi, L. Chiappetti, R. Falomo, B. Garilli, M. Malkan, G. Tagliaferri, E. G. Tanzi, & A. Treves.* 368, 138, 24-F9 (1991)

Evolution of the Interstellar Medium in Elliptical Galaxies. II. X-Ray Properties. *L. P. David, W. Forman, & C. Jones.* 369, 121, 37-D9 (1991)

Cooling Flows and the Formation of Massive Halos in cD Galaxies. *Andrea H. Prestwich & Marshall Joy.* 369, L1, 40-A7 (1991)

The Number Count Distribution for X-Ray–selected BL Lacertae Objects and Constraints on the Luminosity Function. *Anna Wolter, I. M. Gioia, T. Maccacaro, S. L. Morris, & J. T. Stocke.* 369, 314, 41-F5 (1991)

Interstellar Matter in Early-Type Galaxies. I. The Catalog. *Morton S. Roberts, David E. Hogg, Joel N. Bregman, William R. Forman, & Christine Jones.* 75, 751, 11-F5 (1991)

X-Ray Luminosity and Spectral Variability in the Seyfert Type I Galaxy: PG 2130+099. *K. P. Singh, A. R. Rao, & M. N. Vahia.* 372, 49, 74-E13 (1991)

A Measurement of the Mass Fluctuation Spectrum from the Cluster X-Ray Temperature Function. *J. Patrick Henry & Keith A. Arnaud.* 372, 410, 80-G11 (1991)

Hard X-Ray Variability of NGC 4151. *F. Perotti, P. Maggioli, E. Quadrini, A. Bazzano, P. Ubertini, L. Bassani, J. B. Stephen, A. J. Court, A. J. Dean, N. A. Dipper, & R. A. Lewis.* 373, 75, 87-A1 (1991)

The Properties of X-Ray–selected Active Galactic Nuclei. I. Luminosity Function, Cosmological Evolution, and Contribution to the Diffuse X-Ray Background. *Tommaso Maccacaro, Roberto Della Ceca, Isabella M. Gioia, Simon L. Morris, John T. Stocke, & Anna Wolter.* 374, 117, 99-D11 (1991)

Ram-Pressure Stripping of the Multiphase Interstellar Medium of the Virgo Cluster Elliptical Galaxy M86 (NGC 4406). *David A. White, A. C. Fabian, W. Forman, C. Jones, & C. Stern.* 375, 35, 111-D9 (1991)

Optical Coronal Emission Lines from Cooling Flows in Elliptical Galaxies and Galaxy Clusters. *Craig L. Sarazin & Christopher M. Graney.* 375, 532, 119-D3 (1991)

The Distribution of Dark Matter in the Perseus Cluster. *C. J. Eyles, M. P. Watt, D. Bertram, M. J. Church, T. J. Ponman, G. K. Skinner, & A. P. Willmore.* 376, 23, 125-C12 (1991)

The *Einstein Observatory* Extended Medium-Sensitivity Survey. II. The Optical Identifications. *John T. Stocke, Simon L. Morris, I. M. Gioia, T. Maccacaro, R. Schild, A. Wolter, Thomas A. Fleming, & J. Patrick Henry.* 76, 813, 36-B1 (1991)

Winds, Outflows, and Inflows in X-Ray Elliptical Galaxies. I. *Luca Ciotti, Annibale D'Ercole, Silvia Pellegrini, & Alvio Renzini.* 376, 380, 131-B12 (1991)

The X-Ray Cooling Flow in the Cluster of Galaxies around PKS 2354−35. *Daniel A. Schwartz, Hale V. Bradt, Ronald A. Remillard, & I. R. Tuohy.* 376, 424, 131-F6 (1991)

Variable Soft X-Ray Excesses in Active Galactic Nuclei from Nonthermal Electron-Positron Pair Cascades. *Andrzej A. Zdziarski & Paolo S. Coppi.* 376, 480, 132-D5 (1991)

X-Ray Halos as Diagnostics of Interstellar Grains. *John S. Mathis & C.-W. Lee.* 376, 490, 132-E1 (1991)

A Model for the Spectral Variability of BL Lacertae Objects at High Frequencies. *A. Celotti, L. Maraschi, & A. Treves.* 377, 403, 144-G1 (1991)

X-Ray Observations of the Bright Seyfert Galaxy IC 4329A. *K. P. Singh, A. R. Rao, & M. N. Vahia.* 377, 417, 145-A1 (1991)

The Detection of the Hot Gaseous Halo around the Small Magellanic Cloud. *Qingde Wang.* 377, L85, 150-D1 (1991)

An X-Ray and Radio Study of Steep-Spectrum Radio Sources. II. Four Fields from a 22 MHz Polar Cap Survey. *P. E. Dewdney, C. H. Costain, I. McHardy, A. G. Willis, D. E. Harris, & C. P. Stern.* 76, 1055, 40-D1 (1991)

The *EXOSAT* High Galactic Latitude Survey. *P. Giommi, G. Tagliaferri, K. Beuermann, G. Branduardi-Raymont, R. Brissenden, U. Graser, K. O. Mason, J. D. P. Mittaz, P. Murdin, G. Pooley, H.-C. Thomas, & I. Tuohy.* 378, 77, 152-A5 (1991)

X-Ray Irradiation of Interstellar Grains in Active Galaxies: Evaporation and Infrared Spectra. *G. Mark Voit.* 379, 122, 164-E1 (1991)

A Measurement of the Value of the Hubble Constant from the X-Ray Properties and the Sunyaev-Zel'dovich Effect of Abell 665. *M. Birkinshaw, J. P. Hughes, & K. A. Arnaud.* 379, 466, 170-E1 (1991)

Search for Starbursts among X-Ray–selected Galaxies: Optical Spectroscopy. *Antonella Fruscione & Richard E. Griffiths.* 380, L13, 181-C1 (1991)

X-Ray Observations of the Seyfert 1 Galaxy Markarian 464. *L. Piro, G. Matt, E. Costa, D. Dal Fiume, F. Frontera, & E. Morelli.* 380, 357, 182-F9 (1991)

X-Ray Emission from Starburst Galaxies. *Yoel Rephaeli, Duane Gruber, Massimo Persic, & Dan MacDonald.* 380, L59, 188-C1 (1991)

Galaxy Evolution in Distant, X-Ray–Selected Clusters of Galaxies. I. Cl 1358+6245. *Daniel G. Fabricant, Jeffrey E. McClintock, & Marshall W. Bautz.* 381, 33, 189-D8 (1991)

Einstein Observatory SSS and MPC Observations of the Complex X-Ray Spectra of Seyfert Galaxies. *T. J. Turner, K. A. Weaver, R. F. Mushotzky, S. S. Holt, & G. M. Madejski.* 381, 85, 190-B1 (1991)

A Photoionization Model for the Optical Line Emission from Cooling Flows. *Megan Donahue & G. Mark Voit.* 381, 361, 195-C1 (1991)

Upper Limit on Interstellar Gas in Coma Cluster Ellipticals. *Claude R. Canizares & Paula Blizzard.* 382, 79, 201-B1 (1991)

The Discrete X-Ray Source Population in M31. *G. Trinchieri & G. Fabbiano.* 382, 82, 201-B6 (1991)

Fanaroff-Riley I Galaxies as the Parent Population of BL Lacertae Objects. III. Radio Constraints. *C. M. Urry, P. Padovani, & M. Stickel.* 382, 501, 207-F13 (1991)

Expectations for X-Ray Cluster Observations by the *ROSAT* Satellite. *A. E. Evrard & J. P. Henry.* 383, 95, 213-C1 (1991)

Evolution of Clusters of Galaxies. *N. Kaiser.* 383, 104, 213-C11 (1991)

Relativistic Electron-Positron Beam Formation in the Framework of the Two-Flow Model for Active Galactic Nuclei. *Gilles Henri & Guy Pelletier.* 383, L7, 219-B1 (1991)

EXOSAT Observations of the Seyfert 1 Galaxy NGC 3516. *K. K. Ghosh & S. Soundararajaperumal.* 383, 574, 221-D1 (1991)

GALAXY: ABUNDANCES

Abundances of the Heavy Elements in the Magellanic Clouds. III. Interpretation of Results. *Stephen C. Russell & Michael A. Dopita.* 384, 508, 8-D9 (1992)

Possible Sources of the Population I Lithium Abundance and Light-Element Evolution. *Lawrence E. Brown.* 389, 251, 63-B1 (1992)

The Isotopic Composition of Cosmic-Ray B, C, N, and O: Evidence for an Overabundance of ^{18}O. *P. S. Gibner, R. A. Mewaldt, S. M. Schindler, E. C. Stone, & W. R. Webber.* 391, L89, 99-G5 (1992)

The Diffuse Gamma-Ray Background, Light Element Abundances, and Signatures of Early Massive Star Formation. *Joseph Silk & David N. Schramm.* 393, L9, 120-B7 (1992)

The ^{57}Co Abundance in SN 1987A. *Donald D. Clayton, Mark D. Leising, Lih-Sin The, W. N. Johnson, & J. D. Kurfess.* 399, L141, 208-C1 (1992)

Metallicity Maps of the Globular Cluster System in the Galaxy. *Emilio J. Alfaro, Jesús Cabrera-Caño, & Antonio J. Delgado.* 402, L53, 12-F1 (1993)

The Significance of the Interstellar ^{7}Li/^{6}Li Ratio. *Gary Steigman.* 413, L73, 168-C12 (1993)

Galactic Chemical Evolution with Nearly Constant Star-Formation Rates. *Sarbani Basu & N. C. Rana.* 417, 145, 219-C1 (1993)

Chemical Evolution of the Solar Neighborhood with Yields Dependent on Metallicity. *Leticia Carigi.* 424, 181, 64-B12 (1994)

Lick Optical Spectra of Quasar HS 1946+7658 at 10 Kilometers per Second Resolution: Lyman-Alpha Forest and Metal Absorption Systems. *Xiao-Ming Fan & David Tytler.* 94, 17, 52-C5 (1994)

Gamma-Ray Lines from the Orion Complex. *Reuven Ramaty, Benzion Kozlovsky, & Richard E. Lingenfelter.* 438, L21, 10-A1 (1995)

Giant Branch Mixing and the Ultimate Fate of Primordial Deuterium in the Galaxy. *Craig J. Hogan.* 441, L17, 66-E7 (1995)

A Critical Analysis of Interstellar Zn and Cr as Galactic Abundance Benchmarks for Quasar Absorbers. *Kenneth R. Sembach, Charles C. Steidel, Robert J. Macke, & David M. Meyer.* 445, L27, 140-E10 (1995)

Galactic Chemical Evolution: Hydrogen through Zinc. *F. X. Timmes, S. E. Woosley, & Thomas A. Weaver.* 98, 617, 32-A6 (1995)

The *r*-Process Element Europium in Galactic Disk F and G Dwarf Stars. *Vincent M. Woolf, Jocelyn Tomkin, & David L. Lambert.* 453, 660, 293-A1 (1995)

Big Bang Nucleosynthesis and a New Approach to Galactic Chemical Evolution. *Craig J. Copi, David N. Schramm, & Michael S. Turner.* 455, L95, 333-C1 (1995)

GALAXY: CENTER

Variability of the Galactic Center in the Hard X-Ray Range. *A. Bazzano, C. La Padula, P. Ubertini, & R. K. Sood.* 385, L17, 17-C1 (1992)

Zeeman Measurements of the Magnetic Fields at the Galactic Center. *N. E. B. Killeen, K. Y. Lo, & R. Crutcher.* 385, 585, 20-D6 (1992)

The Bow Shock Structure of IRS 7: Wind-Wind Collision near the Galactic Center. *Farhad Yusef-Zadeh & Fulvio Melia.* 385, L41, 23-B13 (1992)

The Luminosity of the Galactic Center. *J. A. Davidson, M. W. Werner, X. Wu, D. F. Lester, P. M. Harvey, M. Joy, & M. Morris.* 387, 189, 39-C8 (1992)

An Accreting Black Hole Model for Sagittarius A*. *Fulvio Melia.* 387, L25, 43-C10 (1992)

Gravitational Lensing by a Massive Black Hole at the Galactic Center. *Mark Wardle & Farhad Yusef-Zadeh.* 387, L65, 48-C1 (1992)

Cosmic Rays from the Galactic Center: Path Length Distributions and Galactic Gradient in a Modified Model. *T. Wibig.* 390, 105, 75-D1 (1992)

On the Origin of Variable 511 keV Line Emission from the Galactic Center Region. *R. Ramaty, M. Leventhal, K. W. Chan, & R. E. Lingenfelter.* 392, L63, 113-C5 (1992)

The Compression of the M-0.02-0.07 Molecular Cloud by the Sagittarius A East Shell Source. *E. Serabyn, J. H. Lacy, & J. M. Achtermann.* 395, 166, 142-C1 (1992)

A Determination of the Mass of Sagittarius A* from Its Radio Spectral and Source Size Measurements. *Fulvio Melia, J. R. Jokipii, & Ajay Narayanan.* 395, L87, 154-A1 (1992)

The Galactic Center Wind. *Roger A. Chevalier.* 397, L39, 173-E12 (1992)

A Dense Molecular Ring Surrounding the Nonthermal Galactic Center Radio Shell G359.1−0.5. *Keven I. Uchida, Mark Morris, J. Bally, M. Pound, & F. Yusef-Zadeh.* 398, 128, 183-E5 (1992)

Cosmic Rays from the Galactic Center: Electron and Positron Fluxes in a Modified Model. *Tadeusz Wibig.* 398, 507, 190-D9 (1992)

Detection of [Fe II] Emission in the Galactic Center. *D. L. DePoy.* 398, 512, 190-E1 (1992)

Radio Images of Sagittarius. I. Overview, Sagittarius D, and Sagittarius E. *Harvey S. Liszt.* 82, 495, 55-G1 (1992)

Polarization of the Far-Infrared Emission from the Thermal Filaments of the Galactic Center Arc. *M. Morris, J. A. Davidson, M. Werner, J. Dotson, D. F. Figer, R. Hildebrand, G. Novak, & S. Platt.* 399, L63, 200-G6 (1992)

Fine-Scale Structure in the -185 Kilometers per Second Absorption by HCO^+ in the Galactic Center. *Jonathan M. Marr, Alexander L. Rudolph, Thomas A. Pauls, Melvyn C. H. Wright, & Donald C. Backer.* 400, L29, 214-D5 (1992)

Radio Continuum and Radio Recombination Line Observations of Sagittarius B1 and G0.6−0.0. *David M. Mehringer, F. Yusef-Zadeh, Patrick Palmer, & W. M. Goss.* 401, 168, 223-B1 (1992)

The Radio Counterpart of the Hard X-Ray Source GRS 1758−258. *L. F. Rodríguez, I. F. Mirabel, & J. Martí.* 401, L15, 227-C1 (1992)

Heating of H II Regions with Application to the Galactic Center. *Philip R. Maloney, David J. Hollenbach, & Charles H. Townes.* 401, 559, 229-E5 (1992)

The Continuum Flux from Sagittarius A* at 222 GHz. *E. Serabyn, J. E. Carlstrom, & N. Z. Scoville.* 401, L87, 233-B11 (1992)

A High-Sensitivity Search for Gamma-Ray Bursts by the Sigma Telescope on Board *GRANAT* (the Galactic Center and All Sky Data). *R. Sunyaev, E. Churazov, M. Gilfanov, O. Terekhov, A. Dyachkov, N. Khavenson, V. Kovtunenko, R. Kremnev, A. Claret, F. Lebrun, A. Goldwurm, J. Paul, F. Pelaez, J. L. Atteia, P. Mandrou, & G. Vedrenne.* 402, 579, 9-G1 (1993)

High-Velocity Formaldehyde Absorption within 30″ of the Galactic Nucleus. *T. Pauls, K. J. Johnston, T. L. Wilson, J. M. Marr, & A. Rudolph.* 403, L13, 20-B6 (1993)

New Constraints on the Positron Annihilation Media from the Direction of the Galactic Center Based on the 511 keV Line Profiles. *P. Wallyn, Ph. Durouchoux, C. Chapuis, J. Matteson, B. Bowman, M. Pelling, L. Peterson, R. Lin, D. Smith, P. Feffer, K. Hurley, G. Vedrenne, P. von Ballmoos, & I. Malet.* 403, 621, 23-D1 (1993)

GRIS Detections of the 511 keV Line from the Galactic Center Region in 1992. *M. Leventhal, S. D. Barthelmy, N. Gehrels, B. J. Teegarden, J. Tueller, & L. M. Bartlett.* 405, L25, 47-E1 (1993)

Evidence for the Interaction of the IRS 16 Wind with the Ionized and Molecular Gas at the Galactic Center. *Farhad Yusef-Zadeh & Mark Wardle.* 405, 584, 50-C5 (1993)

Bright Near-Infrared Sources within 1deg of the Galactic Center. I. Survey and 1–20 Micron Photometry. *Tetsuya Nagata, A. R. Hyland, S. M. Straw, Shuji Sato, & Kimiaki Kawara.* 406, 501, 64-A10 (1993)

CO Emission from Molecular Gas at −190 Kilometers per Second near Sagittarius A. *H. S. Liszt & W. B. Burton.* 407, L25, 75-C11 (1993)

Gamma-Ray Observations of the Galactic Center: Removing the Galactic Ridge Contribution. *Neil Gehrels & Jack Tueller.* 407, 597, 78-A8 (1993)

The Center of the Galaxy in the Recent Past: A View from *GRANAT*. *R. A. Sunyaev, M. Markevitch, & M. Pavlinsky.* 407, 606, 78-B7 (1993)

Near-Infrared 0.15″ Resolution Imaging of the Galactic Center. *A. Eckart, R. Genzel, R. Hofmann, B. J. Sams, & L. E. Tacconi-Garman.* 407, L77, 82-E1 (1993)

Massive Star Formation near the Galactic Center and the Fate of the Stellar Remnants. *Mark Morris.* 408, 496, 91-D1 (1993)

An Observation of the Galactic Center Hard X-Ray Source, 1E 1740.7−2942, with the Caltech Coded-Aperture Telescope. *William A. Heindl, Walter R. Cook, John M. Grunsfeld, David M. Palmer, Thomas A. Prince, Stephen M. Schindler, & Edward C. Stone.* 408, 507, 91-E7 (1993)

Multiconfiguration VLA H92α Observations of Sagittarius A West at 1 Arcsecond Resolution. *D. A. Roberts & W. M. Goss.* 86, 133, 15-E1 (1993)

VLA Observations of 1E 1740.7−2942: A Search for Radio Recombination Lines of Positronium. *K. R. Anantharamaiah, K. S. Dwarakanath, D. Morris, W. M. Goss, & V. Radhakrishnan.* 410, 110, 113-E1 (1993)

Highly Blueshifted H I Gas toward the Galactic Center. *Farhad Yusef-Zadeh, Anthony Lasenby, & Jennifer Marshall.* 410, L27, 118-G12 (1993)

Submillimeter Continuum Emission from the Galactic Center Region. *W. R. F. Dent, H. E. Matthews, R. Wade, & W. D. Duncan.* 410, 650, 121-F11 (1993)

4_{-1}–3_0 *E* Methanol Emission in G1.6−0.025. *Aubrey D. Haschick & Willem A. Baan.* 410, 663, 121-G12 (1993)

Infrared Imaging of the Galactic Center and the Search for Sagittarius A*. *T. M. Herbst, S. V. W. Beckwith, & Mark Shure.* 411, L21, 133-F13 (1993)

HCO^+, $H^{13}CN$, and $H^{12}CN$ Aperture Synthesis Observations of the Circumnuclear Molecular Ring in the Galactic Center. *J. M. Marr, M. C. H. Wright, & D. C. Backer.* 411, 667, 138-A8 (1993)

OSSE Observations of Galactic 511 keV Positron Annihilation Radiation: Initial Phase 1 Results. *W. R. Purcell, D. A. Grabelsky, M. P. Ulmer, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, & G. V. Jung.* 413, L85, 168-E4 (1993)

Compton-backscattered Annihilation Radiation from the Galactic Center Region. *D. M. Smith, R. P. Lin, P. Feffer, S. Slassi, K. Hurley, J. Matteson, H. B. Bowman, R. M. Pelling, M. Briggs, D. Gruber, L. E. Peterson, R. E. Lingenfelter, P. von Ballmoos, I. Malet, M. Niel, G. Vedrenne, P. Durouchoux, P. Wallyn, C. Chapuis, C. Cork, D. Landis, P. Luke, N. Madden, D. Malone, & R. Pehl.* 414, 165, 172-B1 (1993)

How Many Positron Sources in the Galactic Center Region? *P. Wallyn & Ph. Durouchoux.* 414, 178, 172-C2 (1993)

IRS 16: The Galaxy's Central Wimp? *Peter Tamblyn & G. H. Rieke.* 414, 573, 178-D1 (1993)

SMM Observations of Gamma-Ray Transients. I. A Search for Variable Emission at MeV Energies from Five Galactic and Extragalactic Sources. *M. J. Harris, G. H. Share, M. D. Leising, & J. E. Grove.* 416, 601, 210-G8 (1993)

Flux Density of Sagittarius A at $\lambda = 3$ Millimeters. *M. C. H. Wright & D. C. Backer.* 417, 560, 226-C8 (1993)

Polarization of the Thermal Emission from the Dust Ring at the Center of the Galaxy. *R. H. Hildebrand, J. A. Davidson, J. Dotson, D. F. Figer, G. Novak, S. R. Platt, & L. Tao.* 417, 565, 226-D1 (1993)

VLA Radio Recombination Line Observations of Ionized Gas in the -30 Kilometers per Second Molecular Cloud (G0.04+0.03) near the Galactic Center. I. The Discrete Radio Sources. *Jun-Hui Zhao, K. Desai, W. M. Goss, & F. Yusef-Zadeh.* 418, 235, 234-A1 (1993)

Excitation of the [Fe III] Bubble Surrounding the Galactic Center "Mini-Cavity." *D. Lutz, A. Krabbe, & R. Genzel.* 418, 244, 234-B1 (1993)

Deuterated Ammonia in Sagittarius B2. *Y. Peng, S. N. Vogel, & J. E. Carlstrom.* 418, 255, 234-C1 (1993)

Three Years of Monitoring GRS 1758−258: An Extremely Hard X-Ray Source near GX 5−1. *M. Gilfanov, E. Churazov, R. Sunyaev, N. Khavenson, B. Novikov, A. Dyachkov, R. Kremnev, K. Sukhanov, L. Bouchet, P. Mandrou, J. P. Roques, G. Vedrenne, B. Cordier, A. Goldwurm, P. Laurent, & J. Paul.* 418, 844, 243-A13 (1993)

Formation of a Jet in the Galactic Center Black Hole Candidate 1E 1740.7−2942. *Ranjeev Misra & Fulvio Melia.* 419, L25, 252-D9 (1993)

Local Shear Instabilities in Weakly Ionized, Weakly Magnetized Disks. *Omer M. Blaes & Steven A. Balbus.* 421, 163, 18-A12 (1994)

AFGL 5376: A Strong, Large-Scale Shock near the Galactic Center. *Keven I. Uchida, Mark R. Morris, E. Serabyn, & John Bally.* 421, 505, 24-D9 (1994)

Radial Velocities of M Giants at 300 Parsec Projected Radius from the Galactic Center. *R. D. Blum, J. S. Carr, D. L. DePoy, K. Sellgren, & D. M. Terndrup.* 422, 111, 31-D9 (1994)

Star Formation in the Galactic Center Dust Ridge. *D. C. Lis, K. M. Menten, E. Serabyn, & R. Zylka.* 423, L39, 53-F1 (1994)

Near-Infrared Observations of the 1E 1740.7−2942 Field at the Galactic Center. *Joseph W. Haller & Fulvio Melia.* 423, L109, 60-F5 (1994)

Spectropolarimetry of Five Objects toward the Galactic Center from 1.4 to 4.2 Microns. *Tetsuya Nagata, Naoto Kobayashi, & Shuji Sato.* 423, L113, 60-F11 (1994)

Submillimeter Continuum Survey of the Galactic Center. *D. C. Lis & J. E. Carlstrom.* 424, 189, 64-C8 (1994)

The Source of the Relativistic Particles in the Galactic Center Arc. *E. Serabyn & Mark Morris.* 424, L91, 79-A1 (1994)

The Distribution and Kinematics of Atomic Carbon near the Galactic Center. *E. Serabyn, Jocelyn Keene, D. C. Lis, & T. G. Phillips.* 424, L95, 79-A9 (1994)

X-Ray Images of the Galactic Center Obtained with Art-P/*Granat*: Discovery of New Sources, Variability of Persistent Sources, and Localization of X-Ray Bursters. *M. N. Pavlinsky, S. A. Grebenev, & R. A. Sunyaev.* 425, 110, 81-E5 (1994)

[C II] 158 Micron and [O I] 63 Micron Observations of the Galactic Center Region. *Kohei Mizutani, Toshinori Maihara, Hideo Matsuhara, Takao Nakagawa, Hiroshi Shibai, Haruyuki Okuda, Yukiyasu Kobayashi, Norihisa Hiromoto, Tetsuo Nishimura, & Frank J. Low.* 91, 613, 27-G5 (1994)

An Accreting Black Hole Model for Sagittarius A*. II. A Detailed Study. *Fulvio Melia.* 426, 577, 105-E9 (1994)

On the Optical Counterparts, Long-Term Variabilities, Radio Jets, and Accretion Sources in 1E 1740.7−2942 and GRS 1758−258. *Wan Chen, Neil Gehrels, & Marvin Leventhal.* 426, 586, 105-F6 (1994)

X-Ray and Gamma-Ray Emission of Sagittarius A* as a Wind-accreting Black Hole. *A. Mastichiadis & L. M. Ozernoy.* 426, 599, 105-G7 (1994)

Anisotropic Scattering of OH/IR Stars toward the Galactic Center. *Dale A. Frail, Philip J. Diamond, James M. Cordes, & Huib Jan Van Langevelde.* 427, L43, 117-F6 (1994)

Review of 3 Years of Observations with the Low-Energy Gamma-Ray Telescope SIGMA Onboard *Granat*. *P. Mandrou, J. P. Roques, L. Bouchet, M. Niel, J. Paul, J. P. Leray, F. Lebrun, J. Ballet, E. Churazov,*

M. Gilfanov, R. Sunyaev, B. Novikov, N. Khavenson, N. Kuleshova, A. Sheikhet, & I. Tserenin. 92, 343, 36-D5 (1994)

A Review of Recent Results in Gamma-Ray Astronomy Obtained from High-Altitude Balloons. *B. J. Teegarden.* 92, 363, 36-F3 (1994)

Multiwavelength Approach to Gamma-Ray Sources in the Galactic Center Region. *I. F. Mirabel.* 92, 369, 36-F12 (1994)

Is the Galactic Center Annihilator 1E 1740.7−2942 a Source of MeV Gamma-Ray Continuum Emission? *Philippe Laurent & Jacques Paul.* 92, 375, 36-G5 (1994)

Review of *GRANAT*/SIGMA Observations of the Galactic Center Region. *E. Churazov, M. Gilfanov, R. Sunyaev, N. Khavenson, B. Novikov, A. Dyachkov, R. Kremnev, K. Sukhanov, B. Cordier, J. Paul, P. Laurent, A. Claret, L. Bouchet, J. P. Roques, P. Mandrou, & G. Vedrenne.* 92, 381, 36-G12 (1994)

HEAO 3 Observations of the Galactic Center 511 keV Line. *W. A. Mahoney, J. C. Ling, & Wm. A. Wheaton.* 92, 387, 37-A5 (1994)

Galactic 0.511 MeV Line Emission. *R. Ramaty, J. G. Skibo, & R. E. Lingenfelter.* 92, 393, 37-A12 (1994)

Long-Term Temporal Behavior of 1E 1740.7−2942. *Bertrand Cordier, Jacques Paul, & Jean-Marie Hameury.* 92, 401, 37-B8 (1994)

Annihilation and Backscattered Lines in the Galactic Center Region. *Ph. Durouchoux, P. Wallyn, & C. Chapuis.* 92, 405, 37-B13 (1994)

Observation of Transient High-Energy Emission Features in the Spectra of Black Hole Candidates and the Crab Nebula by *GRANAT*/SIGMA. *M. Gilfanov, E. Churazov, R. Sunyaev, N. Khavenson, B. Novikov, A. Dyachkov, I. Tserenin, K. Sukhanov, L. Bouchet, M. Denis, M. C. Schmitz-Fraysse, P. Mandrou, J. Paul, B. Cordier, A. Goldwurm, & F. Lebrun.* 92, 411, 37-C6 (1994)

Nebular Properties and the Ionizing Radiation Field in the Galactic Center. *Joseph C. Shields & Gary J. Ferland.* 430, 236, 162-A9 (1994)

Giant Explosion at the Galactic Center and Huge Shocked Shells in the Halo. *Yoshiaki Sofue.* 431, L91, 191-E8 (1994)

The Unusual Tail of the Tornado Nebula. *R. T. Stewart, R. F. Haynes, A. D. Gray, & W. Reich.* 432, L39, 199-F2 (1994)

SMM Observations of Gamma-Ray Transients. III. A Search for a Broadened, Redshifted Positron Annihilation Line from the Direction of the Galactic Center. *Michael J. Harris, Gerald H. Share, & Mark D. Leising.* 433, 87, 209-C13 (1994)

Gamma-Ray Observations in the Galactic Center Region with an Imaging Detector. *Jalal Samimi & Robert L. Kinzer.* 434, 136, 227-A8 (1994)

Small-Scale Structure and Position of Sagittarius A* from VLBI at 3 Millimeter Wavelength. *Alan E. E. Rogers, Sheperd Doeleman, Melvyn C. H. Wright, Geoffrey C. Bower, Donald C. Backer, Stephen Padin, J. A. Philips, Darrel T. Emerson, Lincoln Greenhill, James M. Moran, & Kenneth I. Kellermann.* 434, L59, 241-E8 (1994)

Anisotropy in the Angular Broadening of Sagittarius A* at the Galactic Center. *Farhad Yusef-Zadeh, William Cotton, Mark Wardle, Fulvio Melia, & Douglas A. Roberts.* 434, L63, 241-F1 (1994)

Three Millimeter Molecular Line Observations in Sagittarius B2. I. Full Synthesis Mapping Study of HNO, CCS, and $HC^{13}CCN$. *Yi-Jehng Kuan & Lewis E. Snyder.* 94, 651, 61-A8 (1994)

Are the OGLE Microlenses in the Galactic Bar? *B. Paczyński, K. Z. Stanek, A. Udalski, M. Szymański, J. Kałużny, M. Kubiak, M. Mateo, & W. Krzemiński.* 435, L113, 259-G3 (1994)

Detection of Interstellar N_2O: A New Molecule Containing an N−O Bond. *L. M. Ziurys, A. J. Apponi, J. M. Hollis, & L. E. Snyder.* 436, L181, 282-B7 (1994)

Dynamics of Massive Black Holes as a Possible Candidate of Galactic Dark Matter. *Guohong Xu & Jeremiah P. Ostriker.* 437, 184, 285-F9 (1994)

Near-Infrared Spectra of Compact Stellar Wind Sources at the Galactic Center. *S. Libonate, J. L. Pipher, W. J. Forrest, & M. L. N. Ashby.* 439, 202, 24-A10 (1995)

Infrared Photometry of the Black Hole Candidate Sagittarius A*. *Laird M. Close, Donald W. McCarthy, Jr., & Fulvio Melia.* 439, 682, 34-A1 (1995)

Discovery of a Possible Wolf-Rayet Star at the Galactic Center. *R. D. Blum, K. Sellgren, & D. L. DePoy.* 440, L17, 48-D1 (1995)

Understanding COMPTEL ^{26}Al 1.8 MeV Map Features. *Wan Chen, Neil Gehrels, & Roland Diehl.* 440, L57, 57-E4 (1995)

A Comparison of Near-Infrared Spectra of the Galactic Center Compact He I Emission-Line Sources and Early-Type Mass-losing Stars. *R. D. Blum, D. L. DePoy, & K. Sellgren.* 441, 603, 70-D7 (1995)

Discovery of a Transient MeV Range Gamma-Ray Source. *M. S. Briggs, D. E. Gruber, J. L. Matteson, & L. E. Peterson.* 442, 638, 88-F9 (1995)

H110α Observations of Sagittarius A West: Ionized Gas at Peculiar Velocities at the Galactic Center. *Farhad Yusef-Zadeh, Jun-Hui Zhao, & W. M. Goss.* 442, 646, 88-G9 (1995)

Search for Compton-backscattered Annihilation Radiation from the Galactic Center with the OSSE. *D. M. Smith, M. Leventhal, N. Gehrels, J. Tueller, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, D. A. Grabelsky, W. R. Purcell, M. P. Ulmer, & G. V. Jung.* 443, 117, 96-G1 (1995)

The Effects of Redshifts and Focusing on the Spectrum of an Accretion Disk in the Galactic Center Black Hole Candidate Sagittarius A*. *J. M. Hollywood & Fulvio Melia.* 443, L17, 102-D6 (1995)

A Star Trail Model of the Galactic Center Snake. *Jennifer Nicholls & E. T. Le Strange.* 443, 638, 106-F3 (1995)

SIGMA Observations of the Galactic Center at 511 keV. *I. Malet, J. P. Roques, L. Bouchet, G. Vedrenne, J. Paul, B. Cordier, J. Ballet, F. Lebrun, R. Sunyaev, E. Churazov, M. Gilfanov, N. Khavenson, A. Dyachkov, N. Kuleshova, A. Sheikhet, & I. Tzerenin.* 444, 222, 116-D13 (1995)

Figure Rotation and the Mass of the Galactic Bulge. *R. D. Blum.* 444, L89, 130-F6 (1995)

High Angular Resolution Spectroscopic and Polarimetric Imaging of the Galactic Center in the Near-Infrared. *A. Eckart, R. Genzel, R. Hofmann, B. J. Sams, & L. E. Tacconi-Garman.* 445, L23, 140-E1 (1995)

Radio Images of Sagittarius. II. Sagittarius C and Its Neighbors. *Harvey S. Liszt & Robert W. Spiker.* 98, 259, 25-D12 (1995)

The Magnetic Fields in the Galactic Center: Detection of H I Zeeman Splitting. *R. L. Plante, K. Y. Lo, & R. M. Crutcher.* 445, L113, 151-B4 (1995)

Patterns of High-Velocity Molecular Gas near Sagittarius A*. *H. S. Liszt & W. B. Burton.* 98, 679, 32-F4 (1995)

Two New Wolf-Rayet Stars and a Luminous Blue Variable Star in the Quintuplet (AFGL 2004) near the Galactic Center. *Donald F. Figer, Ian S. McLean, & Mark Morris.* 447, L29, 180-G9 (1995)

Were There Significant Starburst Episodes near the Galactic Center? *Dieter H. Hartmann.* 447, 646, 185-A11 (1995)

The Nuclear Cluster of the Milky Way: Star Formation and Velocity Dispersion in the Central 0.5 Parsec. *A. Krabbe, R. Genzel, A. Eckart, F. Najarro, D. Lutz, M. Cameron, H. Kroker, L. E. Tacconi-Garman, N. Thatte, L. Weitzel, S. Drapatz, T. Geballe, A. Sternberg, & R. Kudritzki.* 447, L95, 190-F7 (1995)

A Circumstellar H_2O Maser Associated with the Circumnuclear Molecular Disk at the Galactic Center? *Deborah A. Levine, Donald F. Figer, Mark Morris, & Ian S. McLean.* 447, L101, 190-G7 (1995)

Limits on Galactic Gamma-Ray Lines at 4.44 MeV and 6.13 MeV from Nuclear De-Excitation. *Michael J. Harris, Gerald H. Share, & Daniel C. Messina.* 448, 157, 194-C8 (1995)

Multifrequency Radio Studies of G359.1−00.2. *Andrew D. Gray, Jenniger Nicholls, Ron D. Ekers, & Lawrence E. Cram.* 448, 164, 194-D4 (1995)

General Relativistic Flux Modulations in the Galactic Center Black Hole Candidate Sagittarius A*. *J. M. Hollywood, Fulvio Melia, Laird M. Close, Donald W. McCarthy, Jr., & Tatia A. DeKeyser.* 448, L21, 199-E1 (1995)

M Giant Kinematics in Off-Axis Fields between 150 and 300 Parsecs from the Galactic Center. *R. D. Blum, J. S. Carr, K. Sellgren, & D. M. Terndrup.* 449, 623, 221-C11 (1995)

VLA OH Observations of High Negative Velocity Gas toward Sagittarius A West: A High-Velocity Cloud Interacting with the Galactic Center. *Jun-Hui Zhao, W. M. Goss, & Paul T. P. Ho.* 450, 122, 229-F9 (1995)

The Ratio of H_2 Column Density to ^{12}CO Intensity in the Vicinity of the Galactic Center. *T. J. Sodroski, N. Odegard, E. Dwek, M. G. Hauser, B. A. Franz, I. Freedman, T. Kelsall, W. F. Wall, G. B. Berriman, S. F. Odenwald, C. Bennett, W. T. Reach, & J. L. Weiland.* 452, 262, 265-F10 (1995)

An H_2O Maser near Sagittarius A East: Evidence for Active Massive Star Formation near the Galactic Center. *Farhad Yusef-Zadeh & David M. Mehringer.* 452, L37, 270-A4 (1995)

The Gamma-Ray Galactic Diffuse Radiation and Cerenkov Telescopes. *P. Chardonnet, P. Salati, J. Silk, I. Grenier, & G. Smoot.* 454, 774, 312-D5 (1995)

BIMA Array CS $J = 2 \rightarrow 1$ Observations of Sagittarius B2. *David M. Mehringer.* 454, 782, 312-E8 (1995)

The Distribution of the Dense Clouds in the Starburst Nucleus of NGC 253. *Timothy A. D. Paglione, Tomoka Tosaki, & James M. Jackson.* 454, L117, 316-A10 (1995)

Deficit of Far-Infrared [C II] Line Emission toward the Galactic Center. *Takao Nakagawa, Yasuo Doi, Yukari Yamashita Yui, Haruyuki Okuda, Kenji Mochizuki, Hiroshi Shibai, Tetsuo Nishimura, & Frank J. Low.* 455, L35, 324-G3 (1995)

Confirmation of Interstellar HOC^+: Reevaluating the $[HCO^+]/[HOC^+]$ Abundance Ratio. *L. M. Ziurys & A. J. Apponi.* 455, L73, 325-F7 (1995)

GALAXY: EVOLUTION

Constraints on the Age and Evolution of the Galaxy from the White Dwarf Luminosity Function. *M. A. Wood.* 386, 539, 32-B3 (1992)

Possible Sources of the Population I Lithium Abundance and Light-Element Evolution. *Lawrence E. Brown.* 389, 251, 63-B1 (1992)

The Collapse of Our Galaxy and the Formation of the Galactic Disk. *A. Burkert, J. W. Truran, & G. Hensler.* 391, 651, 96-B4 (1992)

A 25 m$\AA$ Isotope Shift in B I at 2090 $\AA$: A Possible Diagnostic of the Cosmic $^{11}B/^{10}B$ Ratio? *Sveneric G. Johansson, Ulf Litzén, Jörg Kasten, & Manfred Kock.* 403, L25, 20-C11 (1993)

The Interstellar $^7Li/^6Li$ Isotope Ratio toward ζ Ophiuchi and ζ Persei. *David M. Meyer, Isabel Hawkins, & Edward L. Wright.* 409, L61, 111-E8 (1993)

Galactic Chemical Evolution with Nearly Constant Star-Formation Rates. *Sarbani Basu & N. C. Rana.* 417, 145, 219-C1 (1993)

Evolution of Spiral Galaxies. II. The Star Formation History in the Solar Neighborhood. *Maria Chiara Pardi & Federico Ferrini.* 421, 491, 24-C7 (1994)

Absolute Proper Motions to $B \sim 22.5$: Evidence for Kinematical Substructure in Halo Field Stars. *Steven R. Majewski, Jeffrey A. Munn, & Suzanne L. Hawley.* 427, L37, 117-E12 (1994)

Accurate Calculation of the Isotope Shift and Hyperfine Structure in the Boron (B II) Line at 1362 Å. *Per Jönsson, Sveneric G. Johansson, & Charlotte Froese Fischer.* 429, L45, 150-F7 (1994)

The Fornax-Leo-Sculptor Stream Revisited. *Steven R. Majewski.* 431, L17, 182-D13 (1994)

Cosmic-Ray Models for Early Galactic Lithium, Beryllium, and Boron Production. *Brian D. Fields, Keith A. Olive, & David N. Schramm.* 435, 185, 245-G9 (1994)

What Is the Problem with ^3He? *Keith A. Olive, Robert T. Rood, David N. Schramm, James Truran, & Elisabeth Vangioni-Flam.* 444, 680, 125-F6 (1995)

The Axis Ratio Distribution of Faint Galaxies: Evidence for a Population of Dwarf Galaxies at $I \sim 20.5$. *Myungshin Im, Kavan U. Ratnatunga, Richard E. Griffiths, & Stefano Casertano.* 445, L15, 140-C12 (1995)

Galactic Chemical Evolution: Hydrogen through Zinc. *F. X. Timmes, S. E. Woosley, & Thomas A. Weaver.* 98, 617, 32-A6 (1995)

The *r*-Process Element Europium in Galactic Disk F and G Dwarf Stars. *Vincent M. Woolf, Jocelyn Tomkin, & David L. Lambert.* 453, 660, 293-A1 (1995)

Big Bang Nucleosynthesis and a New Approach to Galactic Chemical Evolution. *Craig J. Copi, David N. Schramm, & Michael S. Turner.* 455, L95, 333-C1 (1995)

GALAXY: FORMATION

Young Globular Clusters in the Milky Way Galaxy. *D. N. C. Lin & Harvey B. Richer.* 388, L57, 59-C1 (1992)

The Collapse of Our Galaxy and the Formation of the Galactic Disk. *A. Burkert, J. W. Truran, & G. Hensler.* 391, 651, 96-B4 (1992)

Latest *COBE* Results, Large-Scale Data, and Predictions of Inflation. *A. Kashlinsky.* 399, L1, 199-G1 (1992)

Metallicity Maps of the Globular Cluster System in the Galaxy. *Emilio J. Alfaro, Jesús Cabrera-Caño, & Antonio J. Delgado.* 402, L53, 12-F1 (1993)

Dust Coagulation. *Arati Chokshi, A. G. G. M. Tielens, & D. Hollenbach.* 407, 806, 80-E1 (1993)

The Proto-Galaxy, Globular Clusters, and Quasars. *Sidney van den Bergh.* 411, 178, 129-C13 (1993)

The Horizontal-Branch Stars in Globular Clusters. II. The Second Parameter Phenomenon. *Young-Wook Lee, Pierre Demarque, & Robert Zinn.* 423, 248, 49-B9 (1994)

Absolute Proper Motions to $B \sim 22.5$: Evidence for Kinematical Substructure in Halo Field Stars. *Steven R. Majewski, Jeffrey A. Munn, & Suzanne L. Hawley.* 427, L37, 117-E12 (1994)

Two Young Galactic Globular Clusters: Terzan 7 and Arp 2. *Roberto Buonanno, C. E. Corsi, F. Fusi Pecci, Gregory G. Fahlman, & Harvey B. Richer.* 430, L121, 175-A1 (1994)

The Fornax-Leo-Sculptor Stream Revisited. *Steven R. Majewski.* 431, L17, 182-D13 (1994)

The First Generation of Stars: First Steps toward Chemical Evolution of Galaxies. *Jean Audouze & Joseph Silk.* 451, L49, 260-E12 (1995)

GALAXY: FUNDAMENTAL PARAMETERS

Unbound Dwarf Spheroidal Galaxies and the Mass of the Milky Way. *Jeffrey R. Kuhn.* 409, L13, 104-C1 (1993)

On the Ellipticity of the Galactic Disk. *Konrad Kuijken & Scott Tremaine.* 421, 178, 18-C1 (1994)

Figure Rotation and the Mass of the Galactic Bulge. *R. D. Blum.* 444, L89, 130-F6 (1995)

GALAXY: GENERAL

Rotation Measures of Low-Latitude Extragalactic Sources and the Magnetoionic Structure of the Galaxy. *Andrew W. Clegg, James M. Cordes, John H. Simonetti, & Shrinivas R. Kulkarni.* 386, 143, 26-A1 (1992)

The Optical Emission-Line Background and Accompanying Emissions at Ultraviolet, Infrared, and Millimeter Wavelengths. *R. J. Reynolds.* 392, L35, 106-E1 (1992)

Ages of Globular Clusters and Helium Diffusion. *Brian Chaboyer, Ata Sarajedini, & Pierre Demarque.* 394, 515, 135-F12 (1992)

Preliminary Separation of Galactic and Cosmic Microwave Emission for the *COBE* Differential Microwave Radiometers. *C. L. Bennett, G. F. Smoot, G. Hinshaw, E. L. Wright, A. Kogut, G. De Amici, S. S. Meyer, R. Weiss, D. T. Wilkinson, S. Gulkis, M. Janssen, N. W. Boggess, E. S. Cheng, M. G. Hauser, T. Kelsall, J. C. Mather, S. H. Moseley, Jr., T. L. Murdock, & R. F. Silverberg.* 396, L7, 160-C1 (1992)

Diffuse 0.511 MeV Line Emission and the Distribution of Positron Annihilation in the Galaxy. *J. G. Skibo, R. Ramaty, & M. Leventhal.* 397, 135, 169-F3 (1992)

Color-Magnitude Diagram Distribution of the Bulge Red Clump Stars: Evidence for the Galactic Bar. *K. Z. Stanek, M. Mateo, A. Udalski, M. Szymański, J. Kałużny, & M. Kubiak.* 429, L73, 158-B9 (1994)

Morphology of the Interstellar Cooling Lines Detected by *COBE*. *C. L. Bennett, D. J. Fixsen, G. Hinshaw, J. C. Mather, S. H. Moseley, E. L. Wright, R. E. Eplee, Jr., J. Gales, T. Hewagama, R. B. Isaacman, R. A. Shafer, & K. Turpie.* 434, 587, 235-G13 (1994)

Magnitude Offset between Lensed Stars and Observed Stars: A New Probe of the Structure of the Galactic Bar. *K. Z. Stanek.* 441, L29, 66-G3 (1995)

Microlensing by Stars. *Marc Kamionkowski.* 442, L9, 84-E5 (1995)

GALAXY: GLOBULAR CLUSTERS: GENERAL

The Formation of Globular Clusters in Merging and Interacting Galaxies. *Keith M. Ashman & Stephen E. Zepf.* 384, 50, 1-F1 (1992)

The Dynamical Evolution of Tidal Capture Binaries. *Christopher S. Kochanek.* 385, 604, 20-E13 (1992)

Tidal Evolution of Globular Clusters. I. Method. *K. S. Oh, D. N. C. Lin, & S. J. Aarseth.* 386, 506, 31-F4 (1992)

Tidal Evolution of Globular Clusters. II. The Effects of Galactic Tidal Field and Diffusion. *K. S. Oh & D. N. C. Lin.* 386, 519, 31-G5 (1992)

The Baade-Wesselink Method and the Distances to RR Lyrae Stars. VIII. Comparisons with Other Techniques and Implications for Globular Cluster Distances and Ages. *Bruce W. Carney, Jesper Storm, & Rodney V. Jones.* 386, 663, 33-E5 (1992)

CN and CH Variations on the M5 Subgiant Branch. *Michael M. Briley, Graeme H. Smith, R. A. Bell, J. B. Oke, & James H. Hesser.* 387, 612, 46-C5 (1992)

Discovery of a Fast Wind from a Field Population II Giant Star. *A. K. Dupree, Dimitar D. Sasselov, & John B. Lester.* 387, L85, 48-D11 (1992)

Equilibrium Stellar Systems with Spindle Singularities. *Stuart L. Shapiro & Saul A. Teukolsky.* 388, 287, 53-G10 (1992)

Would a Galactic Bar Destroy the Globular Cluster System? *Kevin Long, Jeremiah P. Ostriker, & Luis Aguilar.* 388, 362, 54-G8 (1992)

The Effect of Helium Diffusion on the Ages of Globular Clusters. *Brian Chaboyer, Constantine P. Deliyannis, Pierre Demarque, M. H. Pinsonneault, & Ata Sarajedini.* 388, 372, 55-A6 (1992)

Young Globular Clusters in the Milky Way Galaxy. *D. N. C. Lin & Harvey B. Richer.* 388, L57, 59-C1 (1992)

Magnetic Fields and Radiative Shocks in Protogalaxies and the Origin of Globular Clusters. *Paul R. Shapiro, Alejandro Clocchiatti, & Hyesung Kang.* 389, 269, 63-C11 (1992)

The Evolution of a Primordial Binary Population in a Globular Cluster. *Piet Hut, Steve McMillan, & Roger W. Romani.* 389, 527, 68-A8 (1992)

Three-dimensional Hydrodynamical Simulations of Colliding Stars. III. Collisions and Tidal Captures of Unequal-Mass Main-Sequence Stars. *W. Benz & J. G. Hills.* 389, 546, 68-C8 (1992)

Possible Observational Consequences of Primordial Binaries in Globular Clusters. *Ronald E. Taam & D. N. C. Lin.* 390, 440, 80-G6 (1992)

The Absolute Magnitudes of LMC RR Lyrae Variables and the Ages of Galactic Globular Clusters. *Alistair R. Walker.* 390, L81, 85-A7 (1992)

Oxygen-enhanced Models for Globular Cluster Stars. I. Evolutionary Tracks. *Don A. VandenBerg.* 391, 685, 96-E5 (1992)

Oxygen-enhanced Models for Globular Cluster Stars. II. Isochrones and Luminosity Functions. *Peter A. Bergbusch & Don A. VandenBerg.* 81, 163, 37-C11 (1992)

Oxygen-enhanced Models for Globular Cluster Stars. III. Horizontal-Branch Sequences. *Ben Dorman.* 81, 221, 38-A3 (1992)

Ages of Globular Clusters and Helium Diffusion. *Brian Chaboyer, Ata Sarajedini, & Pierre Demarque.* 394, 515, 135-F12 (1992)

An RR Lyrae Period Shift in Terms of the Fourier Parameter ϕ_{31}. *Christine M. Clement, Michael Jankulak, & Norman R. Simon.* 395, 192, 142-E9 (1992)

Production of Recycled Pulsars in Globular Clusters via Two-Body Tidal Capture. *R. Di Stefano & S. Rappaport.* 396, 587, 164-F9 (1992)

Planets in Globular Clusters? *Steinn Sigurdsson.* 399, L95, 201-D5 (1992)

Globular Cluster Formation: The Fossil Record. *Stephen D. Murray & Douglas N. C. Lin.* 400, 265, 212-C3 (1992)

Core Velocity Dispersions and Metallicities of Three Globular Clusters Belonging to the Fornax Dwarf Spheroidal Galaxy. *P. Dubath, G. Meylan, & M. Mayor.* 400, 510, 216-F1 (1992)

Stellar Encounters Involving Neutron Stars in Globular Cluster Cores. *M. B. Davies, W. Benz, & J. G. Hills.* 401, 246, 224-B1 (1992)

The Galactic Globular Cluster System: Empirical Relationship between Light-to-Mass Ratio and Metallicity. *Filippina Caputo & Renato De Santis.* 401, 260, 224-C1 (1992)

A Novel Mechanism for Creating Double Pulsars. *Steinn Sigurdsson & Lars Hernquist.* 401, L93, 233-C7 (1992)

Stellar Evolution as a Probe of Neutrino Properties. *V. Castellani & S. Degl'Innocenti.* 402, 574, 9-F7 (1993)

Metallicity Maps of the Globular Cluster System in the Galaxy. *Emilio J. Alfaro, Jesús Cabrera-Caño, & Antonio J. Delgado.* 402, L53, 12-F1 (1993)

Binary–Single-Star Scattering. V. Steady State Binary Distribution in a Homogeneous Static Background of Single Stars. *Jeremy Goodman & Piet Hut.* 403, 271, 17-C4 (1993)

Formation of Globular Clusters from Gas in Large-Scale Unorganized Motion in Galaxies. *Yasuki Kumai, Baidyanath Basu, & Mitsuaki Fujimoto.* 404, 144, 29-G1 (1993)

Far-Ultraviolet Radiation from Disk Globular Clusters. *R. Michael Rich, Dante Minniti, & James W. Liebert.* 406, 489, 63-G9 (1993)

Gamma Rays from Globular Clusters. *Marco Tavani.* 407, 135, 70-F11 (1993)

Dynamical Instabilities in Two-Phase Media and the Minimum Masses of Stellar Systems. *Stephen D. Murray, Simon D. M. White, John M. Blondin, & Douglas N. C. Lin.* 407, 588, 77-G11 (1993)

Mass Loss in Globular Cluster Red Giants: An Evolutionary Investigation. *M. Castellani & V. Castellani.* 407, 649, 78-F1 (1993)

Low-Mass X-Ray Binaries and Millisecond Pulsars in Globular Clusters. *Kaiyou Chen, John Middleditch, & Malvin Ruderman.* 408, L17, 88-G1 (1993)

TeV Gamma Rays from Millisecond Pulsars and the Detectability of Globular Clusters. *I. A. Smith.* 408, 468, 91-A7 (1993)

Canada-France-Hawaii Telescope Observations of Globular Cluster Cores: Blue Straggler Stars in M3 (NGC 5272, GC 1339+286). *Michael Bolte, James E. Hesser, & Peter B. Stetson.* 408, L89, 95-C11 (1993)

Old Stellar Populations. IV. Empirical Fitting Functions for Features in the Spectra of G and K Stars. *Javier Gorgas, S. M. Faber, David Burstein, J. Jesús Gonzalez, Stéphane Courteau, & Charles Prosser.* 86, 153, 15-F13 (1993)

Postcollapse Evolution of Globular Clusters Dominated by Tidal Binary Heating. *Hyung Mok Lee & Jeremiah P. Ostriker.* 409, 617, 106-F3 (1993)

A Provisional RR Lyrae Distance Scale. *Norman R. Simon & Christine M. Clement.* 410, 526, 120-C1 (1993)

Nonlocal and Collective Relaxation in Stellar Systems. *Martin D. Weinberg.* 410, 543, 120-D8 (1993)

The Proto-Galaxy, Globular Clusters, and Quasars. *Sidney van den Bergh.* 411, 178, 129-C13 (1993)

Sub–Giant Branch Evolution and Efficient Central Energy Transport. *John Faulkner & Fritz J. Swenson.* 411, 200, 129-F3 (1993)

The Effect of Livermore Opal Opacities on the Evolutionary Masses of RR Lyrae Stars. *Sukyoung Yi, Young-Wook Lee, & Pierre Demarque.* 411, L25, 133-G8 (1993)

Does the Coalescence of White Dwarfs Produce Millisecond Pulsars in Globular Clusters? *Kaiyou Chen & Peter J. T. Leonard.* 411, L75, 142-D3 (1993)

Collisions and Close Encounters between Massive Main-Sequence Stars. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 412, 593, 151-B7 (1993)

Abundance Inhomogeneities and Atmospheric Structure in CN-Bimodal Globular Cluster Giants. *Jeremy J. Drake, Bertrand Plez, & Verne V. Smith.* 412, 612, 151-D1 (1993)

High-Dispersion Spectroscopy of Giants in Metal-poor Globular Clusters. I. Iron Abundances. *Dante Minniti, Doug Geisler, Ruth C. Peterson, & Juan J. Claria.* 413, 548, 163-C8 (1993)

An Upper Limit to the Mass of Black Holes in the Halo of the Galaxy. *Ben Moore.* 413, L93, 168-F1 (1993)

Stability of Dense Stellar Clusters against Relativistic Collapse. *G. S. Bisnovatyi-Kogan, M. Merafina, R. Ruffini, & E. Vesperini.* 414, 187, 172-C13 (1993)

The α-enhanced Isochrones and Their Impact on the Fits to the Galactic Globular Cluster System. *Maurizio Salaris, Alessandro Chieffi, & Oscar Straniero.* 414, 580, 178-D10 (1993)

Specific Frequencies of Globular Clusters in Elliptical Galaxies: A New Test of the Extragalactic Distance Scale. *G. de Vaucouleurs.* 415, 33, 185-D9 (1993)

On the Specific Frequencies of Globular Clusters in the Galaxy and in Messier 31. *G. de Vaucouleurs.* 415, 40, 185-E3 (1993)

The Evolution of the Globular Cluster System in a Triaxial Galaxy: Can a Galactic Nucleus Form by Globular Cluster Capture? *Roberto Capuzzo-Dolcetta.* 415, 616, 195-D13 (1993)

Binary–Single Star Interactions in Globular Clusters. *Steinn Sigurdsson & E. S. Phinney.* 415, 631, 195-F3 (1993)

Formation of Globular Clusters and Galactic Environments. *Yasuki Kumai, Yuichi Hashi, & Mitsuaki Fujimoto.* 416, 576, 210-E5 (1993)

Ultraviolet Imaging Telescope: Globular Clusters in M31. *Ralph C. Bohlin, Eric W. Deutsch, Kerry A. McQuade, Jesse K. Hill, Wayne B. Landsman, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 417, 127, 218-G11 (1993)

Ultraviolet Morphologies of Globular Clusters Observed with the Ultraviolet Imaging Telescope. *Eric P. Smith, Wayne B. Landsman, Robert S. Hill, Ralph C. Bohlin, Kwang-Ping Cheng, Paul Hintzen, Stephen P. Maran, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 418, 850, 243-B8 (1993)

Relativistic Stellar Systems with Rotation. *Stuart L. Shapiro & Saul A. Teukolsky.* 419, 636, 255-E12 (1993)

The Onset of Gravothermal Oscillations in Globular Cluster Evolution. *Joseph L. Breeden, Haldan N. Cohn, & Piet Hut.* 421, 195, 18-D6 (1994)

Weakly Damped Modes in Star Clusters and Galaxies. *Martin D. Weinberg.* 421, 481, 24-B9 (1994)

The Spatial Structure of the M87 Globular Cluster System. *Dean E. McLaughlin, William E. Harris, & David A. Hanes.* 422, 486, 38-A1 (1994)

The Horizontal-Branch Stars in Globular Clusters. II. The Second Parameter Phenomenon. *Young-Wook Lee, Pierre Demarque, & Robert Zinn.* 423, 248, 49-B9 (1994)

Cooling White Dwarfs in Galactic Globulars. *V. Castellani, S. Degl'Innocenti, & M. Romaniello.* 423, 266, 49-D1 (1994)

Predictions of a Population of Cataclysmic Variables in Globular Clusters. *R. Di Stefano & S. Rappaport.* 423, 274, 49-D13 (1994)

Oosterhoff Dichotomy in the Galaxy and Globular Clusters in the Large Magellanic Cloud. *Giuseppe Bono, Filippina Caputo, & Robert F. Stellingwerf.* 423, 294, 49-F8 (1994)

ROSAT Observations of Nine Globular Clusters. *S. Rappaport, D. Dewey, A. Levine, & L. Macri.* 423, 633, 56-D2 (1994)

Isotopic Carbon Ratios among M71 Bright Red Giants. *Michael M. Briley, Verne V. Smith, & David L. Lambert.* 424, L119, 79-D7 (1994)

X-Ray Images of the Galactic Center Obtained with Art-P/*Granat*: Discovery of New Sources, Variability of Persistent Sources, and Localization of

X-Ray Bursters. *M. N. Pavlinsky, S. A. Grebenev, & R. A. Sunyaev.* 425, 110, 81-E5 (1994)

The Determination of the Core Mass at the Helium Flash in Globular Cluster Stars. *Allen V. Sweigart.* 426, 612, 106-A11 (1994)

Red Giant Stragglers and He White Dwarfs in Galactic Globulars. *V. Castellani, V. Luridiana, & M. Romaniello.* 428, 633, 138-B7 (1994)

Supergiant Molecular Clouds and the Formation of Globular Cluster Systems. *William E. Harris & Ralph E. Pudritz.* 429, 177, 146-C9 (1994)

Surface Brightness Fluctuations in Globular Clusters and Stellar Populations in Galaxies. *Edward A. Ajhar & John L. Tonry.* 429, 557, 152-F2 (1994)

A Calibration of Mg_2 versus [Fe/H] and [Mg/Fe]. *B. Barbuy.* 430, 218, 161-G1 (1994)

CCD Photometry for Six Metal-rich Galactic Globular Clusters. *Ata Sarajedini & John E. Norris.* 93, 161, 44-A2 (1994)

The Luminosity Function for Stars with $-0.6 \leq M_V \leq 6.5$ in the Globular Cluster M30: Is There a Problem with Stellar Evolution Models? *Michael Bolte.* 431, 223, 178-G10 (1994)

The Range of Core Size of Postcollapse Clusters Supported by Primordial Binaries. *E. Vesperini & D. F. Chernoff.* 431, 231, 179-A7 (1994)

The Fornax-Leo-Sculptor Stream Revisited. *Steven R. Majewski.* 431, L17, 182-D13 (1994)

Possible Correlations between the Radii and Orbital Characteristics of Halo Globular Clusters. *Sidney van den Bergh.* 432, L105, 206-G7 (1994)

A Comparison of the Intrinsic Shapes of Globular Clusters in Four Different Galaxies. *Cheongho Han & Barbara S. Ryden.* 433, 80, 209-C4 (1994)

Central Concentration and Luminosity of Galactic Globular Clusters. *Sidney van den Bergh.* 435, 203, 246-B3 (1994)

EGRET Upper Limits to the High-Energy Gamma-Ray Emission from the Millisecond Pulsars in Nearby Globular Clusters. *P. F. Michelson, D. L. Bertsch, K. Brazier, J. Chiang, B. L. Dingus, C. E. Fichtel, J. Fierro, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, C. von Montigny, P. L. Nolan, E. Schneid, P. Sreekumar, & D. J. Thompson.* 435, 218, 246-C12 (1994)

A Gauss-Hermite Expansion of the Galactic Globular Cluster Luminosity Function. *Roberto G. Abraham & Sidney van den Bergh.* 438, 218, 4-D1 (1995)

The Fundamental Plane Correlations for Globular Clusters. *S. Djorgovski.* 438, L29, 10-B3 (1995)

Binary-Binary Interactions and the Formation of the PSR B1620−26 Triple System in M4. *Frederic A. Rasio, Steve McMillan, & Piet Hut.* 438, L33, 10-B11 (1995)

Tidal-Shock Relaxation: A Reexamination of Tidal Shocks in Stellar Systems. *Tomislav Kundić & Jeremiah P. Ostriker.* 438, 702, 13-G7 (1995)

Lithium in Halo Dwarfs: The Undoing of Diffusion by Mass Loss. *Fritz J. Swenson.* 438, L87, 19-G8 (1995)

CCD Photometry of Globular Cluster Core Structure. II. *U*-Band Profiles for 15 Candidate Collapsed-Core Clusters. *Phyllis M. Lugger, Haldan N. Cohn, & Jonathan E. Grindlay.* 439, 191, 23-G10 (1995)

Low-Mass X-Ray Binaries in Globular Clusters: A New Metallicity Effect. *M. Bellazzini, A. Pasquali, L. Federici, F. R. Ferraro, & F. Fusi Pecci.* 439, 687, 34-A12 (1995)

On the Formation of Globular Clusters. II. Early Dynamical Evolution. *J. H. Brown, A. Burkert, & J. W. Truran.* 440, 666, 52-D4 (1995)

The Sodium/Aluminum–Oxygen Anticorrelation in ω Centauri and Other Clusters. *John E. Norris & G. S. Da Costa.* 441, L81, 76-B11 (1995)

Ultraviolet Radiation from Evolved Stellar Populations. II. The Ultraviolet Upturn Phenomenon in Elliptical Galaxies. *Ben Dorman, Robert W. O'Connell, & Robert T. Rood.* 442, 105, 78-F6 (1995)

Dynamical and Observable Constraints on RAMBOs: Robust Associations of Massive Baryonic Objects. *Ben Moore & Joseph Silk.* 442, L5, 84-D10 (1995)

Yet Another Theory for the Origin of Halo Globular Clusters and Spheroid Stars. *Mario Vietri & Enrico Pesce.* 442, 618, 88-D8 (1995)

Influence of the Stellar Mass Function on the Evaporation Rate of Tidally Limited Postcollapse Globular Clusters. *Hyung Mok Lee & Jeremy Goodman.* 443, 109, 96-F4 (1995)

Competition of Supermassive Black Holes and Galactic Spheroids in the Destruction of Globular Clusters. *Jane C. Charlton & Pablo Laguna.* 444, 193, 116-A11 (1995)

Absolute Ages of Globular Clusters and the Age of the Universe. *Brian Chaboyer.* 444, L9, 121-C1 (1995)

The Minimum Detectable Core Radius of Star Clusters. *Bruce J. Sams III.* 445, 221, 135-E6 (1995)

On Blue Straggler Formation by Direct Collisions of Main-Sequence Stars. *James C. Lombardi, Jr., Frederic A. Rasio, & Stuart L. Shapiro.* 445, L117, 151-C1 (1995)

The Orbital Eccentricities of Binary Millisecond Pulsars in Globular Clusters. *Frederic A. Rasio & Douglas C. Heggie.* 445, L133, 151-E9 (1995)

The Uncertainties in the Age of Globular Clusters from Their Helium Abundance and Mass Loss. *Xiangdong Shi.* 446, 637, 165-A1 (1995)

Infrared Emission from Globular Clusters: Limits on Stellar Mass Loss and Interstellar Dust. *G. R. Knapp, J. E. Gunn, & A. J. Connolly.* 448, 195, 194-G4 (1995)

Chaos in Core Oscillations of Globular Clusters. *Joseph L. Breeden & Haldan N. Cohn.* 448, 672, 204-A12 (1995)

A Merger Model and Globular Cluster Formation. *Sangjin Lee, David N. Schramm, & Grant J. Mathews.* 449, 616, 221-C1 (1995)

Dynamics and Interactions of Binaries and Neutron Stars in Globular Clusters. *Steinn Sigurdsson & E. S. Phinney.* 99, 609, 43-D7 (1995)

Equivalent Widths for 54 Red Giants in 47 Tucanae, ω Centauri, NGC 6397, M22, and NGC 6752. *John E. Norris, G. S. Da Costa, & S. J. Tingay.* 99, 637, 43-F9 (1995)

Ages for Globular Clusters with Predominantly Red Horizontal Branches. *Ata Sarajedini, Young-Wook Lee, & Dong-Han Lee.* 450, 712, 240-E7 (1995)

The Role of Chaos in the Circularization of Tidal Capture Binaries. I. The Chaos Boundary. *Rosemary A. Mardling.* 450, 722, 240-F7 (1995)

The Role of Chaos in the Circularization of Tidal Capture Binaries. II. Long-Time Evolution. *Rosemary A. Mardling.* 450, 732, 240-G6 (1995)

Mass Segregation in the Globular Cluster NGC 6397. *Ivan R. King, Craig Sosin, & Adrienne M. Cool.* 452, L33, 269-G8 (1995)

Rotation and Oxygen Line Strengths in Blue Horizontal-Branch Stars. *Ruth C. Peterson, Robert T. Rood, & Deborah A. Crocker.* 453, 214, 284-B1 (1995)

Mergers, Accretions, and the Globular Cluster Mean Metallicity-Number per Unit Mass Relation. *Jean-Marc Perelmuter.* 454, 762, 312-C1 (1995)

The OPAL Equation of State and Low-Metallicity Isochrones. *Brian Chaboyer & Yong-Cheol Kim.* 454, 767, 312-C9 (1995)

Hubble Space Telescope Observations of Globular Clusters in M87 and an Estimate of H_0. *Bradley C. Whitmore, William B. Sparks, Ray A. Lucas, F. Duccio Macchetto, & John A. Biretta.* 454, L73, 315-C1 (1995)

Relativistic Collisionless Clusters with Arbitrarily Large Central Redshift. *M. Merafina & R. Ruffini.* 454, L89, 315-E4 (1995)

GALAXY: GLOBULAR CLUSTERS: INDIVIDUAL

Messier Number: M3

The Ultraviolet-bright Stars of Omega Centauri, M3, and M13. *Wayne B. Landsman, Robert W. O'Connell, Jonathan H. Whitney, Ralph C. Bohlin, Robert S. Hill, Stephen P. Maran, Ronald A. Parise, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L21, 144-F9 (1992)

A Supersoft Variable Low-Luminosity X-Ray Source in the Globular Cluster M3. *P. Hertz, J. E. Grindlay, & C. D. Bailyn.* 410, L87, 126-A1 (1993)

A Pulsational Approach to the Luminosity of RR Lyrae Variables. *V. Castellani & R. De Santis.* 430, 624, 169-E11 (1994)

Modeling the Radial Distribution of Blue Stragglers in M3. *Steinn Sigurdsson, Melvyn B. Davies, & Michael Bolte.* 431, L115, 192-A9 (1994)

On the Luminosity Function, Lifetimes, and Origin of Blue Stragglers in Globular Clusters. *Charles D. Bailyn & Marc H. Pinsonneault.* 439, 705, 34-C13 (1995)

RR Lyrae Variable Stars: Pulsational Constraints Relevant to the Oosterhoff Controversy. *Giuseppe Bono, Filippina Caputo, Vittorio Castellani, & Marcella Marconi.* 448, L115, 209-E3 (1995)

Messier Number: M4

The Chemical Composition of Blue Horizontal Branch Stars in M4 and NGC 6397. *David L. Lambert, Andrew McWilliam, & Verne V. Smith.* 386, 685, 33-G1 (1992)

Sodium, Aluminum, and Oxygen Abundance Variations in Giants in the Globular Cluster M4. *Jeremy J. Drake, Verne V. Smith, & Nicholas B. Suntzeff.* 395, L95, 154-A10 (1992)

PSR B1620−26: A Binary Radio Pulsar with a Planetary Companion? *S. E. Thorsett, Z. Arzoumanian, & J. H. Taylor.* 412, L33, 148-D6 (1993)

Genesis of a Planet in Messier 4. *Steinn Sigurdsson.* 415, L43, 192-B13 (1993)

Deep Infrared Array Photometry of Globular Clusters. I. M4. *T. J. Davidge & D. A. Simons.* 423, 640, 56-D13 (1994)

The Metallicity of M4: Accurate Spectroscopic Fundamental Parameters for Four Giants. *J. J. Drake, V. V. Smith, & N. B. Suntzeff.* 430, 610, 169-D8 (1994)

A Possible Optical Counterpart for the Triple Pulsar System PSR B1620−26. *Charles D. Bailyn, Eric P. Rubenstein, Terrence M. Girard, Dana I. Dinescu, Frederic A. Rasio, & Brian Yanny.* 433, L89, 224-B3 (1994)

Binary-Binary Interactions and the Formation of the PSR B1620−26 Triple System in M4. *Frederic A. Rasio, Steve McMillan, & Piet Hut.* 438, L33, 10-B11 (1995)

Radial Velocities of Stars in the Globular Cluster M4 and the Cluster Distance. *Ruth C. Peterson, Richard F. Rees, & Kyle M. Cudworth.* 443, 124, 96-G11 (1995)

Hubble Space Telescope Observations of White Dwarfs in the Globular Cluster M4. *Harvey B. Richer, Gregory G. Fahlman, Rodrigo A. Ibata, Peter B. Stetson, Roger A. Bell, Michael Bolte, Howard E. Bond, William E. Harris, James E. Hesser, Georgi Mandushev, Carlton Pryor, & Don A. VandenBerg.* 451, L17, 252-C11 (1995)

Assessing the Environmental Impact on PSR B1620−26 in M4. *Steinn Sigurdsson.* 452, 323, 266-E8 (1995)

Messier Number: M5

The Baade-Wesselink Method Applied to RR Lyrae Variables in the Globular Clusters M5 and M92. *J. G. Cohen.* 400, 528, 216-G11 (1992)

Messier Number: M13

The Ultraviolet-bright Stars of Omega Centauri, M3, and M13. *Wayne B. Landsman, Robert W. O'Connell, Jonathan H. Whitney, Ralph C. Bohlin, Robert S. Hill, Stephen P. Maran, Ronald A. Parise, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L21, 144-F9 (1992)

Optical and H I Observations of the Low-Velocity and Intermediate-Velocity Gas toward the Globular Cluster M13. *B. Bates, C. R. Shaw, S. N. Kemp, F. P. Keenan, & R. D. Davies.* 444, 672, 125-E7 (1995)

Deep Infrared Array Photometry of Globular Clusters. III. M13. *T. J. Davidge & W. E. Harris.* 445, 211, 135-D7 (1995)

Messier Number: M15

Evolution versus Pulsation along the Horizontal Branch of M15. *Norman R. Simon.* 387, 162, 39-A3 (1992)

Evolving, Dynamical Models for Collapsed-Core Globular Clusters: M15 and NGC 6624. *Robert P. Grabhorn, Haldan N. Cohn, Phyllis M. Lugger, & Brian W. Murphy.* 392, 86, 102-B1 (1992)

The Stellar Population in the Core of M15. *Guido De Marchi & Francesco Paresce.* 422, 597, 39-C6 (1994)

On the Velocity Dispersion in the Core of the Globular Cluster M15. *P. Dubath, G. Meylan, & M. Mayor.* 426, 192, 98-E2 (1994)

A Pulsational Approach to the Luminosity of RR Lyrae Variables. *V. Castellani & R. De Santis.* 430, 624, 169-E11 (1994)

The RR Lyrae Fundamental Red Edge. *G. Bono, F. Caputo, V. Castellani, M. Marconi, L. Staiano, & R. F. Stellingwerf.* 442, 159, 79-D1 (1995)

RR Lyrae Variable Stars: Pulsational Constraints Relevant to the Oosterhoff Controversy. *Giuseppe Bono, Filippina Caputo, Vittorio Castellani, & Marcella Marconi.* 448, L115, 209-E3 (1995)

Messier Number: M22

Stripping of a Planetary Nebula from the Globular Cluster M22. *Kazimierz J. Borkowski, Zlatan Tsvetanov, & J. Patrick Harrington.* 402, L57, 12-F9 (1993)

Proper Motions and Radial Velocities in the Globular Cluster M22 and the Cluster Distance. *Ruth C. Peterson & Kyle M. Cudworth.* 420, 612, 10-C7 (1994)

Messier Number: M30

WFPC2 Observations of the Globular Cluster M30. *Brian Yanny, Puragra Guhathakurta, Donald P. Schneider, & John N. Bahcall.* 435, L59, 252-D13 (1994)

Messier Number: M68

The RR Lyrae Variables in the Globular Cluster M68. *Christine M. Clement, Stephen Ferance, & Norman R. Simon.* 412, 183, 144-C13 (1993)

The RR Lyrae Fundamental Red Edge. *G. Bono, F. Caputo, V. Castellani, M. Marconi, L. Staiano, & R. F. Stellingwerf.* 442, 159, 79-D1 (1995)

Messier Number: M71

Fokker-Planck Models and Globular Cluster Evolution: The Problem of M71. *G. A. Drukier, G. G. Fahlman, & H. B. Richer.* 386, 106, 25-D7 (1992)

Deep Infrared Array Photometry of Globular Clusters. II. M71. *T. J. Davidge & D. A. Simons.* 435, 207, 246-B11 (1994)

Messier Number: M79

Ultraviolet Properties of Individual Hot Stars in Globular Cluster Cores. I. NGC 1904 (M79). *B. Altner & T. A. Matilsky.* 410, 116, 113-E8 (1993)

Messier Number: M80

Cataclysmic and Close Binaries in Star Clusters. III. Recovery of the Quiescent Nova 1860 A.D. (T Scorpii) in the Core of the Globular Cluster M80. *Michael M. Shara & Laurent Drissen.* 448, 203, 195-A1 (1995)

Messier Number: M92

The Baade-Wesselink Method Applied to RR Lyrae Variables in the Globular Clusters M5 and M92. *J. G. Cohen.* 400, 528, 216-G11 (1992)

Cataclysmic Binaries in Star Clusters. I. A Search for Erupting Dwarf Novae in the Globular Cluster M92. *Michael M. Shara, Louis E. Bergeron, & Anthony F. J. Moffat.* 429, 767, 155-C1 (1994)

Evidence of Higher Primordial Lithium from Keck Observations of M92. *Constantine P. Deliyannis, Ann Merchant Boesgaard, & Jeremy R. King.* 452, L13, 269-D10 (1995)

NGC Number: NGC 288

CCD Photometry in the Globular Cluster NGC 288. I. Blue Stragglers and Main-Sequence Binary Stars. *Michael Bolte.* 82, 145, 51-B7 (1992)

Rotation and Oxygen Line Strengths in Blue Horizontal-Branch Stars. *Ruth C. Peterson, Robert T. Rood, & Deborah A. Crocker.* 453, 214, 284-B1 (1995)

NGC Number: NGC 1850

WFPC2 Observations of the Double Cluster NGC 1850 in the Large Magellanic Cloud. *R. Gilmozzi, E. K. Kinney, S. P. Ewald, N. Panagia, & M. Romaniello.* 435, L43, 252-B7 (1994)

NGC Number: NGC 1851

An Ultraviolet-Visible Investigation of the Globular Cluster NGC 1851. *Ronald A. Parise, Stephen P. Maran, Wayne B. Landsman, Ralph C. Bohlin, Kwang-Ping Cheng, Michael R. Greason, Paul M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 423, 305, 49-G7 (1994)

NGC Number: NGC 1904

An Ultraviolet Imaging Telescope Study of the Globular Cluster M79 (NGC 1904). *Robert S. Hill, Jesse K. Hill, Wayne B. Landsman, Ralph C. Bohlin, K.-P. Cheng, Paul M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L17, 144-F1 (1992)

NGC Number: NGC 1953

The Age of the Large Magellanic Cloud Cluster NGC 1953. *J. R. Mould, D. A. Xystus, G. S. Da Costa, & R. A. Schommer.* 416, 582, 210-E12 (1993)

NGC Number: NGC 2031

The Age of the Large Magellanic Cloud Cluster NGC 2031. *J. R. Mould, D. A. Xystus, & G. S. Da Costa.* 408, 108, 84-D8 (1993)

NGC Number: NGC 3201

A Search for Binaries in the Globular Cluster NGC 3201. *Patrick Côté, Douglas L. Welch, Philippe Fischer, G. S. Da Costa, Peter Tamblyn, Patrick Seitzer, & M. J. Irwin.* 90, 83, 2-B5 (1994)

Dynamics of the Galactic Globular Cluster NGC 3201. *Patrick Côté, Douglas L. Welch, Philippe Fischer, & K. Gebhardt.* 454, 788, 312-F3 (1995)

NGC Number: NGC 5466

Modeling of the Eclipsing Binaries in the Globular Cluster NGC 5466. *J. Kallrath, E. F. Milone, & C. R. Stagg.* 389, 590, 68-G1 (1992)

NGC Number: NGC 6121

Genesis of a Planet in Messier 4. *Steinn Sigurdsson.* 415, L43, 192-B13 (1993)

NGC Number: NGC 6304

Optical and Infrared Imaging of Stars in the Metal-rich Globular Clusters NGC 6304 and NGC 6316. *T. J. Davidge, William E. Harris, T. J. Bridges, & D. A. Hanes.* 81, 251, 38-D5 (1992)

NGC Number: NGC 6316

Optical and Infrared Imaging of Stars in the Metal-rich Globular Clusters NGC 6304 and NGC 6316. *T. J. Davidge, William E. Harris, T. J. Bridges, & D. A. Hanes.* 81, 251, 38-D5 (1992)

NGC Number: NGC 6397

The Chemical Composition of Blue Horizontal Branch Stars in M4 and NGC 6397. *David L. Lambert, Andrew McWilliam, & Verne V. Smith.* 386, 685, 33-G1 (1992)

Are There Two Kinds of Blue Stragglers in Globular Clusters? *Charles D. Bailyn.* 392, 519, 108-F9 (1992)

Discovery of Multiple Low-Luminosity X-Ray Sources in NGC 6397. *Adrienne M. Cool, Jonathan E. Grindlay, Martin Krockenberger, & Charles D. Bailyn.* 410, L103, 126-B11 (1993)

Discovery of Candidate Cataclysmic Variables in the Post–Core-Collapse Globular Cluster NGC 6397. *Adrienne M. Cool, Jonathan E. Grindlay, Haldan N. Cohn, Phyllis M. Lugger, & Shawn D. Slavin.* 439, 695, 34-B10 (1995)

Very Low Mass Stars and White Dwarfs in NGC 6397. *Francesco Paresce, Guido De Marchi, & Martino Romaniello.* 440, 216, 44-B13 (1995)

Mass Segregation in the Globular Cluster NGC 6397. *Ivan R. King, Craig Sosin, & Adrienne M. Cool.* 452, L33, 269-G8 (1995)

Fokker-Planck Models of NGC 6397. *G. A. Drukier.* 100, 347, 51-A7 (1995)

Spectroscopic Identification of Probable Cataclysmic Variables in the Globular Cluster NGC 6397. *J. E. Grindlay, A. M. Cool, P. J. Callanan, C. D. Bailyn, H. N. Cohn, & P. M. Lugger.* 455, L47, 325-B1 (1995)

NGC Number: NGC 6624

Dust within Globular Clusters: A Large Bubble in NGC 6624? *Juan C. Forte, Sergio A. Cellone, Mariano Méndez, & E. Irene Vega.* 388, 383, 55-B4 (1992)

Evolving, Dynamical Models for Collapsed-Core Globular Clusters: M15 and NGC 6624. *Robert P. Grabhorn, Haldan N. Cohn, Phyllis M. Lugger, & Brian W. Murphy.* 392, 86, 102-B1 (1992)

Deep VLA Images of Globular Clusters: NGC 6624. *Helen M. Johnston & Shrinivas R. Kulkarni.* 393, L17, 120-C8 (1992)

Detection of an Ultraviolet and Visible Counterpart of the NGC 6624 X-Ray Burster. *I. R. King, S. A. Stanford, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, M. J. Disney, J. M. Deharveng, P. Jakobsen, T. M. Kamperman, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, & C. Sosin.* 413, L117, 169-A12 (1993)

Discovery of Faint Ultraviolet Sources in the Globular Cluster NGC 6624 with the *Hubble Space Telescope*. *Craig Sosin & Adrienne M. Cool.* 452, L29, 269-F13 (1995)

NGC Number: NGC 6681

Far-Ultraviolet Imaging of the Globular Cluster NGC 6681 with WFPC2. *Alan M. Watson, Jeremy R. Mould, John S. Gallagher III, Gilda E. Ballester, Christopher J. Burrows, Stefano Casertano, John T. Clarke, David Crisp, Richard E. Griffiths, J. Jeff Hester, John G. Hoessel, Jon A. Holtzman, Paul A. Scowen, Karl R. Stapelfeldt, John T. Trauger, & James A. Westphal.* 435, L55, 252-D4 (1994)

NGC Number: NGC 6712

X-Ray Spectrum and Time Variation of X1850−087 in the Globular Cluster NGC 6712. *Shunji Kitamoto, Hiroshi Tsunemi, & Diane Roussel-Dupre.* 391, 220, 88-F7 (1992)

NGC Number: NGC 6752

Spectroscopy of Chromospheric Lines of Giants in the Globular Cluster NGC 6752. *A. K. Dupree, Lee Hartmann, Graeme H. Smith, A. W. Rodgers, W. H. Roberts, & D. B. Zucker.* 421, 542, 24-G9 (1994)

Cataclysmic and Close Binaries in Star Clusters. II. Probing the Core of NGC 6752 with *Hubble Space Telescope*. *Michael M. Shara, Laurent Drissen, Louis E. Bergeron, & Francesco Paresce.* 441, 617, 70-E10 (1995)

The Hot End of Evolutionary Horizontal Branches. *V. Castellani, S. Degl'Innocenti, & L. Pulone.* 446, 228, 156-C8 (1995)

NGC Number: NGC 7099

The Minimum Detectable Core Radius of Star Clusters. *Bruce J. Sams III.* 445, 221, 135-E6 (1995)

Name: Arp 2

Two Young Galactic Globular Clusters: Terzan 7 and Arp 2. *Roberto Buonanno, C. E. Corsi, F. Fusi Pecci, Gregory G. Fahlman, & Harvey B. Richer.* 430, L121, 175-A1 (1994)

Name: ω Centauri

The Ultraviolet-bright Stars of Omega Centauri, M3, and M13. *Wayne B. Landsman, Robert W. O'Connell, Jonathan H. Whitney, Ralph C. Bohlin, Robert S. Hill, Stephen P. Maran, Ronald A. Parise, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L21, 144-F9 (1992)

Production of Recycled Pulsars in Globular Clusters via Two-Body Tidal Capture. *R. Di Stefano & S. Rappaport.* 396, 587, 164-F9 (1992)

Observations of Nearby Interstellar Gas and Dust in the Direction toward the Globular Cluster ω Centauri. *K. D. Wood & B. Bates.* 417, 572, 226-D10 (1993)

The Faint X-Ray Sources In and Out of ω Centauri: X-Ray Observations and Optical Identifications. *Adrienne M. Cool, Jonathan E. Grindlay, Charles D. Bailyn, Paul J. Callanan, & Paul Hertz.* 438, 719, 14-B2 (1995)

The Giant Branch of ω Centauri. IV. Abundance Patterns Based on Echelle Spectra of 40 Red Giants. *John E. Norris & G. S. Da Costa.* 447, 680, 185-D9 (1995)

Name: Palomar 12

Young Globular Clusters in the Milky Way Galaxy. *D. N. C. Lin & Harvey B. Richer.* 388, L57, 59-C1 (1992)

Name: Pyxis

The Pyxis Cluster: A Newly Identified Galactic Globular Cluster. *M. J. Irwin, Serge Demers, & W. E. Kunkel.* 453, L21, 289-E1 (1995)

Name: Ruprecht 106

Young Globular Clusters in the Milky Way Galaxy. *D. N. C. Lin & Harvey B. Richer.* 388, L57, 59-C1 (1992)

Name: Terzan 7

Two Young Galactic Globular Clusters: Terzan 7 and Arp 2. *Roberto Buonanno, C. E. Corsi, F. Fusi Pecci, Gregory G. Fahlman, & Harvey B. Richer.* 430, L121, 175-A1 (1994)

Name: 47 Tucanae

Are There Two Kinds of Blue Stragglers in Globular Clusters? *Charles D. Bailyn.* 392, 519, 108-F9 (1992)

Production of Recycled Pulsars in Globular Clusters via Two-Body Tidal Capture. *R. Di Stefano & S. Rappaport.* 396, 587, 164-F9 (1992)

The Center of Gravity and Density Profile of 47 Tucanae. *D. Calzetti, G. De Marchi, F. Paresce, & M. Shara.* 402, L1, 6-B1 (1993)

SIGMA Upper Limits to the Hard X-Ray/Soft Gamma-Ray Emission from the Millisecond Pulsars of the Nearby Globular Cluster 47 Tucanae. *D. Barret, P. Mandrou, M. Denis, J. F. Olive, P. Laurent, A. Claret, F. Lebrun, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, A. Dyachkov, N. Khavenson, B. Novikov, R. Kremnev, & A. Sukhanov.* 405, L59, 54-C7 (1993)

The Structure of the Core of 47 Tucanae from *Hubble Space Telescope* Observations. *Guido De Marchi, Francesco Paresce, & Francesco R. Ferraro.* 85, 293, 11-B3 (1993)

A Dwarf Nova in the Core of 47 Tucanae. *Francesco Paresce & Guido De Marchi.* 427, L33, 117-E6 (1994)

On the Luminosity Function, Lifetimes, and Origin of Blue Stragglers in Globular Clusters. *Charles D. Bailyn & Marc H. Pinsonneault.* 439, 705, 34-C13 (1995)

White Dwarfs and Mass Segregation in the Core of 47 Tucanae. *Francesco Paresce, Guido De Marchi, & Robert Jedrzejewski.* 442, L57, 94-D12 (1995)

Stellar Variability in the Central Populations of 47 Tucanae from WF/PC Observations with the *Hubble Space Telescope*. I. Project Overview, Reduction Techniques, and First Results. *Ronald L. Gilliland, Peter D. Edmonds, Larry Petro, Abhijit Saha, & Michael M. Shara.* 447, 191, 174-G5 (1995)

Discovery of Diffuse X-Ray Emission in 47 Tucanae. *Martin Krockenberger & Jonathan E. Grindlay.* 451, 200, 248-F11 (1995)

Observations of the Ultraviolet-Bright Star in 47 Tucanae with the Hopkins Ultraviolet Telescope. *W. Van Dyke Dixon, Arthur F. Davidsen, & Henry C. Ferguson.* 454, L47, 308-B9 (1995)

GALAXY: HALO

The Orbital Structure of Galactic Halos. *Joanna F. Lees & M. Schwarzschild.* 384, 491, 8-C1 (1992)

Microflare Heating of the Galactic Halo. *John C. Raymond.* 384, 502, 8-D1 (1992)

Constraints on Baryonic Dark Matter in the Galactic Halo and Local Group. *D. Richstone, A. Gould, P. Guhathakurta, & C. Flynn.* 388, 354, 54-F12 (1992)

Young Globular Clusters in the Milky Way Galaxy. *D. N. C. Lin & Harvey B. Richer.* 388, L57, 59-C1 (1992)

On the Galactic Disk and Halo Models of Gamma-Ray Bursts. *Shude Mao & Bohdan Paczyński.* 389, L13, 66-C1 (1992)

Formation of a Giant Galactic Gaseous Halo: Metal Absorption Lines and High-Velocity Clouds. *Fan Li & Satoru Ikeuchi.* 390, 405, 80-D7 (1992)

Dark Matter and Brown Dwarfs: Prospects for the Direct Detection of a Brown Dwarf Halo. *Ruth A. Daly & Gail C. McLaughlin.* 390, 423, 80-F1 (1992)

A Model of the Galactic Dark Halo. *E. R. Wollman.* 392, 80, 102-A8 (1992)

Extending the MACHO Search to $\sim 10^6\ M_\odot$. *Andrew Gould.* 392, 442, 107-G1 (1992)

Ultraviolet and Radio Observations of Milky Way Halo Gas. *Laura Danly, Felix J. Lockman, Marilyn R. Meade, & Blair D. Savage.* 81, 125, 36-F9 (1992)

Hydrodynamics of the Hot Component of the Galactic Halo. II. Radiative and Dynamical Instabilities. *A. Ferrara & G. Einaudi.* 395, 475, 148-D9 (1992)

Possible Explanations of the Large Angle Fluctuations of the Microwave Background. *F. Hoyle & G. Burbidge.* 399, L9, 200-A1 (1992)

Discovery of a Synchrotron-emitting Halo around NGC 253. *C. L. Carilli, M. A. Holdaway, P. T. P. Ho, & C. G. De Pree.* 399, L59, 200-F8 (1992)

Observations of Highly Ionized Gas in the Galactic Halo. *Kenneth R. Sembach & Blair D. Savage.* 83, 147, 58-G11 (1992)

X-Ray Flashes from M31 Based on Extended Halo Models of Gamma-Ray Bursts. *Hui Li & Edison P. Liang.* 400, L59, 220-D3 (1992)

The Abundance of Boron in Three Halo Stars. *Douglas K. Duncan, David L. Lambert, & Michael Lemke.* 401, 584, 229-G6 (1992)

A High-Sensitivity Search for Gamma-Ray Bursts by the Sigma Telescope on Board *GRANAT* (the Galactic Center and All Sky Data). *R. Sunyaev, E. Churazov, M. Gilfanov, O. Terekhov, A. Dyachkov, N. Khavenson, V. Kovtunenko, R. Kremnev, A. Claret, F. Lebrun, A. Goldwurm, J. Paul, F. Pelaez, J. L. Atteia, P. Mandrou, & G. Vedrenne.* 402, 579, 9-G1 (1993)

Metallicity Maps of the Globular Cluster System in the Galaxy. *Emilio J. Alfaro, Jesús Cabrera-Caño, & Antonio J. Delgado.* 402, L53, 12-F1 (1993)

Observations of the Gaseous Galactic Halo toward 3C 273 with the Goddard High Resolution Spectrograph. *Blair D. Savage, Limin Lu, Ray J. Weymann, Simon L. Morris, & Ronald L. Gilliland.* 404, 124, 29-E5 (1993)

The Galactic Halo and Local Intergalactic Medium toward PKS 2155−304. *Frederick C. Bruhweiler, A. Boggess, Dara J. Norman, C. A. Grady, C. Megan Urry, & Yoji Kondo.* 409, 199, 99-D6 (1993)

Unbound Dwarf Spheroidal Galaxies and the Mass of the Milky Way. *Jeffrey R. Kuhn.* 409, L13, 104-C1 (1993)

Star Counts Redivivus. I. A New Look at the Galaxy at Faint Magnitudes. *Neill Reid & S. R. Majewski.* 409, 635, 106-G12 (1993)

Disk Plus Halo Models of Gamma-Ray Burst Sources. *I. A. Smith & D. Q. Lamb.* 410, L23, 118-A9 (1993)

The Case Low-Dispersion Northern Sky Survey. XIV. A–F Stars in a Region in Southern Canes Venatici. *D. Jack MacConnell, C. B. Stephenson, & Peter Pesch.* 86, 453, 20-D9 (1993)

On the Source Function of the Soft X-Ray Diffuse Background. *David N. Burrows & Ralph P. Kraft.* 411, 685, 138-C1 (1993)

The Boron-to-Beryllium Ratio in Halo Stars: A Signature of Cosmic-Ray Nucleosynthesis in the Early Galaxy. *T. P. Walker, G. Steigman, D. N. Schramm, K. A. Olive, & B. Fields.* 413, 562, 163-D12 (1993)

An Upper Limit to the Mass of Black Holes in the Halo of the Galaxy. *Ben Moore.* 413, L93, 168-F1 (1993)

Anomalous Resistivity and the Evolution of Magnetic Field Topology. *E. N. Parker.* 414, 389, 174-G5 (1993)

QSO Heavy-Element Absorption Line Systems and Large Galactic Halos by Satellite Accretion. *Boqi Wang.* 415, 174, 187-B12 (1993)

A High-Resolution Optical and Radio Study of Milky Way Halo Gas. *C. E. Albert, J. C. Blades, D. C. Morton, Felix J. Lockman, M. Proulx, & L. Ferrarese.* 88, 81, 41-C7 (1993)

A Determination of the Distance to the High-Velocity Cloud Complex M. *Laura Danly, C. E. Albert, & K. D. Kuntz.* 416, L29, 207-D13 (1993)

Ultraviolet Background Radiation. *Richard C. Henry & Jayant Murthy.* 418, L17, 238-C1 (1993)

MACHOs in a Flattened Halo. *Penny D. Sackett & Andrew Gould.* 419, 648, 255-F12 (1993)

Observations of [S IV] and the O/S Abundance Ratio in Two Halo Population Planetary Nebulae. *Donald R. Garnett & John H. Lacy.* 419, L93, 259-F8 (1993)

Highly Ionized Gas Absorption in the Disk and Halo toward HD 167756 at 3.5 Kilometers per Second Resolution. *Blair D. Savage, Kenneth R. Sembach, & Jason A. Cardelli.* 420, 183, 3-C1 (1994)

Interstellar and Intergalactic Magnesium and Sodium Absorption toward SN 1993J. *David V. Bowen, Katherine C. Roth, J. Chris Blades, & David M. Meyer.* 420, L71, 15-D5 (1994)

On the Ellipticity of the Galactic Disk. *Konrad Kuijken & Scott Tremaine.* 421, 178, 18-C1 (1994)

On the Distance Determination and Ionization of the High-Velocity Clouds. *A. Ferrara & G. B. Field.* 423, 665, 56-G5 (1994)

Finite Source Sizes and the Information Content of Macho-Type Lens Search Light Curves. *Robert J. Nemiroff & W. A. D. T. Wickramasinghe.* 424, L21, 69-G8 (1994)

Probing the Galactic Disk and Halo. I. The NGC 3783 Sight Line. *Limin Lu, Blair D. Savage, & Kenneth R. Sembach.* 426, 563, 105-D7 (1994)

Composition of Interstellar Clouds in the Disk and Halo. II. γ^2 Velorum. *Edward L. Fitzpatrick & Lyman Spitzer, Jr.* 427, 232, 112-G8 (1994)

Absolute Proper Motions to $B \sim 22.5$: Evidence for Kinematical Substructure in Halo Field Stars. *Steven R. Majewski, Jeffrey A. Munn, & Suzanne L. Hawley.* 427, L37, 117-E12 (1994)

Highly Ionized Gas in the Galactic Halo. *J. Michael Shull & Jonathan D. Slavin.* 427, 784, 122-D6 (1994)

Gravitational Microlensing by Dark Clusters in the Galactic Halo. *Eyal Maoz.* 428, L5, 134-B6 (1994)

Can Lensed Stars Be Regarded as Pointlike for Microlensing by MACHOs? *Hans J. Witt & Shude Mao.* 430, 505, 168-A11 (1994)

Soft X-Ray and H I Surveys of the Low N_H Region in Ursa Major. *S. L. Snowden, G. Hasinger, K. Jahoda, Felix J. Lockman, D. McCammon, & W. T. Sanders.* 430, 601, 169-C9 (1994)

Two Young Galactic Globular Clusters: Terzan 7 and Arp 2. *Roberto Buonanno, C. E. Corsi, F. Fusi Pecci, Gregory G. Fahlman, & Harvey B. Richer.* 430, L121, 175-A1 (1994)

Gas Kinematics and Ionization along the Extended Sight Line to HD 116852. *Kenneth R. Sembach & Blair D. Savage.* 431, 201, 178-F1 (1994)

The Fornax-Leo-Sculptor Stream Revisited. *Steven R. Majewski.* 431, L17, 182-D13 (1994)

Ultra–Metal-poor Halo Stars: The Remarkable Spectrum of CS 22892−052. *Christopher Sneden, George W. Preston, Andrew McWilliam, & Leonard Searle.* 431, L27, 182-E13 (1994)

MACHOs and the Diffuse X-Ray Background. *V. Kashyap, R. Rosner, D. Schramm, & J. Truran.* 431, L87, 191-E2 (1994)

Giant Explosion at the Galactic Center and Huge Shocked Shells in the Halo. *Yoshiaki Sofue.* 431, L91, 191-E8 (1994)

Baryonic Dark Clusters in Galactic Halos and Their Observable Consequences. *Ira Wasserman & Edwin E. Salpeter.* 433, 670, 219-D5 (1994)

Properties of the Highly Ionized Disk and Halo Gas toward Two Distant High-Latitude Stars. *Blair D. Savage & Kenneth R. Sembach.* 434, 145, 227-B6 (1994)

Galactic Dual Population Models of Gamma-Ray Bursts. *J. C. Higdon & R. E. Lingenfelter.* 434, 552, 235-D8 (1994)

Magnification Bias in Galactic Microlensing Searches. *Robert J. Nemiroff.* 435, 682, 255-D9 (1994)

The Detectability of Planetary Companions of Compact Galactic Objects from Their Effects on Microlensed Light Curves of Distant Stars. *Alberto D. Bolatto & Emilio E. Falco.* 436, 112, 262-G1 (1994)

The Axial Ratio of the Galactic Stellar Halo. *Jeffrey A. Larsen & Roberta M. Humphreys.* 436, L149, 281-D13 (1994)

Detection of a Thick Molecular Disk in the Galaxy. *T. M. Dame & P. Thaddeus.* 436, L173, 282-A3 (1994)

Dynamics of Massive Black Holes as a Possible Candidate of Galactic Dark Matter. *Guohong Xu & Jeremiah P. Ostriker.* 437, 184, 285-F9 (1994)

Evidence for an Extended Neutral Galactic Halo. *C. E. Albert, B. Y. Welsh, & L. Danly.* 437, 204, 286-A7 (1994)

A Study of the Ultraviolet Absorption Lines through the Complete Galactic Halo by the Analysis of *HST* Faint Object Spectrograph Spectra of Active Galactic Nuclei. I. *Geoffrey S. Burks, Frank Bartko, J. Michael Shull, John T. Stocke, Elise R. Sachs, E. Margaret Burbidge, Ross D. Cohen, Vesa T. Junkkarinen, Richard J. Harms, & Derck Massa.* 437, 630, 294-D7 (1994)

Probing the Galactic Disk and Halo: Metal Abundances in the Magellanic Stream. *Limin Lu, Blair D. Savage, & Kenneth R. Sembach.* 437, L119, 299-D1 (1994)

The Motion of the Magellanic Clouds, Origin of the Magellanic Stream, and the Mass of the Milky Way. *D. N. C. Lin, B. F. Jones, & A. R. Klemola.* 439, 652, 33-D11 (1995)

Probing the Galactic Disk and Halo. II. Hot Interstellar Gas toward the Inner Galaxy Star HD 156359. *Kenneth R. Sembach, Blair D. Savage, & Limin Lu.* 439, 672, 33-F12 (1995)

Medium-Resolution Far-Ultraviolet Spectroscopy of PKS 2155−304. *I. Appenzeller, H. Mandel, J. Krautter, S. Bowyer, M. Hurwitz, M. Grewing, G. Krämer, & N. Kappelmann.* 439, L33, 40-B9 (1995)

Interpretation of Gravitational Microlensing by Binary Systems. *S. Mao & R. Di Stefano.* 440, 22, 41-D14 (1995)

Dynamical and Observable Constraints on RAMBOs: Robust Associations of Massive Baryonic Objects. *Ben Moore & Joseph Silk.* 442, L5, 84-D10 (1995)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. X. Galactic H I 21 Centimeter Emission toward 143 Quasars and Active Galactic Nuclei. *Felix J. Lockman & Blair D. Savage.* 97, 1, 11-B1 (1995)

Interstellar Titanium in the Galactic Halo. *Keith Lipman & Max Pettini.* 442, 628, 88-E8 (1995)

An Extended Galactic Population of Low-Luminosity X-Ray Sources (CVs?) and the Diffuse X-Ray Background. *Eyal Maoz & Jonathan E. Grindlay.* 444, 183, 115-G11 (1995)

Signatures of White Dwarf Galaxy Halos. *Stéphane Charlot & Joseph Silk.* 445, 124, 134-A12 (1995)

Composition of Interstellar Clouds in the Disk and Halo. III. HD 149881. *Lyman Spitzer, Jr., & Edward L. Fitzpatrick.* 445, 196, 135-C3 (1995)

An Axisymmetric Distribution Function for the Galactic Bulge. *Konrad Kuijken.* 446, 194, 155-G8 (1995)

Beryllium and Boron Abundances of Metal-deficient Halo Stars and Accretion of Interstellar Matter. *Y. Yoshii, G. J. Mathews, & T. Kajino.* 447, 184, 174-F8 (1995)

A Sensitive Search for Galactic High-Velocity H I Clouds. *Edward M. Murphy, Felix J. Lockman, & Blair D. Savage.* 447, 642, 185-A4 (1995)

The Distribution of Metal-absorbing High-Velocity Clouds in the Galaxy. *David V. Bowen, J. Chris Blades, & Max Pettini.* 448, 662, 203-G10 (1995)

Probing the Galactic Disk and Halo. III. The Galactic and Intergalactic Sight Line to H1821+643. *Blair D. Savage, Kenneth R. Sembach, & Limin Lu.* 449, 145, 212-B11 (1995)

The Local Halo Density. *Evalyn I. Gates, Geza Gyuk, & Michael S. Turner.* 449, L123, 227-B1 (1995)

Coronal Gas in the Galactic Halo: ORFEUS Observations of NGC 346 No. 1 and PKS 2155−304. *M. Hurwitz, S. Bowyer, R.-P. Kudritzki, & D. J. Lennon.* 450, 149, 230-B2 (1995)

Discovery of Highly Ionized High-Velocity Clouds toward Markarian 509. *Kenneth R. Sembach, Blair D. Savage, Limin Lu, & Edward M. Murphy.* 451, 616, 255-F12 (1995)

The First Generation of Stars: First Steps toward Chemical Evolution of Galaxies. *Jean Audouze & Joseph Silk.* 451, L49, 260-E12 (1995)

Diffuse X-Ray Emission from M101. *S. L. Snowden & W. Pietsch.* 452, 627, 273-C12 (1995)

The Multiphase Structure of the Galactic Halo: High-Velocity Clouds in a Hot Corona. *Mark G. Wolfire, Christopher F. McKee, David Hollenbach, & A. G. G. M. Tielens.* 453, 673, 293-B3 (1995)

Galactic Gamma-Ray Burst Models: Constraints on the Intrinsic Luminosity Function. *Jon Hakkila, Charles A. Meegan, Geoffrey N. Pendleton, John M. Horack, Michael S. Briggs, William S. Paciesas, & A. Gordon Emslie.* 454, 134, 301-B3 (1995)

Production of Milky Way Structure by the Magellanic Clouds. *Martin D. Weinberg.* 455, L31, 324-F9 (1995)

GALAXY: KINEMATICS AND DYNAMICS

Ambiguities in the Identification of Giant Molecular Cloud Complexes from Longitude-Velocity Diagrams. *David S. Adler & William W. Roberts, Jr.* 384, 95, 2-B12 (1992)

Galactic Structure from the Spacelab Infrared Telescope. III. A Dynamical Model for the Milky Way Bulge. *S. M. Kent.* 387, 181, 39-B12 (1992)

Would a Galactic Bar Destroy the Globular Cluster System? *Kevin Long, Jeremiah P. Ostriker, & Luis Aguilar.* 388, 362, 54-G8 (1992)

Distance and Kinematics of the W49N H_2O Maser Outflow. *C. R. Gwinn, J. M. Moran, & M. J. Reid.* 393, 149, 116-A1 (1992)

Rotation of the Galactic Bulge. *Dante Minniti, Simon D. M. White, Edward W. Olszewski, & John M. Hill.* 393, L47, 127-B5 (1992)

Observations of the Gaseous Galactic Halo toward 3C 273 with the Goddard High Resolution Spectrograph. *Blair D. Savage, Limin Lu, Ray J. Weymann, Simon L. Morris, & Ronald L. Gilliland.* 404, 124, 29-E5 (1993)

The Detection of an Extended Moving Group near the Galactic Disk. *Patrick Côté, Douglas L. Welch, Philippe Fischer, & M. J. Irwin.* 406, L59, 68-C11 (1993)

A Supershell Model for the High- and Intermediate-Velocity Neutral Hydrogen Clouds. *Gerrit L. Verschuur.* 409, 205, 99-D13 (1993)

The Proto-Galaxy, Globular Clusters, and Quasars. *Sidney van den Bergh.* 411, 178, 129-C13 (1993)

Forbidden Velocity Gas Detected in Ultraviolet Interstellar Absorption toward Four Distant Inner Galaxy Stars. *Todd M. Tripp, Kenneth R. Sembach, & Blair D. Savage.* 415, 652, 196-A1 (1993)

Whither the LSR: Anticenter Carbon Star Velocities. *Mark R. Metzger & Paul L. Schechter.* 420, 177, 3-B8 (1994)

Kinematic Signature of a Rotating Bar near a Resonance. *Martin D. Weinberg.* 420, 597, 10-B4 (1994)

On the Ellipticity of the Galactic Disk. *Konrad Kuijken & Scott Tremaine.* 421, 178, 18-C1 (1994)

The Origin and Evolution of Short-Period Miras in the Solar Neighborhood: Constraints on the Life Cycle of Old Stars. *M. Jura.* 422, 102, 31-C12 (1994)

Radial Velocities of M Giants at 300 Parsec Projected Radius from the Galactic Center. *R. D. Blum, J. S. Carr, D. L. DePoy, K. Sellgren, & D. M. Terndrup.* 422, 111, 31-D9 (1994)

Green's Formula and Variational Principles for Cosmic-Ray Transport with Application to Rotating and Shearing Flows. *G. M. Webb, J. R. Jokipii, & G. E. Morfill.* 424, 158, 64-A1 (1994)

Absolute Proper Motions to $B \sim 22.5$: Evidence for Kinematical Substructure in Halo Field Stars. *Steven R. Majewski, Jeffrey A. Munn, & Suzanne L. Hawley.* 427, L37, 117-E12 (1994)

Population Studies. XII. The Duality of the Galactic Halo. *John E. Norris.* 431, 645, 186-E12 (1994)

The Vertical Equilibrium of Molecular Gas in the Galactic Disk. *Sangeeta Malhotra.* 433, 687, 219-E10 (1994)

Galactic Magnetism and the Rotation Curves of M31 and the Milky Way. *J. P. Vallée.* 437, 179, 285-F1 (1994)

Dynamical and Observable Constraints on RAMBOs: Robust Associations of Massive Baryonic Objects. *Ben Moore & Joseph Silk.* 442, L5, 84-D10 (1995)

Figure Rotation and the Mass of the Galactic Bulge. *R. D. Blum.* 444, L89, 130-F6 (1995)

An Axisymmetric Distribution Function for the Galactic Bulge. *Konrad Kuijken.* 446, 194, 155-G8 (1995)

The Galactic Distribution of Low-Mass X-Ray Binaries. *J. van Paradijs & N. White.* 447, L33, 181-A3 (1995)

The Vertical Distribution and Kinematics of H I and Mass Models of the Galactic Disk. *Sangeeta Malhotra.* 448, 138, 194-A11 (1995)

M Giant Kinematics in Off-Axis Fields between 150 and 300 Parsecs from the Galactic Center. *R. D. Blum, J. S. Carr, K. Sellgren, & D. M. Terndrup.* 449, 623, 221-C11 (1995)

GALAXY: OPEN CLUSTERS AND ASSOCIATIONS: GENERAL

A Study of the Stellar Population in the Chamaeleon Dark Clouds. *Lisa S. Gauvin & Karen M. Strom.* 385, 217, 14-F1 (1992)

Chemical Composition of Open Clusters. III. Iron and Carbon in F Dwarfs in Coma, Praesepe, and M67. *Eileen D. Friel & Ann Merchant Boesgaard.* 387, 170, 39-A13 (1992)

Setting the Clock of Stellar Models. *G. Bertelli, A. Bressan, & C. Chiosi.* 392, 522, 108-F13 (1992)

Lithium Dilution through Main-Sequence Mass Loss. *Fritz J. Swenson & John Faulkner.* 395, 654, 151-D3 (1992)

First Results from *ROSAT* All-Sky Survey Observations of the Hyades Cluster. *Robert A. Stern, Jürgen H. M. M. Schmitt, Cristina Rosso, John P. Pye, Simon T. Hodgkin, and John R. Stauffer.* 399, L159, 208-D9 (1992)

Embedded Star Clusters Associated with Luminous *IRAS* Point Sources. *John M. Carpenter, Ronald L. Snell, F. Peter Schloerb, & M. F. Skrutskie.* 407, 657, 78-F11 (1993)

Far-Ultraviolet Stellar Photometry: A Field in Monoceros. *Edward G. Schmidt & George R. Carruthers.* 408, 484, 91-C1 (1993)

The Evolution of Angular Momentum among Zero-Age Main-Sequence Solar-Type Stars. *David R. Soderblom, John R. Stauffer, Keith B. MacGregor, & Burton F. Jones.* 409, 624, 106-F13 (1993)

Theoretical Models for Massive Stars in Young Magellanic Cloud Stellar Clusters. *Enzo Brocato & Vittorio Castellani.* 410, 99, 113-D1 (1993)

Nonlocal and Collective Relaxation in Stellar Systems. *Martin D. Weinberg.* 410, 543, 120-D8 (1993)

Young Open Clusters as Probes of the Star Formation Process. I. An Atlas of Open Cluster Photometry. *Randy L. Phelps & Kenneth A. Janes.* 90, 31, 1-D6 (1994)

Open Cluster Chemical Composition. I. Later Type Stars in Eight Clusters. *R. Earle Luck.* 91, 309, 22-F4 (1994)

The Formation of Stellar Groups and Clusters in Molecular Cloud Cores. *Kanan Patel & Ralph E. Pudritz.* 424, 688, 73-D7 (1994)

The Initial Mass Function for Massive Stars in the Magellanic Clouds. I. *UBV* Photometry and Color-Magnitude Diagrams for 14 OB Associations. *Robert J. Hill, Barry F. Madore, & Wendy L. Freedman.* 91, 583, 27-C8 (1994)

Be Stars in Young Clusters. *Shaukat N. Goderya & Edward G. Schmidt.* 426, 159, 98-B3 (1994)

Star Cluster Evolution with Primordial Binaries. III. Effect of the Galactic Tidal Field. *Steve McMillan & Piet Hut.* 427, 793, 122-E3 (1994)

The Initial Mass Function for Massive Stars in the Magellanic Clouds. II. Interstellar Reddening toward 14 OB Associations. *Robert J. Hill, Barry F. Madore, & Wendy L. Freedman.* 429, 192, 146-D12 (1994)

The Initial Mass Function for Massive Stars in the Magellanic Clouds. III. Luminosity and Mass Functions for 14 OB Associations. *Robert J. Hill, Barry F. Madore, & Wendy L. Freedman.* 429, 204, 146-E12 (1994)

Photoionization of the Diffuse Interstellar Medium and Galactic Halo by OB Associations. *James B. Dove & J. Michael Shull.* 430, 222, 161-G7 (1994)

A K' Imaging Survey of Molecular Outflow Sources. *Klaus-Werner Hodapp.* 94, 615, 60-D12 (1994)

Massive Stars in the Field and Associations of the Magellanic Clouds: The Upper Mass Limit, the Initial Mass Function, and a Critical Test of Main-Sequence Stellar Evolutionary Theory. *Philip Massey, Cornelia C. Lang, Kathleen DeGioia-Eastwood, & Catharine D. Garmany.* 438, 188, 4-A2 (1995)

A Lunar Occultation and Direct Imaging Survey of Multiplicity in the Ophiuchus and Taurus Star-forming Regions. *M. Simon, A. M. Ghez, Ch. Leinert, L. Cassar, W. P. Chen, R. R. Howell, R. F. Jameson, K. Matthews, G. Neugebauer, & A. Richichi.* 443, 625, 106-E1 (1995)

Noncoeval Star Formation, Starbursts, and the Growth of Supershells in OB Associations. *J. Michael Shull & Jon M. Saken.* 444, 663, 125-D9 (1995)

The Location of Stellar Clusters in the Big Dent: An Age Gradient along the Z-Axis. *Jesús Cabrera-Caño, Edmundo Moreno, José Franco, & Emilio J. Alfaro.* 448, 149, 194-B11 (1995)

On Coagulation and the Stellar Mass Spectrum. *Eric J. Allen & Pierre Bastien.* 452, 652, 273-F5 (1995)

The Initial Mass Function and Massive Star Evolution in the OB Associations of the Northern Milky Way. *Philip Massey, Kelsey E. Johnson, & Kathleen DeGioia-Eastwood.* 454, 151, 301-C12 (1995)

A Revised and Extended Catalog of Magellanic System Clusters, Associations, and Emission Nebulae. I. Small Magellanic Cloud and Bridge. *Eduardo L. D. Bica & Henrique R. Schmitt.* 101, 41, 53-E4 (1995)

GALAXY: OPEN CLUSTERS AND ASSOCIATIONS: INDIVIDUAL

Messier Number: M67

Stellar Photometry Including Saturated Images: Results on M67 with WFPC2. *Ronald L. Gilliland.* 435, L63, 252-E9 (1994)

The Lithium Dip in M67: Comparison with the Hyades, Praesepe, and NGC 752 Clusters. *Suchitra Balachandran.* 446, 203, 156-A6 (1995)

NGC Number: NGC 330

On the Mass Discrepancy of the Cepheid Stars. *C. Chiosi, P. R. Wood, G. Bertelli, A. Bressan, & M. Mateo.* 385, 205, 14-E1 (1992)

Stellar Evolution in Blue Populous Clusters of the Small Magellanic Cloud and the Problems of Envelope Semiconvection and Convective Core Overshooting. *Richard B. Stothers & Chao-wen Chin.* 390, 136, 75-F6 (1992)

NGC Number: NGC 457

A Determination of the Basic Atmospheric Parameters of ϕ Cassiopeiae. *Patricia Rosenzweig & Lawrence Anderson.* 411, 207, 129-F13 (1993)

NGC Number: NGC 458

Stellar Evolution in Blue Populous Clusters of the Small Magellanic Cloud and the Problems of Envelope Semiconvection and Convective Core Overshooting. *Richard B. Stothers & Chao-wen Chin.* 390, 136, 75-F6 (1992)

NGC Number: NGC 1850

Variable Stars in Magellanic Cloud Clusters. II. NGC 1850. *K. M. Sebo & P. R. Wood.* 449, 164, 212-D8 (1995)

NGC Number: NGC 1866

The Distance to the Large Magellanic Cloud: Constraints from Cepheids in Large Magellanic Cloud Star Clusters. *Gianpaolo Bertelli, Alessandro Bressan, Cesare Chiosi, Mario Mateo, & Peter R. Wood.* 412, 160, 144-A13 (1993)

NGC Number: NGC 2031

The Distance to the Large Magellanic Cloud: Constraints from Cepheids in Large Magellanic Cloud Star Clusters. *Gianpaolo Bertelli, Alessandro Bressan, Cesare Chiosi, Mario Mateo, & Peter R. Wood.* 412, 160, 144-A13 (1993)

NGC Number: NGC 2071

The Structure and Nature of NGC 2071 IRS 1: High-Resolution Radio Continuum Maps. *Howard A. Smith & Sara C. Beck.* 420, 643, 10-F7 (1994)

NGC Number: NGC 2420

The Gap in the Color-Magnitude Diagram of NGC 2420: A Test of Convective Overshoot and Cluster Age. *Pierre Demarque, Ata Sarajedini, & X.-J. Guo.* 426, 165, 98-B12 (1994)

NGC Number: NGC 2264

Infrared Images of the Young Cluster NGC 2264. *Charles J. Lada, Erick T. Young, & Thomas P. Greene.* 408, 471, 91-A11 (1993)

NGC Number: NGC 2477

Chromospheric Activity in Galactic Open Clusters. *A. J. Beasley & L. E. Cram.* 417, 157, 219-D1 (1993)

NGC Number: NGC 3603

NGC 3603 and Its Wolf-Rayet Stars: Galactic Clone of R136 at the Core of 30 Doradus, but without the Massive Surrounding Cluster Halo. *Anthony F. J. Moffat, Laurent Drissen, & Michael M. Shara.* 436, 183, 263-F7 (1994)

NGC Number: NGC 7419

The Galactic Open Cluster NGC 7419 and Its Five Red Supergiants. *Alain Beauchamp, Anthony F. J. Moffat, & Laurent Drissen.* 93, 187, 44-D3 (1994)

Name: Carina OB2

A Study of Carina OB2 Association. I. Observational Data. *Beatriz García.* 87, 197, 29-F3 (1993)

A Study of Carina OB2 Association. II. Analysis and Discussion of the Data. *Beatriz García.* 436, 705, 275-B13 (1994)

Name: Coma

MAP-based Trigonometric Parallaxes of Open Clusters: Coma. *George Gatewood.* 445, 712, 145-A7 (1995)

Name: Cygnus OB1

An Infrared Supershell Surrounding the Cygnus OB1 Association. *Jon M. Saken, J. Michael Shull, Catharine D. Garmany, Joy Nichols-Bohlin, & Robert A. Fesen.* 397, 537, 177-E10 (1992)

The Formation of Stellar Systems by Gravitational Instability in the Cygnus Superbubble. *F. Comerón & J. Torra.* 423, 652, 56-F1 (1994)

Name: Cygnus OB2

Interstellar Scattering toward Cygnus X-3: Measurements of Anisotrophy and of the Inner Scale. *L. A. Molnar, R. L. Mutel, M. J. Reid, & K. J. Johnston.* 438, 708, 14-A2 (1995)

Name: Cygnus OB9

The Formation of Stellar Systems by Gravitational Instability in the Cygnus Superbubble. *F. Comerón & J. Torra.* 423, 652, 56-F1 (1994)

Name: 30 Doradus

Initial Mass Functions from Ultraviolet Stellar Photometry: A Comparison of Lucke and Hodge OB Associations near 30 Doradus with the Nearby Field. *Jesse K. Hill, Joan E. Isensee, Robert H. Cornett, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 425, 122, 81-F5 (1994)

The Stellar Content of 30 Doradus Derived from Spatially Integrated Ultraviolet Spectra: A Test of Spectral Synthesis Models. *William D. Vacca, Carmelle Robert, Claus Leitherer, & Peter S. Conti.* 444, 647, 125-C3 (1995)

Identification of Emission-Line Stars in 30 Doradus Using *HST* Observations. *Joel Wm. Parker, Sara R. Heap, & Eliot M. Malumuth.* 448, 705, 204-D11 (1995)

Name: Hyades

MAP-based Trigonometric Parallaxes of Open Clusters. II. The Hyades: 51 Tauri. *George Gatewood, Michael Castelaz, Joost Kiewiet de Jonge, Timothy Persinger, John Stein, & Bruce Stephenson.* 392, 710, 111-A12 (1992)

The Hyades Cluster-Supercluster Connection: Evidence for a Local Concentration of Dark Matter. *Stefano Casertano, Icko Iben, Jr., & Aaron Shiels.* 410, 90, 113-C5 (1993)

Oxygen Abundances in F-Type Stars of the Hyades and the Ursa Major Group. *Ramón J. García López, Rafael Rebolo, Artemio Herrero, & John E. Beckman.* 412, 173, 144-C1 (1993)

Lithium in the Hyades. I. New Observations. *J. A. Thorburn, L. M. Hobbs, Constantine P. Deliyannis, & M. H. Pinsonneault.* 415, 150, 186-G12 (1993)

ROSAT X-Ray Detection of ϵ Taurus: Revisiting the Coronal and Transition Region Emission of the Hyades Giants. *A. Collura, A. Maggio, G. Micela, S. Sciortino, F. R. Harnden, Jr., & R. Rosner.* 416, 204, 203-E8 (1993)

Chromospheric Activity in Galactic Open Clusters. *A. J. Beasley & L. E. Cram.* 417, 157, 219-D1 (1993)

The Classical Hyades Lithium Problem Resolved? *Fritz J. Swenson, John Faulkner, Carlos A. Iglesias, Forrest J. Rogers, & David R. Alexander.* 422, L79, 45-B6 (1994)

The Hyades Lithium Problem Revisited. *Fritz J. Swenson, John Faulkner, Forrest J. Rogers, & Carlos A. Iglesias.* 425, 286, 83-G3 (1994)

Coronal X-Ray Sources in the Hyades: A 40 Kilosecond *ROSAT* Pointing. *Robert A. Stern, Jürgen H. M. M. Schmitt, John P. Pye, Simon T. Hodgkin, John R. Stauffer, & Theodore Simon.* 427, 808, 122-F6 (1994)

ROSAT All-Sky Survey Observations of the Hyades Cluster. *Robert A. Stern, Jürgen H. M. M. Schmitt, & Peter T. Kahabka.* 448, 683, 204-B12 (1995)

A 12 Year Photometric Study of Lower Main-Sequence Hyades Stars. *Richard R. Radick, G. W. Lockwood, B. A. Skiff, & D. T. Thompson.* 452, 332, 266-F6 (1995)

Name: Lindsay 11

The Age of the Small Magellanic Cloud Cluster Lindsay 11. *J. R. Mould, J. B. Jensen, & G. S. Da Costa.* 82, 489, 55-E11 (1992)

Name: Magellanic Clouds

Resolution of Massive Compact Clusters in the 30 Doradus Periphery with the *Hubble Space Telescope*. *Nolan R. Walborn, John W. MacKenty, Abhijit Saha, Richard L. White, & Joel Wm. Parker.* 439, L47, 40-D5 (1995)

Name: ρ Ophiuchi

Near-Infrared Observations of Young Stellar Objects in the ρ Ophiuchi Dark Cloud. *Thomas P. Greene & Erick T. Young.* 395, 516, 149-B5 (1992)

The Stellar Population in the ρ Ophiuchi Cluster. *F. Comeron, G. H. Rieke, A. Burrows, & M. J. Rieke.* 416, 185, 203-D1 (1993)

Further Mid-Infrared Study of the ρ Ophiuchi Cloud Young Stellar Population: Luminosities and Masses of Pre–Main-Sequence Stars. *Thomas P. Greene, Bruce A. Wilking, Philippe André, Erick T. Young, & Charles J. Lada.* 434, 614, 236-C6 (1994)

An Infrared Spectroscopic Survey of the ρ Ophiuchi Young Stellar Cluster: Masses and Ages from the H-R Diagram. *Thomas P. Greene & Michael R. Meyer.* 450, 233, 231-C3 (1995)

The Low-Mass IMF in the ρ Ophiuchi Cluster. *D. M. Williams, F. Comerón, G. H. Rieke, & M. J. Rieke.* 454, 144, 301-C2 (1995)

Name: Orion

Rotation Periods of T Tauri Stars in the Orion Nebula Cluster: A Bimodal Frequency Distribution. *Joanne M. Attridge & William Herbst.* 398, L61, 188-B1 (1992)

Chemical Evolution of the Orion Association. I. The Oxygen Abundance of Main-Sequence B Stars. *Katia Cunha & David L. Lambert.* 399, 586, 205-B7 (1992)

Rotation of Young Solar-Type Stars in the Orion Nebula Region. *Douglas K. Duncan.* 406, 172, 57-C1 (1993)

Far-Ultraviolet Stellar Photometry: A Field in Orion. *Edward G. Schmidt & George R. Carruthers.* 89, 259, 53-B2 (1993)

Name: Orion I

Chemical Evolution of the Orion Association. II. The Carbon, Nitrogen, Oxygen, Silicon, and Iron Abundances of Main-Sequence B Stars. *Katia Cunha & David L. Lambert.* 426, 170, 98-C5 (1994)

Name: Orion OB1

Chemical Evolution of the Orion Association. III. The Lithium Abundance of F and G Stars. *Katia Cunha, Verne V. Smith, & David L. Lambert.* 452, 634, 273-D11 (1995)

Name: α Persei

Spectroscopic Binaries in the α Persei Cluster. *Nidia Morrell & Helmut A. Abt.* 393, 666, 124-B1 (1992)

A Search for OB Associations near Southern Long-Period Cepheids. IV. XY Carinae, GT Carinae, WZ Sagittarii, and SW Velorum. *David G. Turner, Sidney van den Bergh, P. Frank Younger, T. A. Danks, & Douglas Forbes.* 85, 119, 7-E5 (1993)

Name: Pleiades

A Near-Infrared Search for Brown Dwarfs in the Pleiades. *D. A. Simons & E. E. Becklin.* 390, 431, 80-F10 (1992)

Rotation and Chromospheric Emission among F, G, and K Dwarfs of the Pleiades. *David R. Soderblom, John R. Stauffer, J. Dan Hudon, & Burton F. Jones.* 85, 315, 11-D13 (1993)

Interstellar Matter near the Pleiades. IV. The Wake of the Pleiades through the Interstellar Medium in Taurus. *Richard E. White & John Bally.* 409, 234, 99-G13 (1993)

A Deep Imaging Survey of the Pleiades with *ROSAT*. *J. R. Stauffer, J.-P. Caillault, M. Gagné, C. F. Prosser, & L. W. Hartmann.* 91, 625, 28-A6 (1994)

A Search for Lithium in Pleiades Brown Dwarf Candidates Using the Keck Hires Echelle. *Geoffrey W. Marcy, Gibor Basri, & James R. Graham.* 428, L57, 142-E7 (1994)

Spectral and Temporal Characteristics of X-Ray–bright Stars in the Pleiades. *Marc Gagné, Jean-Pierre Caillault, & John R. Stauffer.* 450, 217, 231-A11 (1995)

Radio Detection of Late-Type (G–K) Dwarf Stars in the Pleiades. *Jeremy Lim & Stephen M. White.* 453, 207, 284-A5 (1995)

Name: Sco-Cen Association

A Homogeneous Catalog of New *UBV* and Hβ Photometry of B- and A-Type Stars in and around the Scorpius-Centaurus OB Association. *Robert W. Slawson, Robert J. Hill, & John D. Landstreet.* 82, 117, 50-E9 (1992)

Name: Scorpius OB2

The Far-Ultraviolet Dust Albedo in the Upper Scorpius Subgroup of the Scorpius OB2 Association. *Karl D. Gordon, Adolf N. Witt, George R. Carruthers, Susan A. Christensen, & Brian C. Dohne.* 432, 641, 204-A3 (1994)

Name: Trapezium

HST Photometry of the Trapezium Cluster. *Charles F. Prosser, John R. Stauffer, Lee Hartmann, David R. Soderblom, Burton F. Jones, Michael W. Werner, & Mark J. McCaughrean.* 421, 517, 24-E9 (1994)

Name: Ursa Major Group

Rotation and Activity among Solar-Type Stars of the Ursa Major Group. *David R. Soderblom & Michel Mayor.* 402, L5, 6-B9 (1993)

Oxygen Abundances in F-Type Stars of the Hyades and the Ursa Major Group. *Ramón J. García López, Rafael Rebolo, Artemio Herrero, & John E. Beckman.* 412, 173, 144-C1 (1993)

Alphanumeric: IC 348

Interstellar Gas and Dust in the Young Cluster IC 348. *Theodore P. Snow, Margaret Murray Hanson, C. Gregory Seab, & Jon M. Saken.* 420, 632, 10-E6 (1994)

Alphanumeric: IC 2391

The Evolution of Stellar Coronae: Initial Results from a *ROSAT* PSPC Observation of IC 2391. *Brian M. Patten & Theodore Simon.* 415, L123, 200-D1 (1993)

Alphanumeric: IC 4756

Chromospheric Activity in Galactic Open Clusters. *A. J. Beasley & L. E. Cram.* 417, 157, 219-D1 (1993)

Alphanumeric: L1641

Star Formation in the L1641 North Cluster. *Klaus-Werner Hodapp & James Deane.* 88, 119, 42-A1 (1993)

Alphanumeric: LH 52

UIT and Optical Imagery of Large Magellanic Cloud Associations LH 52 and LH 53: Ages and Initial Mass Function Slopes. *Robert S. Hill, K.-P. Cheng, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 446, 622, 164-F10 (1995)

Alphanumeric: LH 53

UIT and Optical Imagery of Large Magellanic Cloud Associations LH 52 and LH 53: Ages and Initial Mass Function Slopes. *Robert S. Hill, K.-P. Cheng, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 446, 622, 164-F10 (1995)

Alphanumeric: N11

Two-Stage Starbursts in the Large Magellanic Cloud: N11 as a Once and Future 30 Doradus. *Nolan R. Walborn & Joel Wm. Parker.* 399, L87, 201-C5 (1992)

Alphanumeric: R136

The Population of Massive Stars in R136 from Faint Object Camera Ultraviolet Observations. *Guido De Marchi, Antonella Nota, Claus Leitherer, Roberto Ragazzoni, & Cesare Barbieri.* 419, 658, 255-G10 (1993)

The Intermediate Stellar Mass Population in R136 Determined from *Hubble Space Telescope* Planetary Camera 2 Images. *Deidre A. Hunter, Edward J. Shaya, Jon A. Holtzman, Robert M. Light, Earl J. O'Neil, Jr., & Roger Lynds.* 448, 179, 194-E7 (1995)

GALAXY: SOLAR NEIGHBORHOOD

Rotation and Activity among Solar-Type Stars of the Ursa Major Group. *David R. Soderblom & Michel Mayor.* 402, L5, 6-B9 (1993)

Extreme Ultraviolet Observations of HZ 43 and the Local H/He Ratio with the Hopkins Ultraviolet Telescope. *Randy A. Kimble, Arthur F. Davidsen, Knox S. Long, & Paul D. Feldman.* 408, L41, 89-C1 (1993)

On the Ellipticity of the Galactic Disk. *Konrad Kuijken & Scott Tremaine.* 421, 178, 18-C1 (1994)

GALAXY: STELLAR CONTENT

Local Distribution of Old Neutron Stars. *Zsolt Frei, Xiaolan Huang, & Bohdan Paczyński.* 384, 105, 2-C10 (1992)

Constraints on Baryonic Dark Matter in the Galactic Halo and Local Group. *D. Richstone, A. Gould, P. Guhathakurta, & C. Flynn.* 388, 354, 54-F12 (1992)

On the Galactic Disk and Halo Models of Gamma-Ray Bursts. *Shude Mao & Bohdan Paczyński.* 389, L13, 66-C1 (1992)

Supernova Rates and the Reddening of Wolf-Rayet Stars. *Sidney van den Bergh.* 390, 133, 75-F1 (1992)

Galactic Gamma-Ray Emission from Radio Pulsars. *M. Bailes & D. A. Kniffen.* 391, 659, 96-C1 (1992)

Modeling the Stellar Contribution to the Galactic Component of the Diffuse Soft X-Ray Background. I. Background Fluxes and Number Counts. *V. Kashyap, R. Rosner, G. Micela, S. Sciortino, G. S. Vaiana, & F. R. Harnden, Jr.* 391, 667, 96-C12 (1992)

A Deep Image of the Diffuse Soft X-Ray Background at the Galactic Plane. *Qingde Wang.* 392, 509, 108-E11 (1992)

The Origin of Distant B-Type Stars in the Galactic Halo. *E. S. Conlon, P. L. Dufton, F. P. Keenan, R. J. H. McCausland, & D. Holmgren.* 400, 273, 212-C13 (1992)

The Edge of the Galactic Disk. *Annie C. Robin, Michel Crézé, & Vijay Mohan.* 400, L25, 214-D1 (1992)

Bright Near-Infrared Sources within 1deg of the Galactic Center. I. Survey and 1–20 Micron Photometry. *Tetsuya Nagata, A. R. Hyland, S. M. Straw, Shuji Sato, & Kimiaki Kawara.* 406, 501, 64-A10 (1993)

Field Color-Magnitude Diagram Analysis along the Bulge Major Axis. *S. Ortolani, E. Bica, & B. Barbuy.* 408, L29, 89-A8 (1993)

Old Stellar Populations. IV. Empirical Fitting Functions for Features in the Spectra of G and K Stars. *Javier Gorgas, S. M. Faber, David Burstein, J. Jesús Gonzalez, Stéphane Courteau, & Charles Prosser.* 86, 153, 15-F13 (1993)

The Proto-Galaxy, Globular Clusters, and Quasars. *Sidney van den Bergh.* 411, 178, 129-C13 (1993)

Stellar Birthrate in the Galaxy: Constraints from X-Ray Flux-limited Surveys. *G. Micela, S. Sciortino, & F. Favata.* 412, 618, 151-D10 (1993)

Long-Period Oxygen-rich Optical Miras in the Solar Neighborhood. *M. Jura, A. Yamamoto, & S. G. Kleinmann.* 413, 298, 160-A2 (1993)

A Search for Pulsars at High Galactic Latitudes. *S. E Thorsett, W. T. S. Deich, S. R. Kulkarni, J. Navarro, & G. Vasisht.* 416, 182, 203-C10 (1993)

Galactic Chemical Evolution with Nearly Constant Star-Formation Rates. *Sarbani Basu & N. C. Rana.* 417, 145, 219-C1 (1993)

Evolution of Spiral Galaxies. II. The Star Formation History in the Solar Neighborhood. *Maria Chiara Pardi & Federico Ferrini.* 421, 491, 24-C7 (1994)

The Origin and Evolution of Short-Period Miras in the Solar Neighborhood: Constraints on the Life Cycle of Old Stars. *M. Jura.* 422, 102, 31-C12 (1994)

A Scenario for a Large Number of Low-Mass Black Holes in the Galaxy. *G. E. Brown & H. A. Bethe.* 423, 659, 56-F11 (1994)

Chemical Evolution of the Solar Neighborhood with Yields Dependent on Metallicity. *Leticia Carigi.* 424, 181, 64-B12 (1994)

COBE Diffuse Infrared Background Experiment Observations of Galactic Reddening and Stellar Populations. *R. G. Arendt, G. B. Berriman, N. Boggess, E. Dwek, M. G. Hauser, T. Kelsall, S. H. Moseley, T. L. Murdock, N. Odegard, R. F. Silverberg, T. J. Sodroski, & J. L. Weiland.* 425, L85, 94-E1 (1994)

Gravitational Instability and Disk Star Formation. *Boqi Wang & Joseph Silk.* 427, 759, 122-B4 (1994)

Observation of the 1.8 MeV Emission Line from ^{26}Al and the Chemical Evolution of the Galaxy. *Georges Meynet.* 92, 441, 37-F2 (1994)

Gravitational Microlensing of the Galactic Bulge Stars. *Marcin Kiraga & Bohdan Paczyński.* 430, L101, 174-E11 (1994)

Population Studies. XII. The Duality of the Galactic Halo. *John E. Norris.* 431, 645, 186-E12 (1994)

MACHOs and the Diffuse X-Ray Background. *V. Kashyap, R. Rosner, D. Schramm, & J. Truran.* 431, L87, 191-E2 (1994)

Microlensing Maps for the Galactic Bulge. *N. W. Evans.* 437, L31, 291-E14 (1994)

Star Counts from the *HST* Snapshot Survey. II. Wide Binaries. *Andrew Gould, John N. Bahcall, Dan Maoz, & Brian Yanny.* 441, 200, 62-B4 (1995)

On Population III Stars as Gravitational Microlensing Objects in the Galactic Halo. *Masayuki Y. Fujimoto, Kiyoshi Sugiyama, Icko Iben, Jr., & David Hollowell.* 444, 175, 115-F13 (1995)

Evolution of Spiral Galaxies. IV. The Thick Disk in the Solar Region as an Intermediate Collapse Phase. *Maria Chiara Pardi, Federico Ferrini, & Francesca Matteucci.* 444, 207, 116-C8 (1995)

Morphology, Near-Infrared Luminosity, and Mass of the Galactic Bulge from *COBE* DIRBE Observations. *E. Dwek, R. G. Arendt, M. G. Hauser, T. Kelsall, C. M. Lisse, S. H. Moseley, R. F. Silverberg, T. J. Sodroski, & J. L. Weiland.* 445, 716, 145-B1 (1995)

Are the OGLE/MACHO Microlenses in a Heavy Spheroid? *N. W. Evans.* 445, L105, 151-A1 (1995)

K-Band Microlensing of the Inner Galaxy. *Andrew Gould.* 446, L71, 170-F11 (1995)

Galactic Chemical Evolution: Hydrogen through Zinc. *F. X. Timmes, S. E. Woosley, & Thomas A. Weaver.* 98, 617, 32-A6 (1995)

Were There Significant Starburst Episodes near the Galactic Center? *Dieter H. Hartmann.* 447, 646, 185-A11 (1995)

A Model for the Galactic Population of Symbiotic Stars with White Dwarf Accretors. *L. Yungelson, M. Livio, A. Tutukov, & S. J. Kenyon.* 447, 656, 185-B10 (1995)

A Search for Fast Pulsars along the Galactic Plane. *D. J. Nice, A. S. Fruchter, & J. H. Taylor.* 449, 156, 212-C11 (1995)

A Study of Ultraviolet Objects near the North Galactic Pole with FAUST. *N. Brosch, E. Almoznino, E. M. Leibowitz, H. Netzer, T. P. Sasseen, S. Bowyer, M. Lampton, & X. Wu.* 450, 137, 230-A1 (1995)

First Observation of Parallax in a Gravitational Microlensing Event. *C. Alcock, R. A. Allsman, D. Alves, T. S. Axelrod, D. P. Bennett, K. H. Cook, K. C. Freeman, K. Griest, J. Guern, M. J. Lehner, S. L. Marshall, B. A. Peterson, M. R. Pratt, P. J. Quinn, A. W. Rodgers, C. W. Stubbs, & W. Sutherland (The MACHO Collaboration).* 454, L125, 316-C1 (1995)

Spectroscopic Identification of Probable Cataclysmic Variables in the Globular Cluster NGC 6397. *J. E. Grindlay, A. M. Cool, P. J. Callanan, C. D. Bailyn, H. N. Cohn, & P. M. Lugger.* 455, L47, 325-B1 (1995)

GALAXY: STRUCTURE

Detection of a Large-Scale Stellar Bar in the Milky Way. *Martin D. Weinberg.* 384, 81, 2-A10 (1992)

A Complete, Multicolor Survey of Absolute Proper Motions to $B \sim 22.5$: Galactic Structure and Kinematics at the North Galactic Pole. *Steven Raymond Majewski.* 78, 87, 2-F11 (1992)

Galactic Structure from the Spacelab Infrared Telescope. I. 2.4 Micron Map. *S. M. Kent, D. Mink, G. Fazio, D. Koch, G. Melnick, A. Tardiff, & C. Maxson.* 78, 403, 8-A9 (1992)

Would a Galactic Bar Destroy the Globular Cluster System? *Kevin Long, Jeremiah P. Ostriker, & Luis Aguilar.* 388, 362, 54-G8 (1992)

Galactic Disks, Infall, and the Global Value of Ω. *G. Tóth & J. P. Ostriker.* 389, 5, 60-B6 (1992)

Local Dark Matter from a Carefully Selected Sample. *John N. Bahcall, Chris Flynn, & Andrew Gould.* 389, 234, 62-G9 (1992)

Walls and Windows in the Molecular Milky Way. *William H. Waller & Lowell E. Tacconi-Garman.* 80, 305, 26-D3 (1992)

Constraints on the Galactic Bulge Using *IRAS* Variable Point Sources. *Martin D. Weinberg.* 392, L67, 113-C10 (1992)

An X-Ray Catalog and Atlas of Galaxies. *G. Fabbiano, D.-W. Kim, & G. Trinchieri.* 80, 531, 31-A11 (1992)

Rotation of the Galactic Bulge. *Dante Minniti, Simon D. M. White, Edward W. Olszewski, & John M. Hill.* 393, L47, 127-B5 (1992)

On the Angular Extent of the Galactic 1.8 MeV Line Emission from Radioactive ^{26}Al. *Martin Varendorff & Volker Schönfelder.* 395, 158, 142-B7 (1992)

Corrugations and Star Formation Activity: The Carina-Sagittarius Arm. *Emilio J. Alfaro, Jesús Cabrera-Caño, & Antonio J. Delgado.* 399, 576, 205-A9 (1992)

The Edge of the Galactic Disk. *Annie C. Robin, Michel Crézé, & Vijay Mohan.* 400, L25, 214-D1 (1992)

A Model of the 8–25 Micron Point Source Infrared Sky. *Richard J. Wainscoat, Martin Cohen, Kevin Volk, Helen J. Walker, & Deborah E. Schwartz.* 83, 111, 58-D11 (1992)

The Full Alpha-Tensor Due to Supernova Explosions and Superbubbles in the Galactic Disk. *Katia Ferrière.* 404, 162, 30-A7 (1993)

The 6.7 keV Iron Line Distribution in the Galaxy. *Shigeo Yamauchi & Katsuji Koyama.* 404, 620, 36-F5 (1993)

The Detection of an Extended Moving Group near the Galactic Disk. *Patrick Côté, Douglas L. Welch, Philippe Fischer, & M. J. Irwin.* 406, L59, 68-C11 (1993)

A Method for Obtaining the Age and Scale Height of the Thick Disk from Faint Strömgren Photometry. *Ted von Hippel & Gregory D. Bothun.* 407, 115, 70-E1 (1993)

Field Color-Magnitude Diagram Analysis along the Bulge Major Axis. *S. Ortolani, E. Bica, & B. Barbuy.* 408, L29, 89-A8 (1993)

Star Counts Redivivus. I. A New Look at the Galaxy at Faint Magnitudes. *Neill Reid & S. R. Majewski.* 409, 635, 106-G12 (1993)

Submillimeter Continuum Emission from the Galactic Center Region. *W. R. F. Dent, H. E. Matthews, R. Wade, & W. D. Duncan.* 410, 650, 121-F11 (1993)

IRAS Variables as Galactic Structure Tracers: Classification of the Bright Variables. *L. E. Allen, S. G. Kleinmann, & M. D. Weinberg.* 411, 188, 129-D11 (1993)

Pulsar Distances and the Galactic Distribution of Free Electrons. *J. H. Taylor & J. M. Cordes.* 411, 674, 138-B3 (1993)

An H II Region beyond the Optical Disk of the Galaxy. *E. J. de Geus, S. N. Vogel, S. W. Digel, & R. A. Gruendl.* 413, L97, 168-F7 (1993)

Star Counts from the *Hubble Space Telescope* Snapshot Survey. I. Galactic Models. *A. Gould, J. N. Bahcall, & D. Maoz.* 88, 53, 40-G5 (1993)

Diffuse Gamma-Ray Emission in the Galactic Plane from Cosmic-Ray, Matter, and Photon Interactions. *D. L. Bertsch, T. M. Dame, C. E. Fichtel, S. D. Hunter, P. Sreekumar, J. G. Stacy, & P. Thaddeus.* 416, 587, 210-F6 (1993)

A Search for *IRAS* Galaxies behind the Southern Milky Way. *Toru Yamada, Tadafumi Takata, Thomas Djamaluddin, Akihiko Tomita, Kentaro Aoki, Aki Takeda, & Mamoru Saitō.* 89, 57, 49-F5 (1993)

Interstellar Magnetic Bubbles. *J. P. Vallée.* 419, 670, 256-A12 (1993)

Kinematic Signature of a Rotating Bar near a Resonance. *Martin D. Weinberg.* 420, 597, 10-B4 (1994)

On the Ellipticity of the Galactic Disk. *Konrad Kuijken & Scott Tremaine.* 421, 178, 18-C1 (1994)

Molecular Clouds in the Extreme Outer Galaxy. *S. Digel, E. de Geus, & P. Thaddeus.* 422, 92, 31-B13 (1994)

An *Einstein* Survey of the 1 keV Soft X-Ray Background in the Galactic Plane. *John M. Stanford & Jean-Pierre Caillault.* 424, 671, 73-C1 (1994)

COBE Diffuse Background Experiment Observations of the Galactic Bulge. *J. L. Weiland, R. G. Arendt, G. B. Berriman, E. Dwek, H. T. Freudenreich, M. G. Hauser, T. Kelsall, C. M. Lisse, M. Mitra, S. H. Moseley, N. P. Odegard, R. F. Silverberg, T. J. Sodroski, W. J. Spiesman, & S. W. Stemwedel.* 425, L81, 94-D6 (1994)

Absolute Proper Motions to $B \sim 22.5$: Evidence for Kinematical Substructure in Halo Field Stars. *Steven R. Majewski, Jeffrey A. Munn, & Suzanne L. Hawley.* 427, L37, 117-E12 (1994)

COMPTEL Observations of the 1.809 MeV Gamma-Ray Line from Galactic ^{26}Al. *R. Diehl, C. Dupraz, K. Bennett, H. Bloemen, H. de Boer, W. Hermsen, G. G. Lichti, M. McConnell, D. Morris, J. Ryan, V. Schönfelder, H. Steinle, A. W. Strong, B. N. Swanenburg, M. Varendorff, & C. Winkler.* 92, 429, 37-E1 (1994)

DIRBE Evidence for a Warp in the Interstellar Dust Layer and Stellar Disk of the Galaxy. *H. T. Freudenreich, G. B. Berriman, E. Dwek, M. G. Hauser, T. Kelsall, S. H. Moseley, R. F. Silverberg, T. J. Sodroski, G. N. Toller, & J. L. Weiland.* 429, L69, 158-B3 (1994)

Color-Magnitude Diagram Distribution of the Bulge Red Clump Stars: Evidence for the Galactic Bar. *K. Z. Stanek, M. Mateo, A. Udalski, M. Szymański, J. Kałużny, & M. Kubiak.* 429, L73, 158-B9 (1994)

Gravitational Microlensing of the Galactic Bulge Stars. *Marcin Kiraga & Bohdan Paczyński.* 430, L101, 174-E11 (1994)

The Fornax-Leo-Sculptor Stream Revisited. *Steven R. Majewski.* 431, L17, 182-D13 (1994)

Population Studies. XII. The Duality of the Galactic Halo. *John E. Norris.* 431, 645, 186-E12 (1994)

A Comparison of CO ($J = 1 \rightarrow 0$) and CO ($J = 2 \rightarrow 1$) Emission in the Milky Way Molecular Ring. *Jean E. Chiar, Marc L. Kutner, Frances Verter, & James Leous.* 431, 658, 186-F13 (1994)

Filaments of Neutral Hydrogen toward the Galactic Anticenter. *Christopher M. Tamanaha.* 433, 648, 219-B3 (1994)

The Vertical Equilibrium of Molecular Gas in the Galactic Disk. *Sangeeta Malhotra.* 433, 687, 219-E10 (1994)

Are the OGLE Microlenses in the Galactic Bar? *B. Paczyński, K. Z. Stanek, A. Udalski, M. Szymański, J. Kałużny, M. Kubiak, M. Mateo, & W. Krzemiński.* 435, L113, 259-G3 (1994)

On the Determination of the Cosmic Infrared Background Radiation from the High-Energy Spectrum of Extragalactic Gamma-Ray Sources. *Eli Dwek & Jonathan Slavin.* 436, 696, 275-B1 (1994)

The Axial Ratio of the Galactic Stellar Halo. *Jeffrey A. Larsen & Roberta M. Humphreys.* 436, L149, 281-D13 (1994)

Detection of a Thick Molecular Disk in the Galaxy. *T. M. Dame & P. Thaddeus.* 436, L173, 282-A3 (1994)

High Altitude Molecular Clouds. *Sangeeta Malhotra.* 437, 194, 285-G8 (1994)

Microlensing Maps for the Galactic Bulge. *N. W. Evans.* 437, L31, 291-E14 (1994)

Gasdynamical Approach to a Face-on View of the Milky Way. *Keiichi Wada, Yoshiaki Taniguchi, Asao Habe, & Tetsuo Hasegawa.* 437, L123, 299-D8 (1994)

An Accurate Galactic N_H Map of the North Ecliptic Pole. *Martin Elvis, Felix J. Lockman, & C. Fassnacht.* 95, 413, 70-A6 (1994)

Microlensing by the Galactic Bar. *HongSheng Zhao, David N. Spergel, & R. Michael Rich.* 440, L13, 48-C8 (1995)

Understanding COMPTEL ^{26}Al 1.8 MeV Map Features. *Wan Chen, Neil Gehrels, & Roland Diehl.* 440, L57, 57-E4 (1995)

Magnitude Offset between Lensed Stars and Observed Stars: A New Probe of the Structure of the Galactic Bar. *K. Z. Stanek.* 441, L29, 66-G3 (1995)

Microlensing by Stars. *Marc Kamionkowski.* 442, L9, 84-E5 (1995)

Evolution of Spiral Galaxies. IV. The Thick Disk in the Solar Region as an Intermediate Collapse Phase. *Maria Chiara Pardi, Federico Ferrini, & Francesca Matteucci.* 444, 207, 116-C8 (1995)

Tests and Consequences of Disk Plus Halo Models of Gamma-Ray Burst Sources. *I. A. Smith.* 444, 686, 125-G1 (1995)

The Displacement of the Sun from the Galactic Plane Using *IRAS* and FAUST Source Counts. *Martin Cohen.* 444, 874, 128-E2 (1995)

Figure Rotation and the Mass of the Galactic Bulge. *R. D. Blum.* 444, L89, 130-F6 (1995)

Probable Gravitational Microlensing toward the Galactic Bulge. *C. Alcock, R. A. Allsman, T. S. Axelrod, D. P. Bennett, K. H. Cook, K. C. Freeman, K. Griest, S. L. Marshall, S. Perlmutter, B. A. Peterson, M. R. Pratt, P. J. Quinn, A. W. Rodgers, C. W. Stubbs, & W. Sutherland (The MACHO Collaboration).* 445, 133, 134-B10 (1995)

Morphology, Near-Infrared Luminosity, and Mass of the Galactic Bulge from *COBE* DIRBE Observations. *E. Dwek, R. G. Arendt, M. G. Hauser,*

T. Kelsall, C. M. Lisse, S. H. Moseley, R. F. Silverberg, T. J. Sodroski, & J. L. Weiland. 445, 716, 145-B1 (1995)

Are the OGLE/MACHO Microlenses in a Heavy Spheroid? *N. W. Evans.* 445, L105, 151-A1 (1995)

A Localized Excess of Diffuse Gamma Radiation. *A. Chen, J. Dwyer, & P. Kaaret.* 445, L109, 151-A9 (1995)

An Axisymmetric Distribution Function for the Galactic Bulge. *Konrad Kuijken.* 446, 194, 155-G8 (1995)

W Ursae Majoris–Type Systems Discovered in the Central Baade's Window in the OGLE Experiment. *Slavek M. Rucinski.* 446, L19, 160-D6 (1995)

Studies of Hot B Subdwarfs. X. The Distribution and Space Density of Hot, Hydrogen-rich Subdwarfs Determined from the Palomar-Green Survey. *B. Villeneuve, F. Wesemael, G. Fontaine, C. Carignan, & R. F. Green.* 446, 646, 165-A13 (1995)

A Sensitive Search for Galactic High-Velocity H I Clouds. *Edward M. Murphy, Felix J. Lockman, & Blair D. Savage.* 447, 642, 185-A4 (1995)

The Vertical Distribution and Kinematics of H I and Mass Models of the Galactic Disk. *Sangeeta Malhotra.* 448, 138, 194-A11 (1995)

The Location of Stellar Clusters in the Big Dent: An Age Gradient along the Z-Axis. *Jesús Cabrera-Caño, Edmundo Moreno, José Franco, & Emilio J. Alfaro.* 448, 149, 194-B11 (1995)

Theory of Exploring the Dark Halo with Microlensing. I. Power-Law Models. *C. Alcock, R. A. Allsman, T. S. Axelrod, D. P. Bennett, K. H. Cook, N. W. Evans, K. C. Freeman, K. Griest, J. Jijina, M. Lehner, S. L. Marshall, S. Perlmutter, B. A. Peterson, M. R. Pratt, P. J. Quinn, A. W. Rodgers, C. W. Stubbs, & W. Sutherland (The MACHO Collaboration).* 449, 28, 210-E10 (1995)

The Effect of the Stellar Size on Microlensing at the Baade Window. *Hans J. Witt.* 449, 42, 210-F13 (1995)

The Local Halo Density. *Evalyn I. Gates, Geza Gyuk, & Michael S. Turner.* 449, L123, 227-B1 (1995)

An Out-of-Plane CO ($J = 2$–1) Survey of the Milky Way. I. The Data. *Seiichi Sakamoto, Tetsuo Hasegawa, Masahiko Hayashi, Toshihiro Handa, & Tomoharu Oka.* 100, 125, 47-E1 (1995)

The Disruption of the Sagittarius Dwarf Galaxy. *Kathryn V. Johnston, David N. Spergel, & Lars Hernquist.* 451, 598, 255-D13 (1995)

The Milky Way's Spiral Arms Traced by Magnetic Fields, Dust, Gas, and Stars. *J. P. Vallée.* 454, 119, 300-G9 (1995)

Low-Frequency Carbon Recombination Lines in the Central Regions of the Galaxy. *W. C. Erickson, D. McConnell, & K. R. Anantharamaiah.* 454, 125, 301-A4 (1995)

Production of Milky Way Structure by the Magellanic Clouds. *Martin D. Weinberg.* 455, L31, 324-F9 (1995)

GAMMA RAYS: BURSTS

On the Nature of Soft Gamma Repeaters. *J. P. Norris, P. Hertz, K. S. Wood, & C. Kouveliotou.* 366, 240, 4-A8 (1991)

Flares on Mira Stars? *Bradley E. Schaefer.* 366, L39, 6-E1 (1991)

Bursts of Gamma Rays from Compton Scattering at Cosmological Distances. *Andrzej A. Zdziarski, Roland Svensson, & Bohdan Paczyński.* 366, 343, 7-B3 (1991)

Fuzzy Correlations of Gamma-Ray Bursts. *Dieter H. Hartmann, Eric V. Linder, & George R. Blumenthal.* 367, 186, 14-D1 (1991)

Structure of Thermal Pair Clouds around Gamma-Ray–emitting Black Holes. *Edison P. Liang.* 367, 470, 19-C1 (1991)

On the Transport and Acceleration of Solar Flare Particles in a Coronal Loop. *James M. Ryan & Martin A. Lee.* 368, 316, 26-A7 (1991)

HEAO 3 Upper Limits to Pulsed Gamma-Ray Emission from PSR 1509−58 and PSR 0833−45. *M. P. Ulmer, W. R. Purcell, W. A. Wheaton, & W. A. Mahoney.* 369, 485, 43-F12 (1991)

X-Ray Echoes from Gamma-Ray Bursts. *Charles D. Dermer, Kevin C. Hurley, & Dieter H. Hartmann.* 370, 341, 51-E1 (1991)

Synchrotron Radiation with Radiation Reaction. *Robert W. Nelson & Ira Wasserman.* 371, 265, 63-D7 (1991)

Magnetic Two-Photon Scattering and Two-Photon Emission: Cross Sections and Redistribution Functions. *S. G. Alexander & P. Mészáros.* 372, 554, 82-E11 (1991)

Cyclotron Harmonics in Accreting Pulsars and Gamma-Ray Bursters: Effect of Two-Photon Processes. *S. G. Alexander & P. Mészáros.* 372, 565, 82-F9 (1991)

Transverse Conductivity of a Relativistic Plasma in Oblique Electric and Magnetic Fields. *Fulvio Melia & Marco Fatuzzo.* 373, 198, 88-D8 (1991)

Relativistic Motion in Gamma-Ray Bursts. *Julian H. Krolik & Edward A. Pier.* 373, 277, 89-D8 (1991)

Coronal Proton Transport in the Presence of Alfvén Waves and Implications for Gamma-Ray Burst Models. *D. F. Smith & S. H. Brecht.* 373, 289, 89-E9 (1991)

Observations of Ultra–High-Energy Photons from Cygnus X-3. *Y. Muraki, S. Shibata, T. Aoki, K. Mitsui, A. Okada, Y. Ohashi, K. Kobayakawa, H. Kojima, T. Kitamura, Y. Kato, T. Takahashi, & I. Nakamura.* 373, 657, 96-B4 (1991)

A Slingshot Model for Solar Flares. *Gregory Benford.* 373, 671, 96-C9 (1991)

A Theory of Gamma-Ray Bursts Based on Resonant Compton Scattering. *Peter Vitello & Charles D. Dermer.* 374, 668, 107-D1 (1991)

Cyclotron Resonant Scattering and Absorption. *Alice K. Harding & Joseph K. Daugherty.* 374, 687, 107-E8 (1991)

Gamma-Ray Bursts from Colliding Strange Stars. *P. Haensel, B. Paczyński, & P. Amsterdamski.* 375, 209, 113-E10 (1991)

Transient Particle Acceleration in Strongly Magnetized Neutron Stars. *Fulvio Melia & Marco Fatuzzo.* 376, 673, 134-F7 (1991)

A Compton Reflection Model for the Cosmic X-Ray and Gamma-Ray Backgrounds. *R. D. Rogers & G. B. Field.* 378, L17, 157-C1 (1991)

A Mechanism for Gamma-Ray Bursts by Alfvén-Wave Acceleration in a Nonuniform Atmosphere. *K. A. Holcomb & T. Tajima.* 378, 682, 160-G10 (1991)

Very High Energy Gamma-Ray Emission from Accreting X-Ray Pulsars. *K. S. Cheng, K. N. Yu, T. Cheung, & M. M. Lau.* 379, 290, 166-F1 (1991)

Center-to-Limb Variations of Characteristics of Solar Flare Hard X-Ray and Gamma-Ray Emission. *James M. McTiernan & Vahé Petrosian.* 379, 381, 167-F11 (1991)

Neutron Star and Black Hole Binaries in the Galaxy. *Ramesh Narayan, Tsvi Piran, & Amotz Shemi.* 379, L17, 169-B11 (1991)

The Inability of the Resonant Compton Upscattering Model of Gamma-Ray Bursts to Produce a Third Cyclotron Harmonic. *J. J. Brainerd.* 379, L57, 175-C1 (1991)

X-Ray Detectability of Gamma-Ray Bursts from M31. *Edison P. Liang.* 380, L55, 188-B11 (1991)

The Statistics of Slow Interstellar Accretion onto Neutron Stars. *O. Blaes & M. Rajagopal.* 381, 210, 191-E10 (1991)

Existence of Scattering Atmospheres near Luminous, Magnetized Compact Objects. *Charles D. Dermer & Steven J. Sturner.* 382, L23, 205-C11 (1991)

Transient Particle Acceleration in Strongly Magnetized Neutron Stars. II. Effects Due to a Dipole Field Geometry. *Marco Fatuzzo & Fulvio Melia.* 382, 570, 208-E10 (1991)

Neutron Star Crustal Plate Tectonics. III. Cracking, Glitches, and Gamma-Ray Bursts. *M. Ruderman.* 382, 587, 208-G3 (1991)

Spectral Signatures of the MeV–PeV Radiation from Accreting Neutron Stars. *B. Rudak & P. Mészáros.* 383, 269, 215-E3 (1991)

Gamma-Ray Bursts from Sheared Alfvén Waves. *Fulvio Melia & Marco Fatuzzo.* 383, L57, 226-D1 (1991)

V/V_{max} Test Applied to *Ginga* Gamma-Ray Bursts. *Y. Ogasaka, T. Murakami, J. Nishimura, A. Yoshida, & E. E. Fenimore.* 383, L61, 226-D6 (1991)

Multiple Resonant Scattering in the Compton Upscatter Model of Gamma-Ray Bursts. *J. J. Brainerd.* 384, 545, 9-A1 (1992)

Low-Mass X-Ray Binary Evolution and the Origin of Millisecond Pulsars. *Juhan Frank, Andrew R. King, & Jean-Pierre Lasota.* 385, L45, 23-C8 (1992)

Dynamical Model of the Magnetic Field of Neutron Stars. *F. W. Cummings, D. D. Dixon, & P. E. Kaus.* 386, 215, 26-G3 (1992)

Flash Photoionization of Gamma-Ray Burst Environments. *David L. Band & Dieter H. Hartmann.* 386, 299, 28-A5 (1992)

Resonant Compton Cooling and Annihilation Line Production in Gamma-Ray Bursts. *R. D. Preece & A. K. Harding.* 386, 308, 28-B1 (1992)

Femtolensing of Gamma-Ray Bursters. *Andrew Gould.* 386, L5, 29-B5 (1992)

Gamma-Ray Bursts and Radio Pulsar Glitches. *D. Hartmann, K. Hurley, & M. Niel.* 387, 622, 46-D1 (1992)

Gamma-Ray Bursts and Cosmic Rays from Accretion-induced Collapse. *Arnon Dar, Ben Zion Kozlowski, Shmuel Nussinov, & Reuven Ramaty.* 388, 164, 51-A11 (1992)

On the Cosmological Origin of Gamma-Ray Bursts. *Shude Mao & Bohdan Paczyński.* 388, L45, 59-A9 (1992)

On the Galactic Disk and Halo Models of Gamma-Ray Bursts. *Shude Mao & Bohdan Paczyński.* 389, L13, 66-C1 (1992)

Gravitational Lensing, Time Delay, and Gamma-Ray Bursts. *Shude Mao.* 389, L41, 73-B1 (1992)

The Implications of the *Compton* (*GRO*) Observations for Cosmological Gamma-Ray Bursts. *Tsvi Piran.* 389, L45, 73-B6 (1992)

Gamma-Ray Bursts from Planet-Magnetosphere Systems around Neutron Stars. *Hitoshi Hanami.* 389, L71, 73-D11 (1992)

Steady, Periodic Gamma-Ray Emission from Accreting X-Ray Pulsars. *K. S. Cheng, M. M. Lau, T. Cheung, P. P. Leung, & K. Y. Ding.* 390, 480, 81-C8 (1992)

The Spatial Distribution of Gamma-Ray Bursts from *Pioneer Venus Orbiter*. *K. W. Chuang, R. S. White, R. W. Klebesadel, & J. G. Laros.* 391, 242, 89-A4 (1992)

Using Gamma-Ray Bursts to Detect a Cosmological Density of Compact Objects. *O. M. Blaes & R. L. Webster.* 391, L63, 99-D7 (1992)

Cosmic Gamma-Ray Bursts from Black Hole Tidal Disruption of Stars? *Brandon Carter.* 391, L67, 99-D13 (1992)

Search for Soft Gamma Repeaters in the *SMM*/HXRBS Data. *C. Kouveliotou, J. P. Norris, K. S. Wood, T. L. Cline, B. R. Dennis, U. D. Desai, & L. E. Orwig.* 392, 179, 103-B9 (1992)

Formation of Very Strongly Magnetized Neutron Stars: Implications for Gamma-Ray Bursts. *Robert C. Duncan & Christopher Thompson.* 392, L9, 106-B7 (1992)

Shot Noise in Gamma-Ray Bursts. *B. M. Belli.* 393, 266, 117-D9 (1992)

High-Energy Spectral Breaks in Gamma-Ray Bursts. *Bradley E. Schaefer, Bonnard J. Teegarden, Thomas L. Cline, Gerald J. Fishman, Charles A. Meegan, Robert B. Wilson, William S. Paciesas, Geoffrey N. Pendleton, James L. Matteson, David L. Band, & John P. Lestrade.* 393, L51, 127-B11 (1992)

Statistics of Gamma-Ray Bursts: Homogeneous Spherical Models. *Ira Wasserman.* 394, 565, 136-D2 (1992)

Synchrotron Emission from a Cosmological Jet as a Model of Gamma-Ray Bursts. *J. J. Brainerd.* 394, L33, 139-B1 (1992)

Gamma-Ray Bursts as the Death Throes of Massive Binary Stars. *Ramesh Narayan, Bohdan Paczyński, & Tsvi Piran.* 395, L83, 153-G10 (1992)

Tidal Heating and Mass Loss in Neutron Star Binaries: Implications for Gamma-Ray Burst Models. *P. Mészáros & M. J. Rees.* 397, 570, 178-A12 (1992)

Are Repeaters Responsible for Gamma-Ray Burst $\langle V/V_{\max} \rangle < 0.5$? *R. E. Lingenfelter & J. C. Higdon.* 397, 576, 178-B7 (1992)

Very High Energy Gamma Rays from Isolated Radio Pulsars: A Survey. *H. I. Nel, B. C. Raubenheimer, O. C. de Jager, C. Brink, P. J. Meintjes, A. R. North, & G. Van Urk.* 398, 602, 191-E11 (1992)

Gamma-Ray Bursts from Extragalactic Radio Pulsars. *Fulvio Melia & Marco Fatuzzo.* 398, L85, 194-B10 (1992)

Radiation Transfer in Gamma-Ray Bursts. *B. J. Carrigan & J. I. Katz.* 399, 100, 196-D6 (1992)

Determination of Lens Parameters from Gravitationally Lensed Gamma-Ray Bursts. *Ramesh Narayan & Sylvanie Wallington.* 399, 368, 202-E1 (1992)

On the Evolution of Slowly Accreting Neutron Stars. *O. M. Blaes, R. D. Blandford, P. Madau, & L. Yan.* 399, 634, 205-G3 (1992)

Tidal Interactions of Inspiraling Compact Binaries. *Lars Bildsten & Curt Cutler.* 400, 175, 211-B1 (1992)

X-Ray Flashes from M31 Based on Extended Halo Models of Gamma-Ray Bursts. *Hui Li & Edison P. Liang.* 400, L59, 220-D3 (1992)

On the Use of $V/V_{\max}$ for Gamma-Ray Bursts. *David Band.* 400, L63, 220-D10 (1992)

Gamma-Ray Line Afterglow from Burst Environments. *H. S. Fencl, R. N. Boyd, & Dieter Hartmann.* 401, 120, 222-E1 (1992)

AE Aquarii: An Emitter of Pulsed TeV Gamma Rays Resembling Optical Emission during Flares. *P. J. Meintjes, B. C. Raubenheimer, O. C. de Jager, C. Brink, H. I. Nel, A. R. North, G. van Urk, & B. Visser.* 401, 325, 225-A11 (1992)

Possibility of Unique Detection of Primordial Black Hole Gamma-Ray Bursts. *David B. Cline & Woopyo Hong.* 401, L57, 232-F3 (1992)

Gravitational Microlensing of Gamma-Ray Bursts. *Shude Mao.* 402, 382, 7-D1 (1993)

A High-Sensitivity Search for Gamma-Ray Bursts by the Sigma Telescope on Board *GRANAT* (the Galactic Center and All Sky Data). *R. Sunyaev, E. Churazov, M. Gilfanov, O. Terekhov, A. Dyachkov, N. Khavenson, V. Kovtunenko, R. Kremnev, A. Claret, F. Lebrun, A. Goldwurm, J. Paul, F. Pelaez, J. L. Atteia, P. Mandrou, & G. Vedrenne.* 402, 579, 9-G1 (1993)

Interpretation of Gamma-Ray Burst Source Count Statistics. *Vahé Petrosian.* 402, L33, 12-C7 (1993)

Fireballs in the Galactic Halo and Gamma-Ray Bursts. *Tsvi Piran & Amotz Shemi.* 403, L67, 27-D1 (1993)

Survey of Candidate Gamma-Ray Sources at TeV Energies Using a High-Resolution Cerenkov Imaging System: 1988–1991. *P. T. Reynolds, C. W. Akerlof, M. F. Cawley, M. Chantell, D. J. Fegan, A. M. Hillas, R. C. Lamb, M. J. Lang, M. A. Lawrence, D. A. Lewis, D. Macomb, D. I. Meyer, G. Mohanty, K. S. O'Flaherty, M. Punch, M. S. Schubnell, G. Vacanti, T. C. Weekes, & T. Whitaker.* 404, 206, 30-D11 (1993)

Microsecond Flares in Gamma-Ray Bursts. *Bradley E. Schaefer, Justin Cohen, Bonnard J. Teegarden, Thomas L. Cline, Gerald J. Fishman, Charles A. Meegan, Robert B. Wilson, William S. Paciesas, Geoffrey N. Pendleton, James L. Matteson, David L. Band, & John P. Lestrade.* 404, 673, 37-C11 (1993)

Methodological Problems with Gamma-Ray Burst Hardness/Intensity Correlations. *Bradley E. Schaefer.* 404, L87, 40-G8 (1993)

Gamma-Ray Bursts from Stellar Mass Accretion Disks around Black Holes. *S. E. Woosley.* 405, 273, 44-E1 (1993)

Relativistic Fireballs and Their Impact on External Matter: Models for Cosmological Gamma-Ray Bursts. *P. Mészáros & M. J. Rees.* 405, 278, 44-E9 (1993)

A Method to Distinguish Two Gamma-Ray Bursts with Similar Time Profiles. *Joachim Wambsganss.* 406, 29, 55-D6 (1993)

Metal Enrichment of the Intracluster Medium from Protogalaxies and the Gamma-Ray Bursters. *Makoto Hattori & Nobuo Terasawa.* 406, L55, 68-C5 (1993)

Dipole and Quadrupole Tests of the Isotropy of Gamma-Ray Burst Locations. *Michael S. Briggs.* 407, 126, 70-F1 (1993)

Afterglows from Gamma-Ray Bursters: A Way to Estimate the Burster Distance Scale? *H. S. Fencl, R. N. Boyd, & Dieter H. Hartmann.* 407, L21, 75-C6 (1993)

A Detailed Study of Sheared Alfvén Waves and Their Possible Application to Gamma-Ray Bursts. *Marco Fatuzzo & Fulvio Melia.* 407, 680, 79-A8 (1993)

Magnetic Field Topology in Pulsars. *Jonathan Arons.* 408, 160, 85-B1 (1993)

Understanding Soft Gamma-Ray Repeaters in the Context of the Extragalactic Radio Pulsar Origin of Gamma-Ray Bursts. *Fulvio Melia & Marco Fatuzzo.* 408, L9, 88-F1 (1993)

Prevalent Properties of Gamma-Ray Burst Variability. *Bennett Link, Richard I. Epstein, & William C. Priedhorsky.* 408, L81, 95-B13 (1993)

Relativistic Electron-Positron Beams in Gamma-Ray Bursters. *I. A. Smith & Richard I. Epstein.* 410, 315, 116-A6 (1993)

Disk Plus Halo Models of Gamma-Ray Burst Sources. *I. A. Smith & D. Q. Lamb.* 410, L23, 118-A9 (1993)

The Signature of the Cosmological Redshift in Population Studies of Gamma-Ray Burst Spectra. *J. J. Brainerd.* 410, 507, 120-A5 (1993)

The Consistency of Standard Cosmology and the BATSE Number versus Brightness Relation. *W. A. D. T. Wickramasinghe, R. J. Nemiroff, J. P. Norris, C. Kouveliotou, G. J. Fishman, C. A. Meegan, R. B. Wilson, & W. S. Paciesas.* 411, L55, 142-B1 (1993)

BATSE Observations of Gamma-Ray Burst Spectra. I. Spectral Diversity. *D. Band, J. Matteson, L. Ford, B. Schaefer, D. Palmer, B. Teegarden, T. Cline, M. Briggs, W. Paciesas, G. Pendleton, G. Fishman, C. Kouveliotou, C. Meegan, R. Wilson, & P. Lestrade.* 413, 281, 159-F9 (1993)

Effects of Location Uncertainties on the Observed Distribution of Gamma-Ray Bursts Detected by BATSE. *J. M. Horack, C. A. Meegan, G. J. Fishman, R. B. Wilson, W. S. Paciesas, A. G. Emslie, G. N. Pendleton, & M. N. Brock.* 413, 293, 159-G9 (1993)

Features in the Spectra of Gamma-Ray Bursts. *Krzysztof Z. Stanek, Bohdan Paczyński, & Jeremy Goodman.* 413, L7, 162-B9 (1993)

Evidence for Two Distinct Morphological Classes of Gamma-Ray Bursts from Their Short Time Scale Variability. *D. Q. Lamb, C. Graziani, & I. A. Smith.* 413, L11, 162-C1 (1993)

Identification of Two Classes of Gamma-Ray Bursts. *Chryssa Kouveliotou, Charles A. Meegan, Gerald J. Fishman, Narayana P. Bhat, Michael S. Briggs, Thomas M. Koshut, William S. Paciesas, & Geoffrey N. Pendleton.* 413, L101, 168-G1 (1993)

Searching Gamma-Ray Bursts for Gravitational Lensing Echoes: Implications for Compact Dark Matter. *R. J. Nemiroff, J. P. Norris, W. A. D. T. Wickramasinghe, J. M. Horack, C. Kouveliotou, G. J. Fishman, C. A. Meegan, R. B. Wilson, & W. S. Paciesas.* 414, 36, 170-E1 (1993)

A Semi-Analytic Model for Cyclotron Line Formation. *J. C. L. Wang, I. Wasserman, & D. Q. Lamb.* 414, 815, 181-D2 (1993)

Do Observations Exclude Gamma-Ray Bursts Originating in the Oort Cloud of Comets? *Eyal Maoz.* 414, 877, 182-B12 (1993)

Focusing of Alfvénic Wave Power in the Context of Gamma-Ray Burst Emissivity. *Marco Fatuzzo & Fulvio Melia.* 414, L89, 185-F7 (1993)

Gasdynamics of Relativistically Expanding Gamma-Ray Burst Sources: Kinematics, Energetics, Magnetic Fields, and Efficiency. *P. Mészáros, P. Laguna, & M. J. Rees.* 415, 181, 187-C7 (1993)

Gamma-Ray Bursts as a Probe of Large-Scale Structure in the Universe. *D. Q. Lamb & Jean M. Quashnock.* 415, L1, 191-E8 (1993)

A Classical Gamma-Ray Burst Repeater, GBS 0855−00? *V. C. Wang & R. E. Lingenfelter.* 416, L13, 207-C5 (1993)

Gravitational Waves and γ-Ray Bursts. *Christopher S. Kochanek & Tsvi Piran.* 417, L17, 222-G11 (1993)

Reconciliation of the Disparate Gamma-Ray Burst Catalogs in the Context of a Cosmological Source Distribution. *Peter Tamblyn & Fulvio Melia.* 417, L21, 223-A3 (1993)

Radio Dispersion as a Diagnostic of Gamma-Ray Burst Distances. *David M. Palmer.* 417, L25, 223-A9 (1993)

Baryon Purity in Cosmological Gamma-Ray Bursts as a Manifestation of Event Horizons. *Amir Levinson & David Eichler.* 418, 386, 235-G1 (1993)

γ-γ Attenuation and Relativisitic Beaming in Gamma-Ray Bursts. *Matthew G. Baring.* 418, 391, 235-G8 (1993)

Soft Gamma Repeater 1806−20: Weak Evidence for a Periodicity following the Bursts. *A. Ulmer, E. E. Fenimore, R. I. Epstein, C. Ho, R. W. Klebesadel, J. G. Laros, & F. Delgado.* 418, 395, 235-G13 (1993)

Radio Transients from Gamma-Ray Bursters. *Bohdan Paczyński & James E. Rhoads.* 418, L5, 238-B1 (1993)

Examining Galactic and Extragalactic Gamma-Ray Burst Models Using the Peak Flux Distribution. *Lori M. Lubin & Ralph A. M. J. Wijers.* 418, L9, 238-B6 (1993)

Gamma-Ray Bursts: Multiwaveband Spectral Predictions for Blast Wave Models. *P. Mészáros & M. J. Rees.* 418, L59, 245-B7 (1993)

On the Bimodal Distribution of Gamma-Ray Bursts. *Shude Mao, Ramesh Narayan, & Tsvi Piran.* 420, 171, 3-B1 (1994)

Neutrino Balls and Gamma-Ray Bursts. *B. Holdom & R. A. Malaney.* 420, L53, 15-B7 (1994)

Duration versus Brightness of Gamma-Ray Bursts: Comparisons between SIGNE and BATSE. *V. E. Kargatis, H. Li, E. P. Liang, I. A. Smith, Kevin Hurley, C. Barat, & M. Niel.* 421, L83, 29-E11 (1994)

Two Populations and Models of Gamma-Ray Bursts. *J. I. Katz.* 422, 248, 33-B12 (1994)

Spectral Evolution of Gamma-Ray Bursts Detected by the SIGNE Experiment. I. Correlation between Intensity and Spectral Hardness. *Vincent E. Kargatis, Edison P. Liang, Kevin C. Hurley, C. Barat, E. Eveno, & M. Niel.* 422, 260, 33-C12 (1994)

Constraints on Galactic Distributions of Gamma-Ray Burst Sources from BATSE Observations. *Jon Hakkila, Charles A. Meegan, Geoffrey N. Pendleton, Gerald J. Fishman, Robert B. Wilson, William S. Paciesas, Martin N. Brock, & John M. Horack.* 422, 659, 40-A13 (1994)

BATSE Observations of the Very Intense Gamma-Ray Burst GRB 930131. *Chryssa Kouveliotou, Robert Preece, Narayana Bhat, Gerald J. Fishman, Charles A. Meegan, John M. Horack, Michael S. Briggs, William S. Paciesas, Geoffrey N. Pendleton, David Band, Jim Matteson, David Palmer, Bonnard Teegarden, & Jay P. Norris.* 422, L59, 44-G11 (1994)

High-Energy Gamma Rays from the Intense 1993 January 31 Gamma-Ray Burst. *M. Sommer, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, G. J. Fishman, A. K. Harding, R. C. Hartman, S. D. Hunter, K. Hurley, G. Kanbach, D. A. Kniffen, C. Kouveliotou, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. Schneid, P. Sreekumar, & D. J. Thompson.* 422, L63, 45-A1 (1994)

COMPTEL Measurements of the Gamma-Ray Burst GRB 930131. *J. Ryan, K. Bennett, W. Collmar, A. Connors, G. J. Fishman, J. Greiner, L. O. Hanlon, W. Hermsen, R. M. Kippen, C. Kouveliotou, L. Kuiper, G. Lichti, J. Macri, J. Mattox, M. McConnell, B. McNamara, C. Meegan, V. Schönfelder, R. van Dijk, M. Varendorff, W. R. Webber, & C. Winkler.* 422, L67, 45-A6 (1994)

Rapid Searches for Counterparts of GRB 930131. *Bradley E. Schaefer, Scott D. Barthelmy, David M. Palmer, Thomas L. Cline, Kevin C. Hurley, Michael Sommer, Michel Boer, Michel Niel, Gerald J. Fishman, Chryssa Kouveliotou, Charles A. Meegan, M. J. Coe, Bruce G. Elmegreen, Bernard J. McNamara, Thomas Harrison, Alan Owens, Neyle Sollee, John Stull, Michael Palermiti, Richard Schwartz, Jack Brooks, Roland Vanderspek, George R. Ricker, Hans A. Krimm, Wolfgang Wenzel, Jochen Greiner, Rene Hudec, Miroslav Novak, Jiri Borovicka, Miroslav Predota, Charles D. Bailyn, Lorraine O. Hanlon, K. Bennett, Titus A. Th. Spoelstra, Alain Smette, Holger Pedersen, Ralph Florentin, Christian Pollas, Helmut Steinle, K.-J. Schramm, K. V. K. Iyengar, & T. P. Prabhu.* 422, L71, 45-A11 (1994)

The Effect of Repeating Gamma-Ray Bursts on $V/V_{\max}$. *David L. Band.* 422, L75, 45-B1 (1994)

Observational Features of Cosmic Gamma-Ray Bursts: Evidence for Galactic versus Extragalactic Origin. *Kevin Hurley.* 90, 857, 14-D6 (1994)

Gamma-Ray Burst Theory: Back to the Drawing Board. *Alice K. Harding.* 90, 863, 14-D13 (1994)

Acceleration Processes for Gamma-Ray Bursts. *Igor G. Mitrofanov.* 90, 869, 14-E7 (1994)

Particle Acceleration in High-Energy Gamma-Ray Sources. *David Eichler.* 90, 877, 14-F3 (1994)

Do Gamma-Ray Bursts Originate from an Extended Galactic Halo of High-Velocity Neutron Stars? *Dieter H. Hartmann, Lawrence E. Brown, Lih-Sin The, Eric V. Linder, Vahe Petrosian, George R. Blumenthal, & Kevin C. Hurley.* 90, 893, 14-G10 (1994)

Gamma-Ray Burst Spectral Breaks and Source Beaming. *Matthew G. Baring.* 90, 899, 15-A3 (1994)

Gamma-Ray Bursts Are Time-asymmetric. *R. J. Nemiroff, J. P. Norris, C. Kouveliotou, G. J. Fishman, C. A. Meegan, & W. S. Paciesas.* 423, 432, 51-D13 (1994)

X-Ray Halos as Tracers of the Distance of the Gamma-Ray Bursters. *S. Klose.* 423, L23, 53-D5 (1994)

Upper Limits to the Soft Gamma Repeater Population from the Lilas Experiment Aboard the *Phobos* Mission. *K. Hurley, J.-L. Atteia, E. Jourdain, C. Barat, M. Niel, G. Vedrenne, R. Sunyaev, A. Kuznetsov, & O. Terekhov.* 423, 709, 57-D3 (1994)

Search for Ultra–High-Energy Point-Source Emission over Various Timescales. *S. Biller, D. E. Alexandreas, G. E. Allen, D. Berley, R. L. Burman, M. Cavalli-Sforza, C. Y. Chang, M. L. Chen, P. Chumney, D. Coyne, C. Dion, G. M. Dion, D. Dorfan, R. W. Ellsworth, J. A. Goodman, T. J. Haines, M. Harmon, C. M. Hoffman, L. Kelley, S. Klein, D. E. Nagle, S. C. Schaller, D. M. Schmidt, R. Schnee, A. Shoup, C. Sinnis, M. J. Stark, D. D. Weeks, D. A. Williams, J.-P. Wu, T. Yang, G. B. Yodh, & W. Zhang.* 423, 714, 57-D10 (1994)

Neutrinos from Superconducting Cosmic String–induced Gamma-Ray Bursts. *R. Plaga.* 424, L9, 69-B8 (1994)

Detection of Signature Consistent with Cosmological Time Dilation in Gamma-Ray Bursts. *J. P. Norris, R. J. Nemiroff, J. D. Scargle, C. Kouveliotou, G. J. Fishman, C. A. Meegan, W. S. Paciesas, & J. T. Bonnell.* 424, 540, 71-D5 (1994)

Cosmic Gamma-Ray Burst Sources: The Phenomenon with the Smallest Angular Size in the Observable Universe. *Igor G. Mitrofanov.* 424, 546, 71-D13 (1994)

Localization and Spectrum of the X-Ray Transient Source GRS 1915+105. *A. Finoguenov, E. Churazov, M. Gilfanov, R. Sunyaev, A. Vikhlinin, A. Dyachkov, N. Khavenson, I. Tserenin, M. C. Schmitz-Fraysse, M. Denis, J. P. Roques, P. Mandrou, A. Claret, J. Ballet, B. Cordier, & A. Goldwurm.* 424, 940, 76-D10 (1994)

One-Photon Annihilation of Thermal Positrons with Bound Atomic Electrons. *Young-Dae Jung.* 424, 988, 77-B3 (1994)

Relativistic Beaming and Gamma-Ray Bursts. *Shude Mao & Insu Yi.* 424, L131, 79-E11 (1994)

Search for Gamma-Ray–Burst Correlation with Neutrinos. *J. M. LoSecco.* 425, 217, 83-A1 (1994)

A Search for Nonburst Emission from the Positions of Well-localized Gamma-Ray Bursts. *John M. Horack & A. Gordon Emslie.* 425, 776, 91-D7 (1994)

Empirical Constraints on Cosmological Gamma-Ray Bursts. *Eric Woods & Abraham Loeb.* 425, L63, 94-B8 (1994)

Search for Ultra–High-Energy Radiation from Gamma-Ray Bursts. *D. E. Alexandreas, G. E. Allen, D. Berley, S. Biller, R. L. Burman, M. Cavalli-Sforza, C. Y. Chang, M. L. Chen, P. Chumney, D. Coyne, C. Dion, G. M. Dion, D. Dorfan, R. W. Ellsworth, J. A. Goodman, T. J. Haines, M. Harmon, C. M. Hoffman, L. Kelley, S. Klein, D. E. Nagle, S. C. Schaller, D. M. Schmidt, R. Schnee, A. Shoup, C. Sinnis, M. J. Stark,*

D. D. Weeks, D. A. Williams, J.-P. Wu, T. Yang, G. B. Yodh, & W. Zhang (The CYGNUS Collaboration). 426, L1, 103-A8 (1994)

Constraints on the Luminosity Function of Gamma-Ray Bursts Detected by BATSE. *J. M. Horack, A. G. Emslie, & C. A. Meegan.* 426, L5, 103-A13 (1994)

Spectral Evolution of a Subclass of Gamma-Ray Bursts Observed by BATSE. *P. N. Bhat, Gerald J. Fishman, Charles A. Meegan, Robert B. Wilson, Chryssa Kouveliotou, William S. Paciesas, Geoffrey N. Pendleton, & Bradley E. Schaefer.* 426, 604, 106-A1 (1994)

Are Gamma-Ray Bursters in Our Galaxy? *David Eichler.* 426, L73, 109-C13 (1994)

The First BATSE Gamma-Ray Burst Catalog. *Gerald J. Fishman, Charles A. Meegan, Robert B. Wilson, Martin N. Brock, John M. Horack, Chryssa Kouveliotou, Sethanne Howard, William S. Paciesas, Michael S. Briggs, Geoffrey N. Pendleton, Thomas M. Koshut, Robert S. Mallozzi, Mark Stollberg, & John Patrick Lestrade.* 92, 229, 34-C10 (1994)

BATSE Spectroscopy Catalog of Bright Gamma-Ray Bursts. *Bradley E. Schaefer, Bonnard J. Teegarden, Stephan F. Fantasia, David Palmer, Thomas L. Cline, James L. Matteson, David L. Band, Lyle A. Ford, Gerald J. Fishman, Charles A. Meegan, Robert B. Wilson, William S. Paciesas, Geoffrey N. Pendleton, Michael S. Briggs, & John P. Lestrade.* 92, 285, 34-G12 (1994)

Neutrino Bursts from Gamma-Ray Bursts. *Bohdan Paczyński & Guohong Xu.* 427, 708, 121-E3 (1994)

Bookmakers' Odds for the Sky Distribution of Gamma-Ray Bursts. *D. Syer & P. Saha.* 427, 714, 121-E11 (1994)

Producing the Universal Spectrum of Cosmological Gamma-Ray Bursts with the Klein-Nishina Cross Section. *J. J. Brainerd.* 428, 21, 128-D11 (1994)

Mimicking within Euclidean Space a Cosmological Time Dilation of Gamma-Ray Burst Durations. *J. J. Brainerd.* 428, L1, 134-B1 (1994)

The Expected Dipole in the Distribution of Cosmological γ-Ray Bursts. *Eyal Maoz.* 428, 454, 135-G6 (1994)

Integral-Moment Analysis of the BATSE Gamma-Ray Burst Intensity Distribution. *John M. Horack & A. Gordon Emslie.* 428, 620, 138-A4 (1994)

A Search for Astrophysical Sources of Low-Energy Neutrinos Using the IMB Detector. *R. S. Miller, R. Becker-Szendy, C. B. Bratton, J. Breault, D. Casper, S. T. Dye, W. Gajewski, M. Goldhaber, T. J. Haines, P. G. Halverson, D. Kielczewska, W. R. Kropp, J. G. Learned, J. LoSecco, S. Matsuno, J. Matthews, G. McGrath, C. McGrew, L. Price, F. Reines, J. Schultz, D. Sinclair, H. W. Sobel, J. L. Stone, L. R. Sulak, R. Svoboda, & J. C. van der Velde.* 428, 629, 138-B1 (1994)

Foreword. *Th. Courvoisier & Ph. Durouchoux.* 92, 325, 36-B6 (1994)

An Optical Transient Camera for the *INTEGRAL* Mission. *A. Smith, R. A. Gowen, R. Long, B. McBreen, J. M. Mas-Hesse, & C. Miravet.* 92, 333, 36-C3 (1994)

Soft Gamma-Ray Repeaters: Black Holes in Giant Molecular Clouds? *Jonathan E. Grindlay.* 92, 465, 38-A8 (1994)

BATSE Results on Observational Properties of Gamma-Ray Bursts. *Chryssa Kouveliotou.* 92, 637, 40-D1 (1994)

Theories of Gamma-Ray Bursts. *Omer M. Blaes.* 92, 643, 40-D9 (1994)

Spectral Characteristics of Gamma-Ray Bursts Observed by the Anticoincidence Shield of the SIGMA Telescope aboard *GRANAT*. *François Pelaez, Laurent Bouchet, Elisabeth Jourdain, Michel Niel, Arnaud Claret, Philippe Laurent, François Lebrun, Jacques Paul, O. Terekhov, R. Sunyaev, A. Kuznetsov, D. Denisenko, M. Gilfanov, E. Churazov, N. Khavenson, & A. Diachkov.* 92, 651, 40-E4 (1994)

The Optical and X-Ray Content of the 1992 May 1 Gamma-Ray Burst Error Box. *K. Hurley, P. Li, M. Sommer, A. Smette, C. Kouveliotou, G. Fishman, T. Cline, M. Boer, M. Niel, J. Laros, R. Klebesadel, & E. Fenimore.* 92, 655, 40-E9 (1994)

Optical Transient Monitor. *René Hudec & Jan Soldán.* 92, 675, 40-G8 (1994)

Implications of the BATSE Data for a Heliocentric Origin of Gamma-Ray Bursts. *J. M. Horack, T. M. Koshut, R. S. Mallozzi, S. D. Storey, & A. G. Emslie.* 429, 319, 148-A6 (1994)

A New Variability Parameter for Gamma-Ray Burst Time Profiles. *John Patrick Lestrade.* 429, L5, 150-B2 (1994)

Galactic Arm Models of Gamma-Ray Burst Sources. *I. A. Smith.* 429, L65, 158-A11 (1994)

Gamma Rays from Grazing Incidence Cosmic Rays in the Earth's Atmosphere. *Andrew Ulmer.* 429, L95, 158-E3 (1994)

Unsteady Outflow Models for Cosmological Gamma-Ray Bursts. *M. J. Rees & P. Mészáros.* 430, L93, 174-D13 (1994)

The Continuum Spectral Characteristics of Gamma-Ray Bursts Observed by BATSE. *Geoffrey N. Pendleton, William S. Paciesas, Michael S. Briggs, Robert S. Mallozzi, Tom M. Koshut, Gerald J. Fishman, Charles A. Meegan, Robert B. Wilson, Alan B. Harmon, & Chryssa Kouveliotou.* 431, 416, 181-C1 (1994)

Network Synthesis Localization of Two Soft Gamma Repeaters. *Kevin Hurley, M. Sommer, C. Kouveliotou, G. Fishman, C. Meegan, T. Cline, M. Boer, & M. Niel.* 431, L31, 182-F5 (1994)

Supernova Remnant Candidates for the Soft γ-Ray Repeater 1900+14. *G. Vasisht, S. R. Kulkarni, D. A. Frail, & J. Greiner.* 431, L35, 182-F11 (1994)

Statistics of Cosmological Gamma-Ray Bursts: Source Evolution, Cosmological Geometry, and Relativistic Beaming. *Insu Yi.* 431, 543, 185-C10 (1994)

Postburst Nebular Emission of Soft Gamma-Ray Repeaters. *Marco Tavani.* 431, L83, 191-D10 (1994)

Spectral Properties of Blast-Wave Models of Gamma-Ray Burst Sources. *P. Mészáros, M. J. Rees, & H. Papathanassiou.* 432, 181, 195-D10 (1994)

Is a Data Set Distributed as a Power Law? A Test, with Application to Gamma-Ray Burst Brightnesses. *Ralph A. M. J. Wijers & Lori M. Lubin.* 432, 207, 195-F13 (1994)

Is There Cosmological Time Dilation in Gamma-Ray Bursts? *David L. Band.* 432, L23, 199-D5 (1994)

Delayed Hard Photons from Gamma-Ray Bursts. *J. I. Katz.* 432, L27, 199-D11 (1994)

Null Result in Gamma-Ray Burst Lensed Echo Search. *R. J. Nemiroff, W. A. D. T. Wickramasinghe, J. P. Norris, C. Kouveliotou, G. J. Fishman, C. A. Meegan, W. S. Paciesas, & J. Horack.* 432, 478, 201-G12 (1994)

Constraints on the Fraction of Repeating Gamma-Ray Burst Sources from BATSE Measurements. *Tod E. Strohmayer, Edward E. Fenimore, & Juan A. Miralles.* 432, 665, 204-C8 (1994)

The X-Ray Spectrum of the Soft Gamma Repeater 1806−20. *E. E. Fenimore, J. G. Laros, & A. Ulmer.* 432, 742, 205-C3 (1994)

Low-Frequency Spectra of Gamma-Ray Bursts. *J. I. Katz.* 432, L107, 206-G11 (1994)

An Iron Absorption Model of Gamma-Ray Burst Spectra. *Edison P. Liang & Vincent E. Kargatis.* 432, L111, 207-A3 (1994)

BATSE Gamma-Ray Burst Line Search. I. Search for Narrow Lines in Spectroscopy Detector Data. *David M. Palmer, Bonnard J. Teegarden, Bradley E. Schaefer, Thomas L. Cline, David L. Band, Lyle A. Ford, James L. Matteson, William S. Paciesas, Geoffrey N. Pendleton, Michael S. Briggs, Robert D. Preece, Gerald J. Fishman, Charles A. Meegan, Robert B. Wilson, & J. Patrick Lestrade.* 433, L77, 223-G7 (1994)

FY Aquilae and the Gamma-Ray Burst GB 790331. *Mike Irwin & Anna N. Żytkow.* 433, L81, 224-A1 (1994)

Stability of Fireballs and Gamma-Ray Bursts. *Eli Waxman & Tsvi Piran.* 433, L85, 224-A9 (1994)

Galactic Dual Population Models of Gamma-Ray Bursts. *J. C. Higdon & R. E. Lingenfelter.* 434, 552, 235-D8 (1994)

Search of the Energetic Gamma-Ray Experiment Telescope (EGRET) Data for High-Energy Gamma-Ray Microsecond Bursts. *C. E. Fichtel, D. L. Bertsch, B. L. Dingus, J. A. Esposito, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C Lin, J. R. Mattox, H. A. Mayer-Hasselwander, L. McDonald, P. F. Michelson, C. von Montigny, P. L. Nolan, E. J. Schneid, P. Sreekumar, & D. J. Thompson.* 434, 557, 235-E2 (1994)

BATSE Gamma-Ray Burst Line Search. II. Bayesian Consistency Methodology. *D. L. Band, L. A. Ford, J. L. Matteson, M. Briggs, W. Paciesas, G. Pendleton, R. Preece, D. Palmer, B. Teegarden, & B. Schaefer.* 434, 560, 235-E8 (1994)

Compatibility of the BATSE Gamma-Ray Burst Data with General Friedmann Cosmological Models. *A. Gordon Emslie & John M. Horack.* 435, 16, 243-D9 (1994)

The Statistics of Gamma-Ray Burst Lensing. *Scott A. Grossman & Michael A. Nowak.* 435, 548, 253-F6 (1994)

Can We Identify Lensed Gamma-Ray Bursts? *Michael A. Nowak & Scott A. Grossman.* 435, 557, 253-G4 (1994)

Gross Spectral Differences between Bright and Dim Gamma-Ray Bursts. *R. J. Nemiroff, J. P. Norris, J. T. Bonnell, W. A. D. T. Wickramasinghe, C. Kouveliotou, W. S. Paciesas, G. J. Fishman, & C. A. Meegan.* 435, L133, 260-B10 (1994)

On the Detection of Individual Primordial Black Hole Explosions. *D. V. Semikoz.* 436, 254, 264-F9 (1994)

Characteristics of the Persistent Emission of SGR 1806−20. *T. Sonobe, T. Murakami, S. R. Kulkarni, T. Aoki, & A. Yoshida.* 436, L23, 268-F1 (1994)

Implications of Neutrino Balls as the Source of Gamma-Ray Bursts. *D. Syer.* 437, 144, 285-B10 (1994)

A Search for the Radio Counterpart to the 1994 March 1 Gamma-Ray Burst. *D. A. Frail, S. R. Kulkarni, K. C. Hurley, G. J. Fishman, C. Kouveliotou, C. A. Meegan, M. Sommer, M. Boer, M. Niel, & T. Cline.* 437, L43, 291-G6 (1994)

Yet Another Model of Soft Gamma Repeaters. *J. I. Katz, H. A. Toole, & S. H. Unruh.* 437, 727, 295-F6 (1994)

On the Nature of Gamma-Ray Burst Time Dilations. *Ralph A. M. J. Wijers & Bohdan Paczyński.* 437, L107, 299-B8 (1994)

Super-Eddington Radiation Transfer in Soft Gamma Repeaters. *Andrew Ulmer.* 437, L111, 299-C1 (1994)

Physics of Magnetospheric Emission in Soft Gamma-Ray Repeaters. *Fulvio Melia & Marco Fatuzzo.* 438, 904, 16-E7 (1995)

The Width of the Gamma-Ray Burst Luminosity Function. *Andrew Ulmer & Ralph A. M. J. Wijers.* 439, 303, 25-C13 (1995)

BATSE Observations of Gamma-Ray Burst Spectra. II. Peak Energy Evolution in Bright, Long Bursts. *L. A. Ford, D. L. Band, J. L. Matteson, M. S. Briggs, G. N. Pendleton, R. D. Preece, W. S. Paciesas, B. J. Teegarden, D. M. Palmer, B. E. Schaefer, T. L. Cline, G. J. Fishman, C. Kouveliotou, C. A. Meegan, R. B. Wilson, & J. P. Lestrade.* 439, 307, 25-D6 (1995)

Young Oxygen-rich Supernova Remnants. I. Observations of Three Southern Remnants. *Ralph S. Sutherland & Michael A. Dopita.* 439, 365, 26-B12 (1995)

Inferring the Spatial and Energy Distribution of Gamma-Ray Burst Sources. I. Methodology. *Thomas J. Loredo & Ira M. Wasserman.* 96, 261, 5-A11 (1995)

Duration Distributions of Bright and Dim BATSE Gamma-Ray Bursts. *J. P. Norris, J. T. Bonnell, R. J. Nemiroff, J. D. Scargle, C. Kouveliotou, W. S. Paciesas, C. A. Meegan, & G. J. Fishman.* 439, 542, 31-F13 (1995)

Constraints on the Gamma-Ray Burst Luminosity Function from *Pioneer Venus Orbiter* and BATSE Observations. *Andrew Ulmer, Ralph A. M. J. Wijers, & Edward E. Fenimore.* 440, L9, 48-C1 (1995)

Optical and Infrared Observations of SGR 1806−20. *S. R. Kulkarni, K. Matthews, G. Neugebauer, I. N. Reid, M. H. van Kerkwijk, & G. Vasisht.* 440, L61, 57-E12 (1995)

Radio Monitoring and High-Resolution Imaging of the Soft Gamma-Ray Repeater 1806−20. *G. Vasisht, D. A. Frail, & S. R. Kulkarni.* 440, L65, 57-F6 (1995)

Photon-Splitting Limits to the Hardness of Emission in Strongly Magnetized Soft Gamma Repeaters. *Matthew G. Baring.* 440, L69, 57-G1 (1995)

On the Correlation of Angular Position with Time of Occurrence of Gamma-Ray Bursts. *Vahé Petrosian & Bradley Efron.* 441, L37, 67-A9 (1995)

Time-dependent Clustering Analysis of the Second BATSE Gamma-Ray Burst Catalog. *J. J. Brainerd, C. A. Meegan, Michael S. Briggs, G. N. Pendleton, & M. N. Brock.* 441, L39, 67-B1 (1995)

Repeating Sources of Classical Gamma-Ray Bursts. *V. C. Wang & R. E. Lingenfelter.* 441, 747, 72-C1 (1995)

Femtolensing: Beyond the Semiclassical Approximation. *Andrew Ulmer & Jeremy Goodman.* 442, 67, 78-B4 (1995)

Close Galactic Origin of Gamma-Ray Bursts. *G. S. Bisnovatyi-Kogan.* 97, 185, 13-D1 (1995)

Discovery of a Transient MeV Range Gamma-Ray Source. *M. S. Briggs, D. E. Gruber, J. L. Matteson, & L. E. Peterson.* 442, 638, 88-F9 (1995)

A Search for Moderate- and High-Energy Neutrino Emission Correlated with Gamma-Ray Bursts. *R. Becker-Szendy, C. B. Bratton, J. Breault, D. Casper, S. T. Dye, W. Gajewski, M. Goldhaber, T. J. Haines, P. G. Halverson, D. Kielczewska, W. R. Kropp, J. G. Learned, S. Matsuno, J. Matthews, G. McGrath, C. McGrew, R. S. Miller, L. Price, F. Reines, J. Schultz, D. Sinclair, H. W. Sobel, J. L. Stone, L. R. Sulak, R. Svoboda, & J. C. van der Velde.* 444, 415, 119-C3 (1995)

The Distribution of Cosmological γ-Ray Bursts. *Ehud Cohen & Tsvi Piran.* 444, L25, 121-E1 (1995)

A Luminous Companion to SGR 1806−20. *M. H. van Kerkwijk, S. R. Kulkarni, K. Matthews, & G. Neugebauer.* 444, L33, 121-F1 (1995)

Terrestrial Implications of Cosmological Gamma-Ray Burst Models. *S. E. Thorsett.* 444, L53, 122-A9 (1995)

Tests and Consequences of Disk Plus Halo Models of Gamma-Ray Burst Sources. *I. A. Smith.* 444, 686, 125-G1 (1995)

The First Search for a Gamma-Ray Burst Quiescent Counterpart in the Extreme Ultraviolet with *EUVE*. *K. Hurley, P. Li, J. Laros, G. Fishman, C. Kouveliotou, & C. Meegan.* 445, 348, 137-C9 (1995)

An Unusual High-Energy Transient. *T. E. Strohmayer, E. E. Fenimore, T. Murakami, & A. Yoshida.* 445, 731, 145-C7 (1995)

Deep Optical Counterpart Searches of Gamma-Ray Burst Localizations. *Frederick J. Vrba, Dieter H. Hartmann, & Mark C. Jennings.* 446, 115, 154-G4 (1995)

Soft X-Ray Flashes of Gamma-Ray Bursts as Tracers of the Distance of the Bursters. *S. Klose.* 446, 261, 156-G3 (1995)

A Search for Stellar Flares in Gamma-Ray Bursts Observed by BATSE and *Ulysses*. *P. Li, K. Hurley, G. J. Fishman, C. Kouveliotou, & D. Hartmann.* 446, 267, 156-G12 (1995)

Search for an Optical Counterpart of the Source of GRB 911001. *S. Klose.* 446, 357, 158-B6 (1995)

Do Gamma-Ray Burst Sources Repeat? *Charles A. Meegan, Dieter H. Hartmann, J. J. Brainerd, Michael S. Briggs, William S. Paciesas, Geoffrey Pendleton, Chryssa Kouveliotou, Gerald Fishman, George Blumenthal, & Martin Brock.* 446, L15, 160-C13 (1995)

On the Beaming Statistics of Gamma-Ray Sources. *Charles D. Dermer.* 446, L63, 170-E8 (1995)

Deriving Gamma-Ray Burster Distances from Soft X-Ray Measurements. *Alan Owens, Bradley E. Schaefer, & S. Sembay.* 447, 279, 176-C1 (1995)

BATSE Gamma-Ray Burst Line Search. III. Line Detectability. *D. L. Band, L. A. Ford, J. L. Matteson, M. S. Briggs, W. S. Paciesas, G. N. Pendleton, R. D. Preece, D. M. Palmer, B. J. Teegarden, & B. E. Schaefer.* 447, 289, 176-D4 (1995)

The Effects of Pure Density Evolution on the Brightness Distribution of Cosmological Gamma-Ray Bursts. *J. M. Horack, A. G. Emslie, & D. H. Hartmann.* 447, 474, 182-C13 (1995)

Gamma-Ray Bursts from Minijets. *Nir J. Shaviv & Arnon Dar.* 447, 863, 187-G1 (1995)

Constraints on Hydrostatic Models of Soft Gamma-Ray Repeaters. *M. Coleman Miller.* 448, L29, 199-F5 (1995)

Negative Search for a Counterpart to the Gamma-Ray Repeater Source 0525−66. *John R. Dickel, You-Hua Chu, Christopher Gelino, Ross Beyer, Michael G. Burton, D. K. Milne, Jason Spyromilio, David A. Green, Christopher Wilkinson, & Norbert Junkes.* 448, 623, 203-D1 (1995)

Gamma-Ray Burst Peak Duration as a Function of Energy. *E. E. Fenimore, J. J. M. in't Zand, J. P. Norris, J. T. Bonnell, & R. J. Nemiroff.* 448, L101, 209-C8 (1995)

The Brightness Distribution of Bursting Sources in Relativistic Cosmologies. *P. Mészáros & A. Mészáros.* 449, 9, 210-C13 (1995)

Testing Isotropy versus Clustering of Gamma-Ray Bursts. *Bradley Efron & Vahé Petrosian.* 449, 216, 213-B9 (1995)

Possible Association of Ultra–High-Energy Cosmic-Ray Events with Strong Gamma-Ray Bursts. *Mordehai Milgrom & Vladimir Usov.* 449, L37, 216-E10 (1995)

Synchrotron Self-Absorption Model of the Soft Gamma-Ray Repeater 1806−20. *Edison P. Liang & Edward Fenimore.* 451, L57, 260-D13 (1995)

The Slope of the BATSE Number-Flux Distribution. *David Caditz.* 452, 140, 264-A4 (1995)

Gamma-Ray Burst Precursor Activity as Observed with BATSE. *Thomas M. Koshut, Chryssa Kouveliotou, William S. Paciesas, Jan van Paradijs, Geoffrey N. Pendleton, Michael S. Briggs, Gerald J. Fishman, & Charles A. Meegan.* 452, 145, 264-A12 (1995)

Cosmological Origin for Cosmic Rays above 10^{19} eV. *Eli Waxman.* 452, L1, 269-C1 (1995)

Determination of Distance from Time Dilation of Cosmological Gamma-Ray Bursts. *E. E. Fenimore & J. S. Bloom.* 453, 25, 281-E6 (1995)

EGRET Measurements of Energetic Gamma Rays from the Gamma-Ray Bursts of 1992 June 22 and 1994 March 1. *E. J. Schneid, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, P. Sreekumar, & D. J. Thompson.* 453, 95, 282-D13 (1995)

Empirical Constraints on Source Properties and Host Galaxies of Cosmological Gamma-Ray Bursts. *Eric Woods & Abraham Loeb.* 453, 583, 292-A1 (1995)

The Acceleration of Ultra–High-Energy Cosmic Rays in Gamma-Ray Bursts. *Mario Vietri.* 453, 883, 296-B6 (1995)

Galactic Gamma-Ray Burst Models: Constraints on the Intrinsic Luminosity Function. *Jon Hakkila, Charles A. Meegan, Geoffrey N. Pendleton, John M. Horack, Michael S. Briggs, William S. Paciesas, & A. Gordon Emslie.* 454, 134, 301-B3 (1995)

Radio Monitoring of GRS 1915+105. *L. F. Rodríguez, E. Gerard, I. F. Mirabel, Y. Gómez, & A. Velázquez.* 101, 173, 55-A5 (1995)

On the Measurement of a Cosmological Dipole in the Photon Number Counts of Gamma-Ray Bursts. *C. A. Scharf, K. Jahoda, & E. Boldt.* 454, 573, 309-D4 (1995)

Evolution of the Double Neutron Star Merging Rate and the Cosmological Origin of Gamma-Ray Burst Sources. *V. M. Lipunov, K. A. Postnov, M. E. Prokhorov, I. E. Panchenko, & H. E. Jørgensen.* 454, 593, 309-F3 (1995)

The $\nu\mathcal{F}_\nu$ Peak Energy Distributions of Gamma-Ray Bursts Observed by BATSE. *Robert S. Mallozzi, William S. Paciesas, Geoffrey N. Pendleton, Michael S. Briggs, Robert D. Preece, Charles A. Meegan, & Gerald J. Fishman.* 454, 597, 309-F10 (1995)

Photon Splitting in Strongly Magnetized Cosmic Objects—Revisited. *Günter Wunner, Robert Sang, & Dagmar Berg.* 455, L51, 325-B8 (1995)

Hydrodynamic Timescales and Temporal Structure of Gamma-Ray Bursts. *Re'em Sari & Tsvi Piran.* 455, L143, 334-A11 (1995)

GAMMA RAYS: GENERAL

Compton Scattering of Gamma Rays in Optically Thick Media. *Magda Zbyszewska & Andrzej A. Zdziarski.* 366, 233, 3-G13 (1991)

"Superlow-State" Hard X-Ray Observation of Cygnus X-1. *P. Ubertini, A. Bazzano, F. Perotti, E. Quadrini, A. Court, A. J. Dean, N. Dipper, R. Lewis, L. Bassani, & J. B. Stephen.* 366, 544, 9-G1 (1991)

On the Observability of the Gamma-Ray Line Flux from Dark Matter Annihilation. *S. Rudaz & F. W. Stecker.* 368, 406, 30-B5 (1991)

Gamma-Ray Lines from Type I Supernovae. *K. W. Chan & R. E. Lingenfelter.* 368, 515, 31-E1 (1991)

No Evidence for TeV Gamma Radiation from 2CG 006−00. *H. I. Nel, B. C. Raubenheimer, O. C. de Jager, R. Buccheri, M. Busetta, A. R. North, & C. Brink.* 368, 585, 32-D4 (1991)

Possible Detection of TeV Gamma Rays from AM Herculis. *C. L. Bhat, R. K. Kaul, H. S. Rawat, V. K. Senecha, R. C. Rannot, M. L. Sapru, A. K. Tickoo, & H. Razdan.* 369, 475, 43-E12 (1991)

Phase Coherence for TeV/PeV Binary Sources. *D. A. Lewis, R. C. Lamb, & S. D. Biller.* 369, 479, 43-F4 (1991)

Problems of Ultra–High-Energy Particle Acceleration in Cygnus X-3: A Critical Reappraisal. *Abhas Mitra.* 370, 345, 51-E7 (1991)

Comptonization of Gamma Rays by Cold Electrons. *Yueming Xu, Randy R. Ross, & Richard McCray.* 371, 280, 63-E11 (1991)

Cosmic Rays from Primordial Black Holes. *Jane H. MacGibbon & B. J. Carr.* 371, 447, 67-B5 (1991)

Solar Abundances from Gamma-Ray Spectroscopy: Comparisons with Energetic Particle, Photospheric, and Coronal Abundances. *R. J. Murphy, R. Ramaty, B. Kozlovsky, & D. V. Reames.* 371, 793, 71-D6 (1991)

Coded-Aperture Imaging of the Galactic Center Region at Gamma-Ray Energies. *Walter R. Cook, John M. Grunsfeld, William A. Heindl, David M. Palmer, Thomas A. Prince, Stephen M. Schindler, & Edward C. Stone.* 372, L75, 85-D1 (1991)

Stationary Accelerators around Keplerian Disks of Aligned Magnetized Collapsed Objects: Pair Production and Gamma-Ray Emission. *K. S. Cheng & M. Ruderman.* 373, 187, 88-C9 (1991)

Cosmic-Ray Distribution and the Dynamic Balance in the Large Magellanic Cloud. *Carl E. Fichtel, Mehmet E. Özel, Robert G. Stone, & P. Sreekumar.* 374, 134, 99-F7 (1991)

Determination of Confidence Limits for Experiments with Low Numbers of Counts. *Ralph P. Kraft, David N. Burrows, & John A. Nousek.* 374, 344, 102-D1 (1991)

Search for Diffuse Cosmic Gamma Rays above 200 TeV. *J. Matthews, D. Ciampa, K. D. Green, J. Kolodziejczak, D. Nitz, D. Sinclair, G. Thornton, J. C. van der Velde, G. L. Cassiday, R. Cooper, S. C. Corbato, B. R. Dawson, J. W. Elbert, B. E. Fick, D. B. Kieda, S. Ko, D. F. Liebing, E. C. Loh, M. H. Salamon, J. D. Smith, P. Sokolsky, S. B. Thomas, & B. Wheeler.* 375, 202, 113-E1 (1991)

A Search for the 478 keV Line from the Decay of Nucleosynthetic ^{7}Be. *Michael J. Harris, Mark D. Leising, & Gerald H. Share.* 375, 216, 113-F5 (1991)

Bremsstrahlung and Energetic Electrons in Supernovae. *Donald D. Clayton & Lih-Sin The.* 375, 221, 113-F12 (1991)

GRIS Observations of ^{26}Al Gamma-Ray Line Emission from Two Points in the Galactic Plane. *B. J. Teegarden, S. D. Barthelmy, N. Gehrels, J. Tueller, M. Leventhal, & C. J. MacCallum.* 375, L9, 117-B4 (1991)

GRIS Observations of Positron Annihilation Radiation from the Galactic Center. *N. Gehrels, S. D. Barthelmy, B. J. Teegarden, J. Tueller, M. Leventhal, & C. J. MacCallum.* 375, L13, 117-B10 (1991)

Detection of a Feature at 0.44 MeV in the Crab Pulsar Spectrum with FIGARO II: A Redshifted Positron Annihilation Line? *E. Massaro, G. Matt, M. Salvati, E. Costa, P. Mandrou, M. Niel, J. F. Olive, T. Mineo, B. Sacco, L. Scarsi, G. Gerardi, B. Agrinier, E. Barouch, R. Comte, B. Parlier, & J. L. Masnou.* 376, L11, 130-B7 (1991)

Transient Particle Acceleration in Strongly Magnetized Neutron Stars. *Fulvio Melia & Marco Fatuzzo.* 376, 673, 134-F7 (1991)

Search for TeV Emission from 4U 0115+63. *D. J. Macomb, M. F. Cawley, D. J. Fegan, A. M. Hillas, P. W. Kwok, R. C. Lamb, M. J. Lang, D. A. Lewis, P. T. Reynolds, G. Vacanti, & T. C. Weekes.* 376, 738, 135-D12 (1991)

Gamma-Ray Observations of the Crab Nebula at TeV Energies. *G. Vacanti, M. F. Cawley, E. Colombo, D. J. Fegan, A. M. Hillas, P. W. Kwok, M. J. Lang, R. C. Lamb, D. A. Lewis, D. J. Macomb, K. S. O'Flaherty, P. T. Reynolds, & T. C. Weekes.* 377, 467, 145-E4 (1991)

Locating Very High Energy Gamma-Ray Sources with Arcminute Accuracy. *C. W. Akerlof, M. F. Cawley, M. Chantell, D. J. Fegan, K. Harris, A. M. Hillas, D. G. Jennings, R. C. Lamb, M. A. Lawrence, M. J. Lang, D. A. Lewis, D. I. Meyer, G. Mohanty, K. S. O'Flaherty, M. Punch, P. T. Reynolds, M. S. Schubnell, T. C. Weekes, & T. Whitaker.* 377, L97, 150-E6 (1991)

Cosmic-Ray Transport and Gamma-Ray Emission in Supernova Shells. *A. K. Harding, A. Mastichiadis, R. J. Protheroe, & A. P. Szabo.* 378, 163, 153-A9 (1991)

Positron Annihilation in the Interstellar Medium. *Nidhal Guessoum, Reuven Ramaty, & Richard E. Lingenfelter.* 378, 170, 153-B4 (1991)

SN 1991T: *Gamma-Ray Observatory*'s First Supernova? *Adam Burrows, Anurag Shankar, & Kenneth A. Van Riper.* 379, L7, 169-B1 (1991)

A Model of Unpulsed Very High Energy Gamma Rays from the Crab Nebula and Pulsar. *P. W. Kwok, K. S. Cheng, & M. M. Lau.* 379, 653, 172-G1 (1991)

Solar Gamma-Ray-Line Flares, Type II Radio Bursts, and Coronal Mass Ejections. *E. W. Cliver, H. V. Cane, D. J. Forrest, M. J. Koomen, R. A. Howard, & C. S. Wright.* 379, 741, 174-A2 (1991)

"Hidden" Millisecond Pulsars. *Marco Tavani.* 379, L69, 175-D5 (1991)

On the Distribution of the Diffuse Galactic Gamma-Ray Line Emissions at 1809 keV and 511 keV. *P. von Ballmoos.* 380, 98, 177-C1 (1991)

Search for High-Energy Neutrinos from Celestial Sources in the Kolar Gold Fields Experiment. *H. Adarkar, S. R. Dugad, Y. Hayashi, N. Ito, S. Kawakami, M. R. Krishnaswamy, M. G. K. Menon, S. Miyake, N. K. Mondal, T. Nakamura, V. S. Narasimham, B. V. Sreekantan, & K. Tanaka.* 380, 235, 179-A1 (1991)

A Model of Pulsed Gamma Radiation from the X-Ray Binary Hercules X-1/HZ Herculis. *F. A. Aharonian & A. M. Atoyan.* 381, 220, 191-F8 (1991)

Compton Backscattered 511 keV Annihilation Line Emission and the 170 keV Line from the Galactic Center Direction. *Richard E. Lingenfelter & Xin-Min Hua.* 381, 426, 196-A10 (1991)

A Search for the 2.223 MeV Neutron Capture Gamma-Ray Line from the Directions of Cygnus and the Galactic Center. *Michael J. Harris & Gerald H. Share.* 381, 439, 196-B10 (1991)

Capture Rate of the ^{7}Li$(n, \gamma)^8$Li Reaction by Prompt Gamma-Ray Detection. *Y. Nagai, M. Igashira, N. Mukai, T. Ohsaki, F. Uesawa, K. Takeda, T. Ando, H. Kitazawa, S. Kubono, & T. Fukuda.* 381, 444, 196-C1 (1991)

Inverse-Compton Gamma-Ray Emission from Chaotic, Early-Type Stellar Winds and Its Detectability by *Gamma Ray Observatory*. *Wan Chen & Richard L. White.* 381, L63, 199-E1 (1991)

Transient Particle Acceleration in Strongly Magnetized Neutron Stars. II. Effects Due to a Dipole Field Geometry. *Marco Fatuzzo & Fulvio Melia.* 382, 570, 208-E10 (1991)

Search for TeV Gamma-Ray Emission from Hercules X-1. *P. T. Reynolds, M. F. Cawley, D. J. Fegan, A. M. Hillas, P. W. Kwok, R. C. Lamb, M. J. Lang, D. A. Lewis, D. J. Macomb, K. S. O'Flaherty, G. Vacanti, & T. C. Weekes.* 382, 640, 209-E7 (1991)

Simultaneous Correlation Analysis of Combined Gamma-Ray Data. *K. N. Yu.* 382, 647, 209-F1 (1991)

Signatures of Cosmic-Ray Interactions on the Solar Surface. *D. Seckel, Todor Stanev, & T. K. Gaisser.* 382, 652, 209-F8 (1991)

Low-Flux Hard X-Ray Observation of Cygnus X-1. *P. Ubertini, A. Bazzano, C. La Padula, R. K. Manchanda, V. F. Polcaro, R. Staubert, E. Kendziorra, & F. Perotti.* 383, 263, 215-D9 (1991)

SIGMA Discovery of Variable e^+-e^- Annihilation Radiation from the Near Galactic Center Variable Compact Source 1E 1740.7−2942. *L. Bouchet, P. Mandrou, J. P. Roques, G. Vedrenne, B. Cordier, A. Goldwurm, F. Lebrun, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, M. Pavlinsky, S. Grebenev, G. Babalyan, I. Dekhanov, & N. Khavenson.* 383, L45, 226-C1 (1991)

Three Spectral States of 1E 1740.7−2942: From Standard Cygnus X-1 Type Spectrum to the Evidence of Electron-Positron Annihilation Feature. *R. Sunyaev, E. Churazov, M. Gilfanov, M. Pavlinsky, S. Grebenev, G. Babalyan, I. Dekhanov, N. Khavenson, L. Bouchet, P. Mandrou, J. P. Roques, G. Vedrenne, B. Cordier, A. Goldwurm, F. Lebrun, & J. Paul.* 383, L49, 226-C6 (1991)

A Search of the Northern Sky for Ultra–High-Energy Point Sources. *D. E. Alexandreas, D. Berley, S. Biller, R. L. Burman, D. R. Cady, C. Y. Chang, B. L. Dingus, C. L. Dion, G. M. Dion, R. W. Ellsworth, S. J. Freedman, B. K. Fujikawa, J. A. Goodman, T. J. Haines, C. M. Hoffman, D. A. Krakauer, P. W. Kwok, X-Q Lu, D. E. Nagle, M. Potter, V. D. Sandberg, C. Sinnis, M. J. Stark, P. R. Vishwanath, G. B. Yodh, & W. P. Zhang.* 383, L53, 226-C11 (1991)

Gamma-Ray Bursts from Sheared Alfvén Waves. *Fulvio Melia & Marco Fatuzzo.* 383, L57, 226-D1 (1991)

Multiparameter Linear Least-Squares Fitting to Poisson Data One Count at a Time. *Wm. A. Wheaton, Alfred L. Dunklee, Allan S. Jacobson, James C. Ling, William A. Mahoney, & Robert G. Radocinski.* 438, 322, 6-A1 (1995)

GAMMA RAYS: OBSERVATIONS

Detection of High-Energy Gamma Radiation from Quasar 3C 279 by the *EGRET* Telescope on the *Compton Gamma Ray Observatory*. *R. C. Hartman, D. L. Bertsch, C. E. Fichtel, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, H. I. Nel, P. L. Nolan, K. Pinkau, H. Rothermel, E. Schneid, M. Sommer, P. Sreekumar, & D. J. Thompson.* 385, L1, 17-A8 (1992)

Compton Telescope Observations of Gamma Rays from SN 1987A. *Farid Ait-Ouamer, Alan D. Kerrick, Terrence J. O'Neill, O. Tumay Tumer, Allen D. Zych, & R. Stephen White.* 386, 715, 34-B11 (1992)

HEAO 3 Limits on the ^{44}Ti Yield in Galactic Supernovae. *W. A. Mahoney, J. C. Ling, W. A. Wheaton, & J. C. Higdon.* 387, 314, 40-G5 (1992)

Dust and Gas Contributions to the Energy Output of SN 1987A on Day 1153. *E. Dwek, S. H. Moseley, W. Glaccum, J. R. Graham, R. F. Loewenstein, R. F. Silverberg, & R. K. Smith.* 389, L21, 66-C11 (1992)

X-Ray Nova in Musca (GRS 1124−68): Hard X-Ray Source with Narrow Annihilation Line. *R. Sunyaev, E. Churazov, M. Gilfanov, A. Dyachkov, N. Khavenson, S. Grebenev, R. Kremnev, K. Sukhanov, A. Goldwurm, J. Ballet, B. Cordier, J. Paul, M. Denis, G. Vedrenne, M. Niel, & E. Jourdain.* 389, L75, 73-E1 (1992)

SIGMA/*GRANAT* Soft Gamma-Ray Observations of the X-Ray Nova in Musca: Discovery of Positron Annihilation Emission Line. *A. Goldwurm, J. Ballet, B. Cordier, J. Paul, L. Bouchet, J. P. Roques, D. Barret, P. Mandrou, R. Sunyaev, E. Churazov, M. Gilfanov, A. Dyachkov, N. Khavenson, V. Kovtunenko, R. Kremnev, & K. Sukhanov.* 389, L79, 73-E6 (1992)

Evidence for Time Variability of PeV Energy Flux from Cygnus X-3: Ooty Observations during the Period 1984–1987. *S. C. Tonwar, S. K. Gupta, M. R. Rajeev, B. V. Sreekantan, & R. Srivatsan.* 390, 273, 77-D1 (1992)

Evidence for Neutral Emission above 10^{17} eV from LMC X-4. *R. Meyhandan, B. R. Dawson, R. W. Clay, L. Horton, J. Ulrichs, & M. M. Winn.* 391, 236, 88-G11 (1992)

Galactic Gamma-Ray Emission from Radio Pulsars. *M. Bailes & D. A. Kniffen.* 391, 659, 96-C1 (1992)

Search for Soft Gamma Repeaters in the *SMM*/HXRBS Data. *C. Kouveliotou, J. P. Norris, K. S. Wood, T. L. Cline, B. R. Dennis, U. D. Desai, & L. E. Orwig.* 392, 179, 103-B9 (1992)

On the Origin of Variable 511 keV Line Emission from the Galactic Center Region. *R. Ramaty, M. Leventhal, K. W. Chan, & R. E. Lingenfelter.* 392, L63, 113-C5 (1992)

On the Angular Extent of the Galactic 1.8 MeV Line Emission from Radioactive ^{26}Al. *Martin Varendorff & Volker Schönfelder.* 395, 158, 142-B7 (1992)

SN 1987A: The Impact of Greater than MeV Gamma-Ray Luminosity Limits on Theories of Particle Acceleration. *R. K. Sood, L. Waldron, G. K. Rochester, T. J. Sumner, G. Frye, T. Jenkins, R. Staubert, E. Kendziorra, P. Ubertini, & A. Bazzano.* 395, 637, 151-B3 (1992)

A Search for TeV Emission from Cygnus X-3. *K. S. O'Flaherty, M. F. Cawley, D. J. Fegan, R. C. Lamb, M. J. Lang, D. A. Lewis, M. Punch, P. T. Reynolds, G. Vacanti, & T. C. Weekes.* 396, 674, 165-F9 (1992)

Gamma Rays from Pion Decay: Evidence for Long-Term Trappings of Particles in Solar Flares. *Natalie Mandzhavidze & Reuven Ramaty.* 396, L111, 167-F7 (1992)

Search for 100 TeV γ-Ray Emission from the Galactic Disk. *M. Aglietta, B. Alessandro, F. Arneodo, L. Bergamasco, A. Campos Fauth, C. Castagnoli, A. Castellina, C. Cattadori, A. Chiavassa, G. Cini, B. D'Ettorre Piazzoli, W. Fulgione, P. Galeotti, P. L. Ghia, G. Mannocchi, C. Morello, G. Navarra, L. Riccati, O. Saavedra, G. C. Trinchero, P. Vallania, & S. Vernetto.* 397, 148, 169-G4 (1992)

A Jet Model for the Gamma-Ray–emitting Blazar 3C 279. *L. Maraschi, G. Ghisellini, & A. Celotti.* 397, L5, 173-B4 (1992)

A Limit on the ^{57}Co Gamma-Ray Flux from SN 1987A. *S. Gunji, T. Kamae, S. Miyazaki, Y. Sekimoto, T. Takahashi, T. Tamura, M. Tanaka, N. Yamaoka, T. Yamagami, M. Nomachi, H. Murakami, J. Braga, & J. A. Neri.* 397, L83, 181-A8 (1992)

Observation of A0535+26 at Energies above 150 keV with the Figaro II Experiment. *G. Cusumano, T. Mineo, B. Sacco, L. Scarsi, G. Gerardi, B. Agrinier, E. Barouch, R. Comte, B. Parlier, J. L. Masnou, E. Massaro, G. Matt, E. Costa, M. Salvati, P. Mandrou, M. Niel, & J. F. Olive.* 398, L103, 194-E1 (1992)

Oriented Scintillation Spectrometer Experiment Observations of ^{57}Co in SN 1987A. *J. D. Kurfess, W. N. Johnson, R. L. Kinzer, R. A. Kroeger, M. S. Strickman, J. E. Grove, M. D. Leising, D. D. Clayton, D. A. Grabelsky, W. R. Purcell, M. P. Ulmer, R. A. Cameron, & G. V. Jung.* 399, L137, 208-B7 (1992)

Observations of the Large Magellanic Cloud in High-Energy Gamma Rays. *P. Sreekumar, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. J. Schneid, & D. J. Thompson.* 400, L67, 220-E1 (1992)

The Radio Counterpart of the Hard X-Ray Source GRS 1758−258. *L. F. Rodríguez, I. F. Mirabel, & J. Martí.* 401, L15, 227-C1 (1992)

SAS 2 Observation of Pulsed High-Energy Gamma Radiation from Geminga. *J. R. Mattox, D. L. Bertsch, C. E. Fichtel, R. C. Hartman, D. A. Kniffen, & D. J. Thompson.* 401, L23, 227-D1 (1992)

Search for Periodic Gamma-Ray Emission from Cygnus X-3 by the Egret Telescope on the *Compton Gamma-Ray Observatory*. *P. F. Michelson, D. L. Bertsch, J. Chiang, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, C. von Montigny, P. L. Nolan, K. Pinkau, H. Rothermel, E. Schneid, M. Sommer, P. Sreekumar, & D. J. Thompson.* 401, 724, 231-E1 (1992)

Detection of High-Energy Gamma-Ray Emission from the BL Lacertae Object Markarian 421 by the Egret Telescope on the *Compton Observatory*. *Y. C. Lin, D. L. Bertsch, J. Chiang, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. Schneid, P. Sreekumar, & D. J. Thompson.* 401, L61, 232-F9 (1992)

Survey of Ultra–High-Energy Gamma-Ray Emission in the Magellanic Clouds. *W. H. Allen, I. A. Bond, E. Budding, M. J. Conway, A. Daniel, K. B. Fenton, H. Fujii, Z. Fujii, N. Hayashida, K. Hibino, M. Honda, J. E. Humble, S. Kabe, K. Kasahara, T. Kifune, G. D. Lythe, A. Masaike, Y. Matsubara, K. Mitsui, Y. Miura, M. Mori, Y. Muraki, M. Nagano, T. Nakamura, M. Nishizawa, P. M. Norris, S. Ogio, To. Saito, M. Sakata, H. Sato, H. M. Shimizu, M. Spencer, J. R. Storey, T. Tanimori, M. Teshima, S. Torii, A. Wadsworth, Y. Watase, M. D. Woodhams, Y. Yamamoto, P. C. M. Yock, & T. Yuda (The JANZOS Collaboration).* 403, 239, 16-G10 (1993)

Observations of SN 1987A with the Gamma-Ray Spectrometer HEXAGONE. *C. G. L. Chapuis, P. Wallyn, Ph. Durouchoux, J. Matteson, M. Pelling, B. Bowman, M. Briggs, D. Gruber, L. Peterson, R. Lingenfelter, C. Cork, D. Landis, P. Luke, N. Madden, D. Malone, R. Pehl, M. Pollard, R. Lin,*

D. Smith, P. Feffer, K. Hurley, G. Vedrenne, M. Niel, & P. von Ballmoos. 403, 332, 18-A7 (1993)

New Constraints on the Positron Annihilation Media from the Direction of the Galactic Center Based on the 511 keV Line Profiles. *P. Wallyn, Ph. Durouchoux, C. Chapuis, J. Matteson, B. Bowman, M. Pelling, L. Peterson, R. Lin, D. Smith, P. Feffer, K. Hurley, G. Vedrenne, P. von Ballmoos, & I. Malet.* 403, 621, 23-D1 (1993)

Daily Search for Emission of Ultra–High-Energy Radiation from Point Sources. *D. E. Alexandreas, G. Allen, D. Berley, S. Biller, R. L. Burman, D. R. Cady, M. Cavalli-Sforza, C. Y. Chang, D. Coyne, C. Dion, G. M. Dion, D. Dorfan, R. W. Ellsworth, S. J. Freedman, B. K. Fujikawa, J. A. Goodman, T. J. Haines, C. M. Hoffman, L. Kelley, S. Klein, D. A. Krakauer, P. W. Kwok, X.-Q. Lu, D. E. Nagle, M. Potter, V. D. Sandberg, C. Sinnis, A. Shoup, M. J. Stark, P. R. Vishwanath, D. D. Weeks, D. A. Williams, J.-P. Wu, G. B. Yodh, & W. Zhang (The CYGNUS Collaboration).* 405, 353, 45-E3 (1993)

Detection of Gamma-Ray Emission from the Quasar PKS 0208−512. *D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. Schneid, P. Sreekumar, & D. J. Thompson.* 405, L21, 47-D8 (1993)

GRIS Detections of the 511 keV Line from the Galactic Center Region in 1992. *M. Leventhal, S. D. Barthelmy, N. Gehrels, B. J. Teegarden, J. Tueller, & L. M. Bartlett.* 405, L25, 47-E1 (1993)

Upper Limits on TeV Gamma-Ray Emission from Centaurus A, Vela X-1, Centaurus X-3, and Circinus X-1. *W. H. Allen, I. A. Bond, E. Budding, M. J. Conway, A. Daniel, K. B. Fenton, H. Fujii, Z. Fujii, N. Hayashida, K. Hibino, M. Honda, J. E. Humble, S. Kabe, K. Kasahara, T. Kifune, G. D. Lythe, A. Masaike, Y. Matsubara, K. Mitsui, Y. Miura, M. Mori, Y. Muraki, M. Nagano, T. Nakamura, M. Nishizawa, P. M. Norris, S. Ogio, To. Saito, M. Sakata, H. Sato, H. M. Shimizu, M. Spencer, J. R. Storey, T. Tanimori, M. Teshima, S. Torii, A. Wadsworth, Y. Watase, M. D. Woodhams, Y. Yamamoto, P. C. M. Yock, & T. Yuda (The JANZOS Collaboration).* 405, 554, 50-A1 (1993)

SIGMA Upper Limits to the Hard X-Ray/Soft Gamma-Ray Emission from the Millisecond Pulsars of the Nearby Globular Cluster 47 Tucanae. *D. Barret, P. Mandrou, M. Denis, J. F. Olive, P. Laurent, A. Claret, F. Lebrun, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, A. Dyachkov, N. Khavenson, B. Novikov, R. Kremnev, & A. Sukhanov.* 405, L59, 54-C7 (1993)

Gamma-Ray Observations of the Galactic Center: Removing the Galactic Ridge Contribution. *Neil Gehrels & Jack Tueller.* 407, 597, 78-A8 (1993)

EGRET Detection of High-Energy Gamma Radiation from the OVV Quasar 3C 454.3. *R. C. Hartman, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, B. G. Piner, E. Schneid, P. Sreekumar, & D. J. Thompson.* 407, L41, 82-B1 (1993)

OSSE Observations of NGC 4151. *M. Maisack, W. N. Johnson, R. L. Kinzer, M. S. Strickman, J. D. Kurfess, R. A. Cameron, G. V. Jung, D. A. Grabelsky, W. R. Purcell, & M. P. Ulmer.* 407, L61, 82-C10 (1993)

TeV Gamma Rays from Millisecond Pulsars and the Detectability of Globular Clusters. *I. A. Smith.* 408, 468, 91-A7 (1993)

An Observation of the Galactic Center Hard X-Ray Source, 1E 1740.7−2942, with the Caltech Coded-Aperture Telescope. *William A. Heindl, Walter R. Cook, John M. Grunsfeld, David M. Palmer, Thomas A. Prince, Stephen M. Schindler, & Edward C. Stone.* 408, 507, 91-E7 (1993)

Detection of High-Energy Gamma Rays from Quasar PKS 0528+134 by EGRET on the *Compton Gamma Ray Observatory. S. D. Hunter, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, P. Møller, C. von Montigny, P. L. Nolan, K. Pinkau, H.-D. Radecke, H. Rothermel, P. Shaver, E. Schneid, M. Sommer, P. Sreekumar, & D. J. Thompson.* 409, 134, 98-E13 (1993)

Observations of the Crab Pulsar and Nebula by the EGRET Telescope on the *Compton Gamma-Ray Observatory. P. L. Nolan, Z. Arzoumanian, D. L. Bertsch, J. Chiang, C. E. Fichtel, J. M. Fierro, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, H. I. Nel, D. Nice, K. Pinkau, H. Rothermel, E. Schneid, M. Sommer, P. Sreekumar, J. H. Taylor, & D. J. Thompson.* 409, 697, 107-F8 (1993)

Evidence for a Spatially Extended Component of Gamma Rays from Solar Flares. *W. Thomas Vestrand & David J. Forrest.* 409, L69, 111-F8 (1993)

Gamma Radiation from Blazar PKS 0537−441. *D. J. Thompson, D. L. Bertsch, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. J. Schneid, & P. Sreekumar.* 410, 87, 113-C1 (1993)

VLA Observations of 1E 1740.7−2942: A Search for Radio Recombination Lines of Positronium. *K. R. Anantharamaiah, K. S. Dwarakanath, D. Morris, W. M. Goss, & V. Radhakrishnan.* 410, 110, 113-E1 (1993)

The EGRET Detection of Quasar 1633+382. *J. R. Mattox, D. L. Bertsch, J. Chiang, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. Schneid, P. Sreekumar, & D. J. Thompson.* 410, 609, 121-C5 (1993)

Calibration of the Energetic Gamma-Ray Experiment Telescope (EGRET) for the *Compton Gamma-Ray Observatory. D. J. Thompson, D. L. Bertsch, C. E. Fichtel, R. C. Hartman, R. Hofstadter, E. B. Hughes, S. D. Hunter, B. W. Hughlock, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, C. von Montigny, P. L. Nolan, H. I. Nel, K. Pinkau, H. Rothermel, E. J. Schneid, M. Sommer, P. Sreekumar, D. Tieger, & A. H. Walker.* 86, 629, 22-F1 (1993)

Instrument Description and Performance of the Imaging Gamma-Ray Telescope COMPTEL aboard the *Compton Gamma-Ray Observatory. V. Schönfelder, H. Aarts, K. Bennett, H. de Boer, J. Clear, W. Collmar, A. Connors, A. Deerenberg, R. Diehl, A. von Dordrecht, J. W. den Herder, W. Hermsen, M. Kippen, L. Kuiper, G. Lichti, J. Lockwood, J. Macri, M. McConnell, D. Morris, R. Much, J. Ryan, G. Simpson, M. Snelling, G. Stacy, H. Steinle, A. Strong, B. N. Swanenburg, B. Taylor, C. de Vries, & C. Winkler.* 86, 657, 23-A5 (1993)

The Oriented Scintillation Spectrometer Experiment: Instrument Description. *W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, W. R. Purcell, D. A. Grabelsky, M. P. Ulmer, D. A. Hillis, G. V. Jung, & R. A. Cameron.* 86, 693, 23-D3 (1993)

Time Variability in the Gamma-Ray Emission of 3C 279. *D. A. Kniffen, D. L. Bertsch, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. Schneid, P. Sreekumar, & D. J. Thompson.* 411, 133, 128-F10 (1993)

Gamma-Ray Continuum and Line Observations of SN 1987A. *D. M. Palmer, S. M. Schindler, W. R. Cook, J. M. Grunsfeld, W. A. Heindl, T. A. Prince, & E. C. Stone.* 412, 203, 144-E11 (1993)

Muon Astronomy with the MACRO Detector. *S. Ahlen, M. Ambrosio, R. Antolini, G. Auriemma, A. Baldini, B. Bam, G. Barbarino, B. Barish, G. Battistoni, R. Bellotti, C. Bemporad, P. Bernardini, H. Bilokon, V. Bisi, C. Bloise, S. Bussino, F. Cafagna, M. Calicchio, P. Campana, D. Campana, M. Carboni, S. Cecchini, F. Cei, V. Chiarella, C. Chiera, A. Cobis, R. Cormack, A. Corona, S. Coutu, G. DeCataldo, H. Dekhissi, C. DeMarzo, M. De Vincenzi, A. Di Credico, E. Diehl, O. Erriquez, C. Favuzzi, D. Ficenec, C. Forti, L. Foti, P. Fusco, G. Giacomelli, G. Giannini, N. Giglietto, P. Giubellino, M. Grassi, P. Green, A. Grillo, F. Guarino, C. Gustavino, A. Habig, R. Heinz, J. Hong, E. Iarocci, E. Katsavounidis, E. Kearns, S. Klein, S. Kyriazopoulou, E. Lamanna, C. Lane, C. Lee, D. Levin, P. Lipari, G. Liu, R. Liu, M. Longo, G. Ludlam, G. Mancarella, G. Mandrioli, A. Margiotta-Neri, A. Marin, A. Marini, D. Martello, G. Martellotti, A. Marzari Chiesa, M. Masera, P. Matteuzzi, D. Michael, J. L. Miller, P. Monacelli, M. Monteno, S. L. Mufson, J. Musser, S. Nutter, C. Okada, G. Osteria, O. Palamara, S. Parlati, V. Patera, L. Patrizii, R. Pazzi, C. Peck, J. Petrakis, S. Petrera, N. Pignatano, P. Pistilli, F. Predieri, L. Ramello, J. Reynoldson, F. Ronga, G. Rosa, C. Satriano, L. Satta, E. Scapparone, K. Scholberg, A. Sciubba, P. Serra Lugaresi, M. Severi, M. Sitta, P. Spinelli, M. Spinetti, M. Spurio, J. Steele, R. Steinberg, J. Stone, L. Sulak, A. Surdo, G. Tarlé, V. Togo, V. Valente, G. Verdone, C. Walter, R. Webb, & W. Worstell (The MACRO Collaboration).* 412, 301, 145-G9 (1993)

Pulsed High-Energy Gamma Rays from PSR 1055−52. *J. M. Fierro, D. L. Bertsch, K. T. S. Brazier, J. Chiang, N. D'Amico, C. E. Fichtel, R. C. Hartman, S. D. Hunter, S. Johnston, G. Kanbach, V. M. Kaspi, D. A. Kniffen, Y. C. Lin, A. G. Lyne, R. N. Manchester, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. Schneid, & D. J. Thompson.* 413, L27, 162-D13 (1993)

OSSE Observations of Galactic 511 keV Positron Annihilation Radiation: Initial Phase 1 Results. *W. R. Purcell, D. A. Grabelsky, M. P. Ulmer, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, & G. V. Jung.* 413, L85, 168-E4 (1993)

Observation of High-Energy Gamma Rays from the Quasi-stellar Object CTA 102. *P. L. Nolan, D. L. Bertsch, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, E. Schneid, P. Sreekumar, & D. J. Thompson.* 414, 82, 171-A13 (1993)

Compton-backscattered Annihilation Radiation from the Galactic Center Region. *D. M. Smith, R. P. Lin, P. Feffer, S. Slassi, K. Hurley, J. Matteson, H. B. Bowman, R. M. Pelling, M. Briggs, D. Gruber, L. E. Peterson, R. E. Lingenfelter, P. von Ballmoos, I. Malet, M. Niel, G. Vedrenne, P. Durouchoux, P. Wallyn, C. Chapuis, C. Cork, D. Landis, P. Luke, N. Madden, D. Malone, & R. Pehl.* 414, 165, 172-B1 (1993)

How Many Positron Sources in the Galactic Center Region? *P. Wallyn & Ph. Durouchoux.* 414, 178, 172-C2 (1993)

Soft X-Ray Properties of the Geminga Pulsar. *J. P. Halpern & M. Ruderman.* 415, 286, 188-E8 (1993)

EGRET Observations of Active Galactic Nuclei: 0836+710, 0454−234, 0804+499, 0906+430, 1510−089, and 2356+196. *D. J. Thompson, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. J. Schneid, & P. Sreekumar.* 415, L13, 191-F13 (1993)

Diffuse Gamma-Ray Emission in the Galactic Plane from Cosmic-Ray, Matter, and Photon Interactions. *D. L. Bertsch, T. M. Dame, C. E. Fichtel, S. D. Hunter, P. Sreekumar, J. G. Stacy, & P. Thaddeus.* 416, 587, 210-F6 (1993)

SMM Observations of Gamma-Ray Transients. I. A Search for Variable Emission at MeV Energies from Five Galactic and Extragalactic Sources. *M. J. Harris, G. H. Share, M. D. Leising, & J. E. Grove.* 416, 601, 210-G8 (1993)

EGRET Limits on High-Energy Gamma-Ray Emission from X-Ray– and Low-Energy Gamma-Ray–selected Seyfert Galaxies. *Y. C. Lin, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. Schneid, P. Sreekumar, & D. J. Thompson.* 416, L53, 216-B11 (1993)

OSSE Observations of the Bright Seyfert 1 Galaxy IC 4329A. *A. C. Fabian, K. Nandra, A. Celotti, M. J. Rees, J. E. Grove, & W. N. Johnson.* 416, L57, 216-C1 (1993)

Gamma-Ray Escape in Type Ia Supernovae: The 847 keV–m_B Diagram. *P. Ruiz-Lapuente, G. G. Lichti, R. Lehoucq, R. Canal, & M. Cassé.* 417, 547, 226-B5 (1993)

Gamma-Ray and Radio Observations of PSR B1509−58. *M. P. Ulmer, S. M. Matz, R. B. Wilson, M. J. Finger, K. S. Hagedon, D. A. Grabelsky, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, W. R. Purcell, M. S. Strickman, V. M. Kaspi, S. Johnston, R. N. Manchester, A. G. Lyne, & N. D'Amico.* 417, 738, 228-E8 (1993)

A Northern Sky Survey for Astrophysical Point Sources of 100 TeV Gamma Radiation. *T. A. McKay, A. Borione, M. Catanese, C. E. Covault, J. W. Cronin, B. E. Fick, K. G. Gibbs, K. D. Green, S. Hauptfeld, D. Kieda, H. A. Krimm, N. M. Mascarenhas, J. Matthews, B. J. Newport, D. Nitz, R. A. Ong, L. J. Rosenberg, D. Sinclair, & J. C. van der Velde.* 417, 742, 228-F1 (1993)

Search for Emission of Ultra–High-Energy Radiation from Active Galactic Nuclei. *D. E. Alexandreas, G. E. Allen, D. Berley, S. Biller, R. L. Burman, M. Cavalli-Sforza, C. Y. Chang, M. L. Chen, P. Chumney, D. Coyne, C. Dion, G. M. Dion, D. Dorfan, R. W. Ellsworth, J. A. Goodman, T. J. Haines, C. M. Hoffman, L. Kelley, S. Klein, D. E. Nagle, S. C. Schaller, R. Schnee, A. Shoup, C. Sinnis, M. J. Stark, D. D. Weeks, D. A. Williams, J.-P. Wu, T. Yang, G. B. Yodh, & W. Zhang (The CYGNUS Collaboration).* 418, 832, 242-G11 (1993)

TeV Gamma-Ray Observations of *Compton Gamma-Ray Observatory* Pulsars: Evidence against Inverse-Compton Controlled Outer Gaps. *H. I. Nel, O. C. de Jager, B. C. Raubenheimer, C. Brink, P. J. Meintjes, & A. R. North.* 418, 836, 243-A3 (1993)

Ultraviolet Observations of the Gamma-Ray Blazar 3C 279 following the Gamma-Ray Flare of 1991 June. *Jerry T. Bonnell, W. Thomas Vestrand, & J. Gregory Stacy.* 420, 545, 9-D3 (1994)

SMM Observations of Gamma-Ray Transients. II. A Search for Gamma-Ray Lines between 400 and 600 keV from the Crab Nebula. *Michael J. Harris, Gerald H. Share, & Mark D. Leising.* 420, 649, 10-G1 (1994)

Search for Gamma-Ray Emission Lines from SS 433. II. 1980–1989. *B. J. Geldzahler & H. A. Geller.* 420, 655, 10-G9 (1994)

High-Energy Gamma Radiation from Geminga Observed by EGRET. *H. A. Mayer-Hasselwander, D. L. Bertsch, K. T. S. Brazier, J. Chiang, C. E. Fichtel, J. M. Fierro, R. C. Hartman, S. D. Hunter, G. Kanbach, P. W. Kwok, D. A. Kniffen, Y. C. Lin, J. R. Mattox, P. F. Michelson, P. L. Nolan, K. Pinkau, H. Rothermel, E. J. Schneid, M. Sommer, P. Sreekumar, D. J. Thompson, & C. von Montigny.* 421, 276, 19-D6 (1994)

Spectral Evolution of Gamma-Ray Bursts Detected by the SIGNE Experiment. I. Correlation between Intensity and Spectral Hardness. *Vincent E. Kargatis, Edison P. Liang, Kevin C. Hurley, C. Barat, E. Eveno, & M. Niel.* 422, 260, 33-C12 (1994)

High-Energy Gamma Rays from the Intense 1993 January 31 Gamma-Ray Burst. *M. Sommer, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, G. J. Fishman, A. K. Harding, R. C. Hartman, S. D. Hunter, K. Hurley, G. Kanbach, D. A. Kniffen, C. Kouveliotou, Y. C. Lin, J. R. Matiox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. Schneid, P. Sreekumar, & D. J. Thompson.* 422, L63, 45-A1 (1994)

Gamma-Ray Observations of Pulsars. *M. P. Ulmer.* 90, 789, 13-E6 (1994)

Gamma Rays from the Geminga Pulsar: Variations with Time and Phase. *I. A. Grenier, K. Bennett, R. Buccheri, M. Gros, R. N. Henriksen, W. Hermsen, G. Kanbach, & B. Sacco.* 90, 813, 13-G6 (1994)

Pulsar Studies with COMPTEL. *K. Bennett, M. Busetta, A. Carramiñana, R. Diehl, G. Lichti, V. Schönfelder, A. Strong, W. Hermsen, L. Kuiper, A. Connors, J. Ryan, & R. Buccheri.* 90, 823, 14-A5 (1994)

The Status of Ultra–High-Energy Gamma-Ray Observations. *R. J. Protheroe.* 90, 883, 14-F10 (1994)

High-Energy Gamma-Ray Observations of Active Galaxies. *Carl E. Fichtel.* 90, 917, 15-B12 (1994)

SIGMA Hard X-Ray Observations of the Burst Source MXB 1728−34. *A. Claret, A. Goldwurm, B. Cordier, J. Paul, J.-P. Roques, L. Bouchet, M.-C. Schmitz-Fraysse, P. Mandrou, E. Churazov, M. Gilfanov, R. Sunyaev, N. Khavenson, A. Diachkov, B. Novikov, R. Kremnev, & V. Kovtunenko.* 423, 436, 51-E5 (1994)

Very High Energy Gamma Rays from Active Galactic Nuclei: Cascading on the Cosmic Background Radiation Fields and the Formation of Pair Halos. *F. A. Aharonian, P. S. Coppi, & H. J. Völk.* 423, L5, 53-B7 (1994)

Gamma-Ray Limits on Galactic ^{60}Fe and ^{44}Ti Nucleosynthesis. *Mark D. Leising & Gerald H. Share.* 424, 200, 64-D7 (1994)

Observations of Cygnus X-1 by COMPTEL during 1991. *M. McConnell, D. Forrest, J. Ryan, W. Collmar, V. Schönfelder, H. Steinle, A. Strong, R. van Dijk, W. Hermsen, & K. Bennett.* 424, 933, 76-D1 (1994)

A Search for Nonburst Emission from the Positions of Well-localized Gamma-Ray Bursts. *John M. Horack & A. Gordon Emslie.* 425, 776, 91-D7 (1994)

Evidence for Intense Coronal Prompt Gamma-Ray Line Emission from a Solar Flare. *C. Barat, G. Trottet, N. Vilmer, J.-P. Dezalay, R. Talon, R. Sunyaev, O. Terekhov, & A. Kuznetsov.* 425, L109, 94-G10 (1994)

A Study of M31, M87, NGC 253, and M82 in High-Energy Gamma Rays. *P. Sreekumar, D. L. Bertsch, B. L. Dingus, J. A. Esposito, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. J. Schneid, & D. J. Thompson.* 426, 105, 97-D1 (1994)

Search for Ultra–High-Energy Radiation from Gamma-Ray Bursts. *D. E. Alexandreas, G. E. Allen, D. Berley, S. Biller, R. L. Burman, M. Cavalli-Sforza, C. Y. Chang, M. L. Chen, P. Chumney, D. Coyne, C. Dion, G. M. Dion, D. Dorfan, R. W. Ellsworth, J. A. Goodman, T. J. Haines, M. Harmon, C. M. Hoffman, L. Kelley, S. Klein, D. E. Nagle, S. C. Schaller, D. M. Schmidt, R. Schnee, A. Shoup, C. Sinnis, M. J. Stark, D. D. Weeks, D. A. Williams, J.-P. Wu, T. Yang, G. B. Yodh, & W. Zhang (The CYGNUS Collaboration).* 426, L1, 103-A8 (1994)

π^0 Decay around Black Hole Candidates: A Spectral Component above 200 keV. *E. Jourdain & J. P. Roques.* 426, L11, 103-B6 (1994)

On the Optical Counterparts, Long-Term Variabilities, Radio Jets, and Accretion Sources in 1E 1740.7−2942 and GRS 1758−258. *Wan Chen, Neil Gehrels, & Marvin Leventhal.* 426, 586, 105-F6 (1994)

GRIS Background Reduction Results Using Isotopically Enriched Ge. *S. D. Barthelmy, L. M. Bartlett, N. Gehrels, M. Leventhal, B. J. Teegarden, J. Tueller, S. Belyaev, V. Lebedev, & H. V. Klapdor-Kleingrothaus.* 427, 519, 116-D6 (1994)

Observation of Pulsed Hard X-Rays/γ-Rays from PSR 1509−58. *S. Gunji, M. Hirayama, T. Kamae, S. Miyazaki, Y. Sekimoto, T. Takahashi, T. Tamura, M. Tanaka, N. Yamasaki, T. Yamagami, M. Nomachi, H. Murakami, J. Braga, & J. A. Neri.* 428, 284, 131-F7 (1994)

TeV Gamma-Ray Properties of Vela X-1. *B. C. Raubenheimer, A. R. North, O. C. de Jager, P. J. Meintjes, & H. I. Nel.* 428, 777, 140-A1 (1994)

Foreword. *Th. Courvoisier & Ph. Durouchoux.* 92, 325, 36-B6 (1994)

INTEGRAL: Overview and Mission Concept. *Christoph Winkler.* 92, 327, 36-B9 (1994)

Review of 3 Years of Observations with the Low-Energy Gamma-Ray Telescope SIGMA Onboard *Granat*. *P. Mandrou, J. P. Roques, L. Bouchet, M. Niel, J. Paul, J. P. Leray, F. Lebrun, J. Ballet, E. Churazov, M. Gilfanov, R. Sunyaev, B. Novikov, N. Khavenson, N. Kuleshova, A. Sheikhet, & I. Tserenin.* 92, 343, 36-D5 (1994)

A Review of Recent Results in Gamma-Ray Astronomy Obtained from High-Altitude Balloons. *B. J. Teegarden.* 92, 363, 36-F3 (1994)

Multiwavelength Approach to Gamma-Ray Sources in the Galactic Center Region. *I. F. Mirabel.* 92, 369, 36-F12 (1994)

Is the Galactic Center Annihilator 1E 1740.7−2942 a Source of MeV Gamma-Ray Continuum Emission? *Philippe Laurent & Jacques Paul.* 92, 375, 36-G5 (1994)

Review of *GRANAT*/SIGMA Observations of the Galactic Center Region. *E. Churazov, M. Gilfanov, R. Sunyaev, N. Khavenson, B. Novikov, A. Dyachkov, R. Kremnev, K. Sukhanov, B. Cordier, J. Paul, P. Laurent, A. Claret, L. Bouchet, J. P. Roques, P. Mandrou, & G. Vedrenne.* 92, 381, 36-G12 (1994)

HEAO 3 Observations of the Galactic Center 511 keV Line. *W. A. Mahoney, J. C. Ling, & Wm. A. Wheaton.* 92, 387, 37-A5 (1994)

Galactic 0.511 MeV Line Emission. *R. Ramaty, J. G. Skibo, & R. E. Lingenfelter.* 92, 393, 37-A12 (1994)

Long-Term Temporal Behavior of 1E 1740.7−2942. *Bertrand Cordier, Jacques Paul, & Jean-Marie Hameury.* 92, 401, 37-B8 (1994)

Annihilation and Backscattered Lines in the Galactic Center Region. *Ph. Durouchoux, P. Wallyn, & C. Chapuis.* 92, 405, 37-B13 (1994)

Observation of Transient High-Energy Emission Features in the Spectra of Black Hole Candidates and the Crab Nebula by *GRANAT*/SIGMA. *M. Gilfanov, E. Churazov, R. Sunyaev, N. Khavenson, B. Novikov, A. Dyachkov, I. Tserenin, K. Sukhanov, L. Bouchet, M. Denis, M. C. Schmitz-Fraysse, P. Mandrou, J. Paul, B. Cordier, A. Goldwurm, & F. Lebrun.* 92, 411, 37-C6 (1994)

COMPTEL Imaging of the Galactic Disk and the Separation of Diffuse Emission and Point Sources. *H. Bloemen, W. Hermsen, B. N. Swanenburg, C. P. de Vries, R. Diehl, V. Schönfelder, H. Steinle, A. W. Strong, A. Connors, M. McConnell, D. Morris, G. Stacy, K. Bennett, & C. Winkler.* 92, 419, 37-D2 (1994)

Diffuse Galactic Continuum Emission Measured by COMPTEL and the Cosmic-Ray Electron Spectrum. *A. W. Strong, R. Diehl, V. Schönfelder, M. Varendorff, G. Youssefi, H. Bloemen, W. Hermsen, C. de Vries, D. Morris, J. G. Stacy, & K. Bennett.* 92, 425, 37-D9 (1994)

COMPTEL Observations of the 1.809 MeV Gamma-Ray Line from Galactic ^{26}Al. *R. Diehl, C. Dupraz, K. Bennett, H. Bloemen, H. de Boer, W. Hermsen, G. G. Lichti, M. McConnell, D. Morris, J. Ryan, V. Schönfelder, H. Steinle, A. W. Strong, B. N. Swanenburg, M. Varendorff, & C. Winkler.* 92, 429, 37-E1 (1994)

Implications of ^{26}Al Emission at 1.8 MeV from the Vela Region. *U. Oberlack, R. Diehl, T. Montmerle, N. Prantzos, & P. von Ballmoos.* 92, 433, 37-E7 (1994)

Observation of the 1.8 MeV Emission Line from ^{26}Al and the Chemical Evolution of the Galaxy. *Georges Meynet.* 92, 441, 37-F2 (1994)

SIGMA Observations of the Bright X-Ray Transient Nova Persei: A New Black Hole Candidate? *J. P. Roques, L. Bouchet, E. Jourdain, P. Mandrou, A. Goldwurm, J. Ballet, A. Claret, F. Lebrun, A. Finoguenov, E. Churazov, M. Gilfanov, R. Sunyaev, B. Novikov, I. Chulkov, N. Kuleshova, & I. Tserenin.* 92, 451, 37-G2 (1994)

Fast Optical Variability of GRO J0422+32. *C. Bartolini, A. Guarnieri, A. Piccioni, G. M. Beskin, & S. I. Neizvestny.* 92, 455, 37-G8 (1994)

Noise Variability of the Hard X-Ray Transient Nova Persei. *M. Denis, J.-F. Olive, P. Mandrou, J. P. Roques, J. Ballet, A. Goldwurm, Ph. Laurent, B. Cordier, A. Vikhlinin, E. Churazov, M. Gilfanov, R. Sunyaev, A. Dyachkov, N. Khavenson, R. Kremnev, & V. Kovtunenko.* 92, 459, 38-A1 (1994)

Hard X-Ray Emission from Weakly Magnetized Neutron Stars. *Didier Barret & Gilbert Vedrenne.* 92, 505, 38-E7 (1994)

Gamma-Ray Pulsar Studies with COMPTEL. *W. Hermsen, L. Kuiper, R. Diehl, G. Lichti, V. Schönfelder, A. W. Strong, A. Connors, J. Ryan, K. Bennett, M. Busetta, A. Carramiñana, R. Buccheri, & I. A. Grenier.* 92, 559, 39-C7 (1994)

Gamma-Ray Properties of Active Galactic Nuclei. *V. Schönfelder.* 92, 593, 39-F8 (1994)

Gamma-Ray Bright Quasars and BL Lacertae Objects: EGRET Data. *Jonathan Schachter & Martin Elvis.* 92, 623, 40-B9 (1994)

Spectral Characteristics of Gamma-Ray Bursts Observed by the Anticoincidence Shield of the SIGMA Telescope aboard *GRANAT*. *François Pelaez, Laurent Bouchet, Elisabeth Jourdain, Michel Niel, Arnaud Claret, Philippe Laurent, François Lebrun, Jacques Paul, O. Terekhov, R. Sunyaev, A. Kuznetsov, D. Denisenko, M. Gilfanov, E. Churazov, N. Khavenson, & A. Diachkov.* 92, 651, 40-E4 (1994)

A 3 × 3 CsI(Tl) Array as an Example of a Segmented Detector. *J. A. Ruiz, J. L. Ferrero, G. Bernabeu, V. Reglero, & F. Sanchez.* 92, 659, 40-F1 (1994)

A Positron Annihilation Radiation Telescope Using Laue Diffraction in a Crystal Lens. *Peter von Ballmoos & Robert K. Smither.* 92, 663, 40-F7 (1994)

A New Telescope for Wide-Band Gamma-Ray Astronomy: The Silicon Compton Recoil Telescope (SCRT). *O. Tümay Tümer, Farid Ait-Ouamer, Scott C. Blair, Gary L. Case, Brendan P. O'Neill, Terrence J. O'Neill, R. Stephen White, & Allen D. Zych.* 92, 671, 40-G2 (1994)

Cylindrical Gamma-Ray Montitor (CYGAM) Concept. *N. G. Leikov & G. S. Bisnovatyi-Kogan.* 92, 679, 41-A1 (1994)

Spallation Products Induced in CsI(Tl) by High-Energy Protons. *J. A. Ruiz, E. Porras, J. L. Ferrero, V. Reglero, F. Sanchez, F. Lei, A. J. Bird, T. Carter, & A. J. Dean.* 92, 683, 41-A6 (1994)

Gamma-Ray Astronomy—A Status Report. *Stephen S. Holt.* 92, 693, 41-B5 (1994)

Evidence of Additional Production of High-Energy Neutrons during the Solar Flare on 1991 June 4. *A. Struminsky, M. Matsuoka, & K. Takahashi.* 429, 400, 149-A13 (1994)

Search for 10 TeV Gamma-Ray Emission from Active Galactic Nuclei with the Tibet Air Shower Array. *M. Amenomori, Z. Cao, B. Z. Dai, L. K. Ding, Y. X. Feng, Z. Y. Feng, K. Hibino, N. Hotta, Q. Huang, A. X. Huo, H. Y. Jia, G. Z. Jiang, S. Q. Jiao, F. Kajino, K. Kasahara, Labaciren, S. M. Liu, D. M. Mei, L. Meng, X. R. Meng, Mimaciren, K. Mizutani, J. Mu, H. Nanjo, M. Nishizawa, A. Oguro, M. Ohnishi, I. Ohta, T. Ouchi, J. R. Ren, To. Saito, M. Sakata, Z. Z. Shi, M. Shibata, T. Shirai, H. Sugimoto, X. X. Sun, K. Taira, Y. H. Tan, N. Tateyama, S. Torii, H. Wang, C. Z. Wen, Y. Yamamoto, G. C. Yu, P. Yuan, T. Yuda, C. S. Zhang, H. M. Zhang, L. Zhang, Zhasang, Zhaxiciren, & W. D. Zhou (The Tibet AS*γ* *Collaboration).* 429, 634, 153-E11 (1994)

Observation of 7 TeV Gamma Rays from the Crab Using the Large Zenith Angle Air Čerenkov Imaging Technique. *T. Tanimori, T. Tsukagoshi, T. Kifune, P. G. Edwards, M. Fujimoto, T. Hara, N. Hayashida, Y. Matsubara, Y. Mizumoto, Y. Muraki, S. Ogio, J. R. Patterson, M. D. Roberts, G. Rowell, T. Suda, T. Tamura, M. Teshima, G. J. Thornton, T. Watase, & T. Yoshikoshi.* 429, L61, 158-A5 (1994)

The Optical–Ultraviolet–Gamma-Ray Spectrum of 3C 279. *Hagai Netzer, D. Kazanas, Beverley J. Wills, D. Wills, Mingsheng Han, M. S. Brotherton, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 430, 191, 161-D10 (1994)

Detection of a Flaring Low-Energy Gamma-Ray Source. *Dipen Bhattacharya & Alan Owens.* 430, 371, 163-G2 (1994)

Hard X-Rays from SN 1993J. *M. D. Leising, J. D. Kurfess, D. D. Clayton, D. A. Grabelsky, J. E. Grove, W. N. Johnson, G. V. Jung, R. L. Kinzer, R. A. Kroeger, W. R. Purcell, M. S. Strickman, L.-S. The, & M. P. Ulmer.* 431, L95, 191-F1 (1994)

Radio and X-Ray Observations of the Gamma-Ray Bright Quasar PKS 0528+134. *Yun Fei Zhang, Alan P. Marscher, Hugh D. Aller, Margo F. Aller, Harri Teräsranta, & Esko Valtaoja.* 432, 91, 194-D1 (1994)

OSSE Observations of the Crab Pulsar. *M. P. Ulmer, S. Lomatch, S. M. Matz, D. A. Grabelsky, W. R. Purcell, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, R. A. Cameron, & G. V. Jung.* 432, 228, 196-A12 (1994)

SMM Observations of Gamma-Ray Transients. III. A Search for a Broadened, Redshifted Positron Annihilation Line from the Direction of the Galactic Center. *Michael J. Harris, Gerald H. Share, & Mark D. Leising.* 433, 87, 209-C13 (1994)

Gamma-Ray Observations in the Galactic Center Region with an Imaging Detector. *Jalal Samimi & Robert L. Kinzer.* 434, 136, 227-A8 (1994)

The Pulsed Hard X-Ray Spectrum of PSR B1509−58. *S. M. Matz, M. P. Ulmer, D. A. Grabelsky, W. R. Purcell, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, & G. V. Jung.* 434, 288, 229-D7 (1994)

Simultaneous Optical and TeV Gamma-Ray Observations of the Cataclysmic Variable AE Aquarii. *P. J. Meintjes, O. C. de Jager, B. C. Raubenheimer, H. I. Nel, A. R. North, D. A. H. Buckley, & C. Koen.* 434, 292, 229-E1 (1994)

The First Energetic Gamma-Ray Experiment Telescope (EGRET) Source Catalog. *C. E. Fichtel, D. L. Bertsch, J. Chiang, B. L. Dingus, J. A. Esposito, J. M. Fierro, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, L. McDonald, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, H.-D. Radecke, H. Rothermel, P. Sreekumar, M. Sommer, E. J. Schneid, D. J. Thompson, & T. Willis.* 94, 551, 59-E1 (1994)

OSSE Observations of NGC 1275 in the 0.05–10.0 MeV Range. *C. Y. Osako, M. P. Ulmer, D. A. Grabelsky, W. R. Purcell, M. S. Strickman, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, & G. V. Jung.* 435, 181, 245-G1 (1994)

EGRET Upper Limits to the High-Energy Gamma-Ray Emission from the Millisecond Pulsars in Nearby Globular Clusters. *P. F. Michelson, D. L. Bertsch, K. Brazier, J. Chiang, B. L. Dingus, C. E. Fichtel, J. Fierro, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, C. von Montigny, P. L. Nolan, E. Schneid, P. Sreekumar, & D. J. Thompson.* 435, 218, 246-C12 (1994)

Search for Low-Energy Neutrinos from Galactic Gamma-Ray Sources. *Y. Fukuda, T. Hayakawa, K. Inoue, T. Ishida, T. Kajita, Y. Koshio, M. Nakahata, K. Nakamura, A. Sakai, M. Shiozawa, J. Suzuki, Y. Suzuki, Y. Totsuka, M. Mori, K. S. Hirata, K. Kihara, Y. Oyama, A. Suzuki, M. Yamada, M. Koshiba, K. Nishijima, T. Kajimura, T. Suda, A. T. Suzuki, H. Takei, M. Koga, K. Miyano, H. Miyata, T. Hara, N. Kishi, Y. Nagashima, M. Takita, A. Yoshimoto, K. Kaneyuki, Y. Takeuchi, T. Tanimori, S. Tasaka, K. Nishikawa, E. W. Beier, E. D. Frank, W. Frati, S. B. Kim, A. K. Mann, F. M. Newcomer, R. Van Berg, & W. Zhang.* 435, 225, 246-D9 (1994)

The Statistics of Gamma-Ray Burst Lensing. *Scott A. Grossman & Michael A. Nowak.* 435, 548, 253-F6 (1994)

The 1993 Multiwavelength Campaign on 3C 279: The Radio to Gamma-Ray Energy Distribution in Low State. *L. Maraschi, P. Grandi, C. M. Urry, A. E. Wehrle, G. M. Madejski, H. H. Fink, G. Ghisellini, R. C. Hartman, A. P. Koratkar, C. von Montigny, E. Pian, H. C. Thomas, A. Treves, M. F. Aller, H. D. Aller, C. D. Bailyn, T. J. Balonek, H. Bock, W. Collmar, I. S. Glass, S. J. Litchfield, I. M. McHardy, R. Méndez, J. Pesce, H. P. Reuter, E. I. Robson, H. Steppe, J. A. Stevens, H. Teräsranta, & S. J. Wagner.* 435, L91, 259-D8 (1994)

Gamma-Ray Observations of Ophiuchus with EGRET: The Diffuse Emission and Point Sources. *S. D. Hunter, S. W. Digel, E. J. de Geus, & G. Kanbach.* 436, 216, 264-B12 (1994)

EGRET High-Energy Gamma-Ray Pulsar Studies. I. Young Spin-powered Pulsars. *D. J. Thompson, Z. Arzoumanian, D. L. Bertsch, K. T. S. Brazier, J. Chiang, N. D'Amico, B. L. Dingus, J. A. Esposito, J. M. Fierro, C. E. Fichtel, R. C. Hartman, S. D. Hunter, S. Johnston, G. Kanbach, V. M. Kaspi, D. A. Kniffen, Y. C. Lin, A. G. Lyne, R. N. Manchester, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, H. I. Nel, D. J. Nice, P. L. Nolan, P. V. Ramanamurthy, S. L. Shemar, E. J. Schneid, P. Sreekumar, & J. H. Taylor.* 436, 229, 264-D1 (1994)

On the Determination of the Cosmic Infrared Background Radiation from the High-Energy Spectrum of Extragalactic Gamma-Ray Sources. *Eli Dwek & Jonathan Slavin.* 436, 696, 275-B1 (1994)

Models of Pair Annihilation in 1E 1740.7−2942 and the *HEAO 1* A-4 Annihilation Source. *Andrzej Maciołek-Niedźwiecki & Andrzej A. Zdziarski.* 436, 762, 276-A6 (1994)

Gamma-Ray Observations of NGC 253 and M82 with OSSE. *D. Bhattacharya, L.-S. The, J. D. Kurfess, D. D. Clayton, N. Gehrels, M. D. Leising, D. A. Grabelsky, W. N. Johnson, G. V. Jung, R. L. Kinzer, W. R. Purcell, M. S. Strickman, & M. P. Ulmer.* 437, 173, 285-E6 (1994)

The Soft Gamma-Ray Spectrum of A0535+26: Detection of an Absorption Feature at 110 keV by OSSE. *J. E. Grove, M. S. Strickman, W. N. Johnson, J. D. Kurfess, R. L. Kinzer, C. H. Starr, G. V. Jung, E. Kendziorra, P. Kretschmar, M. Maisack, & R. Staubert.* 438, L25, 10-A9 (1995)

EGRET Detection of the Blazar PKS 0420−014. *H.-D. Radecke, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. Schneid, & D. J. Thompson.* 438, 659, 13-C2 (1995)

Joint *ROSAT*–*Compton GRO* Observations of the X-Ray–bright Seyfert Galaxy IC 4329A. *G. M. Madejski, A. A. Zdziarski, T. J. Turner, C. Done, R. F. Mushotzky, R. C. Hartman, N. Gehrels, A. Connors, A. C. Fabian, K. Nandra, A. Celotti, M. J. Rees, W. N. Johnson, J. E. Grove, & C. H. Starr.* 438, 672, 13-D7 (1995)

Outburst of TeV Photons from Markarian 421. *A. D. Kerrick, C. W. Akerlof, S. D. Biller, J. H. Buckley, M. F. Cawley, M. Chantell, V. Connaughton, D. J. Fegan, S. Fennell, J. A. Gaidos, A. M. Hillas, R. C. Lamb, D. A. Lewis, D. I. Meyer, J. McEnery, G. Mohanty, J. Quinn, A. C. Rovero, H. J. Rose, M. S. Schubnell, G. Sembroski, M. Urban, A. A. Watson, T. C. Weekes, M. West, C. Wilson, & J. Zweerink.* 438, L59, 19-C4 (1995)

The Average X-Ray/Gamma-Ray Spectra of Seyfert Galaxies from *Ginga* and OSSE and the Origin of the Cosmic X-Ray Background. *Andrzej A. Zdziarski, W. Neil Johnson, Chris Done, David Smith, & Kellie McNaron-Brown.* 438, L63, 19-C11 (1995)

Very High Energy Gamma Rays from PSR 1706−44. *T. Kifune, T. Tanimori, S. Ogio, T. Tamura, H. Fujii, M. Fujimoto, T. Hara, N. Hayashida, S. Kabe, F. Kakimoto, Y. Matsubara, Y. Mizumoto, Y. Muraki, T. Suda, M. Teshima, T. Tsukagoshi, Y. Watase, T. Yoshikoshi, P. G. Edwards, J. R. Patterson, M. D. Roberts, G. P. Rowell, & G. J. Thornton.* 438, L91, 20-A1 (1995)

Gamma-Ray Emission from Cataclysmic Variables. I. The *Compton* EGRET Survey. *Eric M. Schlegel, Paul E. Barrett, O. C. De Jager, G. Chanmugam, S. Hunter, & J. Mattox.* 439, 322, 25-E10 (1995)

Balloon-borne Measurements of the SN 1987A Hard X-Ray Continuum. *Geoffrey N. Pendleton, William S. Paciesas, Gerald J. Fishman, Charles A. Meegan, & Robert B. Wilson.* 439, 963, 37-G13 (1995)

High-Energy Gamma-Ray Emission from Active Galaxies: EGRET Observations and Their Implications. *C. von Montigny, D. L. Bertsch, J. Chiang, B. L. Dingus, J. A. Esposito, C. E. Fichtel, J. M. Fierro, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, P. L. Nolan, H. D. Radecke, E. Schneid, P. Sreekumar, D. J. Thompson, & T. Willis.* 440, 525, 50-E4 (1995)

EGRET Observations of Gamma-Ray Emission from the Interstellar Gas in Orion. *S. W. Digel, S. D. Hunter, & R. Mukherjee.* 441, 270, 63-A11 (1995)

OSSE Observations of GX 339−4. *D. A. Grabelsky, S. M. Matz, W. R. Purcell, M. P. Ulmer, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, & G. V. Jung.* 441, 800, 73-A6 (1995)

On the Nature of the Unidentified EGRET Sources: Are They Geminga-like Pulsars? *R. Mukherjee, D. L. Bertsch, B. L. Dingus, G. Kanbach, D. A. Kniffen, P. Sreekumar, & D. J. Thompson.* 441, L61, 75-F13 (1995)

EGRET Observations of the BL Lacertae Objects 0716+714 and 0521−365. *Y. C. Lin, D. L. Bertsch, B. L. Dingus, J. A. Esposito, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, R. Mukherjee, P. L. Nolan, E. Schneid, P. Sreekumar, & D. J. Thompson.* 442, 96, 78-E7 (1995)

Images of HCO^+ (1–0) Emission in a Molecular Cloud near 1E 1740.7−2942. *J. A. Phillips & T. Joseph W. Lazio.* 442, L37, 85-B7 (1995)

Search for Compton-backscattered Annihilation Radiation from the Galactic Center with the OSSE. *D. M. Smith, M. Leventhal, N. Gehrels, J. Tueller, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, D. A. Grabelsky, W. R. Purcell, M. P. Ulmer, & G. V. Jung.* 443, 117, 96-G1 (1995)

SIGMA Observations of the Galactic Center at 511 keV. *I. Malet, J. P. Roques, L. Bouchet, G. Vedrenne, J. Paul, B. Cordier, J. Ballet, F. Lebrun, R. Sunyaev, E. Churazov, M. Gilfanov, N. Khavenson, A. Dyachkov, N. Kuleshova, A. Sheikhet, & I. Tzerenin.* 444, 222, 116-D13 (1995)

CGRO/OSSE Observations of the Cassiopeia A Supernova Remnant. *L.-S. The, M. D. Leising, D. D. Clayton, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, G. V. Jung, D. A. Grabelsky, W. R. Purcell, & M. P. Ulmer.* 444, 244, 116-G4 (1995)

Search for TeV γ-Ray Emission from Binary Radio Pulsars. *B. C. Raubenheimer, C. Brink, O. C. De Jager, & H. I. Nel.* 444, 419, 119-C12 (1995)

Detection of Soft Gamma-Ray Emission from the Seyfert 2 Galaxy NGC 4507 by the OSSE Telescope. *L. Bassani, G. Malaguti, E. Jourdain, J. P. Roques, & W. N. Johnson.* 444, L73, 130-C8 (1995)

OSSE Observations of 3C 273. *W. N. Johnson, C. D. Dermer, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, K. McNaron-Brown, E. Jourdain, G. V. Jung, D. A. Grabelsky, W. R. Purcell, & M. P. Ulmer.* 445, 182, 135-A6 (1995)

EGRET Gamma-Ray Sources: GRO J0744+54 and GRO J0957+65 (= BL Lacertae Object 0954+658). *R. Mukherjee, H. D. Aller, M. F. Aller, D. L. Bertsch, W. Collmar, S. W. Digel, B. L. Dingus, J. A. Esposito, C. E. Fichtel, R. C. Hartman, S. D. Hunter, W. N. Johnson, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, P. V. Ramanamurthy, E. Schneid, P. Sreekumar, H. Teräsranta, D. J. Thompson, & S. J. Wagner.* 445, 189, 135-B3 (1995)

A Search for Fast Gamma-Ray Pulsars with OSSE. *P. Hertz, J. E. Grove, D. A. Grabelsky, & S. M. Matz.* 445, 351, 137-D1 (1995)

A Localized Excess of Diffuse Gamma Radiation. *A. Chen, J. Dwyer, & P. Kaaret.* 445, L109, 151-A9 (1995)

Two Classes of Gamma-Ray–emitting Active Galactic Nuclei. *Charles D. Dermer & Neil Gehrels.* 447, 103, 173-E7 (1995)

EGRET High-Energy γ-Ray Pulsar Studies. II. Individual Millisecond Pulsars. *J. M. Fierro, Z. Arzoumanian, M. Bailes, J. F. Bell, D. L. Bertsch, K. T. S. Brazier, J. Chiang, N. D'Amico, B. L. Dingus, J. A. Esposito, C. E. Fichtel, R. C. Hartman, S. D. Hunter, S. Johnston, G. Kanbach, V. M. Kaspi, D. A. Kniffen, Y. C. Lin, A. G. Lyne, R. N. Manchester, J. R Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, H. I. Nel, D. Nice, P. L. Nolan, E. J. Schneid, S. K. Shriver, P. Sreekumar, J. H. Taylor, D. J. Thompson, & T. D. Willis.* 447, 807, 187-B2 (1995)

EGRET Detection of Pulsed Gamma Radiation from PSR B1951+32. *P. V. Ramanamurthy, D. L. Bertsch, B. L. Dingus, J. A. Esposito, J. M. Fierro, C. E. Fichtel, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, A. G. Lyne, J. R. Mattox, H. A. Mayer-Hasselwander, M. Merck, P. F. Michelson, C. von Montigny, R. Mukherjee, P. L. Nolan, & D. J. Thompson.* 447, L109, 191-A8 (1995)

Evidence for Shock Acceleration in the Binary Pulsar System PSR B1259−63. *J. E. Grove, M. Tavani, W. R. Purcell, W. N. Johnson, J. D. Kurfess, M. S. Strickman, & J. Arons.* 447, L113, 191-B1 (1995)

Limits on Galactic Gamma-Ray Lines at 4.44 MeV and 6.13 MeV from Nuclear De-Excitation. *Michael J. Harris, Gerald H. Share, & Daniel C. Messina.* 448, 157, 194-C8 (1995)

Compton Gamma-Ray Observatory Observations of the Crab Pulsar. *M. P. Ulmer, S. M. Matz, D. A. Grabelsky, J. E. Grove, M. S. Strickman, R. Much, M. C. Busetta, A. Strong, L. Kuiper, D. J. Thompson, D. Bertsch, J. M. Fierro, & P. L. Nolan.* 448, 356, 197-B1 (1995)

A Search for Ultra–High-Energy Gamma-Ray Emission from Five Supernova Remnants. *G. E. Allen, D. Berley, S. Biller, R. L. Burman, M. Cavalli-Sforza, C. Y. Chang, M. L. Chen, P. Chumney, D. Coyne, C. L. Dion, D. Dorfan, R. W. Ellsworth, J. A. Goodman, T. J. Haines, C. M. Hoffman, L. Kelley, S. Klein, D. M. Schmidt, R. Schnee, A. Shoup, C. Sinnis, M. J. Stark, D. A. Williams, J.-P. Wu, T. Yang, & G. B. Yodh.* 448, L25, 199-E10 (1995)

OSSE Observations of Gamma-Ray Emission from Centaurus A. *R. L. Kinzer, W. N. Johnson, C. D. Dermer, J. D. Kurfess, M. S. Strickman, J. E. Grove, R. A. Kroeger, D. A. Grabelsky, W. R. Purcell, M. P. Ulmer, G. V. Jung, & K. McNaron-Brown.* 449, 105, 211-F1 (1995)

High-Energy Gamma Rays from Polars. *P. Barrett, E. Schlegel, O. C. de Jager, & G. Chanmugam.* 450, 334, 232-E6 (1995)

OSSE Upper Limits to Pulsar Gamma-Ray Emission. *P. C. Schroeder, M. P. Ulmer, S. M. Matz, D. A. Grabelsky, W. R. Purcell, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, & G. V. Jung.* 450, 784, 241-E1 (1995)

A Long-Term Study of High-Energy Gamma-Ray Emission from the Vela, Geminga, and Crab Pulsars. *P. V. Ramanamurthy, D. L. Bertsch, C. E. Fichtel, G. Kanbach, D. A. Kniffen, H. A. Mayer-Hasselwander, P. L. Nolan, P. Sreekumar, & D. J. Thompson.* 450, 791, 241-E11 (1995)

Compton Gamma Ray Observatory OSSE Observations of SN 1991T. *M. D. Leising, W. N. Johnson, J. D. Kurfess, D. D. Clayton, D. A. Grabelsky, G. V. Jung, R. L. Kinzer, W. R. Purcell, M. S. Strickman, L.-S. The, & M. P. Ulmer.* 450, 805, 241-G1 (1995)

OSSE Observations of Blazars. *K. McNaron-Brown, W. N. Johnson, G. V. Jung, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, C. D. Dermer, D. A. Grabelsky, W. R. Purcell, M. P. Ulmer, M. Kafatos, P. A. Becker, R. Staubert, & M. Maisack.* 451, 575, 255-B11 (1995)

Hot-Plasma Ejections Associated with Compact-Loop Solar Flares. *K. Shibata, S. Masuda, M. Shimojo, H. Hara, T. Yokoyama, S. Tsuneta, T. Kosugi, & Y. Ogawara.* 451, L83, 261-B2 (1995)

The Evolution of Gamma-Ray–loud Active Galactic Nuclei. *J. Chiang, C. E. Fichtel, C. von Montigny, P. L. Nolan, & V. Petrosian.* 452, 156, 264-B12 (1995)

Upper Limits on TeV Gamma-Ray Emission from Active Galactic Nuclei. *A. D. Kerrick, C. W. Akerlof, S. Biller, J. Buckley, D. A. Carter-Lewis, M. F. Cawley, M. Chantell, V. Connaughton, D. J. Fegan, S. Fennell, J. Gaidos, A. M. Hillas, P. W. Kwok, R. C. Lamb, T. Lappin, R. Lessard, J. McEnery, D. I. Meyer, G. Mohanty, J. Quinn, H. J. Rose, A. C. Rovero, G. Sembroski, M. S. Schubnell, M. Punch, T. C. Weekes, M. West, C. Wilson, & J. Zweerink.* 452, 588, 272-F10 (1995)

A Millisecond Pulsar in a 6 Hour Orbit: PSR J0751+1807. *S. C. Lundgren, A. F. Zepka, & J. M. Cordes.* 453, 419, 286-G10 (1995)

Giant Pulses from the Crab Pulsar: A Joint Radio and Gamma-Ray Study. *S. C. Lundgren, J. M. Cordes, M. Ulmer, S. M. Matz, S. Lomatch, R. S. Foster, & T. Hankins.* 453, 433, 287-A13 (1995)

Determination of the Galactic ^{26}Al Source Distribution with a Novel Imaging Telescope. *E. Aprile, E. L. Chupp, A. Bolotnikov, & P. P. Dunphy.* 453, 685, 293-C5 (1995)

ASCA and *GRO* Observations of GX 301−2. *Steven H. Pravdo, Charles S. R. Day, Lorella Angelini, B. Alan Harmon, A. Yoshida, & P. Saraswat.* 454, 872, 313-G6 (1995)

High-Energy Gamma Rays from the BL Lacertae Object PKS 2155−304. *W. Thomas Vestrand, J. Gregory Stacy, & P. Sreekumar.* 454, L93, 315-E11 (1995)

High-Energy Gamma Rays from PKS 1406−076 and the Observation of Correlated Gamma-Ray and Optical Emission. *Stefan J. Wagner, John R. Mattox, Ulrich Hopp, H. Bock, J. Heidt, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, P. Sreekumar, & D. J. Thompson.* 454, L97, 315-F4 (1995)

The Second EGRET Catalog of High-Energy Gamma-Ray Sources. *D. J. Thompson, D. L. Bertsch, B. L. Dingus, J. A. Esposito, A. Etienne, C. E. Fichtel, D. P. Friedlander, R. C. Hartman, S. D. Hunter, D. J. Kendig, J. R. Mattox, L. M. McDonald, C. von Montigny, R. Mukherjee, P. V. Ramanamurthy, P. Sreekumar, J. M. Fierro, Y. C. Lin, P. F. Michelson, P. L. Nolan, S. K. Shriver, T. D. Willis, G. Kanbach, H. A. Mayer-Hasselwander, M. Merck, H.-D. Radecke, D. A. Kniffen, & E. J. Schneid.* 101, 259, 57-B11 (1995)

GAMMA RAYS: THEORY

The Fate of Accreted CNO Elements in Neutron Star Atmospheres: X-Ray Bursts and Gamma-Ray Lines. *Lars Bildsten, Edwin E. Salpeter, & Ira Wasserman.* 384, 143, 2-G1 (1992)

π^0-Decay Gamma-Ray Emission from Winds of Massive Stars. *Richard L. White & Wan Chen.* 387, L81, 48-D6 (1992)

Proton Acceleration in Neutron Star Magnetospheres. *I. A. Smith, J. I. Katz, & P. H. Diamond.* 388, 148, 50-G7 (1992)

On the 440 keV Line in the Crab Nebula Pulsar. *W. Bednarek, O. Cremonesi, & A. Treves.* 390, 489, 81-D5 (1992)

Gamma-Ray Deposition and Nonthermal Excitation in Supernovae. *Cecilia Kozma & Claes Fransson.* 390, 602, 82-G1 (1992)

TeV Gamma Rays from 3C 279: A Possible Probe of Origin and Intergalactic Infrared Radiation Fields. *F. W. Stecker, O. C. De Jager, & M. H. Salamon.* 390, L49, 84-D7 (1992)

The Collapse of White Dwarfs to Neutron Stars. *S. E. Woosley & E. Baron.* 391, 228, 88-G1 (1992)

On the Origin of Variable 511 keV Line Emission from the Galactic Center Region. *R. Ramaty, M. Leventhal, K. W. Chan, & R. E. Lingenfelter.* 392, L63, 113-C5 (1992)

The Diffuse Gamma-Ray Background, Light Element Abundances, and Signatures of Early Massive Star Formation. *Joseph Silk & David N. Schramm.* 393, L9, 120-B7 (1992)

The Expected High-Energy to Ultra–High-Energy Gamma-Ray Spectrum of the Crab Nebula. *O. C. de Jager & A. K. Harding.* 396, 161, 157-B6 (1992)

Diffuse 0.511 MeV Line Emission and the Distribution of Positron Annihilation in the Galaxy. *J. G. Skibo, R. Ramaty, & M. Leventhal.* 397, 135, 169-F3 (1992)

A Jet Model for the Gamma-Ray–emitting Blazar 3C 279. *L. Maraschi, G. Ghisellini, & A. Celotti.* 397, L5, 173-B4 (1992)

Light Element Nucleosynthesis: A False Clue? *N. Yu. Gnedin & J. P. Ostriker.* 400, 1, 209-A13 (1992)

Gamma Radiation from Pulsar Magnetospheric Gaps. *James Chiang & Roger W. Romani.* 400, 629, 218-C1 (1992)

Gravitational Microlensing of Gamma-Ray Bursts. *Shude Mao.* 402, 382, 7-D1 (1993)

On the Gamma-Ray Emission from 3C 279. *W. Bednarek.* 402, L29, 12-C1 (1993)

The Cosmic Gamma-Ray Background from Type Ia Supernovae. *Lih-Sin The, Mark D. Leising, & Donald D. Clayton.* 403, 32, 14-D12 (1993)

High-Energy Emission from the Eclipsing Millisecond Pulsar PSR 1957+20. *Jonathan Arons & Marco Tavani.* 403, 249, 17-A8 (1993)

An Interpretation of the Narrow Positron Annihilation Feature from X-Ray Nova Muscae 1991. *Wan Chen, Neil Gehrels, & F. H. Cheng.* 403, L71, 27-D7 (1993)

Positron Annihilation Radiation from X-Ray Binary Systems. *Mei Wu, Chun-sheng Zhang, & Ti-pei Li.* 404, 276, 31-C11 (1993)

Microsecond Flares in Gamma-Ray Bursts. *Bradley E. Schaefer, Justin Cohen, Bonnard J. Teegarden, Thomas L. Cline, Gerald J. Fishman, Charles A. Meegan, Robert B. Wilson, William S. Paciesas, Geoffrey N. Pendleton, James L. Matteson, David L. Band, & John P. Lestrade.* 404, 673, 37-C11 (1993)

Gamma-Ray Emission of Active Galactic Nuclei as a Signature of Relativistic Electron-Positron Beams. *G. Henri, G. Pelletier, & J. Roland.* 404, L41, 40-B10 (1993)

Positrons from Supernovae. *Kai-wing Chan & Richard E. Lingenfelter.* 405, 614, 50-G1 (1993)

Radioactive ^{26}Al from Massive Stars: Production and Distribution in the Galaxy. *N. Prantzos.* 405, L55, 54-C1 (1993)

Gamma Rays from Globular Clusters. *Marco Tavani.* 407, 135, 70-F11 (1993)

η Carinae: A New Model. *J. M. Borgwald & M. W. Friedlander.* 408, 230, 86-A3 (1993)

Diffuse Gamma-Ray Emission from Pulsars in the Large Magellanic Cloud. *Dieter H. Hartmann, Lawrence E. Brown, & Neil Schnepf.* 408, L13, 88-F8 (1993)

TeV Gamma Rays from Millisecond Pulsars and the Detectability of Globular Clusters. *I. A. Smith.* 408, 468, 91-A7 (1993)

Helium Destruction and Gamma-Ray Line Emission in Accreting Neutron Stars. *Lars Bildsten, Edwin E. Salpeter, & Ira Wasserman.* 408, 615, 92-G9 (1993)

Compton Scattering and the Gamma-Ray Power-Law Spectrum in Markarian 421. *Andrzej A. Zdziarski & Julian H. Krolik.* 409, L33, 111-B1 (1993)

High-Frequency Emission of X-Ray Pulsar 1E 2259+586. *V. V. Usov.* 410, 761, 123-C1 (1993)

The High-Energy Diffuse Cosmic Gamma-Ray Background Radiation from Blazars. *F. W. Stecker, M. H. Salamon, & M. A. Malkan.* 410, L71, 125-F5 (1993)

High-Energy Spectrum of Cygnus X-1 Revisited. *F. Haardt, C. Done, G. Matt, & A. C. Fabian.* 411, L95, 142-F5 (1993)

A Model of Unpulsed Gamma Rays from the Crab Pulsar. *W. M. Cheung & K. S. Cheng.* 413, 694, 165-B1 (1993)

On ^{26}Al and Other Short-lived Interstellar Radioactivity. *Donald D. Clayton, Dieter H. Hartmann, & Mark D. Leising.* 415, L25, 192-A1 (1993)

New Upper Limits on Intergalactic Infrared Radiation from High-Energy Astrophysics. *F. W. Stecker & O. C. De Jager.* 415, L71, 199-E1 (1993)

Compton Backscattered Annihilation Radiation and the Mass of Nova Muscae. *Xin-Min Hua & Richard E. Lingenfelter.* 416, L17, 207-C11 (1993)

Model for the High-Energy Emission from Blazars. *Charles D. Dermer & Reinhard Schlickeiser.* 416, 458, 209-A11 (1993)

OSSE Observations of the Bright Seyfert 1 Galaxy IC 4329A. *A. C. Fabian, K. Nandra, A. Celotti, M. J. Rees, J. E. Grove, & W. N. Johnson.* 416, L57, 216-C1 (1993)

Gamma-Ray Escape in Type Ia Supernovae: The 847 keV–m_B Diagram. *P. Ruiz-Lapuente, G. G. Lichti, R. Lehoucq, R. Canal, & M. Cassé.* 417, 547, 226-B5 (1993)

Gamma-Ray Bursts: Multiwaveband Spectral Predictions for Blast Wave Models. *P. Mészáros & M. J. Rees.* 418, L59, 245-B7 (1993)

On the Energetics and Number of Gamma-Ray Pulsars. *Charles D. Dermer & Steven J. Sturner.* 420, L75, 15-D11 (1994)

On the Spectra and Pulse Profiles of Gamma-Ray Pulsars. *Steven J. Sturner & Charles D. Dermer.* 420, L79, 15-E3 (1994)

Comptonization of Diffuse Ambient Radiation by a Relativistic Jet: The Source of Gamma Rays from Blazars? *Marek Sikora, Mitchell C. Begelman, & Martin J. Rees.* 421, 153, 18-A1 (1994)

Unpulsed High-Energy Radiation from the Crab Pulsar and Nebula. *W. M. Cheung & K. S. Cheng.* 90, 827, 14-A11 (1994)

Disk-Accreting Magnetic Neutron Stars as High-Energy Particle Accelerators. *Russell J. Hamilton, Frederick K. Lamb, & M. Coleman Miller.* 90, 837, 14-B9 (1994)

Evolution of Supernova Remnants with Cosmic Rays and Radiative Cooling. *E. A. Dorfi.* 90, 841, 14-B14 (1994)

Polarized One-Quantum Annihilation in Strong Magnetic Fields as a Process for Particle Deceleration in Neutron Star Atmospheres. *D. Berg, M. Mentzel, & G. Wunner.* 90, 905, 15-A10 (1994)

On the Location of the Acceleration and Emission Sites in Gamma-Ray Blazars. *Charles D. Dermer & Reinhard Schlickeiser.* 90, 945, 15-E7 (1994)

Particle Acceleration and Nonthermal Energy Release as an Effect of Magnetoactive Disk Accretion onto Gravitating Center. *N. R. Ikhsanov & L. A. Pustil'nik.* 90, 959, 15-F12 (1994)

A New Method for Determining the Hubble Constant from Sub-TeV Gamma-Ray Observations. *M. H. Salamon, F. W. Stecker, & O. C. de Jager.* 423, L1, 53-B1 (1994)

General Relativistic Corrections in the Gamma-Ray Emission from Pulsars. *P. L. Gonthier & A. K. Harding.* 425, 767, 91-C10 (1994)

On the New Theory of Ultra–High-Energy Gamma-Ray Production in Cygnus X-3. *Abhas Mitra.* 425, 782, 91-E1 (1994)

π^0 Decay around Black Hole Candidates: A Spectral Component above 200 keV. *E. Jourdain & J. P. Roques.* 426, L11, 103-B6 (1994)

Is the High-Energy Emission from Centaurus A Compton-scattered Jet Radiation? *J. G. Skibo, C. D. Dermer, & R. L. Kinzer.* 426, L23, 103-C11 (1994)

X-Ray and Gamma-Ray Emission of Sagittarius A* as a Wind-accreting Black Hole. *A. Mastichiadis & L. M. Ozernoy.* 426, 599, 105-G7 (1994)

Foreword. *Th. Courvoisier & Ph. Durouchoux.* 92, 325, 36-B6 (1994)

Observation of the 1.8 MeV Emission Line from ^{26}Al and the Chemical Evolution of the Galaxy. *Georges Meynet.* 92, 441, 37-F2 (1994)

Gamma Rays from Point Galactic Sources. *S. Karakula, G. Kociolek, I. V. Moskalenko, & W. Tkaczyk.* 92, 481, 38-C5 (1994)

Gamma-Ray Light Curves and Spectra of Models for Type Ia Supernovae. *P. Höflich, A. Khokhlov, & E. Müller.* 92, 501, 38-E1 (1994)

Multifrequency Emission from Hot Ion Disks. *Michael Maisack, Peter A. Becker, & Menas Kafatos.* 92, 533, 38-G13 (1994)

INTEGRAL, SNOBs, and Baryonic Dark Matter. *Gerard Gilmore.* 92, 539, 39-A8 (1994)

Hot Plasmas and the Generation of Gamma Rays. *A. C. Fabian.* 92, 555, 39-C1 (1994)

Light Curves of Close Binaries in TeV Energy Region. *I. V. Moskalenko & S. Karakula.* 92, 567, 39-D3 (1994)

Cosmic Rays and Gamma Rays in Early Galaxian Phases and the Cosmic Gamma-Ray Background. *N. Prantzos & M. Casse.* 92, 575, 39-D12 (1994)

Interaction of Ultraviolet and X-Ray Radiation with Gamma Rays Produced by a Jet in Active Galactic Nuclei. *Magda Zbyszewska.* 92, 615, 40-A12 (1994)

The Gamma-Ray Signature of the Disruption of a Neutron Star by a Black Hole. *M. Hernanz, J. Isern, X. Martin, & R. Mochkovitch.* 92, 627, 40-C1 (1994)

The Polarization Sensitivity of the Liquid Xenon Imaging Telescope. *E. Aprile, A. Bolotnikov, D. Chen, R. Mukherjee, & F. Xu.* 92, 689, 41-A13 (1994)

Gamma-Ray Astronomy—A Status Report. *Stephen S. Holt.* 92, 693, 41-B5 (1994)

Polar Cap Models of Gamma-Ray Pulsars: Emission from Single Poles of Nearly Aligned Rotators. *Joseph K. Daugherty & Alice K. Harding.* 429, 325, 148-B1 (1994)

On Thermal Comptonization in $e^{\pm}$ Pair Plasmas. *Gabriele Ghisellini & Francesco Haardt.* 429, L53, 157-G7 (1994)

Energetic and Radiative Constraints on Highly Relativistic Jets. *Mitchell C. Begelman, Martin J. Rees, & Marek Sikora.* 429, L57, 157-G13 (1994)

Theoretical Light Curve of a Type IIp Supernova. *Ronald G. Eastman, S. E. Woosley, Thomas A. Weaver, & Philip A. Pinto.* 430, 300, 162-G8 (1994)

The Blazar Gamma-Ray Luminosity Function and the Diffuse Extragalactic Gamma-Ray Background. *M. H. Salamon & F. W. Stecker.* 430, L21, 165-D1 (1994)

Unsteady Outflow Models for Cosmological Gamma-Ray Bursts. *M. J. Rees & P. Mészáros.* 430, L93, 174-D13 (1994)

Compton Scattering in Jets: A Mechanism for ~0.4 and $\leq$ 0.2 MeV Line Production. *J. G. Skibo, C. D. Dermer, & R. Ramaty.* 431, L39, 182-G5 (1994)

Pulsed Gamma-Ray Emission from Short-Period Pulsars. *K. S. Cheng & Winnis K. Y. Ding.* 431, 724, 187-E7 (1994)

Postburst Nebular Emission of Soft Gamma-Ray Repeaters. *Marco Tavani.* 431, L83, 191-D10 (1994)

Energy Deposition and K-Shell Ionization of Supernovae. *Lih-Sin The, William T. Bridgman, & Donald D. Clayton.* 93, 531, 50-C3 (1994)

An Iron Absorption Model of Gamma-Ray Burst Spectra. *Edison P. Liang & Vincent E. Kargatis.* 432, L111, 207-A3 (1994)

Regimes of High-Energy Shock Emission from the Be Star/Pulsar System PSR 1259−63. *Marco Tavani, Jonathan Arons, & Victoria M. Kaspi.* 433, L37, 215-B1 (1994)

Generalized Comptonization Models and Application to the Recent High-Energy Observations. *Lev Titarchuk.* 434, 570, 235-F7 (1994)

On Periodicity Tests and Flux Limit Calculations for Gamma-Ray Pulsars. *O. C. de Jager.* 436, 239, 264-E1 (1994)

An Outer Gap Model of High-Energy Emission from Rotation-powered Pulsars. *James Chiang & Roger W. Romani.* 436, 754, 275-G9 (1994)

Models of Pair Annihilation in 1E 1740.7−2942 and the *HEAO 1* A-4 Annihilation Source. *Andrzej Maciołek-Niedźwiecki & Andrzej A. Zdziarski.* 436, 762, 276-A6 (1994)

Gamma-Ray Pulsars: Emission Zones and Viewing Geometries. *Roger W. Romani & I.-A. Yadigaroglu.* 438, 314, 5-G3 (1995)

Gamma-Ray Lines from the Orion Complex. *Reuven Ramaty, Benzion Kozlovsky, & Richard E. Lingenfelter.* 438, L21, 10-A1 (1995)

A Helical Jet in the Orthogonally Misaligned BL Lacertae Object Markarian 501 (B1652+398). *J. E. Conway & J. M. Wrobel.* 439, 98, 22-E3 (1995)

Pure Scattered Emission as an Explanation for the Hard X-Ray Spectra of Active Galactic Nuclei. *E. Jourdain & J. P. Roques.* 440, 128, 43-A2 (1995)

Understanding COMPTEL ^{26}Al 1.8 MeV Map Features. *Wan Chen, Neil Gehrels, & Roland Diehl.* 440, L57, 57-E4 (1995)

Photon-Splitting Limits to the Hardness of Emission in Strongly Magnetized Soft Gamma Repeaters. *Matthew G. Baring.* 440, L69, 57-G1 (1995)

A Unified Picture for High-Energy Emission in Spin-powered Pulsars. *T. Kamae & Y. Sekimoto.* 443, 780, 108-E7 (1995)

Compton X-Ray Emission from NGC 253. *Oleg Goldshmidt & Yoel Rephaeli.* 444, 113, 114-G8 (1995)

New Superluminal Quasar 1633+382 and the Blazar–Gamma-Ray Connection. *P. D. Barthel, J. E. Conway, S. T. Myers, T. J. Pearson, & A. C. S. Readhead.* 444, L21, 121-D8 (1995)

The Implications of Gamma-Ray Lines Observed from the Orion Complex. *Ramanath Cowsik & Michael W. Friedlander.* 444, L29, 121-E8 (1995)

Magnetic Compton-induced Pair Cascade Model for Gamma-Ray Pulsars. *Steven J. Sturner, Charles D. Dermer, & F. Curtis Michel.* 445, 736, 145-D1 (1995)

Gamma-Ray Transfer and Energy Deposition in Supernovae. *Douglas A. Swartz, Peter G. Sutherland, & Robert P. Harkness.* 446, 766, 166-F1 (1995)

On the Beaming Statistics of Gamma-Ray Sources. *Charles D. Dermer.* 446, L63, 170-E8 (1995)

Massive Supernovae, Orion Gamma Rays, and the Formation of the Solar System. *A. G. W. Cameron, P. Höflich, P. C. Myers, & D. D. Clayton.* 447, L53, 181-D7 (1995)

Were There Significant Starburst Episodes near the Galactic Center? *Dieter H. Hartmann.* 447, 646, 185-A11 (1995)

The Synchrotron Self-Compton Model for X-Ray and γ-Ray Emission from Pulsars. *K. S. Cheng & D. M. Wei.* 448, 281, 196-B1 (1995)

Pair Cascades in Extragalactic Jets. II. The Beamed X-Ray Spectrum. *Amir Levinson & Roger Blandford.* 449, 86, 211-D2 (1995)

Comptonization Models and Spectroscopy of X-Ray and Gamma-Ray Sources: A Combined Study by Monte Carlo and Analytical Methods. *Xin-Min Hua & Lev Titarchuk.* 449, 188, 212-F13 (1995)

^{26}Al and ^{60}Fe from Supernova Explosions. *F. X. Timmes, S. E. Woosley, D. H. Hartmann, R. D. Hoffman, T. A. Weaver, & F. Matteucci.* 449, 204, 213-A4 (1995)

Gamma-Ray Pulsars: Beaming Evolution, Statistics, and Unidentified EGRET Sources. *I.-A. Yadigaroglu & Roger W. Romani.* 449, 211, 213-B1 (1995)

On the Geometry of the X-Ray–Emitting Region in Seyfert Galaxies. *Boris E. Stern, Juri Poutanen, Roland Svensson, Marek Sikora, & Mitchell C. Begelman.* 449, L13, 216-B9 (1995)

Spectral Variability of the X-Ray–bright BL Lacertae Object PKS 2005−489. *Rita M. Sambruna, C. Megan Urry, Gabriele Ghisellini, & Laura Maraschi.* 449, 567, 220-E12 (1995)

Compton Heating and Superthermal Electrons in Gamma-loud Active Galactic Nuclei. *Andrei M. Beloborodov & Andrei F. Illarionov.* 450, 64, 229-A3 (1995)

Gamma Rays, Cosmic Rays, and Extinct Radioactivity in Molecular Clouds. *Donald D. Clayton & Liping Jin.* 451, 681, 256-E10 (1995)

Electromagnetic Cascade in the Early Universe and Its Application to the Big Bang Nucleosynthesis. *M. Kawasaki & T. Moroi.* 452, 506, 271-F3 (1995)

Implications of Gamma-Ray Transparency Constraints in Blazars: Minimum Distances and Gamma-Ray Collimation. *Peter A. Becker & Menas Kafatos.* 453, 83, 282-C12 (1995)

Disk-Corona Model of Active Galactic Nuclei with Nonthermal Pairs. *Sachiko Tsuruta & Michael Kellen.* 453, L9, 289-C7 (1995)

The Nonthermal Radio, X-Ray, and TeV Gamma-Ray Spectra of MSH 15−52. *I. du Plessis, O. C. de Jager, S. Buchner, H. I. Nel, A. R. North, B. C. Raubenheimer, & D. J. van der Walt.* 453, 746, 294-B6 (1995)

The Gamma-Ray Galactic Diffuse Radiation and Cerenkov Telescopes. *P. Chardonnet, P. Salati, J. Silk, I. Grenier, & G. Smoot.* 454, 774, 312-D5 (1995)

High-Energy Gamma Rays from PKS 1406−076 and the Observation of Correlated Gamma-Ray and Optical Emission. *Stefan J. Wagner, John R. Mattox, Ulrich Hopp, H. Bock, J. Heidt, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, P. Sreekumar, & D. J. Thompson.* 454, L97, 315-F4 (1995)

A Gamma-Ray Monte Carlo Study of the Clumpy Debris of SN 1987A. *Adam Burrows & Kenneth A. Van Riper.* 455, 215, 321-B3 (1995)

Extragalactic Magnetic Field and the Highest Energy Cosmic Rays. *Sangjin Lee, Angela V. Olinto, & Günter Sigl.* 455, L21, 324-E8 (1995)

Photon Splitting in Strongly Magnetized Cosmic Objects—Revisited. *Günter Wunner, Robert Sang, & Dagmar Berg.* 455, L51, 325-B8 (1995)

GRAVITATION

On the [O/Fe] versus [Fe/H] Relationship and the Progenitors of Type I Supernovae. *C. Abia, R. Canal, & J. Isern.* 366, 198, 3-E1 (1991)

On the Orbital Period Change of the Binary Pulsar PSR 1913+16. *Thibault Damour & J. H. Taylor.* 366, 501, 9-C1 (1991)

Criticism of Lake's Analysis of the Rotation Curves of Dwarf Spirals. *Mordehai Milgrom.* 367, 490, 19-D11 (1991)

Constraints on Weyl Gravity on Subgalactic Distance Scales. *Kent S. Wood & Robert J. Nemiroff.* 369, 54, 36-F3 (1991)

Gravity in One Dimension: A Correction for Ensemble Averaging. *Charles J. Reidl, Jr., & Bruce N. Miller.* 371, 260, 63-D1 (1991)

White Dwarf and Neutron Star Interior Solutions in the Nonsymmetric Gravitational Theory. *L. M. Campbell, J. W. Moffat, & P. Savaria.* 372, 241, 77-A1 (1991)

Gravitational Clustering in the Expanding Universe: Controlled High-Resolution Studies in Two Dimensions. *John Francis Beacom, Kurt G. Dominik, Adrian L. Melott, Sam P. Perkins, & Sergei F. Shandarin.* 372, 351, 80-B7 (1991)

Coincidence Probabilities for Spacecraft Gravitational Wave Experiments: Massive Coalescing Binaries. *Massimo Tinto & J. W. Armstrong.* 372, 545, 82-E1 (1991)

Voyager 2 Test of the Radar Time-Delay Effect. *Timothy P. Krisher, John D. Anderson, & Anthony H. Taylor.* 373, 665, 96-C1 (1991)

General Structure of the Gravitational Equations of Motion in Conformal Weyl Gravity. *Demosthenes Kazanas & Philip D. Mannheim.* 76, 431, 31-B1 (1991)

Perturbations of the Robertson-Walker Space: Multicomponent Sources and Generalized Gravity. *Jai-chan Hwang.* 375, 443, 118-C7 (1991)

Gravitational Redshift Determinations for White Dwarfs in Common Proper-Motion Binaries. *Gary Wegner & I. Neill Reid.* 375, 674, 121-B1 (1991)
Gravitational Redshift for the Pleiad White Dwarf LB 1497. *Gary Wegner, I. Neill Reid, & Robert K. McMahan, Jr.* 376, 186, 127-C6 (1991)
Solar Gravitational Redshift from the Infrared Oxygen Triplet. *James C. LoPresto, Charles Schrader, & A. Keith Pierce.* 376, 757, 135-F11 (1991)
A New Gravitational Interaction of Cosmological Importance. *David F. Crawford.* 377, 1, 138-B1 (1991)
Li Depletion in F Stars by Internal Gravity Waves. *Ramón J. García López & Hendrik C. Spruit.* 377, 268, 141-C7 (1991)
Fluctuations of the Microwave Background Radiation on Large and Intermediate Angular Scales. *F. Atrio-Barandela, A. G. Doroshkevich, & A. A. Klypin.* 378, 1, 151-A11 (1991)
Neutron Star and Black Hole Binaries in the Galaxy. *Ramesh Narayan, Tsvi Piran, & Amotz Shemi.* 379, L17, 169-B11 (1991)
The Rate of Neutron Star Binary Mergers in the Universe: Minimal Predictions for Gravity Wave Detectors. *E. S. Phinney.* 380, L17, 181-C6 (1991)
The Scale Dependence of Galaxy Distribution Functions. *William C. Saslaw & Philippe Crane.* 380, 315, 182-C1 (1991)
The Secular Instability of Axisymmetric Collisionless Star Clusters. *Henry E. Kandrup.* 380, 511, 184-E9 (1991)
Gravitational Radiation from Dual Neutron Star Elliptical Binaries. *Dieter Hils.* 381, 484, 196-F5 (1991)
Gravitational Effects of Light Scalar Particles. *Thomas Helbig.* 382, 223, 203-A7 (1991)
Precollapse Scale Invariance in Gravitational Instability. *F. Moutarde, J.-M. Alimi, F. R. Bouchet, R. Pellat, & A. Ramani.* 382, 377, 206-C5 (1991)
Microwave Background Anisotropies Implied by Large-Scale Galaxy Correlations: The Minimum of $C(0)$ and Cosmological Parameters. *A. Kashlinsky.* 383, L1, 219-A7 (1991)
Gravitational Clustering of Galaxies: Comparison between Thermodynamic Theory and N-Body Simulations. III. Velocity Distributions for Different Mass Components. *Shogo Inagaki, Makoto Itoh, & William C. Saslaw.* 386, 9, 24-B10 (1992)
The Coherence Length of the Peculiar Velocity Field in the Universe and the Large-Scale Galaxy Correlation Data. *A. Kashlinsky.* 386, L37, 36-B6 (1992)
Constraints on the Power Spectrum of the Primordial Density Field from Large-Scale Data: Microwave Background and Predictions of Inflation. *A. Kashlinsky.* 387, L1, 43-A8 (1992)
Astrophysical Jets and Theories of Gravitation. *Mario Livio & Nathan Rosen.* 387, 458, 44-D5 (1992)
The Great Wall in the CfA Survey: Its Origin and Imprint on the Microwave Background Radiation. *F. Atrio-Barandela & A. Kashlinsky.* 390, 322, 79-C1 (1992)
PSR 0655+64: An Astrophysical Laboratory for Testing Relativistic Gravity Theories. *Itzhak Goldman.* 390, 494, 81-D11 (1992)
The Rate of Gravitational Galaxy Clustering. *William C. Saslaw.* 391, 423, 93-B4 (1992)
Tracing Large-Scale Fluctuations Back in Time. *Adi Nusser & Avishai Dekel.* 391, 443, 93-D4 (1992)
Neutron Stars and Gravitational Scalars. *Helmut W. Zaglauer.* 393, 685, 124-D1 (1992)
Does Faint Galaxy Clustering Contradict Gravitational Instability? *Adrian L. Melott.* 393, L45, 127-B1 (1992)
Is Momentum Conserved? A Test in the Binary System PSR 1913+16. *Clifford M. Will.* 393, L59, 127-C7 (1992)
Weakly Nonlinear Gravitational Instability for Arbitrary Ω. *F. R. Bouchet, R. Juszkiewicz, S. Colombi, & R. Pellat.* 394, L5, 133-B1 (1992)
Cosmological Density Perturbations with Modified Gravity. *Redouane Fakir, Salman Habib, & William Unruh.* 394, 396, 134-C1 (1992)
Gamma-Ray Bursts as the Death Throes of Massive Binary Stars. *Ramesh Narayan, Bohdan Paczyński, & Tsvi Piran.* 395, L83, 153-G10 (1992)
Dwarf Spheroidal Galaxies and Non-Newtonian Gravity. *Ortwin E. Gerhard & David N. Spergel.* 397, 38, 168-E1 (1992)
Gravitational Lensing and the Variability of *G*. *Lawrence M. Krauss & Martin White.* 397, 357, 175-B4 (1992)
Generalized Newtonian Force Law and Hidden Mass. *Richard L. Liboff.* 397, L71, 180-G1 (1992)
Statistical Mechanics of Violent Relaxation. *David N. Spergel & Lars Hernquist.* 397, L75, 180-G7 (1992)
Excitation of Gravity Waves in Common Envelopes. *Noam Soker.* 399, 185, 197-E3 (1992)
M31: A Unique Laboratory for Gravitational Microlensing. *Arlin P. S. Crotts.* 399, L43, 200-D11 (1992)
Decrease of Gravitational Mass Due to Neutrino Emission and Shock Revival in Supernovae. *Itzhak Goldman & Shmuel Nussinov.* 403, 706, 24-D13 (1993)
Three-Point Correlation Functions and the Hierarchical Clustering *Ansatz* in Low-Density Cold Dark Matter Universes. *Yasushi Suto.* 404, L1, 33-C7 (1993)
Second Post-Newtonian Order Renormalization of First Post-Newtonian Order Gravity in the Solar System. *Ken Nordtvedt.* 407, 758, 80-A1 (1993)
Clusters and Groups of Galaxies as Cosmological Probes. *Haruhiko Ueda, Makoto Itoh, & Yasushi Suto.* 408, 3, 83-B5 (1993)
Nonlinear Properties and Time Evolution of Gravitational Galaxy Clustering. *William C. Saslaw & Ravi K. Sheth.* 409, 504, 105-B13 (1993)
Features of the Fluorescent Iron Line from Highly Inclined Disks: Some Possible Examples for NGC 6814. *G. Bao.* 409, L41, 111-C1 (1993)
A Generalized Zel'dovich Approximation to Gravitational Instability. *M. Giavalisco, B. Mancinelli, P. J. Mancinelli, & A. Yahil.* 411, 9, 127-B12 (1993)
Gravitational Radiation, Inspiraling Binaries, and Cosmology. *David F. Chernoff & Lee Samuel Finn.* 411, L5, 133-D8 (1993)
Improving the Reconstruction of the Velocity Potential and Primordial Density Fluctuations by Choice of Smoothing Windows. *Adrian L. Melott.* 414, L73, 185-D8 (1993)
The Einsteinian Gravitational Field of the Rigidly Rotating Disk of Dust. *G. Neugebauer & R. Meinel.* 414, L97, 185-G5 (1993)
Null Geodesics in Perturbed Spacetimes. *Ted Pyne & Mark Birkinshaw.* 415, 459, 193-E7 (1993)
Gravitational Waves and γ-Ray Bursts. *Christopher S. Kochanek & Tsvi Piran.* 417, L17, 222-G11 (1993)
Gravitational Wave Detection: A Nonmechanical Effect. *Redouane Fakir.* 418, 202, 233-E4 (1993)
Ω from Velocities in Voids. *Avishai Dekel & Martin J. Rees.* 422, L1, 36-B1 (1994)
Imaging of 16 Distant EMSS Clusters with $z \geq 0.2$ and $L_{X,44} \geq 4$: New Arcs and First Consequences. *O. Le Fèvre, F. Hammer, M. C. Angonin, I. M. Gioia, & G. A. Luppino.* 422, L5, 36-B7 (1994)
Gravitational Collapse of an Inhomogeneous Dust Sphere in Higher Dimensional Spacetime. *A. Banerjee, A. Sil, & S. Chatterjee.* 422, 681, 40-C12 (1994)
Applying the Zel'dovich Approximation to General Relativity. *K. M. Croudace, J. Parry, D. S. Salopek, & J. M. Stewart.* 423, 22, 46-D1 (1994)
Self-similar Evolution of Magnetized Plasmas. II. Nonequilibrium Solutions and Hubble's Expansion. *Wei-Hong Yang.* 425, 439, 87-B10 (1994)
Gravity Wave Watching. *Redouane Fakir.* 426, 74, 97-A5 (1994)
Excitation of Neutron Star Normal Modes during Binary Inspiral. *Andreas Reisenegger & Peter Goldreich.* 426, 688, 107-A6 (1994)
Contribution of Peculiar Shear Motions to Large-Scale Structure. *Hans-Reinhard Müller & Rudolf A. Treumann.* 427, L5, 117-B1 (1994)
Study of the Matching of Solutions of the Einstein Equations according to Darmois. *Armando Bernui & Edwin Portocarrero.* 427, 947, 124-D5 (1994)
The Post-Keplerian Orbital Representations of the Relativistic Two-Body Problem. *S. A. Klioner & S. M. Kopeikin.* 427, 951, 124-D10 (1994)
Can Conformal Weyl Gravity Be Considered a Viable Cosmological Theory? *D. Elizondo & G. Yepes.* 428, 17, 128-D5 (1994)
Nonlinear Approximations to Gravitational Instability: A Comparison in Second-Order Perturbation Theory. *Dipak Munshi & Alexei A. Starobinsky.* 428, 433, 135-E6 (1994)
High-Precision Timing of Millisecond Pulsars. III. Long-Term Monitoring of PSRs B1855+09 and B1937+21. *V. M. Kaspi, J. H. Taylor, & M. F. Ryba.* 428, 713, 139-B9 (1994)
Gravitional Lenses and Unconventional Gravity Theories. *Jacob D. Bekenstein & Robert H. Sanders.* 429, 480, 151-F6 (1994)
Lensing in Alternative Gravity. *Mark A. Walker.* 430, 463, 167-D10 (1994)
Multipole Moments of Stellar Oscillation Modes. *Andreas Reisenegger.* 432, 296, 196-G6 (1994)
Gravitomagnetics in Stationary Media. *E. Woyk.* 433, 357, 212-F11 (1994)
Analytic Expression of the Genus in a Weakly Non-Gaussian Field Induced by Gravity. *Takahiko Matsubara.* 434, L43, 241-C8 (1994)

Supplementary Parameters in the Parameterized Post-Keplerian Formalism. *S. M. Kopeikin.* 434, L67, 241-F9 (1994)
A Three-dimensional Hydrodynamics Code for Modeling Sources of Gravitational Radiation. *Scott C. Smith, Joan M. Centrella, & Sean P. Clancy.* 94, 789, 62-G3 (1994)
Lagrangian Evolution of the Weyl Tensor. *Edmund Bertschinger & A. J. S. Hamilton.* 435, 1, 243-C1 (1994)
The Sun as a Probe of Varying *G*. *P. Demarque, Lawrence M. Krauss, D. B. Guenther, & David Nydam.* 437, 870, 297-E10 (1994)
The Classical Tests in Kaluza-Klein Gravity. *D. Kalligas, P. S. Wesson, & C. W. F. Everitt.* 439, 548, 31-G9 (1995)
Gravity Waves in the Lower Solar Corona. *Yu-Qing Lou.* 442, 401, 82-E1 (1995)
Does Gravitational Radiation Limit the Angular Velocities of Superfluid Neutron Stars? *Lee Lindblom & Gregory Mendell.* 444, 804, 127-E6 (1995)
Masses of DA White Dwarfs with Gravitational Redshift Determinations. *P. Bergeron, James Liebert, & M. S. Fulbright.* 444, 810, 127-F1 (1995)
Sensitivity of Solar *g*-Modes to Varying *G* Cosmologies. *D. B. Guenther, Ken Sills, Pierre Demarque, & Lawrence M. Krauss.* 445, 148, 134-D4 (1995)
Gradual Approach to Coalescence for Compact Stars Orbiting Massive Black Holes. *Dieter Hils & Peter L. Bender.* 445, L7, 140-B10 (1995)
Nonlinear Evolution of Internal Gravity Waves in Cluster Cooling Flows. *Eric A. Lufkin, Steven A. Balbus, & John F. Hawley.* 446, 529, 163-D5 (1995)
Time and Its Evolution in an Inhomogeneous Universe. *Martin Harwit.* 447, 482, 182-D10 (1995)
Matching Exterior to Interior Solutions in Weyl Gravity: Comment on "Exact Vacuum Solution to Conformal Weyl Gravity and Galactic Rotation Curves." *Volker Perlick & Chongming Xu.* 449, 47, 210-G7 (1995)
The Rotation Curves of the Polar Ring Galaxy NGC 4650A under Modified Newtonian Dynamics. *Takahiro Morishima & Hideyuki Saio.* 450, 70, 229-A12 (1995)
Gravitational Radiation from Rotational Collapse of a Supernova Core. *Shoichi Yamada & Katsuhiko Sato.* 450, 245, 231-D4 (1995)
Millisecond Pulsars: Detectable Sources of Continuous Gravitational Waves? *Kimberly C. B. New, G. Chanmugam, Warren W. Johnson, & Joel E. Tohline.* 450, 757, 241-B9 (1995)
Local Nonlinear Approximations to the Growth of Cosmic Structures. *Paul J. Mancinelli & Amos Yahil.* 452, 75, 263-B8 (1995)
Cosmological Perturbation Theory in the Synchronous and Conformal Newtonian Gauges. *Chung-Pei Ma & Edmund Bertschinger.* 455, 7, 318-C10 (1995)
Einstein's Radiation Formula and Modifications to the Einstein Equation. *C. Y. Lo.* 455, 421, 327-F4 (1995)

GRAVITATIONAL LENSES

Cosmic X-Ray Background from Hot Gas. *R. D. Rogers & G. B. Field.* 366, 22, 1-C13 (1991)
A Straight Gravitational Image in Abell 2390: A Striking Case of Lensing by a Cluster of Galaxies. *Roser Pelló, Jean-François Le Borgne, Geneviève Soucail, Yannick Mellier, & Blai Sanahuja.* 366, 405, 7-G9 (1991)
Galactic Microlensing as a Method of Detecting Massive Compact Halo Objects. *Kim Griest.* 366, 412, 8-A5 (1991)
A Technique for Using Radio Jets as Extended Gravitational Lensing Probes. *Philipp P. Kronberg, Charles C. Dyer, E. Margaret Burbidge, & Vesa T. Junkkarinen.* 367, L1, 17-B1 (1991)
First Results from the Faint Object Camera: Images of the Gravitational Lens System G2237+0305. *P. Crane, R. Albrecht, C. Barbieri, J. C. Blades, A. Bokensenberg, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 369, L59, 46-A7 (1991)
Gravitational Lensing by Clusters of Galaxies: Constraining the Mass Distribution. *Jordi Miralda-Escudé.* 370, 1, 47-B1 (1991)
Correlation Function of Gravitational Deflection Angles of Light Paths. *Kazuya Watanabe & Kenji Tomita.* 370, 481, 54-D1 (1991)
Gravitational Microlensing of the Galactic Bulge Stars. *B. Paczyński.* 371, L63, 73-C4 (1991)
New Model for the 0957+561 Gravitational Lens System: Bounds on Masses of a Possible Black Hole and Dark Matter and Prospects for Estimation of H_0. *E. E. Falco, M. V. Gorenstein, & I. I. Shapiro.* 372, 364, 80-D1 (1991)
Gravitational Microlensing as a Method of Detecting Disk Dark Matter and Faint Disk Stars. *Kim Griest, Charles Alcock, Timothy S. Axelrod, David P. Bennett, Kem H. Cook, Kenneth C. Freeman, Hye-Sook Park, Saul Perlmutter, Bruce A. Peterson, Peter J. Quinn, Alexander W. Rodgers, & Christopher W. Stubbs (The MACHO Collaboration).* 372, L79, 85-D5 (1991)
The Implications of Lenses for Galaxy Structure. *Christopher S. Kochanek.* 373, 354, 92-D7 (1991)
Gravitational Microlensing of High-Redshift Supernovae by Compact Objects. *Kevin P. Rauch.* 374, 83, 99-A11 (1991)
Gravitational Lens Interference. *J. B. Peterson & Toby Falk.* 374, L5, 103-C1 (1991)
The Complete Sample of 1 Jansky BL Lacertae Objects. I. Summary Properties. *M. Stickel, P. Padovani, C. M. Urry, J. W. Fried, & H. Kühr.* 374, 431, 104-E1 (1991)
Gravitational Microlensing by Double Stars and Planetary Systems. *Shude Mao & Bohdan Paczyński.* 374, L37, 110-B11 (1991)
Formation and Distortion of Optical Rings around Rich Cluster Galaxies. *Christopher S. Kochanek & Roger D. Blandford.* 375, 492, 118-G11 (1991)
Gravitational Lensing and the Lyman-Alpha Forest. *Satoru Ikeuchi & Edwin L. Turner.* 375, 499, 119-A5 (1991)
Evidence for a Massive, Dark Gravitational Lensing Object in Q2345+007. *Robert C. Duncan.* 375, L41, 124-B1 (1991)
Bounds on the Enhancement of Quasar Counts by Lenses. *Israel Kovner.* 376, 70, 125-G8 (1991)
Infrared and Visible Photometry of the Gravitational Lens System 2237+030. *Daniel Nadeau, H. K. C. Yee, W. J. Forrest, J. D. Garnett, Z. Ninkov, & J. L. Pipher.* 376, 430, 131-G1 (1991)
A New Approach to Gravitational Microlensing: Time Delays and the Galactic Mass Distribution. *Lawrence M. Krauss & Todd A. Small.* 378, 22, 151-C8 (1991)
Gravitational Lensing, Time Delay, and Angular Diameter Distance. *Ramesh Narayan.* 378, L5, 157-B1 (1991)
First- and Second-Epoch VLBI Observations of the Gravitational Lens System 2016+112. *M. B. Heflin, M. V. Gorenstein, C. R. Lawrence, & B. F. Burke.* 378, 519, 158-G9 (1991)
The Magnification of Stars Crossing a Caustic. I. Lenses with Smooth Potentials. *Jordi Miralda-Escudé.* 379, 94, 164-B7 (1991)
Selection Effects in Optical Surveys for Gravitational Lenses. *Christopher S. Kochanek.* 379, 517, 171-B1 (1991)
The Correlation Function of Galaxy Ellipticities Produced by Gravitational Lensing. *Jordi Miralda-Escudé.* 380, 1, 176-B1 (1991)
Statistics of Gravitational Lenses: The Uncertainties. *Shude Mao.* 380, 9, 176-B9 (1991)
Spectroscopy of the Gravitational Arcs in Cl 2244−02, A370 (Arclet A5), and Cl 0024+1654. *Yannick Mellier, Bernard Fort, Geneviève Soucail, Guy Mathez, & Mireille Cailloux.* 380, 334, 182-D10 (1991)
Bounds on Intergalactic Compact Objects from Observations of Compact Radio Sources. *Aggeliki Kassiola, Israel Kovner, & Roger D. Blandford.* 381, 6, 189-B4 (1991)
Spatially Resolved Spectroscopy of Lyman-Alpha and C IV in the Gravitational Lens 2237+030. *H. K. C. Yee & M. M. De Robertis.* 381, 386, 195-E1 (1991)
Microlensing and the Structure of Active Galactic Nucleus Accretion Disks. *Kevin P. Rauch & Roger D. Blandford.* 381, L39, 199-B1 (1991)
Systematic Effects in Lens Inversions: $\aleph_1$ Exact Models for 0957+561. *Christopher S. Kochanek.* 382, 58, 200-G1 (1991)
Are Quasar Redshifts Cosmological? *Arnon Dar.* 382, L1, 205-A7 (1991)
Thin and Giant Luminous Arcs: A Strong Test of the Lensing Cluster Mass Distribution. *F. Hammer.* 383, 66, 212-G8 (1991)

HIGH-LATITUDE OBJECTS

CO $J = 3 \rightarrow 2$ Observations of Translucent and High-Latitude Molecular Clouds. *Ewine F. van Dishoeck, John H. Black, T. G. Phillips, & R. Gredel.* 366, 141, 2-G1 (1991)
IUE Observations of Early-Type Stars at High Galactic Latitudes. *D. A. Quin, P. J. F. Brown, E. S. Conlon, P. L. Dufton, & F. P. Keenan.* 375, 342, 115-B7 (1991)
An Infrared/Optical Investigation of 100 Micron "Cirrus." *Elizabeth S. Paley, Frank J. Low, John T. McGraw, Roc M. Cutri, & Hans-Walter Rix.* 376, 335, 129-A13 (1991)

Metallicity and Velocity Distribution of Giants toward the Galactic Poles. *Kavan U. Ratnatunga & Kenneth M. Yoss.* 377, 442, 145-C3 (1991)

HISTORY AND PHILOSOPHY OF ASTRONOMY

Founded in 1895 by George E. Hale and James E. Keeler: The *Astrophysical Journal* Centennial. *Donald E. Osterbrock.* 438, 1, 1-C1 (1995)

Centennial Challenge Essay: Quo Vadis, Astronomia? *George W. Collins II.* 449, 399, 218-C1 (1995)

A Century of Galaxy Spectroscopy. *Vera C. Rubin.* 451, 419, 253-B1 (1995)

The *Astrophysical Journal*: A New Journal for a New Science. *R. S. Brashear.* 455, 403, 327-D1 (1995)

Some Statistical Highlights of the *Astrophysical Journal*. *Helmut A. Abt.* 455, 407, 327-D8 (1995)

HYDRODYNAMICS

Nonaxisymmetric Instabilities in Rotating Shear Flows: Internal Gravity Modes in Stratified Media and Analogies with Plane Flows. *P. Ghosh & M. A. Abramowicz.* 366, 221, 3-F13 (1991)

Coronal Loop Heating by Wave-Particle Interactions. *Altair S. de Assis & King H. Tsui.* 366, 324, 5-B1 (1991)

Instabilities and Clumping in SN 1987A. I. Early Evolution in Two Dimensions. *Bruce Fryxell, Ewald Müller, & David Arnett.* 367, 619, 21-A5 (1991)

Hydrodynamic Constraints on the Radial Structure of Late-Type Galaxy Disks. *Curtis Struck-Marcell.* 368, 348, 29-D5 (1991)

The Dynamic Instability of Adiabatic Blast Waves. *Dongsu Ryu & Ethan T. Vishniac.* 368, 411, 30-B12 (1991)

The Effect of Viscosity on Steady Transonic Flow with a Nodal Solution Topology. *S. P. Owocki & G. P. Zank.* 368, 491, 31-C1 (1991)

Rayleigh-Taylor Instabilities and Mixing in the Helium Star Models for Type Ib/Ic Supernovae. *Izumi Hachisu, Takuya Matsuda, Ken'ichi Nomoto, & Toshikazu Shigeyama.* 368, L27, 35-B4 (1991)

Star Formation and the Nature of Bipolar Outflows. *Frank H. Shu, Steven P. Ruden, Charles J. Lada, & Susana Lizano.* 370, L31, 53-E1 (1991)

Two-Temperature Accretion Disks with Winds in a Fluid Approximation. *Masaaki Kusunose.* 370, 505, 54-F1 (1991)

A Polytropic Model of an Accretion Disk, a Boundary Layer, and a Star. *Bohdan Paczyński.* 370, 597, 55-G11 (1991)

On the Thermal Stability of Slabs, Cylinders, and Spheres. *Miguel H. Ibáñez S., & Florencio P. Plachco M.* 370, 743, 57-F1 (1991)

Hydrodynamical Instabilities and Mixing in SN 1987A: Two-dimensional Simulations of the First 3 Months. *Marc Herant & Willy Benz.* 370, L81, 59-D6 (1991)

The Deflection of Cosmic Jets. *David S. De Young.* 371, 69, 61-A1 (1991)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. I. The Issues, Formulation of the Problem, and Method of Solution. *Telemachos Ch. Mouschovias & Scott A. Morton.* 371, 296, 63-G1 (1991)

Enhanced Winds and Tidal Streams in Massive X-Ray Binaries. *John M. Blondin, Ian R. Stevens, & Timothy R. Kallman.* 371, 684, 70-B1 (1991)

Accretion in Wind-driven X-Ray Sources. *Ronald E. Taam, Albert Fu, & B. A. Fryxell.* 371, 696, 70-C1 (1991)

Near-critical Spherical Accretion by Neutron Stars: General Relativistic Treatment. *Myeong-Gu Park & Guy S. Miller.* 371, 708, 70-D1 (1991)

On Magnetothermal Instability in Cluster Cooling Flows. *Steven A. Balbus.* 372, 25, 74-C13 (1991)

Supernova Remnant 1987A. *Ding Luo & Richard McCray.* 372, 194, 76-D1 (1991)

Nonlinear Evolution of Accretion Disks Induced by Radiative Feedback Processes. *K. R. Bell, D. N. C. Lin, & Steven P. Ruden.* 372, 633, 83-E7 (1991)

The Oscillations of Rapidly Rotating Newtonian Stellar Models. II. Dissipative Effects. *James R. Ipser & Lee Lindblom.* 373, 213, 88-E12 (1991)

Mechanics and Energetics of Vortex Unpinning in Neutron Stars. *Bennett K. Link & Richard I. Epstein.* 373, 592, 95-C11 (1991)

The Hydrodynamics of Relict Cosmological H II Regions and the Formation of Objects at High Redshift. *Piero Madau & Avery Meiksin.* 374, 6, 98-B7 (1991)

Model Light Curves of Linear Type II Supernovae. *Douglas A. Swartz, J. Craig Wheeler, & Robert P. Harkness.* 374, 266, 101-D7 (1991)

The Collapse of Cylindrical Isothermal and Polytropic Clouds with Rotation. *Ian Bonnell & Pierre Bastien.* 374, 610, 106-F5 (1991)

Hydrodynamic Pulsation Models of Yellow Supergiant Stars in the Post-Asymptotic Giant Branch. *Toshiki Aikawa.* 374, 700, 107-F13 (1991)

A Simulation of the Collapse and Fragmentation of Cooling Molecular Clouds. *Joe J. Monaghan & John C. Lattanzio.* 375, 177, 113-C1 (1991)

The Influence of the Interface between the Heliosphere and the Local Interstellar Medium on the Penetration of the H Atoms to the Solar System. *V. B. Baranov, M. G. Lebedev, & Yu. G. Malama.* 375, 347, 115-C1 (1991)

Noise-driven Radiative Shocks: A New Model for the Optical Quasi-periodic Oscillations of the AM Herculis Objects. *Michael T. Wolff, Kent S. Wood, & James N. Imamura.* 375, L31, 117-D6 (1991)

The Dynamical Evolution of the Protosolar Nebula. *Steven P. Ruden & James B. Pollack.* 375, 740, 121-G11 (1991)

A Powerful Local Shear Instability in Weakly Magnetized Disks. I. Linear Analysis. *Steven A. Balbus & John F. Hawley.* 376, 214, 127-E11 (1991)

Luminosity Limit for Alpha-Viscosity Accretion Disks. *Edison P. Liang & Amri Wandel.* 376, 746, 135-E8 (1991)

Nonlinear Instability of the Accretion Line. *Noam Soker.* 376, 750, 135-F1 (1991)

The Fragmentation of "Pancakes" in a Dark Matter–dominated Universe. *Wenbo Yuan, Joan M. Centrella, & Michael L. Norman.* 376, L29, 137-A11 (1991)

Dissipational Galaxy Formation. I. Effects of Gasdynamics. *Neal Katz & James E. Gunn.* 377, 365, 144-D1 (1991)

Fragmentation of Elongated Cylindrical Clouds. III. Formation of Binary and Multiple Systems. *Ian Bonnell, Hugo Martel, Pierre Bastien, Jean-Pierre Arcoragi, & Willy Benz.* 377, 553, 146-E5 (1991)

Collisions of Giant Stars with Compact Objects: Hydrodynamical Calculations. *Frederic A. Rasio & Stuart L. Shapiro.* 377, 559, 146-F1 (1991)

A Determination of Relativistic Shock Jump Conditions Using Monte Carlo Techniques. *Donald C. Ellison & Stephen P. Reynolds.* 378, 214, 153-F1 (1991)

Fragmentation of Elongated Cylindrical Clouds. I. Isothermal Clouds. *Pierre Bastien, Jean-Pierre Arcoragi, Willy Benz, Ian Bonnell, & Hugo Martel.* 378, 255, 154-B5 (1991)

Alfvén Wave Trapping, Network Microflaring, and Heating in Solar Coronal Holes. *R. L. Moore, Z. E. Musielak, S. T. Suess, & C.-H. An.* 378, 347, 155-C5 (1991)

Hydrodynamics of Collisions between Binary Stars. *Jeremy Goodman & Lars Hernquist.* 378, 637, 160-C11 (1991)

Diskoseismology: Probing Accretion Disks. I. Trapped Adiabatic Oscillations. *Michael A. Nowak & Robert V. Wagoner.* 378, 656, 160-E9 (1991)

Heavy, Overpressured Jets and the Radio Source Hercules A. *David L. Meier, Alberto C. Sadun, & Kevin R. Lind.* 379, 141, 164-F9 (1991)

On the Adiabatic Pulsations of Accretion Disks and Rotating Stars. *James R. Ipser & Lee Lindblom.* 379, 285, 166-E7 (1991)

The Late-Time Light Curve of SN 1984L. *Douglas A. Swartz & J. Craig Wheeler.* 379, L13, 169-B7 (1991)

The Circumstellar Shell of SN 1987A. *Ding Luo & Richard McCray.* 379, 659, 172-G9 (1991)

The Collimation of a Time-dependent Stellar Wind. *S.-H. Kim & A. C. Raga.* 379, 689, 173-C4 (1991)

Periodic Stellar Pulsations: Stability Analysis and Amplitude Equations. *J. Robert Buchler, Pawel Moskalik, & Géza Kovács.* 380, 185, 178-D1 (1991)

Dynamical Buoyancy of Hydrodynamic Eddies. *E. N. Parker.* 380, 251, 179-B5 (1991)

Fragmentation of Elongated Cylindrical Clouds. II. Polytropic Clouds. *Jean-Pierre Arcoragi, Ian Bonnell, Hugo Martel, Willy Benz, & Pierre Bastien.* 380, 476, 184-B7 (1991)

Superfluid Hydrodynamics in Rotating Neutron Stars. I. Nondissipative Equations. *Gregory Mendell.* 380, 515, 184-F1 (1991)

Superfluid Hydrodynamics in Rotating Neutron Stars. II. Dissipative Effects. *Gregory Mendell.* 380, 530, 184-G3 (1991)

Three-dimensional Compressible Hydrodynamic Convection in the Sun and Stars. *Murshed Hossain & D. J. Mullan.* 380, 631, 186-A10 (1991)

Numerical Simulations of Flares on M Dwarf Stars. I. Hydrodynamics and Coronal X-Ray Emission. *Chung-Chieh Cheng & Roberto Pallavicini.* 381, 234, 191-G12 (1991)

A Model for Tidally Driven Eccentric Instabilities in Fluid Disks. *Stephen H. Lubow.* 381, 259, 192-B12 (1991)

Neutralized and Unneutralized Current Patterns in the Solar Corona. *D. B. Melrose.* 381, 306, 192-F13 (1991)

Outflow Hydrodynamics in the Eclipsing Millisecond Pulsar Binaries PSR 1957+20 and PSR 1744−24A. *Marco Tavani & Leigh Brookshaw.* 381, L21, 194-C13 (1991)

Three-dimensional Simulations of Black Hole Tori. *John F. Hawley.* 381, 496, 196-G9 (1991)

Two-dimensional Hydrodynamic Calculations of the Nonlinear Development of the Goldreich-Schubert-Fricke Instability in a Rotating Annulus. *D. G. Korycansky.* 381, 515, 197-B1 (1991)

Outflows Driven by Cosmic-Ray Pressure in Broad Absorption Line QSOs. *Mitchell C. Begelman, Martijn de Kool, & Marek Sikora.* 382, 416, 206-F9 (1991)

Rayleigh-Taylor Instability in the Asymmetric Supernova Explosion. *Shoichi Yamada & Katsuhiko Sato.* 382, 594, 208-G12 (1991)

A Hydrodynamic Approach to Cosmology: Texture-seeded Cold Dark Matter and Hot Dark Matter Cosmogonies. *R. Y. Cen, J. P. Ostriker, D. N. Spergel, & N. Turok.* 383, 1, 212-B1 (1991)

Spherical Accretion onto Black Holes: A Complete Analysis of Stationary Solutions. *Luciano Nobili, Roberto Turolla, & Luca Zampieri.* 383, 250, 215-C9 (1991)

The Formation and Role of Water Dimers in a Cometary Atmosphere, with Application to Comet P/Halley. *J. F. Crifo & Z. Slanina.* 383, 351, 216-F1 (1991)

Gravitational Instabilities in a Proto–Planetary Disk. *Hyerim Noh, Ethan T. Vishniac, & William D. Cochran.* 383, 372, 217-A1 (1991)

Gravitational Fragmentation: A Comparison with W49A. *Eric R. Keto, John C. Lattanzio, & Joe J. Monaghan.* 383, 639, 222-B12 (1991)

The Formation of Coronal Regions in Accretion Disks. *Stephen D. Murray & Douglas N. C. Lin.* 384, 177, 3-B9 (1992)

Spherically Symmetric, Polytropic Flow. *T. Theuns & M. David.* 384, 587, 9-D9 (1992)

Numerical Simulations of Hydrodynamical Jets Crossing a Galactic Halo/Intracluster Medium Interface. *Paul J. Wiita & Michael L. Norman.* 385, 478, 19-B7 (1992)

Toward a Resolution of the Bump and Beat Cepheid Mass Discrepancies. *Paweł Moskalik, J. Robert Buchler, & Ariel Marom.* 385, 685, 21-E13 (1992)

Radiative Shocks and Hydrogen Molecules in Pregalactic Gas: The Effects of Postshock Radiation. *Hyesung Kang & Paul R. Shapiro.* 386, 432, 30-F13 (1992)

Numerical Models for the Collapse and Fragmentation of Centrally Condensed Molecular Cloud Cores. *Elizabeth A. Myhill & William M. Kaula.* 386, 578, 32-E4 (1992)

A Hydrodynamic Approach to Cosmology: Methodology. *Renyue Cen.* 78, 341, 7-B1 (1992)

Instabilities in Astrophysical Jets. I. Linear Analysis of Body and Surface Waves. *Jun-Hui Zhao, Jack O. Burns, Philip E. Hardee, & Michael L. Norman.* 387, 69, 37-G7 (1992)

Instabilities in Astrophysical Jets. II. Numerical Simulations of Slab Jets. *Jun-Hui Zhao, Jack O. Burns, Michael L. Norman, & Martin E. Sulkanen.* 387, 83, 38-B1 (1992)

Postexplosion Hydrodynamics of SN 1987A. *Marc Herant & Willy Benz.* 387, 294, 40-E9 (1992)

Astrophysical Jets and Theories of Gravitation. *Mario Livio & Nathan Rosen.* 387, 458, 44-D5 (1992)

Asymmetric Morphology of the Propagating Jet. II. The Effect of Atmospheric Gradients. *Philip E. Hardee, Raymond E. White III, Michael L. Norman, Michael A. Cooper, & David A. Clarke.* 387, 460, 44-D8 (1992)

Dynamics of Wind Bubbles and Superbubbles. I. Slow Winds and Fast Winds. *Bon-Chul Koo & Christopher F. McKee.* 388, 93, 50-C1 (1992)

Dynamics of Wind Bubbles and Superbubbles. II. Analytic Theory. *Bon-Chul Koo & Christopher F. McKee.* 388, 103, 50-C12 (1992)

Self-similar Solutions and the Stability of Collapsing Isothermal Filaments. *Shu-ichiro Inutsuka & Shoken M. Miyama.* 388, 392, 55-C1 (1992)

A Test Suite for Magnetohydrodynamical Simulations. *James M. Stone, John F. Hawley, Charles R. Evans, & Michael L. Norman.* 388, 415, 55-E1 (1992)

Convective Instability in Differentially Rotating Disks. *Dongsu Ryu & Jeremy Goodman.* 388, 438, 55-F12 (1992)

The Stability of Accretion Tori. IV. Fission and Fragmentation of Slender, Self-gravitating Annuli. *Dimitris M. Christodoulou & Ramesh Narayan.* 388, 451, 56-A1 (1992)

Dynamics of Ultraharmonic Resonances in Spiral Galaxies. *Paweł Artymowicz & Stephen H. Lubow.* 389, 129, 61-F1 (1992)

On the Interior Structure of Contact Binaries and the Light-Curve Paradox. *Jean-Louis Tassoul.* 389, 375, 64-E9 (1992)

Three-dimensional Hydrodynamical Simulations of Colliding Stars. III. Collisions and Tidal Captures of Unequal-Mass Main-Sequence Stars. *W. Benz & J. G. Hills.* 389, 546, 68-C8 (1992)

Cooling and the Longevity of Polar Rings. *Neal Katz & Hans-Walter Rix.* 389, L55, 73-C3 (1992)

Downflows and Entropy Gradient Reversal in Deep Convection. *Kwing L. Chan & Detlef Gigas.* 389, L87, 73-F3 (1992)

Mixing in Ejecta of Supernovae. I. General Properties of Two-dimensional Rayleigh-Taylor Instabilities and Mixing Width in Ejecta of Supernovae. *Izumi Hachisu, Takuya Matsuda, Ken'ichi Nomoto, & Toshikazu Shigeyama.* 390, 230, 76-G7 (1992)

The Three-dimensional Interaction of a Supernova Remnant with an Interstellar Cloud. *James M. Stone & Michael L. Norman.* 390, L17, 78-C11 (1992)

Postglitch Behavior of the Crab Pulsar: Evidence for External Torque Variations. *Bennett Link, Richard I. Epstein, & Gordon Baym.* 390, L21, 78-D5 (1992)

Modeling Structures of Knots in Jet Flows with the Burgers Equation. *Lev Kofman & A. C. Raga.* 390, 359, 79-F5 (1992)

Swing Amplification of Nonaxisymmetric Perturbations in Stars and Gas in a Sheared Galactic Disk. *Chanda J. Jog.* 390, 378, 80-B1 (1992)

Formation of a Giant Galactic Gaseous Halo: Metal Absorption Lines and High-Velocity Clouds. *Fan Li & Satoru Ikeuchi.* 390, 405, 80-D7 (1992)

Spiral Shocks and Subday Variability in SS 433. *Sandip K. Chakrabarti & T. Matsuda.* 390, 639, 83-C1 (1992)

Collision and Tidal Interaction between Planetesimals. *Sei-ichiro Watanabe & Shoken M. Miyama.* 391, 318, 89-G11 (1992)

Dissipational Galaxy Formation. II. Effects of Star Formation. *Neal Katz.* 391, 502, 94-B7 (1992)

Application of the Phase-Integral Method to the Trapping of Acoustic Waves in a Gravitating Fluid. I. Planar Polytrope and Turning-Point Behavior. *Gary H. Price.* 391, 845, 98-D10 (1992)

Ram-Pressure Confinement of a Hypersonic Jet. *Chris Loken, Jack O. Burns, David A. Clarke, & Michael L. Norman.* 392, 54, 101-F1 (1992)

Dynamics of Fronts in Thermally Bistable Fluids. *Christian Elphick, Oded Regev, & Nir Shaviv.* 392, 106, 102-C9 (1992)

Hydrodynamic Instabilities in Supernova Remnants: Self-similar Driven Waves. *Roger A. Chevalier, John M. Blondin, & Robert T. Emmering.* 392, 118, 102-D9 (1992)

The Evolution of Cocoons Surrounding Light, Extragalactic Jets. *Denis F. Cioffi & John M. Blondin.* 392, 458, 108-A7 (1992)

ZEUS-2D: A Radiation Magnetohydrodynamics Code for Astrophysical Flows in Two Space Dimensions. I. The Hydrodynamic Algorithms and Tests. *James M. Stone & Michael L. Norman.* 80, 753, 33-G3 (1992)

ZEUS-2D: A Radiation Magnetohydrodynamics Code for Astrophysical Flows in Two Space Dimensions. II. The Magnetohydrodynamic Algorithms and Tests. *James M. Stone & Michael L. Norman.* 80, 791, 34-C5 (1992)

ZEUS-2D: A Radiation Magnetohydrodynamics Code for Astrophysical Flows in Two Space Dimensions. III. The Radiation Hydrodynamic Algorithms and Tests. *James M. Stone, Dimitri Mihalas, & Michael L. Norman.* 80, 819, 34-E11 (1992)

A Hydrodynamic Treatment of the Cold Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah Ostriker.* 393, 22, 114-C12 (1992)

Gauge-invariant Cosmological Perturbations in Two Gravitationally Coupled Perfect Fluids. *W. Zimdahl.* 393, 471, 121-F9 (1992)

Shock Breakout in SN 1987A. *Lisa Ensman & Adam Burrows.* 393, 742, 125-A10 (1992)

Supersonic Infall and Causality in Accretion Disk Boundary Layers. *Robert Popham & Ramesh Narayan.* 394, 255, 131-B10 (1992)

A Flux-limited Model of Particle Diffusion and Viscosity. *Ramesh Narayan.* 394, 261, 131-C3 (1992)

Thermonuclear Runaways in Nova Outbursts. *Anurag Shankar, David Arnett, & Bruce A. Fryxell.* 394, L13, 133-C1 (1992)

Bow Shock Models for the Velocity Structure of Ultracompact H II Regions. *Dave Van Buren & Mordecai-Mark Mac Low.* 394, 534, 136-A7 (1992)

Statistics of the Cosmic Mach Number from Numerical Simulations of a Cold Dark Matter Universe. *Yasushi Suto, Renyue Cen, & Jeremiah P. Ostriker.* 395, 1, 140-B1 (1992)

Cosmological Perturbations and the Physical Meaning of Gauge-invariant Variables. *Marco Bruni, Peter K. S. Dunsby, & George F. R. Ellis.* 395, 34, 140-E7 (1992)

Covariant Perturbations in a Multifluid Cosmological Medium. *Peter K. S. Dunsby, Marco Bruni, & George F. R. Ellis.* 395, 54, 140-G1 (1992)

Dynamical Evolution of Highly Inclined Rings. *Dimitris M. Christodoulou, Neal Katz, Hans-Walter Rix, & Asao Habe.* 395, 113, 141-E1 (1992)

A Comparative Study of Synchronization and Circularization in Close Binaries. *Jean-Louis Tassoul & Monique Tassoul.* 395, 259, 143-D1 (1992)

Hydrodynamics of the Hot Component of the Galactic Halo. II. Radiative and Dynamical Instabilities. *A. Ferrara & G. Einaudi.* 395, 475, 148-D9 (1992)

On the Efficiency of Ekman Pumping for Synchronization in Close Binaries. *Monique Tassoul & Jean-Louis Tassoul.* 395, 604, 150-E5 (1992)

Postcollapse Hydrodynamics of SN 1987A: Two-dimensional Simulations of the Early Evolution. *Marc Herant, Willy Benz, & Stirling Colgate.* 395, 642, 151-B13 (1992)

Cosmic-Ray–modified Supernova Remnant Shocks. *T. W. Jones & Hyesung Kang.* 396, 575, 164-E9 (1992)

Propagation of Sound and Thermal Waves in a Plasma with Solar Abundances. *Miguel H. Ibáñez S., & Néstor M. Sánchez D.* 396, 717, 166-C1 (1992)

Properties of Quasi-periodic Oscillations in Accreting Magnetic White Dwarfs. *Kinwah Wu, G. Chanmugam, & G. Shaviv.* 397, 232, 170-G6 (1992)

Non-LTE Radiating Acoustic Shocks and Ca II K2V Bright Points. *Mats Carlsson & Robert F. Stein.* 397, L59, 173-G11 (1992)

Two-dimensional Viscous Accretion Disk Models. I. On Meridional Circulations in Radiative Regions. *W. Kley & D. N. C. Lin.* 397, 600, 178-D13 (1992)

On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. I. General Results. *Miguel H. Ibáñez S., Antonio Parravano, & César A. Mendoza B.* 398, 177, 184-B1 (1992)

An Off-Center Point Explosion in a Radially Stratified Medium: Kompaneets Approximation. *D. G. Korycansky.* 398, 184, 184-B9 (1992)

Flux-limited Diffusion in Hydrodynamics. *J. Cooperstein & E. Baron.* 398, 531, 190-F11 (1992)

Growth and Decay of Disturbances in Stratified Shear Flow in a Rotating Frame. *D. G. Korycansky.* 399, 176, 197-D3 (1992)

A Comparison of Models for Supernova Remnants Including Cosmic Rays. *Hyesung Kang & L. O'C. Drury.* 399, 182, 197-D11 (1992)

Near-resonant Excitation and Propagation of Eccentric Density Waves by External Forcing. *Eve C. Ostriker, Frank H. Shu, & Fred C. Adams.* 399, 192, 197-E13 (1992)

A Three-dimensional Hydrodynamic Treatment of the Hot Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah P. Ostriker.* 399, 331, 202-B1 (1992)

Pressure-confined Lyα Clouds: Simulation Results versus Observations. *Gerard M. Williger & Arif Babul.* 399, 385, 202-G1 (1992)

On the Virial Theorem for Turbulent Molecular Clouds. *Christopher F. McKee & Ellen G. Zweibel.* 399, 551, 204-F7 (1992)

Galaxies and Gas in a Cold Dark Matter Universe. *Neal Katz, Lars Hernquist, & David H. Weinberg.* 399, L109, 207-F1 (1992)

Galaxy Formation and Physical Bias. *Renyue Cen & Jeremiah P. Ostriker.* 399, L113, 207-F7 (1992)

Shock Wave Emergence at the Stellar Surface and the Subsequent Gas Expansion into a Vacuum: The Sphericity Involvement. *Ya. M. Kazhdan & Marina Murzina.* 400, 192, 211-C9 (1992)

Dynamics of Kepler's Supernova Remnant. *Kazimierz J. Borkowski, John M. Blondin, & Craig L. Sarazin.* 400, 222, 211-F5 (1992)

Nonlinear Dynamics of a Three-dimensional Jet. *Philip E. Hardee & David A. Clarke.* 400, L9, 214-B6 (1992)

Starbursts Triggered by Central Overpressure in Interacting Galaxies. *Chanda J. Jog & Mousumi Das.* 400, 476, 216-C1 (1992)

Fragmentation of Elongated Cylindrical Clouds. IV. Clouds with Solid-Body Rotation about an Arbitrary Axis. *Ian Bonnell, Jean-Pierre Arcoragi, Hugo Martel, & Pierre Bastien.* 400, 579, 217-E8 (1992)

Radiation-viscous Boundary Layers. *Nahum Arav & Mitchell C. Begelman.* 401, 125, 222-E7 (1992)

The Dynamics of Molecular Cloud Envelopes in a Varying Ultraviolet Radiation Field. *C. Bréart de Boisanger, J.-P. Chièze, & B. Meltz.* 401, 182, 223-D1 (1992)

Hydrodynamical Evolution of Coalescing Binary Neutron Stars. *Frederic A. Rasio & Stuart L. Shapiro.* 401, 226, 223-G9 (1992)

Stellar Encounters Involving Neutron Stars in Globular Cluster Cores. *M. B. Davies, W. Benz, & J. G. Hills.* 401, 246, 224-B1 (1992)

Fragmentation of Elongated Cylindrical Clouds. V. Dependence of Mass Ratios on Initial Conditions. *Ian Bonnell & Pierre Bastien.* 401, 654, 230-F1 (1992)

Protostellar Hydrodynamics: Constructing and Testing a Spatially and Temporally Second-Order–accurate Method. I. Spherical Coordinates. *Alan P. Boss & Elizabeth A. Myhill.* 83, 311, 62-B13 (1992)

Equilibrium Slab Models of Lyman-Alpha Clouds. *Jane C. Charlton, Edwin E. Salpeter, & Craig J. Hogan.* 402, 493, 8-F8 (1993)

Cosmic-Ray Acceleration during the Impact of Shocks on Dense Clouds. *T. W. Jones & Hyesung Kang.* 402, 560, 9-E1 (1993)

Stripping of a Planetary Nebula from the Globular Cluster M22. *Kazimierz J. Borkowski, Zlatan Tsvetanov, & J. Patrick Harrington.* 402, L57, 12-F9 (1993)

Dynamical Evolution of Gaseous Disks in Halo Potentials. I. Massless Rings in Static, Spheroidal Halos. *Dimitris M. Christodoulou & Joel E. Tohline.* 403, 110, 15-D5 (1993)

Evolution of Planetesimals. I. Dynamics: Relaxation in a Thin Disk. *P. L. Palmer, D. N. C. Lin, & S. J. Aarseth.* 403, 336, 18-A12 (1993)

Gravitational Clustering of Galaxies: Comparison between Thermodynamic Theory and *N*-Body Simulations. IV. The Effects of Continuous Mass Spectra. *Makoto Itoh, Shogo Inagaki, & William C. Saslaw.* 403, 476, 21-E1 (1993)

The Kelvin-Helmholtz Instability in Photospheric Flows: Effects on Coronal Heating and Structure. *Judith T. Karpen, Spiro K. Antiochos, Russell B. Dahlburg, & Daniel S. Spicer.* 403, 769, 25-C13 (1993)

Multiple Equilibria and Free Energy for Rotating, Self-gravitating Fluid Bodies. *Elizabeth A. Praton & Jennie Traschen.* 404, 63, 28-G1 (1993)

Astrophysical Gasdynamics Confronts Reality: The Shaping of Planetary Nebuale. *Adam Frank, Bruce Balick, Vincent Icke, & Garrelt Mellema.* 404, L25, 33-F7 (1993)

A Flux-limited Treatment for the Conductive Evaporation of Spherical Interstellar Gas Clouds. *William W. Dalton & Steven A. Balbus.* 404, 625, 36-F11 (1993)

Smoothed Particle Hydrodynamics near a Black Hole. *Pablo Laguna, Warner A. Miller, & Wojciech H. Zurek.* 404, 678, 37-D3 (1993)

Numerical Simulations of Two-dimensional and Three-dimensional Wind Accretion Flows of an Isothermal Gas. *Takanori Ishii, Takuya Matsuda, Eiji Shima, Mario Livio, Ulrich Anzer, & Gerhard Börner.* 404, 706, 37-F9 (1993)

Some Cautionary Remarks about Smoothed Particle Hydrodynamics. *Lars Hernquist.* 404, 717, 37-G7 (1993)

The Stability of Cosmic-Ray–dominated Shocks: A Secondary Instability. *Dongsu Ryu, Hyesung Kang, & T. W. Jones.* 405, 199, 43-E7 (1993)

Formation of the Circumstellar Shell around SN 1987A. *John M. Blondin & Peter Lundqvist.* 405, 337, 45-C13 (1993)

Large-Eddy Simulations of Compressible Convection on Massively Parallel Computers. *Xin Xie & Juri Toomre.* 405, 747, 52-D1 (1993)

Three-dimensional Hydrodynamical Calculations on the Fragmentation of Pancakes and Galaxy Formation. *Masayuki Umemura.* 406, 361, 62-B5 (1993)

Shock Propagation in a Turbulent Cloud. *Toshiya Kimura & Makoto Tosa.* 406, 512, 64-B10 (1993)

A Local Instability of Tidally Distorted Accretion Disks. *Jeremy Goodman.* 406, 596, 65-C8 (1993)

Fragmentation of Elongated Cylindrical Clouds. VI. Comparison with Observations. *Ian Bonnell & Pierre Bastien.* 406, 614, 65-E1 (1993)

Hydrodynamical Simulations of Rotating Stars. I. A Model for Subgrid-Scale Flow. *Maurice J. Clement.* 406, 651, 66-A3 (1993)

Hydrodynamic Instability and Coalescence of Close Binary Systems. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 406, L63, 68-D3 (1993)

The Impact of Supernova Fragments on the Evolution of Multisupernova Remnants. *J. Franco, A. Ferrara, M. Różyczka, G. Tenorio-Tagle, & D. P. Cox.* 407, 100, 70-C11 (1993)

Nonlinear Growth of Dynamical Overstabilities in Blast Waves. *Mordecai-Mark Mac Low & Michael L. Norman.* 407, 207, 71-E11 (1993)

A Theory of Nonlocal Mixing-Length Convection. I. The Moment Formalism. *Scott A. Grossman, Ramesh Narayan, & David Arnett.* 407, 284, 72-F1 (1993)

On the Solar Differential Rotation: Meridional Motions Associated with a Slowly Varying Angular Velocity. *Bernard R. Durney.* 407, 367, 73-E11 (1993)

Dynamical Instabilities in Two-Phase Media and the Minimum Masses of Stellar Systems. *Stephen D. Murray, Simon D. M. White, John M. Blondin, & Douglas N. C. Lin.* 407, 588, 77-G11 (1993)

When Clusters Collide: A Numerical Hydro/N-Body Simulation of Merging Galaxy Clusters. *Kurt Roettiger, Jack Burns, & Chris Loken.* 407, L53, 82-C1 (1993)

A Two-dimensional Relativistic (Γ = 3.25) Jet Simulation. *Maurice H. P. M. van Putten.* 408, L21, 88-G8 (1993)

Ionization Effects in Three-dimensional Solar Granulation Simulations. *Mark P. Rast, Åke Nordlund, Robert F. Stein, & Juri Toomre.* 408, L53, 89-D11 (1993)

Local Hydrodynamic Instability of Rotating Stars. *Alexander Lifschitz & Norman Lebovitz.* 408, 603, 92-F9 (1993)

The Injection and Acceleration of Particles in Oblique Shocks: A Unified Monte Carlo Description. *Matthew G. Baring, Donald C. Ellison, & Frank C. Jones.* 409, 327, 101-B8 (1993)

The Formation and Evolution of Shocks in Stellar Jets from a Variable Wind. *Patrick Hartigan & John Raymond.* 409, 705, 107-G5 (1993)

Two-dimensional Viscous Accretion Disk Models. II. On Viscous Overstability. *W. Kley, J. C. B. Papaloizou, & D. N. C. Lin.* 409, 739, 108-C6 (1993)

Collapse and Fragmentation of Molecular Cloud Cores. I. Moderately Centrally Condensed Cores. *Alan P. Boss.* 410, 157, 114-B1 (1993)

Hydrodynamics of Winds from Irradiated Companion Stars in Low-Mass X-Ray Binaries. *Marco Tavani & Richard London.* 410, 281, 115-E8 (1993)

Three-dimensional Simulations of Protostellar Jets. *Elisabete M. de Gouveia Dal Pino & Willy Benz.* 410, 686, 122-B13 (1993)

Stellar Core Collapse: A Boltzmann Treatment of Neutrino-Electron Scattering. *Anthony Mezzacappa & Stephen W. Bruenn.* 410, 740, 123-A7 (1993)

Tidal Disruptions by Supermassive Black Holes: Hydrodynamic Evolution of Stars on a Schwarzschild Background. *Pablo Laguna, Warner A. Miller, Wojciech H. Zurek, & Melvyn B. Davies.* 410, L83, 125-G9 (1993)

Hydrodynamic Models of the Cartwheel Ring Galaxy. *Curtis Struck-Marcell & James L. Higdon.* 411, 108, 128-D7 (1993)

The Formation of Protostellar Disks. I. 1 $M_{\odot}$. *Harold W. Yorke, Peter Bodenheimer, & Gregory Laughlin.* 411, 274, 130-E13 (1993)

Encounters between Binaries and Neutron Stars. *M. B. Davies, W. Benz, & J. G. Hills.* 411, 285, 130-F13 (1993)

Mg II and Lyα Fluxes in M Dwarfs: Evaluation of an Acoustic Model. *D. J. Mullan & Q. Q. Cheng.* 412, 312, 146-A9 (1993)

Collisions and Close Encounters between Massive Main-Sequence Stars. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 412, 593, 151-B7 (1993)

On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. II. Application to the Interstellar Medium. *Antonio Parravano, Miguel H. Ibáñez S., & César A. Mendoza B.* 412, 625, 151-E6 (1993)

An Implicit Method for Two-dimensional Hydrodynamics. *Eli Livne.* 412, 634, 151-F4 (1993)

Radio Emission from Young Supernova Remnants. II. Evolution and Dependence on Characteristics of the Progenitor and the External Medium. *John R. Dickel, Jean A. Eilek, & Eric M. Jones.* 412, 648, 151-G7 (1993)

On the Dynamical Buoyancy of Vortices. *Steve Arendt.* 412, 664, 152-A12 (1993)

The Stability of Accretion Tori. V. Unstable Modes and Avoided Crossings in Extended, Self-gravitating Annuli. *Dimitris M. Christodoulou.* 412, 696, 152-D13 (1993)

The Effects of Zonal Atmospheric Currents on the Spectra of Rotating Early-Type Stars. *Steven R. Cranmer & George W. Collins II.* 412, 720, 152-F12 (1993)

Hydrodynamical Simulations of Star-Gas Interactions in the Interstellar Medium with an External Gravitational Potential. *Alexander Rosen, Joel N. Bregman, & Michael L. Norman.* 413, 137, 157-G5 (1993)

Numerical Simulations of Protostellar Jets with Nonequilibrium Cooling. I. Method and Two-dimensional Results. *James M. Stone & Michael L. Norman.* 413, 198, 158-E6 (1993)

Numerical Simulations of Protostellar Jets with Nonequilibrium Cooling. II. Models of Pulsed Jets. *James M. Stone & Michael L. Norman.* 413, 210, 158-F13 (1993)

Anomalous Energy and Momentum Transfer of Intense Neutrinos in Supernova Explosions. *Tzihong Chiueh.* 413, L35, 162-E11 (1993)

Alfvén Wave Transport Effects in the Time Evolution of Parallel Cosmic-Ray–modified Shocks. *T. W. Jones.* 413, 619, 164-C1 (1993)

Interaction of a Jet with a Radiation Pressure–dominated Atmosphere: The Case of SS 433. *Nahum Arav & Mitchell C. Begelman.* 413, 700, 165-B8 (1993)

A Cosmological Hydrodynamic Code Based on the Total Variation Diminishing Scheme. *Dongsu Ryu, Jeremiah P. Ostriker, Hyesung Kang, & Renyue Cen.* 414, 1, 170-B1 (1993)

A Hydrodynamic Treatment of the Tilted Cold Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah P. Ostriker.* 414, 407, 176-C1 (1993)

Effects of Gas on the Global Stability of Galactic Disks: Radial Flows. *Isaac Shlosman & Masafumi Noguchi.* 414, 474, 177-B2 (1993)

Continuum Hydrodynamical Equations for Multiphase Astrophysical Flows. *S. Pistinner & G. Shaviv.* 414, 612, 178-G5 (1993)

A Hydrodynamical Model for the Explosion of a Neutron Star Just below the Minimum Mass. *Monica Colpi, Stuart L. Shapiro, & Saul A. Teukolsky.* 414, 717, 180-B10 (1993)

Equidistribution of Energy and Other Quantities in Oscillating Systems. *Charles L. Wolff.* 414, 892, 182-D4 (1993)

Gasdynamics of Relativistically Expanding Gamma-Ray Burst Sources: Kinematics, Energetics, Magnetic Fields, and Efficiency. *P. Mészáros, P. Laguna, & M. J. Rees.* 415, 181, 187-C7 (1993)

Convection above the Neutrinosphere in Type II Supernovae. *D. S. Miller, J. R. Wilson, & R. W. Mayle.* 415, 278, 188-D12 (1993)

Ellipsoidal Figures of Equilibrium: Compressible Models. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 88, 205, 43-A1 (1993)

A Hydrodynamic Approach to Cosmology: The Primeval Baryon Isocurvature Model. *Renyue Cen, Jeremiah P. Ostriker, & P. J. E. Peebles.* 415, 423, 193-B5 (1993)

Gravitational Collapse of an Isothermal Sphere. *Prudence N. Foster & Roger A. Chevalier.* 416, 303, 204-G8 (1993)

A Hydrodynamic Approach to Cosmology: Nonlinear Effects on Cosmic Backgrounds in the Cold Dark Matter Model. *Roberto Scaramella, Renyue Cen, & Jeremiah P. Ostriker.* 416, 399, 208-B9 (1993)

Structure and Circulation of Self-gravitating Toroids. *Yoshiharu Eriguchi & Ewald Müller.* 416, 666, 211-F6 (1993)

On the Angular Momentum Transport Associated with Convective Eddies in Accretion Disks. *W. Kley, J. C. B. Papaloizou, & D. N. C. Lin.* 416, 679, 211-G7 (1993)

On the Nonaxisymmetric Convective Instabilities in Accretion Disks. *D. N. C. Lin, J. C. B. Papaloizou, & W. Kley.* 416, 689, 212-A4 (1993)

Gravitational Radiation from Nonaxisymmetric Collisions of Neutron Stars. *Joan M. Centrella & Stephen L. W. McMillan.* 416, 719, 212-C10 (1993)

Simulation of Compressible Convection: A Comparative Study of Boundary Conditions. *Murshed Hossain & D. J. Mullan.* 416, 733, 212-E1 (1993)

A Theory of Supernova Explosions. *Adam Burrows & John Goshy.* 416, L75, 216-E1 (1993)

The Piecewise-Linear Predictor-Corrector Code: A Lagrangian-Remap Method for Astrophysical Flows. *Eric A. Lufkin & John F. Hawley.* 88, 569, 47-F9 (1993)

The Piecewise-Parabolic Method in Curvilinear Coordinates. *John M. Blondin & Eric A. Lufkin.* 88, 589, 48-A3 (1993)

Hydrodynamic Collimation of Precessing Jets. *W. Peter & D. Eichler.* 417, 170, 219-E3 (1993)

Evolution of the Solar Nebula. II. Thermal Structure during Nebula Formation. *Alan P. Boss.* 417, 351, 222-A1 (1993)

A Hydrodynamic Treatment of the Cold Dark Matter Cosmological Scenario with a Cosmological Constant. *Renyue Cen, Nickolay Y. Gnedin, & Jeremiah P. Ostriker.* 417, 387, 224-B5 (1993)

Cold Dark Matter Cosmogony with Hydrodynamics and Galaxy Formation: Galaxy Properties at Redshift Zero. *Renyue Cen & Jeremiah P. Ostriker.* 417, 415, 224-E1 (1993)

Propagation and Stability Properties of Radio Jets in Cluster Cooling Flow Atmospheres. *Chris Loken, Jack O. Burns, Michael L. Norman, & David A. Clarke.* 417, 515, 225-F9 (1993)

Smoothed Particle Hydrodynamics Confronts Theory: Formation of Standing Shocks in Accretion Disks and Winds around Black Holes. *Sandip K. Chakrabarti & Diego Molteni.* 417, 671, 227-F7 (1993)

A Single-Fluid, Self-consistent Formulation of Fluid Dynamics and Particle Transport. *L. L. Williams & J. R. Jokipii.* 417, 725, 228-D5 (1993)

Weak Tidal Encounters of a Star with a Massive Black Hole. *A. Khokhlov, I. D. Novikov, & C. J. Pethick.* 418, 163, 233-B1 (1993)

Strong Effects during Close Encounters of a Star with a Massive Black Hole. *A. Khokhlov, I. D. Novikov, & C. J. Pethick.* 418, 181, 233-C7 (1993)

A Convective Trigger for Supernova Explosions. *Adam Burrows & Burce A. Fryxell.* 418, L33, 238-D11 (1993)

On the Wave Excitation and a Generalized Torque Formula for Lindblad Resonances Excited by External Potential. *Paweł Artymowicz.* 419, 155, 248-B1 (1993)

Disk-Satellite Interaction via Density Waves and the Eccentricity Evolution of Bodies Embedded in Disks. *Paweł Artymowicz.* 419, 166, 248-C1 (1993)

Stability of Detonations in Supernovae. *A. M. Khokhlov.* 419, 200, 248-F5 (1993)

Compressible Convection with Ionization. I. Stability, Flow Asymmetries, and Energy Transport. *Mark P. Rast & Juri Toomre.* 419, 224, 249-A6 (1993)

Compressible Convection with Ionization. II. Thermal Boundary-Layer Instability. *Mark P. Rast & Juri Toomre.* 419, 240, 249-B10 (1993)

A Morphology-Cosmology Connection for X-Ray Clusters. *August E. Evrard, Joseph J. Mohr, Daniel G. Fabricant, & Margaret J. Geller.* 419, L9, 252-B13 (1993)

Steadily Rotating Perfect-Fluid Gravitating Prolate Spheroids in Newtonian Theory. *P. S. Florides & N. K. Spyrou.* 419, 541, 254-E1 (1993)

The Secondary Outburst Maximum of T Coronae Borealis: Hydrodynamic Simulations of the Blob and Accretion Disk. *Maximilian Ruffert, John K. Cannizzo, & Scott J. Kenyon.* 419, 780, 257-D1 (1993)

Flame Modeling in Supernovae. *A. Khokhlov.* 419, L77, 259-E1 (1993)

Protostellar Hydrodynamics: Constructing and Testing a Spatially and Temporally Second-Order Accurate Method. II. Cartesian Coordinates. *Elizabeth A. Myhill & Alan P. Boss.* 89, 345, 54-C12 (1993)

A Theory of Nonlocal Mixing-Length Convection. II. Generalized Smoothed Particle Hydrodynamics Simulations. *Scott A. Grossman & Ramesh Narayan.* 89, 361, 54-E1 (1993)

Mass Stripping of Lyman-Alpha Clouds by Ram Pressure under the Minihalo Model. *Izumi Murakami & Satoru Ikeuchi.* 420, 68, 1-G8 (1994)

Higher Order Godunov Schemes for Isothermal Hydrodynamics. *Dinshaw S. Balsara.* 420, 197, 3-D1 (1994)

On the Hydrodynamic Interaction of Shock Waves with Interstellar Clouds. I. Nonradiative Shocks in Small Clouds. *Richard I. Klein, Christopher F. McKee, & Philip Colella.* 420, 213, 3-E5 (1994)

Numerical Simulations of Protostellar Jets with Nonequilibrium Cooling. III. Three-dimensional Results. *James M. Stone & Michael L. Norman.* 420, 237, 3-G4 (1994)

Hydrodynamic Instability and Coalescence of Binary Neutron Stars. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 420, 811, 13-A10 (1994)

Penetration below a Convection Zone. *Neal E. Hurlburt, Juri Toomre, Josep M. Massaguer, & Jean-Paul Zahn.* 421, 245, 19-A12 (1994)

Slender Elliptical Jets. *Michael D. Smith.* 421, 400, 23-B11 (1994)

Formation, Early Evolution, and Gravitational Stability of Protoplanetary Disks. *Taishi Nakamoto & Yoshitsugu Nakagawa.* 421, 640, 26-C1 (1994)

Two-Fluid Simulations of Galaxy Formation. *August E. Evrard, F. J. Summers, & Marc Davis.* 422, 11, 30-B14 (1994)

Nonlinear Evolution of Tidally Distorted Accretion Disks: Two-dimensional Simulations. *Dongsu Ryu & Jeremy Goodman.* 422, 269, 33-D10 (1994)

The Aftermath of Tidal Disruption: The Dynamics of Thin Gas Streams. *Christopher S. Kochanek.* 422, 508, 38-B11 (1994)

Forces on Magnetic Flux Tubes Moving in Inhomogeneous Flows. *F. Moreno-Insertis, A. Ferriz-Mas, & M. Schüssler.* 422, 652, 40-A5 (1994)

A New Radiation Hydrodynamics Code and Application to the Calculation of Type Ia Supernovae Light Curves and Continuum Spectra. *Xiao-he Zhang & Peter Sutherland.* 422, 719, 40-G1 (1994)

Double-Core Evolution. V. Three-dimensional Effects in the Merger of a Red Giant with a Dwarf Companion. *James L. Terman, Ronald E. Taam, & Lars Hernquist.* 422, 729, 40-G13 (1994)

Vortex Rings and the Solar Granulation. *Steve Arendt.* 422, 862, 42-E9 (1994)

The Evolution of Nonlinear Subhorizon-Scale Entropy Fluctuations in the Early Universe. *Karsten Jedamzik & George M. Fuller.* 423, 33, 46-E2 (1994)

Inhomogeneous Primordial Nucleosynthesis: Coupled Nuclear Reactions and Hydrodynamic Dissipation Processes. *Karsten Jedamzik, George M. Fuller, & Grant J. Mathews.* 423, 50, 46-F9 (1994)

Long-Term Hydrodynamical Simulations of Extragalactic Radio Jets. *Jagbir S. Hooda, Arun V. Mangalam, & Paul J. Wiita.* 423, 116, 47-E5 (1994)

Equilibrium, Stability, and Orbital Evolution of Close Binary Systems. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 423, 344, 50-D9 (1994)

X-Ray Emission from a Simulated Cluster of Galaxies. *John C. Tsai, Neal Katz, & Edmund Bertschinger.* 423, 553, 55-D4 (1994)

Hierarchical Structure in Nearly Pressureless Flows as a Consequence of Self-similar Statistics. *Enrique Vázquez-Semadeni.* 423, 681, 57-A12 (1994)

A Numerical Study of Viscous Flows in Axisymmetric α-Accretion Disks. *Michał Różyczka, Peter Bodenheimer, & K. R. Bell.* 423, 736, 57-F10 (1994)

On the Acceleration of Nuclear Flame Fronts in White Dwarfs. *F. X. Timmes.* 423, L131, 61-B5 (1994)

Fueling Nuclear Activity in Disk Galaxies: Starbursts and Monsters. *Clayton H. Heller & Isaac Shlosman.* 424, 84, 63-B1 (1994)

On Jet Response to a Driving Frequency and the Jets in 3C 449. *Philip E. Hardee, Michael A. Cooper, & David A. Clarke.* 424, 126, 63-E7 (1994)

Time-dependent Evolution of Cosmic-Ray–modified Shock Structure: Transition to Steady State. *D. J. Donohue, G. P. Zank, & G. M. Webb.* 424, 263, 65-B9 (1994)

Test Problems for Radiation and Radiation-Hydrodynamics Codes. *Lisa Ensman.* 424, 275, 65-C9 (1994)

On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. III. Molecular Gas. *Miguel H. Ibáñez S., & Antonio Parravano.* 424, 763, 74-C8 (1994)

Close Encounters of the Third-Body Kind. *M. B. Davies, W. Benz, & J. G. Hills.* 424, 870, 75-E8 (1994)

Two-dimensional Hydrodynamical Simulations of Wind-compressed Disks around Rapidly Rotating B Stars. *Stanley P. Owocki, Steven R. Cranmer, & John M. Blondin.* 424, 887, 75-G2 (1994)

Analysis of the Early Spectra and Light Curve of SN 1987A. *Peter H. Hauschildt & Lisa M. Ensman.* 424, 905, 76-A10 (1994)

X-Ray Enhancement of SN 1987A Due to Interaction with Its Ringlike Nebula. *Kuniaki Masai & Ken'ichi Nomoto.* 424, 924, 76-C3 (1994)

Supernovae Deflagrations in Three Dimensions. *A. Khokhlov.* 424, L115, 79-D1 (1994)

Simulation of Thick Accretion Disks with Standing Shocks by Smoothed Particle Hydrodynamics. *Diego Molteni, Giuseppe Lanzafame, & Sandip K. Chakrabarti.* 425, 161, 82-B13 (1994)

Nickel Bubble Instability and Mixing in SN 1987A. *Mikhail Basko.* 425, 264, 83-E5 (1994)

Differential Rotation and Turbulent Convection: A New Reynolds Stress Model and Comparison with Solar Data. *V. M. Canuto, F. O. Minotti, & O. Schilling.* 425, 303, 84-A9 (1994)

Postexplosion Hydrodynamics of Supernovae in Red Supergiants. *Marc Herant & S. E. Woosley.* 425, 814, 91-G12 (1994)

Evidence for Supersonic Downflows in the Photosphere of a Delta Sunspot. *V. Martínez Pillet, B. W. Lites, A. Skumanich, & D. Degenhardt.* 425, L113, 95-A1 (1994)

Momentum Transfer by Astrophysical Jets. *Lawrence Chernin, Colin Masson, Elisabete M. de Gouveia Dal Pino, & Willy Benz.* 426, 204, 98-F2 (1994)

Structure of Steady State Accretion Shocks with Several Cooling Functions: Closed Integral-Form Solution. *Kinwah Wu, G. Chanmugan, & G. Shaviv.* 426, 664, 106-F5 (1994)

Evolution of Solitary Density Waves in Stellar Winds of Early-Type Stars: A Simple Explanation of Discrete Absorption Component Behavior. *Wayne L. Waldron, Larry Klein, & Bruce Altner.* 426, 725, 107-D10 (1994)

The Delayed-Detonation Model of Type Ia Supernovae I. The Deflagration Phase. *David Arnett & Eli Livne.* 427, 314, 113-G4 (1994)

The Delayed-Detonation Model of Type Ia Supernovae. II. The Detonation Phase. *David Arnett & Eli Livne.* 427, 330, 114-A7 (1994)

Three-dimensional Hydrodynamic Bondi-Hoyle Accretion. I. Code Validation and Stationary Accretors. *Maximilian Ruffert.* 427, 342, 114-B7 (1994)

Three-dimensional Hydrodynamic Bondi-Hoyle Accretion. II. Homogeneous Medium at Mach 3 with $\gamma = 5/3$. *Maximilian Ruffert & David Arnett.* 427, 351, 114-C3 (1994)

On the Existence of a Surface Boundary Layer in a Slowly Rotating, Early-Type Star. *Monique Tassoul.* 427, 388, 114-F3 (1994)

The Role of Radiative Acceleration in Outflows from Broad Absorption Line QSOs. I. Comparison with O Star Winds. *Nahum Arav & Zhi-Yun Li.* 427, 700, 121-D7 (1994)

Oxygen-burning Hydrodynamics. I. Steady Shell Burning. *David Arnett.* 427, 932, 124-C2 (1994)

The Coma Cluster after Lunch: Has a Galaxy Group Passed through the Cluster Core? *Jack O. Burns, Kurt Roettiger, Michael Ledlow, & Anatoly Klypin.* 427, L87, 127-A5 (1994)

Hot Gas in the Cold Dark Matter Scenario: X-Ray Clusters from a High-Resolution Numerical Simulation. *Hyesung Kang, Renyue Cen, Jeremiah P. Ostriker, & Dongsu Ryu.* 428, 1, 128-C1 (1994)

Nonlinear Instabilities in Shock-bounded Slabs. *Ethan T. Vishniac.* 428, 186, 130-E1 (1994)

Advection-dominated Accretion: A Self-similar Solution. *Ramesh Narayan & Insu Yi.* 428, L13, 134-C5 (1994)

X-Ray Clusters from a High-Resolution Hydrodynamic PPM Simulation of the Cold Dark Matter Universe. *Greg L. Bryan, Renyue Cen, Michael L. Norman, Jeremiah P. Ostriker, & James M. Stone.* 428, 405, 135-C1 (1994)

Flat Rotation Curves: A Result of the Helical Inverse Cascade in Turbulent Media? *R. D. Prabhu & V. Krishan.* 428, 483, 136-B13 (1994)

X-Ray Clusters in a Cold Dark Matter + Λ Universe: A Direct, Large-Scale, High-Resolution, Hydrodynamic Simulation. *Renyue Cen & Jeremiah P. Ostriker.* 429, 4, 144-C6 (1994)

Nonlinear Hydrodynamics of Cosmological Sheets. I. Numerical Techniques and Tests. *Wenbo Y. Anninos & Michael L. Norman.* 429, 434, 151-B10 (1994)

On the X-Ray Spectrum of Kepler's Supernova Remnant. *Kazimierz J. Borkowski, Craig L. Sarazin, & John M. Blondin.* 429, 710, 154-E1 (1994)

A General Class of Self-similar Self-gravitating Fluids. *Ue-Li Pen.* 429, 759, 155-B2 (1994)

A Comparison of Cosmological Hydrodynamic Codes. *Hyesung Kang, Jeremiah P. Ostriker, Renyue Cen, Dongsu Ryu, Lars Hernquist, August E. Evrard, Greg L. Bryan, & Michael L. Norman.* 430, 83, 160-A12 (1994)

The Radiation Gasdynamics of Planetary Nebulae. IV. From the Owl to the Eskimo. *Adam Frank & Garrelt Mellema.* 430, 800, 171-G5 (1994)

The Structure and Evolution of Lyman-Alpha Forest Clouds in the Minihalo Model. *Avery Meiksin.* 431, 109, 177-E3 (1994)

Double Core Evolution. VI. Effects of Gravitational Torques. *Ronald E. Taam, Peter Bodenheimer, & Michał Różyczka.* 431, 247, 179-B13 (1994)

Causality in Strong Shear Flows. *Ramesh Narayan, Abraham Loeb, & Pawan Kumar.* 431, 359, 180-E4 (1994)

A Hydrodynamic Approach to Cosmology: The Mixed Dark Matter Cosmological Scenario. *Renyue Cen & Jeremiah P. Ostriker.* 431, 451, 184-C1 (1994)

The Effect of Dissipation on the Shapes of Dark Halos. *John Dubinski.* 431, 617, 186-C3 (1994)

Merging Neutron Stars. I. Initial Results for Coalescence of Noncorotating Systems. *M. B. Davies, W. Benz, T. Piran, & F. K. Thielemann.* 431, 742, 187-G1 (1994)

Smoothed Particle Hydrodynamics: Physical Viscosity and the Simulation of Accretion Disks. *O. Flebbe, S. Münzel, H. Herold, H. Riffert, & H. Ruder.* 431, 754, 188-A1 (1994)

Collapse of Primordial Gas Clouds and the Formation of Quasar Black Holes. *Abraham Loeb & Frederic A. Rasio.* 432, 52, 193-G8 (1994)

Cosmic Bullets as Particle Accelerators and Radio Sources. *T. W. Jones, Hyesung Kang, & I. L. Tregillis.* 432, 194, 195-E11 (1994)

Hydrodynamics of Binary Coalescence. I. Polytropes with Stiff Equations of State. *Frederic A. Rasio & Stuart L. Shapiro.* 432, 242, 196-C2 (1994)

On the Thermochemical Stability of the Pregalactic Gas. I. The Equilibrium States. *Patricia Rosenzweig, Antonio Parravano, Miguel H. Ibáñez S., & Yu. I. Izotov.* 432, 485, 202-A7 (1994)

Causally Limited Viscosity and the Stability Properties of Isothermal Accretion Disks. *Xue-Bing Wu & Lan-Tian Yang.* 432, 672, 204-D3 (1994)

Relativistic Tidal Interaction of a White Dwarf with a Massive Black Hole. *V. P. Frolov, A. M. Khokhlov, I. D. Novikov, & C. J. Pethick.* 432, 680, 204-D13 (1994)

Chromospheric Heating and Metal Deficiency in Cool Giants: Theoretical Results versus Observations. *M. Cuntz, W. Rammacher, & P. Ulmschneider.* 432, 690, 204-E12 (1994)

Thermonuclear Runaways in Nova Outbursts. II. Effect of Strong, Instantaneous, Local Fluctuations. *Anurag Shankar & David Arnett.* 433, 216, 211-A8 (1994)

Winds from Neutron Stars and Strong Type I X-Ray Bursts. *Luciano Nobili, Roberto Turolla, & Iosif Lapidus.* 433, 276, 211-F11 (1994)

Convection, Nucleosynthesis, and Core Collapse. *Grant Bazan & David Arnett.* 433, L41, 215-B9 (1994)

Generation of Spatial Structures by Nonlinear Mass-Exchange Processes in a Multicomponent Rotating Disk. *V. I. Korchagin & A. D. Ryabtsev.* 433, 520, 217-D9 (1994)

Shock Interactions with Magnetized Interstellar Clouds. I. Steady Shocks Hitting Nonradiative Clouds. *Mordecai-Mark Mac Low, Christopher F. McKee, Richard I. Klein, James M. Stone, & Michael L. Norman.* 433, 757, 220-E2 (1994)

Stability of Fireballs and Gamma-Ray Bursts. *Eli Waxman & Tsvi Piran.* 433, L85, 224-A9 (1994)

A Numerical Simulation of a Variable Velocity Jet. *S. Biro & A. C. Raga.* 434, 221, 228-D11 (1994)

Radiative Shock Overstability of Finite-sized Objects. *Ruth Dgani & Noam Soker.* 434, 262, 229-A11 (1994)

A Three-dimensional Hydrodynamics Code for Modeling Sources of Gravitational Radiation. *Scott C. Smith, Joan M. Centrella, & Sean P. Clancy.* 94, 789, 62-G3 (1994)

Pseudomoment Stellar Dynamics. I. Spheroidal Galactic Equilibria. *Peter Amendt & Phil Cuddeford.* 435, 93, 244-E12 (1994)

Multiple Outflow Episodes from Protostars: Three-dimensional Models of Intermittent Jets. *Elisabete M. de Gouveia Dal Pino & Willy Benz.* 435, 261, 246-G11 (1994)

Inside the Supernova: A Powerful Convective Engine. *Marc Herant, Willy Benz, W. Raphael Hix, Chris L. Fryer, & Stirling A. Colgate.* 435, 339, 248-B3 (1994)

The Shadow Wind in High-Mass X-Ray Binaries. *John M. Blondin.* 435, 756, 256-D13 (1994)

Low-Frequency Modes and Nonbarotropic Effects in Pseudo-Newtonian Accretion Disks. *James R. Ipser.* 435, 767, 256-E13 (1994)

Dripping Handrails and the Quasi-periodic Oscillations of the AM Herculis Objects. *Thomas Y. Steiman-Cameron, Karl Young, Jeffrey D. Scargle, James P. Crutchfield, James N. Imamura, Michael T. Wolff, & Kent S. Wood.* 435, 775, 256-F10 (1994)

Polar Plumes and the Solar Wind. *Y.-M. Wang.* 435, L153, 260-E4 (1994)

Hierarchical Numerical Cosmology with Hydrodynamics: Methods and Code Tests. *Peter Anninos, Michael L. Norman, & David A. Clarke.* 436, 11, 261-D3 (1994)

Simulation of Interactions of an Orbiting Compact Star with an Accretion Disk by Smoothed Particle Hydrodynamics. *Diego Molteni, G. Gerardi, & Sandip K. Chakrabarti.* 436, 249, 264-F1 (1994)

On the Effects of Tidal Interaction on Thin Accretion Disks: An Analytic Study. *R. Dgani, M. Livio, & O. Regev.* 436, 270, 265-A6 (1994)

Nonaxisymmetric Evolution in Protostellar Disks. *Gregory Laughlin & Peter Bodenheimer.* 436, 335, 265-G13 (1994)

Synthesized Spectra of Turbulent Clouds. *E. Falgarone, D. C. Lis, T. G. Phillips, A. Pouquet, D. H. Porter, & P. R. Woodward.* 436, 728, 275-E1 (1994)

Simulations of Relativistic Extragalactic Jets. *G. Comer Duncan & Philip A. Hughes.* 436, L119, 280-G1 (1994)

The Evolution of X-Ray Clusters in a Cold Plus Hot Dark Matter Universe. *Greg L. Bryan, Anatoly Klypin, Chris Loken, Michael L. Norman, & Jack O. Burns.* 437, L5, 291-B8 (1994)

Gravitational Collapse of Small-Scale Structure as the Origin of the Lyman-Alpha Forest. *Renyue Cen, Jordi Miralda-Escudé, Jeremiah P. Ostriker, & Michael Rauch.* 437, L9, 291-C1 (1994)

Two Types of Slow Solar Wind. *Y.-M. Wang.* 437, L67, 292-D1 (1994)

Star-forming Galaxy Models: Blending Star Formation into TREESPH. *J. Christopher Mihos & Lars Hernquist.* 437, 611, 294-B9 (1994)

Hydrodynamics of Rotating Stars and Close Binary Interactions: Compressible Ellipsoid Models. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 437, 742, 295-G13 (1994)

Rotating Cooling Flows. *Wilhelm Kley & William G. Mathews.* 438, 100, 2-F4 (1995)

Inertial Confinement of Astrophysical Jets. *W. Peter & D. Eichler.* 438, 244, 4-F11 (1995)

Critical Angular Velocities of Rotating Neutron Stars. *Lee Lindblom.* 438, 265, 5-B4 (1995)

Jeans Mass for Anisotropic Matter. *L. Herrera & N. O. Santos.* 438, 308, 5-F7 (1995)

Galactic Cosmic-Ray Mediation of a Spherical Solar Wind Flow. I. The Steady State Cold Gas Hydrodynamical Approximation. *J. A. le Roux & V. S. Ptuskin.* 438, 427, 7-D2 (1995)

On the Dynamics of Warped Accretion Disks. *J. C. B. Papaloizou & D. N. C. Lin.* 438, 841, 15-G2 (1995)

Hydrodynamics of Binary Coalescence. II. Polytropes with Γ = 5/3. *Frederic A. Rasio & Stuart L. Shapiro.* 438, 887, 16-D1 (1995)

X-Ray Emission from Giant H II Regions in M101. *Rosa Murphy Williams & You-Hua Chu.* 439, 132, 23-A9 (1995)

Collapse and Fragmentation of Molecular Cloud Cores. II. Collapse Induced by Stellar Shock Waves. *Alan P. Boss.* 439, 224, 24-C7 (1995)

Interstellar Clouds in High-Speed, Supersonic Flows: Two-dimensional Simulations. *A. V. R. Schiano, Wayne A. Christiansen, & Jeffrey M. Knerr.* 439, 237, 24-D9 (1995)

Equipartition of Energy for Turbulent Astrophysical Fluids: Accounting for the Unseen Energy in Molecular Clouds. *Ellen G. Zweibel & Christopher F. McKee.* 439, 779, 35-C13 (1995)

Smoothed Particle Interpolation. *Pablo Laguna.* 439, 814, 35-G2 (1995)

A Method of Smoothed Particle Hydrodynamics Using Spheroidal Kernels. *Michael S. Fulbright, Willy Benz, & Melvyn B. Davies.* 440, 254, 44-F4 (1995)

Does a Nonmagnetic Solar Chromosphere Exist? *Mats Carlsson & Robert F. Stein.* 440, L29, 48-E8 (1995)

Global Models of the Interstellar Medium in Disk Galaxies. *Alexander Rosen & Joel N. Bregman.* 440, 634, 52-A2 (1995)

Oscillatory Modes in Near-critical Accretion Flows. *Guy S. Miller & Myeong-Gu Park.* 440, 771, 53-F11 (1995)

Meridional Circulation in Rotating Stars. XI. Single-Cell Pattern versus Double-Cell Pattern. *Monique Tassoul & Jean-Louis Tassoul.* 440, 789, 54-A4 (1995)

Convergence Properties of Finite-Difference Hydrodynamics Schemes in the Presence of Shocks. *Paul A. Kimoto & David F. Chernoff.* 96, 627, 10-D9 (1995)

Simulation of the Instability of Mach 2 and Mach 4 Gaseous Jets in Two and Three Dimensions. *Gene M. Bassett & Paul R. Woodward.* 441, 582, 70-B1 (1995)

The Stability and Collimation of Three-dimensional Jets. *Philip E. Hardee, David A. Clarke, & D. Andrew Howell.* 441, 644, 71-A1 (1995)

The Homunculus of η Carinae: An Interacting Stellar Winds Paradigm. *Adam Frank, Bruce Balick, & Kris Davidson.* 441, L77, 76-B2 (1995)

Hot Gas in Superclusters and Microwave Background Distortions. *Fred M. Persi, David N. Spergel, Renyue Cen, & J. P. Ostriker.* 442, 1, 77-C1 (1995)

Gravitational Radiation from Rapidly Rotating Nascent Neutron Stars. *Dong Lai & Stuart L. Shapiro.* 442, 259, 80-F11 (1995)

Gravity Waves in the Lower Solar Corona. *Yu-Qing Lou.* 442, 401, 82-E1 (1995)

Hydrodynamic Simulations of Galaxy Formation. I. Dissipation and the Maximum Mass of Galaxies. *Anne A. Thoul & David H. Weinberg.* 442, 480, 86-E5 (1995)

The Radial-azimuthal Instability of Accretion Disks. I. Radiation Pressure Domination. *Xue-Bing Wu, Qi-Bin Li, Yong-Heng Zhao, & Lan-Tian Yang.* 442, 736, 90-C10 (1995)

The Radial-azimuthal Instability of Accretion Disks. II. Gas Pressure Domination. *Xue-Bing Wu, Qi-Bin Li, Yong-Heng Zhao, & Lan-Tian Yang.* 442, 743, 90-D7 (1995)

Contact and Pressure Balance Structures in Two-Fluid Cosmic-Ray Hydrodynamics. *G. M. Webb, M. Brio, G. P. Zank, & T. Story.* 442, 822, 91-E2 (1995)

Analysis of the Type Ia Supernova SN 1994D. *P. Höflich.* 443, 89, 96-D9 (1995)

The Formation of Protostellar Disks. II. Disks around Intermediate-Mass Stars. *Harold W. Yorke, Peter Bodenheimer, & Gregory Laughlin.* 443, 199, 97-G7 (1995)

Oscillation-Convection Coupling: Cause of Supergranulation? *Charles L. Wolff.* 443, 423, 100-G12 (1995)

A New Criterion for Bar-forming Instability in Rapidly Rotating Gaseous and Stellar Systems. I. Axisymmetric Form. *Dimitris M. Christodoulou, Isaac Shlosman, & Joel E. Tohline.* 443, 551, 105-D8 (1995)

A New Criterion for Bar-forming Instability in Rapidly Rotating Gaseous and Stellar Systems. II. Nonaxisymmetric Form. *Dimitris M. Christodoulou, Isaac Shlosman, & Joel E. Tohline.* 443, 563, 105-E10 (1995)

Hydrodynamics of Coalescing Binary Neutron Stars: Ellipsoidal Treatment. *Dong Lai & Stuart L. Shapiro.* 443, 705, 107-E12 (1995)

Computing Supernova Collapse to Neutron Stars and Black Holes. *Thomas W. Baumgarte, Stuart L. Shapiro, & Saul A. Teukolsky.* 443, 717, 107-F13 (1995)

The Striking Near-Infrared Morphology of the Inner Region in M100. *J. H. Knapen, J. E. Beckman, I. Shlosman, R. F. Peletier, C. H. Heller, & R. S. de Jong.* 443, L73, 111-G3 (1995)

Softened Lagrangian Hydrodynamics for Cosmology. *Nickolay Y. Gnedin.* 97, 231, 15-B1 (1995)

Advection-dominated Accretion: Self-Similarity and Bipolar Outflows. *Ramesh Narayan & Insu Yi.* 444, 231, 116-F1 (1995)

Hydrodynamic Instabilities in Supernova Remnants: Early Radiative Cooling. *Roger A. Chevalier & John M. Blondin.* 444, 312, 117-F11 (1995)

Hydrodynamics of Semiconvection. *William J. Merryfield.* 444, 318, 117-G7 (1995)

On Orbital Circularization in Late-Type Close Binaries. *Jean-Louis Tassoul.* 444, 338, 118-B8 (1995)

The Minimum Mass Ratio of W Ursae Majoris Binaries. *Frederic A. Rasio.* 444, L41, 121-G1 (1995)

Does Gravitational Radiation Limit the Angular Velocities of Superfluid Neutron Stars? *Lee Lindblom & Gregory Mendell.* 444, 804, 127-E6 (1995)

Delayed Detonation Models for Normal and Subluminous Type Ia Supernovae: Absolute Brightness, Light Curves, and Molecule Formation. *P. Höflich, A. M. Khokhlov, & J. C. Wheeler.* 444, 831, 128-A1 (1995)

Radio Jet Propagation and Wide-Angle Tailed Radio Sources in Merging Galaxy Cluster Environments. *Chris Loken, Kurt Roettiger, Jack O. Burns, & Michael Norman.* 445, 80, 133-D11 (1995)

Double Core Evolution. VII. The Infall of a Neutron Star through the Envelope of Its Massive Star Companion. *James L. Terman, Ronald E. Taam, & Lars Hernquist.* 445, 367, 137-E9 (1995)

A General Physicochemical Model of the Inner Coma of Active Comets. I. Implications of Spatially Distributed Gas and Dust Production. *J. F. Crifo.* 445, 470, 139-A12 (1995)

Numerical Simulations of Stratified Compressible Convection with Internal Heating and Disklike Variable Gravity. *W. Cabot, K. W. Thompson, & J. B. Pollack.* 98, 315, 26-C4 (1995)

Implicit General Relativistic Hydrodynamic Methods for Modeling the Late-Time Explosion Mechanism in Core Collapse Supernovae. *F. Douglas Swesty.* 445, 811, 146-D4 (1995)

Wind Dynamics in SMC X-1. I. Hydrodynamic Simulation. *John M. Blondin & Jonathan W. Woo.* 445, 889, 147-D13 (1995)

Hydrodynamic Simulations of the Mass Transfer in Algol. *John M. Blondin, Mercedes T. Richards, & Michael L. Malinowski.* 445, 939, 148-B13 (1995)

On Blue Straggler Formation by Direct Collisions of Main-Sequence Stars. *James C. Lombardi, Jr., Frederic A. Rasio, & Stuart L. Shapiro.* 445, L117, 151-C1 (1995)

Phase-Transition Theory of Instabilities. I. Second-Harmonic Instability and Bifurcation Points. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 472, 162-E12 (1995)

Phase-Transition Theory of Instabilities. III. The Third-Harmonic Bifurcation on the Jacobi Sequence and the Fission Problem. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 500, 163-A8 (1995)

Phase-Transition Theory of Instabilities. IV. Critical Points on the Maclaurin Sequence and Nonlinear Fission Processes. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 510, 163-B7 (1995)

The Weakening of the Termination Shocks of Isothermal Winds by Mass Loading. *R. J. R. Williams, T. W. Hartquist, & J. E. Dyson.* 446, 759, 166-E4 (1995)

The Origin of the Rings around SN 1987A: An Evaluation of the Interacting-Winds Model. *Crystal L. Martin & David Arnett.* 447, 378, 177-E11 (1995)

Vorticity and Divergence in the Solar Photosphere. *Yi Wang, Robert W. Noyes, Theodore D. Tarbell, & Alan M. Title.* 447, 419, 178-C1 (1995)

Destabilization of Compressible Convection by Radiation: Quantitative Evaluation. *Q. Q. Cheng, Murshed Hossain, & D. J. Mullan.* 447, 789, 186-G6 (1995)

The Dynamics of Two-dimensional Local and Finite Perturbations in Envelopes of Rotating White Dwarfs. I. *Patrick Godon & Giora Shaviv.* 447, 797, 187-A3 (1995)

Diffusive Shock Acceleration Simulations: Comparison with Particle Methods and Bow Shock Measurements. *Hyesung Kang & T. W. Jones.* 447, 944, 188-G13 (1995)

On the Origin of the Observed Knots in Novae. *Shlomi Pistinner & Giora Shaviv.* 448, L37, 199-G8 (1995)

Protostellar Collapse with a Shock. *John C. Tsai & Juliana J. L. Hsu.* 448, 774, 205-D8 (1995)

Hydrodynamic Studies of Accretion onto Massive White Dwarfs: ONeMg-enriched Nova Outbursts. I. Dependence on White Dwarf Mass. *M. Politano, S. Starrfield, J. W. Truran, A. Weiss, & W. M. Sparks.* 448, 807, 206-A11 (1995)

Numerical Techniques for Three-dimensional Smoothed Particle Hydrodynamics Simulations: Applications to Accretion Disks. *James C. Simpson.* 448, 822, 206-C1 (1995)

Magnetic Buoyancy, Vorticity, and Three-dimensional Flux-Tube Formation. *P. C. Matthews, D. W. Hughes, & M. R. E. Proctor.* 448, 938, 207-G11 (1995)

Morphology and Dynamics of Highly Supersonic Relativistic Jets. *J. M^a. Martí, E. Müller, J. A. Font, & J. M^a. Ibá nez.* 448, L105, 209-D1 (1995)

The First Second of a Type II Supernova: Convection, Accretion, and Shock Propagation. *H.-Thomas Janka & Ewald Müller.* 448, L109, 209-D9 (1995)

Destabilization of Strongly Magnetized Jets. *Philip E. Hardee & David A. Clarke.* 449, 119, 211-G4 (1995)

Parsec-Scale Synchrotron Emission from Hydrodynamic Relativistic Jets in Active Galactic Nuclei. *J. L. Gómez, J. M^a. Martí, A. P. Marscher, J. M^a. Ibáñez, & J. M. Marcaide.* 449, L19, 216-C3 (1995)

Numerical Analysis of the Dynamic Stability of Radiative Shocks. *Russell Strickland & John M. Blondin.* 449, 727, 222-G5 (1995)

Structure of a Fluid Disk around a Magnetized Compact Object in the Presence of a Self-consistent Toroidal Magnetic Field. *D. Banerjee, J. R. Bhatt, A. C. Das, & A. R. Prasanna.* 449, 789, 223-E12 (1995)

Nonlinear Hydrodynamics of Cosmological Sheets. II. Fragmentation and the Gravitational, Cooling, and Thin-Shell Instabilities. *Wenbo Y. Anninos, Michael L. Norman, & Peter Anninos.* 450, 1, 228-B1 (1995)

Smooth Particle Hydronamics Simulations of Deflagrations in Supernovae. *E. Bravo & D. García-Senz.* 450, L17, 234-E12 (1995)

Photoevaporation of Dusty Clouds near Active Galactic Nuclei. *Edward A. Pier & G. Mark Voit.* 450, 628, 239-D13 (1995)

The Disruption of Molecular Cloud Cores by Photoionization. *J. A. Rodríguez-Gaspar, G. Tenorio-Tagle, & J. Franco.* 451, 210, 248-G10 (1995)

Collapse and Fragmentation of Molecular Cloud Cores. III. Initial Differential Rotation. *Alan P. Boss & Elizabeth A. Myhill.* 451, 218, 249-A6 (1995)

Double Core Evolution. VIII. The Spiral-in of a Main-Sequence Star through the Envelope of an Asymptotic Giant Branch Companion. *Harold W. Yorke, Peter Bodenheimer, & Ronald E. Taam.* 451, 308, 250-B8 (1995)

Vortices in Circumstellar Disks. *Fred C. Adams & Richard Watkins.* 451, 314, 250-C3 (1995)

Long-Period Cepheids: Models and Observations. *Norman R. Simon & Shashi M. Kanbur.* 451, 703, 256-G10 (1995)

Thermal Instability and Pulsations of the Flame Front in White Dwarfs. *Vitaliy V. Bychkov & Michael A. Liberman.* 451, 711, 257-A7 (1995)

Seismology of the Solar *f*-Mode. I. Basic Signatures of Shearing Velocity Fields. *Pranab Ghosh, H. M. Antia, & S. M. Chitre.* 451, 851, 259-A1 (1995)

Explosions of Sub–Chandrasekhar Mass White Dwarfs in Two Dimensions. *Eli Livne & David Arnett.* 452, 62, 263-A6 (1995)

Stable and Unstable Accretion Flows with Angular Momentum near a Point Mass. *Dongsu Ryu, Garry L. Brown, Jeremiah P. Ostriker, & Abraham Loeb.* 452, 364, 267-B7 (1995)

On Thermal Hydrodynamical Models of Solar Flares with a High Initial Coronal Density. *W. Q. Gan, C. C. Cheng, & C. Fang.* 452, 445, 268-B11 (1995)

Microscopic Instabilities of Nuclear Flames in Type Ia Supernovae. *J. C. Niemeyer & W. Hillebrandt.* 452, 779, 275-C12 (1995)

Hydra: An Adaptive-Mesh Implementation of P^{3}M-SPH. *H. M. P. Couchman, P. A. Thomas, & F. R. Pearce.* 452, 797, 275-E11 (1995)

On the Hot Gas Fraction in Supernova Remnants. *Uffe Hellsten & Jesper Sommer-Larsen.* 453, 264, 284-F10 (1995)

The Solution Topology of Radiation-driven Winds. I. The X-Type Nature of the CAK Critical Point. *J. E. Bjorkman.* 453, 369, 286-B13 (1995)

On the Origin of Temperature Substructure within Merging Clusters of Galaxies: Abell 2256. *Kurt Roettiger, Jack O. Burns, & Jason Pinkney.* 453, 634, 292-E11 (1995)

On the Global Stability of Magnetized Accretion Disks. II. Vertical and Azimuthal Magnetic Fields. *Charles Curry & Ralph E. Pudritz.* 453, 697, 293-D6 (1995)

Heat Flux and Viscosity of Protons in the Collisionless Solar Wind. *L. L. Williams.* 453, 953, 297-B6 (1995)

A Multispecies Model for Hydrogen and Helium Absorbers in Lyman-Alpha Forest Clouds. *Yu Zhang, Peter Anninos, & Michael L. Norman.* 453, L57, 298-A6 (1995)

The Hydrodynamics of Shock-Cloud Interactions in Three Dimensions. *Jianjun Xu & James M. Stone.* 454, 172, 301-E12 (1995)

The Evolution and Explosion of Massive Stars. II. Explosive Hydrodynamics and Nucleosynthesis. *S. E. Woosley & Thomas A. Weaver.* 101, 181, 55-B1 (1995)

Wolf-Rayet Bubbles. II. Gasdynamical Situations. *Guillermo García-Segura & Mordecai-Mark Mac Low.* 455, 160, 320-D3 (1995)

X-Ray Emission from Magnetic Cataclysmic Variables and White Dwarf Mass Estimates. *Kinwah Wu, G. Chanmugam, & G. Shaviv.* 455, 260, 321-F8 (1995)

A Turbulent Model for the Interstellar Medium. II. Magnetic Fields and Rotation. *Thierry Passot, Enrique Vázquez-Semadeni, & Annick Pouquet.* 455, 536, 329-D1 (1995)

Hydrodynamic Timescales and Temporal Structure of Gamma-Ray Bursts. *Re'em Sari & Tsvi Piran.* 455, L143, 334-A11 (1995)

Are Blue Stragglers Mixed during Collisions? *Alison Procter Sills, Charles D. Bailyn, & Pierre Demarque.* 455, L163, 334-D6 (1995)

HYDROMAGNETICS

Neutron Star Crustal Plate Tectonics. I. Magnetic Dipole Evolution in Millisecond Pulsars and Low-Mass X-Ray Binaries. *M. Ruderman.* 366, 261, 4-C5 (1991)

Magnetoatmospheric Oscillations in Sunspot Umbrae. *S. S. Hasan.* 366, 328, 5-B7 (1991)

Reversing the Axisymmetric ($m = 0$) Magnetic Fields in the Milky Way. *J. P. Vallée.* 366, 450, 8-D9 (1991)

Three-dimensional Kinematic Reconnection of Plasmoids. *Yun-Tung Lau & John M. Finn.* 366, 577, 10-B11 (1991)

Rotation of the Sun's Outer White-Light Corona Determined from Solwind Data. *Ana G. Nash.* 366, 592, 10-D1 (1991)

A Twisted Flux-Tube Model for Solar Prominences. III. Magnetic Support. *C. Ridgway, E. R. Priest, & T. Amari.* 367, 321, 16-A10 (1991)

On the Radial Structure of Saturn's B Ring. *Lin-Hua Shan & C. K. Goertz.* 367, 350, 16-D1 (1991)

On the Subadiabatic Magnetohydrodynamic Overstability in Background Polytropes. *Yu-Qing Lou.* 367, 367, 16-E9 (1991)

Universal Particle Acceleration. *J. I. Katz.* 367, 407, 18-E1 (1991)

Scattering of Acoustic Waves from a Magnetic Flux Tube Embedded in a Radiating Fluid. *T. J. Bogdan & M. Knölker.* 369, 219, 38-F1 (1991)

Numerical Simulations of a Restarting Jet. *David A. Clarke & Jack O. Burns.* 369, 308, 41-E4 (1991)

The Finite-Amplitude Behavior of the Joule Mode under Astrophysical Conditions. *G. Bodo, S. Massaglia, R. Rosner, & A. Ferrari.* 370, 398, 52-C1 (1991)

Three-dimensional Structures of Magnetostatic Atmospheres. III. A General Formulation. *B. C. Low.* 370, 427, 52-E8 (1991)

Implications of Solar *p*-Mode Frequency Shifts. *Peter Goldreich, Norman Murray, Gregory Willette, & Pawan Kumar.* 370, 752, 57-F12 (1991)

Magnetic Focusing of Precessing Jets. *Christopher S. Kochanek.* 371, 289, 63-F7 (1991)

The Sensitivity of Chromospherically Induced *p*- and *f*-Mode Frequency Shifts to the Height of the Magnetic Canopy. *David J. Evans & B. Roberts.* 371, 387, 64-G9 (1991)

Dynamic Magnetic Reconnection at an X-Type Neutral Point. *I. J. D. Craig & A. N. McClymont.* 371, L41, 66-F1 (1991)

Viscosity and Inertia in Cosmic-Ray Transport: Effects of an Average Magnetic Field. *L. L. Williams & J. R. Jokipii.* 371, 639, 69-E3 (1991)

The Resonant Absorption of *p*-Modes by Sunspots with Twisted Magnetic Fields. *S. M. Chitre & Joseph M. Davila.* 371, 785, 71-C10 (1991)

Current Sheet Formation and Rapid Reconnection in the Solar Corona. *A. Bhattacharjee & Xiogang Wang.* 372, 321, 78-A1 (1991)

Why Fast Solar Wind Originates from Slowly Expanding Coronal Flux Tubes. *Y.-M. Wang & N. R. Sheeley, Jr.* 372, L45, 79-F1 (1991)

Magnetically Dominated Accretion onto Black Holes. *Brian Punsly.* 372, 424, 81-B1 (1991)

Latitudinal Dynamics of Steady Solar Wind Flows. *W.-H. Yang & R. W. Schunk.* 372, 703, 84-D5 (1991)

Atmospheric Gradients and the Stability of Expanding Jets. *Philip E. Hardee, Michael L. Norman, Theodoros Koupelis, & David A. Clarke.* 373, 8, 86-B10 (1991)

Magnetic Braking, Ambipolar Diffusion, Cloud Cores, and Star Formation: Natural Length Scales and Protostellar Masses. *Telemachos Ch. Mouschovias.* 373, 169, 88-B3 (1991)

Stationary Accelerators around Keplerian Disks of Aligned Magnetized Collapsed Objects: Pair Production and Gamma-Ray Emission. *K. S. Cheng & M. Ruderman.* 373, 187, 88-C9 (1991)

A Catastrophe Mechanism for Coronal Mass Ejections. *T. G. Forbes & P. A. Isenberg.* 373, 294, 89-F1 (1991)

A Slingshot Model for Solar Flares. *Gregory Benford.* 373, 671, 96-C9 (1991)

Inefficient Accretion by the DA2 White Dwarf in V471 Tauri. *D. J. Mullan, H. L. Shipman, E. M. Sion, & J. MacDonald.* 374, 707, 107-G8 (1991)

Expansion of a Superbubble in a Uniform Magnetic Field. *Katia M. Ferrière, Mordecai-Mark Mac Low, & Ellen G. Zweibel.* 375, 239, 114-A4 (1991)

Force-free Magnetic Fields: Generating Functions and Footpoint Displacements. *Richard Wolfson & Ritu Verma.* 375, 254, 114-B7 (1991)

Siphon Flows in Isolated Magnetic Flux Tubes. IV. Critical Flows with Standing Tube Shocks. *John H. Thomas & Benjamin Montesinos.* 375, 404, 115-G11 (1991)

How Much Energy Can Be Stored in a Three-dimensional Force-free Magnetic Field? *J. J. Aly.* 375, L61, 124-C11 (1991)

The Equilibria and Evolutions of Magnetized, Rotating, Isothermal Clouds. V. The Effect of the Toroidal Field. *Kohji Tomisaka.* 376, 190, 127-C11 (1991)

On Turbulent Diffusion of Magnetic Fields and the Loss of Magnetic Flux from Stars. *Samuel I. Vainshtein & Robert Rosner.* 376, 199, 127-D7 (1991)

A Powerful Local Shear Instability in Weakly Magnetized Disks. I. Linear Analysis. *Steven A. Balbus & John F. Hawley.* 376, 214, 127-E11 (1991)

A Powerful Local Shear Instability in Weakly Magnetized Disks. II. Nonlinear Evolution. *John F. Hawley & Steven A. Balbus.* 376, 223, 127-F8 (1991)

Magnetohydrodynamic Turbulence Dissipation and Stochastic Proton Acceleration in Solar Flares. *James A. Miller.* 376, 342, 129-B11 (1991)

Suppression of Turbulent Transport by a Weak Magnetic Field. *Fausto Cattaneo & Samuel I. Vainshtein.* 376, L21, 130-C6 (1991)

The Dissipation of Magnetohydrodynamic Turbulence Responsible for Interstellar Scintillation and the Heating of the Interstellar Medium. *Steven R. Spangler.* 376, 540, 133-B5 (1991)

Evolution to Nonequilibrium in Simple Models of Prominence Filaments. *Ellen G. Zweibel.* 376, 761, 135-G1 (1991)

Parametric Study of the Formation of Magnetohydrodynamic Shocks. I. Model. *Y. C. Whang.* 377, 250, 141-B1 (1991)

Parametric Study of the Formation of Magnetohydrodynamic Shocks. II. Slow Shocks. *Y. C. Whang.* 377, 255, 141-B7 (1991)

Cosmic-Ray Heating of Cooling Flows: A Critical Analysis. *Michael Loewenstein, Ellen G. Zweibel, & Mitchell C. Begelman.* 377, 392, 144-F4 (1991)

Asymptotic Structure of Hydromagnetically Driven Relativistic Winds. *Tzihong Chiueh, Zhi-yun Li, & Mitchell C. Begelman.* 377, 462, 145-D11 (1991)

Magnetohydrodynamics of an Impulsively Heated, Hard X-Ray Emitting Filament. *George Roumeliotis & A. Gordon Emslie.* 377, 685, 148-B9 (1991)

Numerical Study of Compressible Solar Magnetoconvection with an Open Transitional Boundary. *H. Hanami & T. Tajima.* 377, 694, 148-C6 (1991)

Cloud Formation by Combined Instabilities in Galactic Gas Layers: Evidence for a *Q* Threshold in the Fragmentation of Shearing Wavelets. *Bruce G. Elmegreen.* 378, 139, 152-F11 (1991)

Magnetosphere of the Rotation-powered Pulsar: A DC Circuit Model. *Shinpei Shibata.* 378, 239, 154-A1 (1991)

A Model for the Formation of Solar Prominences. *S. K. Antiochos & J. A. Klimchuk.* 378, 372, 155-E6 (1991)

The Effect of the Mihalas, Hummer, and Däppen Equation of State and the Molecular Opacity on the Standard Solar Model. *Y.-C. Kim, P. Demarque, & D. B. Guenther.* 378, 407, 156-A10 (1991)

Prominence Sheets Supported by Constant-Current Force-free Fields. I. Imposition of Normal Magnetic Field Components at the Current Sheet and the Photosphere. *C. Ridgway, T. Amari, & E. R. Priest.* 378, 773, 162-A1 (1991)

Dynamo Magnetic Field Modes in Thin Astrophysical Disks: An Adiabatic Computational Approximation. *T. F. Stepinski & E. H. Levy.* 379, 343, 167-C9 (1991)

Joule Heating as an Explanation for the Differential Emission Measure Structure and Systematic Redshifts in the Sun's Lower Transition Region. *George Roumeliotis.* 379, 392, 167-G9 (1991)

Magnetically Driven Jets and Winds. *R. V. E. Lovelace, H. L. Berk, & J. Contopoulos.* 379, 696, 173-D1 (1991)

Multiple Scattering of Acoustic Waves by a Pair of Uniformly Magnetized Flux Tubes. *Thomas J. Bogdan & David C. Fox.* 379, 758, 174-B10 (1991)

Magnetic Field–aligned Electric Potentials in Nonideal Plasma Flows. *K. Schindler, M. Hesse, & J. Birn.* 380, 293, 179-G9 (1991)

Magnetohydrodynamic Cosmologies. *R. Portugal & I. Damião Soares.* 380, 330, 182-D5 (1991)

Maximum Energy of Semi-infinite Magnetic Field Configurations. *P. A. Sturrock.* 380, 655, 186-C8 (1991)

On the Spontaneous Formation of Electric Current Sheets above a Flexible Solar Photosphere. *B. C. Low.* 381, 295, 192-F1 (1991)

Three-dimensional Driven Reconnection in an Axially Bounded Magnetic Field. *H. R. Strauss.* 381, 508, 197-A8 (1991)

Parametric Study of the Formation of Magnetohydrodynamic Shocks. III. Fast and Slow Shocks. *Y. C. Whang.* 381, 559, 197-E10 (1991)

Electron Acceleration in a Nonlinear Shock Model with Applications to Supernova Remnants. *Donald C. Ellison & Stephen P. Reynolds.* 382, 242, 203-C1 (1991)

Coronal Current-Sheet Formation: The Effect of Asymmetric and Symmetric Shears. *Judith T. Karpen, Spiro K. Antiochos, & C. Richard DeVore.* 382, 327, 204-C4 (1991)

Coronal Evolution Due to Shear Motion. *R. S. Steinolfson.* 382, 677, 210-A13 (1991)

Dynamics of Solar Coronal Magnetic Fields. *R. B. Dahlburg, S. K. Antiochos, & T. A. Zang.* 383, 420, 217-E1 (1991)

A New Solar Cycle Model Including Meridional Circulation. *Y.-M. Wang, N. R. Sheeley, Jr., & A. G. Nash.* 383, 431, 217-F1 (1991)

Magnetized Supernova Remnants with Cosmic Rays. *Katia M. Ferrière & Ellen G. Zweibel.* 383, 602, 221-F11 (1991)

Formation of Dense Charged Bunches in Vacuum Gaps. *F. Curtis Michel.* 383, 808, 224-C6 (1991)

Compressible Magnetic Convection: Formulation and Two-dimensional Models. *Peter A. Fox, Michael L. Theobald, & Sabatino Sofia.* 383, 860, 225-A1 (1991)

Effects of Magnetic Fields and Rotation on the Fragmentation of Filamentary Molecular Clouds: Comparison of the Theory with the Orion A Cloud. *Tomoyuki Hanawa, Fumitaka Nakamura, Tomoaki Matsumoto, Takenori Nakano, Ken'ichi Tatematsu, Tomofumi Umemoto, Osamu Kameya, Naomi Hirano, Tetsuo Hasegawa, Norio Kaifu, & Satoshi Yamamoto.* 404, L83, 40-G1 (1993)

Coronal Proton Acceleration by Magnetohydrodynamic Waves and Related Proton Transport. *D. F. Smith & S. H. Brecht.* 406, 298, 58-F10 (1993)

Flux-Tube Divergence, Coronal Heating, and the Solar Wind. *Y.-M. Wang.* 410, L123, 126-D13 (1993)

Numerical Magnetohydrodynamics in Astrophysics: Algorithm and Tests for One-dimensional Flow. *Dongsu Ryu & T. W. Jones.* 442, 228, 80-C5 (1995)

HYPERFINE STRUCTURE

The Interstellar D_1 Line at High Resolution. *L. M. Hobbs & D. E. Welty.* 368, 426, 30-D1 (1991)

IMAGE PROCESSING

The Imaging Performance of the *Hubble Space Telescope*. *Christopher J. Burrows, Jon A. Holtzman, S. M. Faber, Pierre Y. Bely, Hashima Hasan, C. R. Lynds, & Daniel Schroeder.* 369, L21, 45-C1 (1991)

Stellar Photometry with the *Hubble Space Telescope* Wide-Field/Planetary Camera: A Progress Report. *Jon A. Holtzman, Edward J. Groth, Robert M. Light, S. M. Faber, Deidre Hunter, Earl J. O'Neil, Jr., Edward J. Shaya, William A. Baum, Bel Campbell, Arthur Code, Douglas G. Currie, S. P. Ewald, J. Jeff Hester, T. Kelsall, Tod R. Lauer, Roger Lynds, Donald P. Schneider, P. Kenneth Seidelmann, & James A. Westphal.* 369, L35, 45-E1 (1991)

Hubble Space Telescope Wide-Field/Planetary Camera Images of Saturn. *James A. Westphal, William A. Baum, Tod R. Lauer, G. Edward Danielson, Douglas G. Currie, S. P. Ewald, S. M. Faber, Edward J. Groth, J. Jeff Hester, Robert M. Light, Roger Lynds, Earl J. O'Neil, Jr., P. Kenneth Seidelmann, Edward J. Shaya, & Bradford A. Smith.* 369, L51, 45-G1 (1991)

INFRARED: GALAXIES

A Redshift Survey of *IRAS* Galaxies. IV. The Galaxy Distribution and the Inferred Density Field. *Michael A. Strauss, Marc Davis, Amos Yahil, & John P. Huchra.* 385, 421, 18-D11 (1992)

Origin of Far-Infrared Emission in Seyfert and Starburst Galaxies. *Hideaki Mouri & Yoshiaki Taniguchi.* 386, 68, 25-A1 (1992)

A Triggering Mechanism for Enhanced Star Formation in Colliding Galaxies. *Chanda J. Jog & P. M. Solomon.* 387, 152, 38-G6 (1992)

Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)

X-Ray Properties of Bright Far-Infrared Galaxies. *L. P. David, C. Jones, & W. Forman.* 388, 82, 50-B4 (1992)

The Density Evolution of *IRAS* Galaxies. *Karl B. Fisher, Michael A. Strauss, Marc Davis, Amos Yahil, & John P. Huchra.* 389, 188, 62-C11 (1992)

Near-Infrared Spectra and Classification Diagnostics of Seyfert Galaxies. *Donald E. Osterbrock, Hien D. Tran, & Sylvain Veilleux.* 389, 196, 62-D7 (1992)

Subarcsecond Mid-Infrared Imaging of the Nuclei of the Infrared Bright Galaxies NGC 1614 and NGC 7469. *Eric Keto, Roger Ball, John Arens, Garrett Jernigan, & Margaret Meixner.* 389, 223, 62-F9 (1992)

Far-Infrared Luminosity Functions of Normal Galaxies. *Takashi Isobe & Eric D. Feigelson.* 79, 197, 16-F3 (1992)

A Near-Infrared Imaging Survey of Interacting Galaxies: The Small Angular-Size Arp Systems. *Howard A. Bushouse & S. Adam Stanford.* 79, 213, 16-G11 (1992)

Star Formation and the Distribution of H I and Infrared Emission in M51. *Richard J. Rand, Shrinivas R. Kulkarni, & W. Rice.* 390, 66, 74-G9 (1992)

Ultraluminous *IRAS* Galaxies: Formation of Elliptical Galaxies by Merger-induced Dissipative Collapse. *John Kormendy & David B. Sanders.* 390, L53, 84-E1 (1992)

The Infrared Properties of Quasars and Radio Galaxies: Testing the Unification Schemes. *Timothy M. Heckman, Kenneth C. Chambers, & Marc Postman.* 391, 39, 86-E3 (1992)

Far-Infrared Observations of NGC 4945 and the Circinus Galaxy. *S. K. Ghosh, R. S. Bisht, K. V. K. Iyengar, T. N. Rengarajan, S. N. Tandon, & R. P. Verma.* 391, 111, 87-D1 (1992)

The Unusual *K*-Band Characteristics of the Gravitational Lens System MG 1131+0456. *James Annis.* 391, L17, 92-A7 (1992)

Lyα Emission from Cooling Flows and Measures of the Dust Content of Rich Clusters of Galaxies. *Esther M. Hu.* 391, 608, 95-E7 (1992)

The Relation of Dust and Atomic Gas Properties of Galaxies. *John G. Spitzak & Stephen E. Schneider.* 393, 126, 115-F1 (1992)

Near-Infrared Images of the Nuclear Region of NGC 5128. *Paula C. Turner, William J. Forrest, Judith L. Pipher, & Mark A. Shure.* 393, 648, 123-G7 (1992)

Higher Order Correlations of *IRAS* Galaxies. *Avery Meiksin, Istvan Szapudi, & Alexander Szalay.* 394, 87, 129-B6 (1992)

The Structure of NGC 4565 at 100, 160, and 200 Microns: Continuum Dust Emission in a Quiescent Sb Galaxy. *G. Engargiola & D. A. Harper.* 394, 104, 129-C13 (1992)

A 2.18 to 2.28 Micron Study of the Stellar Population in the Nucleus of M82. *Niall I. Gaffney & Dan F. Lester.* 394, 139, 129-F9 (1992)

Radio and Infrared Emission from Markarian Starburst Galaxies. *Peter C. Stine.* 81, 49, 35-F9 (1992)

Near-Infrared Broad-Line Profiles in Low-Redshift QSOs. *Keith L. Thompson.* 395, 403, 147-C13 (1992)

High-Resolution 12.4 Micron Images of the Starburst Region in M82. *C. M. Telesco & D. Y. Gezari.* 395, 461, 148-B11 (1992)

Infrared Emission in Seyfert 2 Galaxies: Reprocessed Radiation from a Dusty Torus? *Thaisa Storchi-Bergmann, John S. Mulchaey, & Andrew S. Wilson.* 395, L73, 153-F12 (1992)

On the Use of Far-Infrared Luminosity as a Star Formation Indicator in Galaxies. *Marc Sauvage & Trinh X. Thuan.* 396, L69, 167-A9 (1992)

The He I λ2.06 Microns/Brγ Ratio in Starburst Galaxies—An Objective Constraint on the Upper Mass Limit to the Initial Mass Function. *René Doyon, P. J. Puxley, & R. D. Joseph.* 397, 117, 169-D9 (1992)

IRAS F10214+4724: An Extended CO Emission Source at $z = 2.2867$. *Robert L. Brown & Paul A. Vanden Bout.* 397, L19, 173-C6 (1992)

Aperture Synthesis CO ($J = 3$–2) Observations of a Protogalaxy Candidate IRAS F10214+4724. *R. Kawabe, K. Sakamoto, S. Ishizuki, & M. Ishiguro.* 397, L23, 173-C12 (1992)

Molecular Gas Distribution in a Protogalaxy Candidate IRAS F10214+4724: A Dense Compact Nucleus and Nondetected Extra Components. *Kazushi Sakamoto, Sumio Ishizuki, Ryohei Kawabe, & Masato Ishiguro.* 397, L27, 173-D4 (1992)

A Redshift Survey of *IRAS* Galaxies. V. The Acceleration on the Local Group. *Michael A. Strauss, Amos Yahil, Marc Davis, John P. Huchra, & Karl Fisher.* 397, 395, 175-E11 (1992)

The Optical Properties of IR-selected and Mg II Broad Absorption Line Quasars. *Todd A. Boroson & Karie A. Meyers.* 397, 442, 176-B13 (1992)

The Determination of Dust Mass in Galaxies. *John Kwan & Shuding Xie.* 398, 105, 183-C7 (1992)

Submillimeter Spectrum and Dust Mass of the Primeval Galaxy IRAS 10214+4724. *D. Downes, S. J. E. Radford, A. Greve, C. Thum, P. M. Solomon, & J. E. Wink.* 398, L25, 187-D7 (1992)

Warm Molecular Gas in the Primeval Galaxy IRAS 10214+4724. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 398, L29, 187-E1 (1992)

The Compactness of Far-Infrared Bright Galaxies. *Zhong Wang & George Helou.* 398, L33, 187-E7 (1992)

Infrared Emission and Mass Loss from Evolved Stars in Elliptical Galaxies. *G. R. Knapp, J. E. Gunn, & C. G. Wynn-Williams.* 399, 76, 196-B3 (1992)

Infrared Fine-Structure Line Diagnostics of Shrouded Active Galactic Nuclei. *G. Mark Voit.* 399, 495, 204-B1 (1992)

Infrared Line Diagnostics of Active Galactic Nuclei. *Luigi Spinoglio & Matthew A. Malkan.* 399, 504, 204-B11 (1992)

A Redshift Survey of *IRAS* Galaxies. VII. The Infrared and Redshift Data for the 1.936 Jansky Sample. *Michael A. Strauss, John P. Huchra, Marc Davis, Amos Yahil, Karl B. Fisher, & John Tonry.* 83, 29, 57-D3 (1992)

Dust Reverberation: A Model for the Infrared Variations of Fairall 9. *Richard Barvainis.* 400, 502, 216-E5 (1992)

New Results on the Radio–Far-Infrared Relation for Galaxies. *Rob Price & Nebojsa Duric.* 401, 81, 222-A11 (1992)

Infrared Lines from Active Galactic Nuclei: A Theoretical Approach. *Marcella Contini & Sueli M. Viegas.* 401, 481, 228-F3 (1992)

12 and 20 Micron Imaging of the Starburst Galaxy NGC 253. *R. K. Piña, B. Jones, R. C. Puetter, & W. A. Stein.* 401, L75, 233-A5 (1992)

The Power Spectrum of *IRAS* Galaxies. *Karl B. Fisher, Marc Davis, Michael A. Strauss, Amos Yahil, & John P. Huchra.* 402, 42, 1-E8 (1993)

Subarcsecond Near-Infrared Imaging of Ultraluminous *IRAS* Galaxies. *S. R. Majewski, M. Hereld, D. C. Koo, G. D. Illingworth, & T. M. Heckman.* 402, 125, 2-E13 (1993)

Effect of Malmquist Bias on Correlation Studies with the *IRAS* Data Base. *Frances Verter.* 402, 141, 2-G5 (1993)

The Ultraviolet-to-Near-Infrared Spectral Flux Distribution of Four BL Lacertae Objects. *R. Falomo, A. Treves, L. Chiappetti, L. Maraschi, E. Pian, & E. G. Tanzi.* 402, 532, 9-B7 (1993)

Infrared Polarimetry of Galaxies. III. Global Comparisons. *Terry Jay Jones.* 403, 135, 15-F5 (1993)

NGC 4945: A Postburst Infrared Galaxy. *Jan Koornneef.* 403, 581, 22-G8 (1993)

An Infrared Study of Hot Dust in Quasars Using Prism Spectrophotometry. *Yukiyasu Kobayashi, Shuji Sato, Takuya Yamashita, Hisashi Shiba, & Hideki Takami.* 404, 94, 29-B11 (1993)

Far-Infrared Emission from the Intracluster Medium. *Michael W. Wise, Robert W. O'Connell, Joel N. Bregman, & Morton S. Roberts.* 405, 94, 42-B13 (1993)

High-Resolution Study of Luminous Infrared Galaxies. I. The Composite Nature of the Seyfert 1 Galaxy IRAS 20044−6114 (NGC 6860). *Sebastian Lípari, Zlatan Tsvetanov, & F. Macchetto.* 405, 186, 43-D3 (1993)

The Starburst-AGN Connection: A Sensitive VLBI Survey of Luminous *IRAS* Galaxies. *Colin J. Lonsdale, Harding E. Smith, & Carol J. Lonsdale.* 405, L9, 47-C1 (1993)

Near-Infrared Line Imaging of NGC 6240: Collision Shock and Nuclear Starburst. *Paul P. van der Werf, R. Genzel, A. Krabbe, M. Blietz, D. Lutz, S. Drapatz, Martin J. Ward, & Duncan A. Forbes.* 405, 522, 49-E7 (1993)

The Power Spectra of *IRAS* Galaxies and of Abell Clusters. *Y. P. Jing & R. Valdarnini.* 406, 6, 55-B7 (1993)

The Excitation Mechanism of [Fe II] 1.644 Micron Emission in Seyfert and Starburst Galaxies Revisited. *Hideaki Mouri, Kimiaki Kawara, & Yoshiaki Taniguchi.* 406, 52, 55-F5 (1993)

The Low-Mass Stellar Content of Galaxies: Constraints through Hybrid Population Synthesis near 1 Micron. *Jean Couture & Eduardo Hardy.* 406, 142, 56-G11 (1993)

High-Resolution Imaging of [Fe II 1.64 Microns, Brackett-γ, and H_2 1–0 $S(1)$ Emission in the Starburst Galaxy NGC 253. *Duncan A. Forbes, Martin J. Ward, V. Rotaciuc, M. Blietz, R. Genzel, S. Drapatz, Paul P. van der Werf, & A. Krabbe.* 406, L11, 60-F1 (1993)

Extreme Optical Fe II Emission in Luminous *IRAS* Active Galactic Nuclei. *Sebastian Lípari, Roberto Terlevich, & F. Macchetto.* 406, 451, 63-C12 (1993)

Optical Photometry and Polarimetry and Infrared Photometry of 3C 345 in Outburst. *Mark R. Kidger, José Antonio de Diego, Leo O. Takalo, Aimo Sillanpää, & Masami Okyudo.* 407, L1, 75-A7 (1993)

158 Micron [C II] Mapping of NGC 6946: Probing the Atomic Medium. *S. C. Madden, N. Geis, R. Genzel, F. Herrmann, J. Jackson, A. Poglitsch, G. J. Stacey, & C. H. Townes.* 407, 579, 77-F12 (1993)

Infrared Imaging of MG 0414+0534: The Red Gravitational Lens Systems as Lensed Radio Galaxies. *James Annis & Gerard A. Luppino.* 407, L69, 82-D6 (1993)

Multifrequency Observations of the Optically Active Radio-quiet Quasar GQ Comae. II. Ultraviolet, Optical, and Infrared Continuum Variability. *Michael L. Sitko, Annamaria K. Sitko, Aneta Siemiginowska, & R. Szczerba.* 409, 139, 98-F5 (1993)

Imaging of Luminous Infrared Galaxies at 3.4 Microns. *Shudong Zhou, C. G. Wynn-Williams, & D. B. Sanders.* 409, 149, 98-G1 (1993)

Molecular Gas in Powerful Radio Galaxies Detected by *IRAS*. *J. M. Mazzarella, J. R. Graham, D. B. Sanders, & S. Djorgovski.* 409, 170, 99-A13 (1993)

High-Resolution Mid-Infrared Imaging and Astrometry of the Nucleus of the Seyfert Galaxy NGC 1068. *J. A. Braatz, A. S. Wilson, D. Y. Gezari, F. Varosi, & C. A. Beichman.* 409, L5, 104-B1 (1993)

Infrared Surface Brightness Fluctuations: K'-Band Observations of M31, M32, and the Distance to Maffei 1. *Gerard A. Luppino & John L. Tonry.* 410, 81, 113-B3 (1993)

Near-Infrared Spectroscopy of the Peculiar Giant Elliptical NGC 1275. *Kimiaki Kawara & Yoshiaki Taniguchi.* 410, L19, 117-G13 (1993)

Searching for a Far-Infrared Enhancement in Compact Groups of Galaxies. *Jack W. Sulentic & Duilia F. De Mello Rabaça.* 410, 520, 120-B8 (1993)

High-Resolution Infrared Maps from *IRAS* Observations of Large Galaxies. I. *S. K. Ghosh, R. P. Verma, T. N. Rengarajan, B. Das, & H. T. Saraiya.* 86, 401, 19-G9 (1993)

Infrared Spectroscopy of 11 Radio Galaxies at $2 < z < 4$: Evidence That Some High-Redshift Radio Galaxies May Be Protogalaxies. *Stephen A. Eales & Steve Rawlings.* 411, 67, 127-G13 (1993)

A Deep I-Band Selected Galaxy Sample: Implications for Galaxy Evolution. *Simon J. Lilly.* 411, 501, 135-G6 (1993)

[Fe II] 1.64 Micron Emission in High-Luminosity and Ultraluminous *IRAS* Galaxies. *Luis Colina.* 411, 565, 136-F3 (1993)

M82: The Saga Continues. *K. K. McLeod, G. H. Rieke, M. J. Rieke, & D. M. Kelly.* 412, 111, 143-D10 (1993)

The Nature of Unidentified Far-Infrared Point Sources. *William T. Reach, Carl Heiles, & Bon-Chul Koo.* 412, 127, 143-F1 (1993)

Luminous Infrared Galaxies: Sizes at 10–32 Microns. *C. G. Wynn-Williams & E. E. Becklin.* 412, 535, 150-C13 (1993)

The Warped Disk of Centaurus A in the Near-Infrared. *A. C. Quillen, James R. Graham, & Jay A. Frogel.* 412, 550, 150-E7 (1993)

The Mid-Infrared Radio Correlation at High Angular Resolution: NGC 253. *Eric Keto, Roger Ball, John Arens, Garrett Jernigan, Margaret Meixner, Christopher Skinner, & James Graham.* 413, L23, 162-D7 (1993)

The Genesis of Starbursts and Infrared Emission in the Centers of Galaxies. *C. M. Telesco, L. L. Dressel, & R. D. Wolstencroft.* 414, 120, 171-E3 (1993)

Optical Lines in High-Redshift Quasi-stellar Objects: Balmer Lines, [O III], and Fe II. *Gary J. Hill, Keith L. Thompson, & Richard Elston.* 414, L1, 175-C1 (1993)

Molecular Gas Mass and Far-Infrared Emission from Distant Luminous Galaxies. *D. Downes, P. M. Solomon, & S. J. E. Radford.* 414, L13, 175-D6 (1993)

Strong [Fe II] Emission from NGC 1275. *Richard J. Rudy, Ross D. Cohen, George S. Rossano, Peter Erwin, R. C. Puetter, Matthew A. Greenhouse, & Charles E. Woodward.* 414, 527, 177-F13 (1993)

Millimeter and Submillimeter Continuum Emission from Early-Type Galaxies. *Michel Fich & Paul Hodge.* 415, 75, 186-A1 (1993)

A Physical Model of the Infrared-to-Radio Correlation in Galaxies. *G. Helou & M. D. Bicay.* 415, 93, 186-B9 (1993)

Galaxy Number Counts from $K = 10$ to $K = 23$. *J. P. Gardner, L. L. Cowie, & R. J. Wainscoat.* 415, L9, 191-F7 (1993)

Infrared Coronal Emission Lines and the Possibility of Their Laser Emission in Seyfert Nuclei. *Matthew A. Greenhouse, Uri Feldman, Howard A. Smith, Marcel Klapisch, Anand K. Bhatia, & Avi Bar-Shalom.* 88, 23, 40-C11 (1993)

A Masing [Fe XI] Line. *G. J. Ferland.* 88, 49, 40-F13 (1993)

The Extended 12 Micron Galaxy Sample. *Brian Rush, Matthew A. Malkan, & Luigi Spinoglio.* 89, 1, 49-B1 (1993)

A Search for *IRAS* Galaxies behind the Southern Milky Way. *Toru Yamada, Tadafumi Takata, Thomas Djamaluddin, Akihiko Tomita, Kentaro Aoki, Aki Takeda, & Mamoru Saitō.* 89, 57, 49-F5 (1993)

The Infrared Tully-Fisher Relation in the Ursa Major Cluster. *R. F. Peletier & S. P. Willner.* 418, 626, 240-C3 (1993)

Infrared Spectra of Obscuring Dust Tori around Active Galactic Nuclei. II. Comparison with Observations. *Edward A. Pier & Julian H. Krolik.* 418, 673, 240-G10 (1993)

Subarcsecond Mid-Infrared Imaging of Warm Dust in the Narrow-Line Region of NGC 1068. *Murray Cameron, John W. V. Storey, Valentin Rotaciuc, Reinhard Genzel, Laurent Verstraete, Siegfried Drapatz, Ralf Siebenmorgen, & Terry J. Lee.* 419, 136, 247-G5 (1993)

Near-Infrared Imaging of Low-Redshift Quasar Host Galaxies. *K. K. McLeod & G. H. Rieke.* 420, 58, 1-F10 (1994)

High-Resolution Continuum and Brγ Imaging Observations of M82. *J. E. Larkin, J. R. Graham, K. Matthews, B. T. Soifer, S. Beckwith, T. M. Herbst, & A. C. Quillen.* 420, 159, 3-A1 (1994)

Near-Infrared Imaging of FSC 10214+4724 with the W. M. Keck Telescope. *K. Matthews, B. T. Soifer, J. Nelson, H. Boesgaard, J. R. Graham, W. Harrison, W. Irace, G. Jernigan, J. E. Larkin, H. Lewis, S. Lin, G. Neugebauer, M. Sirota, G. Smith, & C. Ziomkowski.* 420, L13, 7-C5 (1994)

The Nature of Distant Galaxies Producing Multiple C IV Absorption Lines in the Spectra of High-Redshift Quasars. *A. Aragón-Salamanca, R. S. Ellis, J.-M. Schwartzenberg, & J. A. Bergeron.* 421, 27, 16-D5 (1994)

Near-Infrared Spectroscopic Imaging of the Circumnuclear Environment of NGC 1068. *M. Blietz, M. Cameron, S. Drapatz, R. Genzel, A. Krabbe, P. van der Werf, A. Sternberg, & M. Ward.* 421, 92, 17-B13 (1994)

A Near-Infrared Spectroscopic Study of the Luminous Merger NGC 3256. I. Constraints on the Initial Mass Function of the Starburst. *René Doyon, R. D. Joseph, & G. S. Wright.* 421, 101, 17-C10 (1994)

3.3 Micron Emission Feature in Infrared Galaxies. *Kohei Mizutani, Hiroshi Suto, & Toshinori Maihara.* 421, 475, 24-B1 (1994)

Models for the Evolution of the Spectral Energy Distribution of Elliptical Galaxies for Ultraviolet to Far-Infrared Wavelengths. *P. Mazzei, G. De Zotti, & C. Xu.* 422, 81, 31-A13 (1994)

Infrared Spectroscopy of Seyfert 2 Galaxies: A Look through the Obscuring Torus? *Robert W. Goodrich, Sylvain Veilleux, & Gary J. Hill.* 422, 521, 38-C12 (1994)

The Interstellar Medium in the Starburst Regions of NGC 253 and NGC 3256. *P. Carral, D. J. Hollenbach, S. D. Lord, S. W. J. Colgan, Michael R. Haas, R. H. Rubin, & E. F. Erickson.* 423, 223, 48-G7 (1994)

New Infrared Observations of Seyfert 2 Galaxies and Unification Theories. *M. Ruiz, G. H. Rieke, & G. D. Schmidt.* 423, 608, 56-A11 (1994)

Simulations of Deep Galaxy Fields. I. Monte Carlo Simulations of Optical and Near-Infrared Counts. *Arati Chokshi, Carol J. Lonsdale, Paola Mazzei, & Gianfranco De Zotti.* 424, 578, 71-G9 (1994)

IRAS F15307+3252: A Hyperluminous Infrared Galaxy at $z = 0.93$. *Roc M. Cutri, John P. Huchra, Frank J. Low, Robert L. Brown, & Paul A. Vanden Bout.* 424, L65, 78-E1 (1994)

Near-Infrared Spectral Imaging of NGC 1808: Probing the Starburst. *A. Krabbe, A. Sternberg, & R. Genzel.* 425, 72, 81-B2 (1994)

Far-Infrared Emission from the Bulges of Early-Type Spirals: KAO Observations of NGC 4736 (M94) and NGC 3627 (M66). *Beverly J. Smith, P. M. Harvey, C. Colomé, C. Y. Zhang, J. DiFrancesco, & R. W. Pogge.* 425, 91, 81-C9 (1994)

High-Resolution Mid-Infrared Observations of NGC 7469. *J. W. Miles, J. R. Houck, & T. L. Hayward.* 425, L37, 85-E13 (1994)

COBE Diffuse Background Experiment Observations of the Galactic Bulge. *J. L. Weiland, R. G. Arendt, G. B. Berriman, E. Dwek, H. T. Freudenreich, M. G. Hauser, T. Kelsall, C. M. Lisse, M. Mitra, S. H. Moseley, N. P. Odegard, R. F. Silverberg, T. J. Sodroski, W. J. Spiesman, & S. W. Stemwedel.* 425, L81, 94-D6 (1994)

Power-Spectrum Analysis of Three-dimensional Redshift Surveys. *Hume A. Feldman, Nick Kaiser, & John A. Peacock.* 426, 23, 96-D2 (1994)

Far-Infrared Properties of Early-Type Galaxies. *P. Mazzei & G. De Zotti.* 426, 97, 97-C5 (1994)

Luminosity Evolution and Dust Effects in Distant Galaxies: Implications for the Observability of the Early Evolutionary Phases. *Alberto Franceschini, Paola Mazzei, Gianfranco De Zotti, & Luigi Danese.* 427, 140, 111-F4 (1994)

Galaxies with Extreme Infrared and Fe II Emission. I. Markarian 231: The Signature of a Young Infrared QSO. *Sebastian Lípari, Luis Colina, & F. Macchetto.* 427, 174, 112-B12 (1994)

The Nuclear 10 Micron Emission of Spiral Galaxies. *Giuliano Giuricin, Laura Tamburini, Fabio Mardirossian, Marino Mezzetti, & Pierluigi Monaco.* 427, 202, 112-E1 (1994)

K'-Band Observations of the Evil Eye Galaxy: Are the Optical and Near-Infrared Dust Albedos Identical? *Adolf N. Witt, Rebecca S. Lindell, David L. Block, & Rhodri Evans.* 427, 227, 112-G1 (1994)

The Distribution of *IRAS* Galaxies on Linear and Nonlinear Scales. *Ravi K. Sheth, H. J. Mo, & William C. Saslaw.* 427, 562, 119-F11 (1994)

Obscuration, Orientation, and the Infrared Properties of Radio-loud Active Galaxies. *Timothy M. Heckman, Christopher P. O'Dea, Stefi A. Baum, & Eija Laurikainen.* 428, 65, 129-A11 (1994)

A Diagnosis of Dust in Active Galactic Nuclei through Analysis of the Infrared Bump. *S. M. Viegas & M. Contini.* 428, 113, 129-E9 (1994)

Probing Radial Age/Metallicity Degeneracy in Early-Type Galaxies. *David R. Silva & Richard Elston.* 428, 511, 136-E7 (1994)

CO Absorption in Luminous Infrared Galaxies. *Susan E. Ridgway, C. G. Wynn-Williams, & E. E. Becklin.* 428, 609, 137-G1 (1994)

Multiwavelength Analysis of Quasars, Seyfert Galaxies, and Starbursts. *J. Miguel Mas-Hesse, Pedro M. Rodríguez-Pascual, Lourdes Sanz Fernández de Córdoba, & I. Félix Mirabel.* 92, 599, 39-G4 (1994)

The Far-Infrared Properties of the CfA Galaxy Sample. II. Gas, Dust, and Star Formation along the Hubble Sequence. *Marc Sauvage & Trinh X. Thuan.* 429, 153, 146-A9 (1994)

Extended Infrared Line Emission Excited by Starburst and Seyfert Activity in NGC 3256 and NGC 4945. *A. F. M. Moorwood & E. Oliva.* 429, 602, 153-B9 (1994)

The Byurakan Classification and the Far-Infrared Radiation of Spiral Galaxies. *H. M. Tovmassian.* 430, 139, 160-G3 (1994)

The True Nucleus of NGC 253 Revealed by High-Resolution Near-Infrared Imaging. *Bruce J. Sams III, R. Genzel, A. Eckart, L. Tacconi-Garman, & R. Hofmann.* 430 L33, 165-E5 (1994)

A Survey of the Large Magellanic Cloud in the [C II] 158 Micron Line. *Kenji Mochizuki, Takao Nakagawa, Yasuo Doi, Yukari Y. Yui, Haruyuki Okuda, Hiroshi Shibai, Masao Yui, Tetsuo Nishimura, & Frank J. Low.* 430, L37, 165-E13 (1994)

Near-Infrared Imaging of Low-Redshift Quasar Host Galaxies. II. High-Luminosity Quasars. *K. K. McLeod & G. H. Rieke.* 431, 137, 177-G8 (1994)

Spatially Resolved Optical and Near-Infrared Spectroscopy of the Low-Metallicity Galaxy UGC 4483. *Evan D. Skillman, Roberto J. Terlevich, Robert C. Kennicutt, Jr., Donald R. Garnett, & Elena Terlevich.* 431, 172, 178-C9 (1994)

Stellar Kinematics in the Nucleus of NGC 6240: A Massive Galaxy Revealed. *Dan F. Lester & Niall I. Gaffney.* 431, L13, 182-D7 (1994)

Infrared Imaging of Spiral Galaxies: Colors and Luminosity Profiles. *Donald M. Terndrup, Roger L. Davies, Jay A. Frogel, D. L. DePoy, & Lisa A. Wells.* 432, 518, 202-D5 (1994)

The Near-Infrared–Optical–Ultraviolet Emission of BL Lacertae Objects. *E. Pian, R. Falomo, R. Scarpa, & A. Treves.* 432, 547, 202-F11 (1994)

NGC 7552: A Galaxy with a Dormant Active Nucleus? *Duncan A. Forbes, Jari K. Kotilainen, & A. F. M. Moorwood.* 433, L13, 214-E10 (1994)

Infrared Observations of the Dark Matter Lens Candidate Q2345+007. *Brian McLeod, Marcia Rieke, & Daniel Weedman.* 433, 528, 217-E5 (1994)

Spectral Energy Distributions of the Brightest Palomar-Green Quasars at Intermediate Redshifts. *Todd M. Tripp, Jill Bechtold, & Richard F. Green.* 433, 533, 217-E12 (1994)

The Dispersion in the Near-Infrared Surface Brightness Fluctuations in the Virgo Cluster. *Michael A. Pahre & Jeremy R. Mould.* 433, 567, 218-A9 (1994)

Near-Infrared Observations of FSC 15307+3252. *B. T. Soifer, G. Neugebauer, K. Matthews, & L. Armus.* 433, L69, 223-F5 (1994)

The Hawaii K-Band Galaxy Survey. I. Deep K-Band Imaging. *L. L. Cowie, J. P. Gardner, E. M. Hu, A. Songaila, K.-W. Hodapp, & R. J. Wainscoat.* 434, 114, 226-F6 (1994)

The Cosmic X-Ray Background–*IRAS* Galaxy Correlation and the Local X-Ray Volume Emissivity. *Takamitsu Miyaji, Ofer Lahav, Keith Jahoda, & Elihu Boldt.* 434, 424, 233-E9 (1994)

The Near-Infrared Structure of M33. *Michael W. Regan & Stuart N. Vogel.* 434, 536, 235-B8 (1994)

The Hawaii K-Band Galaxy Survey. III. Spectroscopy of $K < 20$ Galaxies. *A. Songaila, L. L. Cowie, E. M. Hu, & J. P. Gardner.* 94, 461, 58-C1 (1994)

Multiwavelength Tests of the Dusty Torus Model for Seyfert Galaxies. *John S. Mulchaey, Anuradha Koratkar, Martin J. Ward, Andrew S. Wilson, Mark Whittle, Robert R. J. Antonucci, Anne L. Kinney, & Todd Hurt.* 436, 586, 273-E10 (1994)

The Gravitational Potential of the Bar in NGC 4314. *A. C. Quillen, Jay A. Frogel, & Rosa A. González.* 437, 162, 285-D6 (1994)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. IV. Multiwavelength Analysis. *R. Edelson, J. Krolik, G. Madejski, L. Maraschi, G. Pike, C. M. Urry, W. Brinkmann, T. J.-L. Courvoisier, J. Ellithorpe, K. Horne, A. Treves, S. Wagner, W. Wamsteker, R. Warwick, H. D. Aller, M. F. Aller, M. Ashley, A. Blecha, P. Bouchet, P. Bratschi, J. N. Bregman, M. Carini, A. Celotti, M. Donahue, E. Feigelson, A. V. Filippenko, H. Fink, I. George, I. Glass, J. Heidt, J. Hewitt, P. Hughes, R. Kollgaard, Y. Kondo, A. Koratkar, K. Leighly, A. Marscher, P. G. Martin, T. Matheson, H. R. Miller, J. C. Noble, P. O'Brien, E. Pian, G. Reichert, J. M. Saken, J. M. Shull, M. Sitko, P. S. Smith, W.-H. Sun, & G. Tagliaferri.* 438, 120, 3-A4 (1995)

Ultraluminous Infrared Galaxies and the Radio-optical Correlation for Quasars. *Carol J. Lonsdale, Harding E. Smith, & Colin J. Lonsdale.* 438, 632, 12-G8 (1995)

Far-Infrared Thermal Emission from the Inner Cooling Flow Region of NGC 1275. *D. F. Lester, E. C. Zink, G. W. Doppmann, N. I. Gaffney, P. M. Harvey, B. J. Smith, & M. Malkan.* 439, 185, 23-G1 (1995)

K-Band Galaxy Counts. *B. A. McLeod, G. M. Bernstein, M. J. Rieke, E. V. Tollestrup, & G. G. Fazio.* 96, 117, 3-B13 (1995)

Recalibration of the $H_{-0.5}$ Magnitudes of Spiral Galaxies. *Giuseppe Tormen & David Burstein.* 96, 123, 3-C7 (1995)

Imaging the Host Galaxies of High-Redshift Radio-quiet QSOs. *James D. Lowenthal, Timothy M. Heckman, Matthew D. Lehnert, & J. H. Elias.* 439, 588, 32-D11 (1995)

The Luminous Starburst Galaxy UGC 8387. *Denise A. Smith, Terry Herter, Martha P. Haynes, C. A. Beichman, & T. N. Gautier III.* 439, 623, 33-A4 (1995)

Near-Infrared [Fe II] and Paβ Imaging and Spectroscopy of Arp 220. *L. Armus, D. L. Shupe, K. Matthews, B. T. Soifer, & G. Neugebauer.* 440, 200, 44-A3 (1995)

Near-Infrared Imaging of CfA Seyfert Galaxies. *K. K. McLeod & G. H. Rieke.* 441, 96, 60-F4 (1995)

An Estimate of the Gas Inflow Rate along the Bar in NGC 7479. *A. C. Quillen, Jay A. Frogel, Jeffrey D. P. Kenney, R. W. Pogge, & D. L. DePoy.* 441, 549, 69-E8 (1995)

Infrared Line Emission from High-Redshift Galaxies. I. Calculations. *Filippo Mannucci & Steven V. W. Beckwith.* 442, 569, 87-F8 (1995)

The Distribution of Far-Infrared Light in the "Dusty Hand" Galaxy NGC 2146. *Beverly J. Smith, P. M. Harvey, & D. F. Lester.* 442, 610, 88-C10 (1995)

The Heating of Dust in Starburst Galaxies: The Contribution of the Nonionizing Radiation. *Daniela Calzetti, Ralph C. Bohlin, Anne L. Kinney, Thaisa Storchi-Bergmann, & Timothy M. Heckman.* 443, 136, 97-A12 (1995)

Interpretation of the Faint Galaxy Number Counts in the *K* Band. *Yuzuru Yoshii & Bruce A. Peterson.* 444, 15, 113-D5 (1995)

The Tully-Fisher Relation of the *IRAS* Minisurvey Galaxies. *W. van Driel, A. C. van den Broek, & W. A. Baan.* 444, 80, 114-D4 (1995)

Spectroscopy of Luminous Infrared Galaxies at 2 Microns. I. The Ultraluminous Galaxies ($L_{IR} \geq 10^{12}\ L_{\odot}$). *Jeffrey D. Goldader, R. D. Joseph, René Doyon, & D. B. Sanders.* 444, 97, 114-F2 (1995)

Infrared Imaging and Spectroscopy of NGC 7469. *R. Genzel, L. Weitzel, L. E. Tacconi-Garman, M. Blietz, M. Cameron, A. Krabbe, D. Lutz, & A. Sternberg.* 444, 129, 115-B3 (1995)

Ultraviolet to Near-Infrared Spectral Distributions of Star-forming and Seyfert 2 Galaxies. *Thaisa Storchi-Bergmann, Anne L. Kinney, & Peter Challis.* 98, 103, 22-C2 (1995)

Optical Spectroscopy of Luminous Infrared Galaxies. I. Nuclear Data. *D.-C. Kim, D. B. Sanders, S. Veilleux, J. M. Mazzarella, & B. T. Soifer.* 98, 129, 22-E5 (1995)

Optical Spectroscopy of Luminous Infrared Galaxies. II. Analysis of the Nuclear and Long-Slit Data. *S. Veilleux, D.-C. Kim, D. B. Sanders, J. M. Mazzarella, & B. T. Soifer.* 98, 171, 23-A8 (1995)

The Spatial Variation of the Infrared-to-Radio Ratio in Spiral Galaxies. *K. A. Marsh & G. Helou.* 445, 599, 143-C9 (1995)

High-Resolution Near-Infrared Spectra of NGC 4151: Line and Continuum Analysis. *Rodger I. Thompson.* 445, 700, 144-G5 (1995)

A Mid-Infrared Test of the "Obscuring Torus" Model for Seyfert Nuclei. *Timothy M. Heckman.* 446, 101, 154-E10 (1995)

The 10 Micron Emission of Seyfert Nuclei. *Giuliano Giuricin, Fabio Mardirossian, & Marino Mezzetti.* 446, 550, 163-F7 (1995)

New Constraints on the Unified Model of Seyfert Galaxies. *R. Maiolino, M. Ruiz, G. H. Rieke, & L. D. Keller.* 446, 561, 163-G7 (1995)

A Multifrequency Radio Continuum and *IRAS* Faint Source Survey of Markarian Galaxies. *M. D. Bicay, G. Kojoian, J. Seal, D. F. Dickinson, & M. A. Malkan.* 98, 369, 28-B1 (1995)

A Near-Infrared Faint Galaxy Survey: The Catalog. *J. P. Gardner.* 98, 441, 29-B6 (1995)

Nonaxisymmetric Structures in the Stellar Disks of Galaxies. *Hans-Walter Rix & Dennis Zaritsky.* 447, 82, 173-C9 (1995)

The Nuclear Energy Sources Powering Bright Infrared-selected Galaxies. *M. L. N. Ashby, J. R. Houck, & K. Matthews.* 447, 545, 183-C9 (1995)

Interstellar Grains in Elliptical Galaxies: Grain Evolution. *John C. Tsai & William G. Mathews.* 448, 84, 193-C12 (1995)

An Emission-Line Protogalaxy Candidate at $z = 2.5$. *M. Malkan, H. Teplitz, & I. McLean.* 448, L5, 199-B9 (1995)

High Spatial Resolution Fabry-Perot Imaging of M82: Near-Infrared Recombination Line Observations. *Shobita Satyapal, Dan M. Watson, Judith L. Pipher, William J. Forrest, Diana Coppenbarger, S. Nicholas Raines, Scott Libonate, François Piché, Matthew A. Greenhouse, Howard A. Smith, Keith L. Thompson, Jacqueline Fischer, Charles E. Woodward, & Tracy Hodge.* 448, 611, 203-B10 (1995)

High-Resolution Infrared Imaging of FSC 10214+4724: Evidence for Gravitational Lensing. *James R. Graham & Michael C. Liu.* 449, L29, 216-D7 (1995)

Evidence for Gaussian Initial Fluctuations from the 1.2 Jansky *IRAS* Survey. *Adi Nusser, Avishai Dekel, & Amos Yahil.* 449, 439, 218-G11 (1995)

Dust and Molecular Gas in the Barred Spiral Galaxy NGC 1530. *Michael W. Regan, Stuart N. Vogel, & Peter J. Teuben.* 449, 576, 220-F10 (1995)

Extended Infrared Emission in the Galaxy Cluster 1E 1111.9−3754: No Evidence for a Low-Mass Accretion Population. *Marshall Joy, Andrea H. Prestwich, Michael Burton, & Stephen Guimond.* 449, L113, 226-G10 (1995)

Far-Infrared Emission from Abell Clusters. *Caroline V. Cox, Joel N. Bregman, & James M. Schombert.* 99, 405, 40-F6 (1995)

Near-Infrared Imaging and Spectroscopy of the Bright *IRAS* Galaxy VV 114. *René Doyon, Daniel Nadeau, R. D. Joseph, J. D. Goldader, D. B. Sanders, & Neil Rowlands.* 450, 111, 229-E8 (1995)

The Buried QSO in IRAS F15307+3252 and the Nature of Hyperluminous Infrared Galaxies. *Dean C. Hines, Gary D. Schmidt, Paul S. Smith, Roc M. Cutri, & Frank J. Low.* 450, L1, 235-D1 (1995)

Spectrophotometric Properties of Merging Galaxies. *Charles T. Liu & Robert C. Kennicutt, Jr.* 450, 547, 238-C9 (1995)

The Central Regions of NGC 4691: A Remarkable Structure with a Fast Outflow near the Nucleus. *J. A. García-Barreto, J. Franco, J. Guichard, & R. Carrillo.* 451, 156, 248-B13 (1995)

The Broadband Spectral Energy Distributions of the Cloverleaf Quasar and IRAS F10214+4724. *Richard Barvainis, Robert Antonucci, Todd Hurt, Paul Coleman, & H.-P. Reuter.* 451, L9, 252-B11 (1995)

The *IRAS* 1.2 Jy Survey: Redshift Data. *Karl B. Fisher, John P. Huchra, Michael A. Strauss, Marc Davis, Amos Yahil, & David Schlegel.* 100, 69, 46-G5 (1995)

Spectroscopic and Morphological Evidence That IRAS FSC 10214+4724 Is a Gravitational Lens. *Laird M. Close, Patrick B. Hall, Charles T. Liu, & E. Keith Hege.* 452, L9, 269-D1 (1995)

A Near-Infrared Faint Galaxy Survey. *J. P. Gardner.* 452, 538, 272-B2 (1995)

Near-Infrared Spectroscopy of the Arp 220 Nuclei: Measuring the Nuclear Rotation. *J. E. Larkin, L. Armus, R. A. Knop, K. Matthews, & B. T. Soifer.* 452, 599, 272-G11 (1995)

A Spectrophotometric Survey of Merging Galaxies. *Charles T. Liu & Robert C. Kennicutt, Jr.* 100, 325, 50-E8 (1995)

The Near-Infrared Fundamental Plane of Elliptical Galaxies. *Michael A. Pahre, S. G. Djorgovski, & R. R. de Carvalho.* 453, L17, 289-D8 (1995)

Multiwavelength Energy Distributions and Bolometric Luminosities of the 12 Micron Galaxy Sample. *Luigi Spinoglio, Matthew A. Malkan, Brian Rush, Luis Carrasco, & Elsa Recillas-Cruz.* 453, 616, 292-D4 (1995)

Evidence for an Obscured Quasar in the Giant Radio Galaxy PKS 0634−205. *Chris Simpson, M. J. Ward, & A. S. Wilson.* 454, 683, 311-B1 (1995)

Luminous Quasars in Luminous Early-Type Host Galaxies. *K. K. McLeod & G. H. Rieke.* 454, L77, 315-C9 (1995)

Hard X-Ray Emission from Extragalactic *IRAS* 12 Micron Sources: Constraints on the Unified Active Galactic Nucleus Model and the Synthesis of the X-Ray Background. *Xavier Barcons, Alberto Franceschini, Gianfranco De Zotti, Luigi Danese, & Takamitsu Miyaji.* 455, 480, 328-E7 (1995)

Near-Infrared Observations of Extended Emission around PG 1545+210. *G. Neugebauer, K. Matthews, & L. Armus.* 455, L123, 333-F4 (1995)

INFRARED: GENERAL

A Search for Circumstellar Dust around HR 10, a Proposed β Pictoris Star. *Kwang-Ping Cheng, C. A. Grady, & Frederick C. Bruhweiler.* 366, L87, 11-E7 (1991)

Submillimeter Solar Limb Profiles Determined from Observations of the Total Solar Eclipse of 1988 March 18. *T. L. Roellig, E. E. Becklin, J. T. Jefferies, G. A. Kopp, C. A. Lindsey, F. Q. Orrall, & M. W. Werner.* 381, 288, 192-E5 (1991)

A Model for the Infrared Emission from an OB Star Cluster Environment. *D. Leisawitz.* 77, 451, 51-B1 (1991)

The Inverse Planckian Transform and Temperature Spectra. *Luis Salas.* 385, 288, 15-D12 (1992)

Unusual 3 Micron Emission Features in Three Proto–Planetary Nebulae. *T. R. Geballe, A. G. G. M. Tielens, S. Kwok, & B. J. Hrivnak.* 387, L89, 48-E1 (1992)

Dust and Gas Contributions to the Energy Output of SN 1987A on Day 1153. *E. Dwek, S. H. Moseley, W. Glaccum, J. R. Graham, R. F. Loewenstein, R. F. Silverberg, & R. K. Smith.* 389, L21, 66-C11 (1992)

First Results of an On-Line Adaptive Optics System with Atmospheric Wavefront Sensing by an Artificial Neural Network. *M. Lloyd-Hart, P. Wizinowich, B. McLeod, D. Wittman, D. Colucci, R. Dekany, D. McCarthy, J. R. P. Angel, & D. Sandler.* 390, L41, 78-F8 (1992)

TeV Gamma Rays from 3C 279: A Possible Probe of Origin and Intergalactic Infrared Radiation Fields. *F. W. Stecker, O. C. De Jager, & M. H. Salamon.* 390, L49, 84-D7 (1992)

Rocket Observation of the Near-Infrared Spectrum of the Sky. *M. Noda, V. V. Christov, H. Matsuhara, T. Matsumoto, S. Matsuura, K. Noguchi, S. Sato, & H. Murakami.* 391, 456, 93-E9 (1992)

The Optical Emission-Line Background and Accompanying Emissions at Ultraviolet, Infrared, and Millimeter Wavelengths. *R. J. Reynolds.* 392, L35, 106-E1 (1992)

Near-Infrared Observations of AFGL 618. II. The Atomic Spectrum. *Douglas M. Kelly, William B. Latter, & G. H. Rieke.* 395, 174, 142-D1 (1992)

Extended Infrared Emission around IRAS 21282+5050. *Jesse D. Bregman, John Booth, D. Kirk Gilmore, Laura Kay, & David Rank.* 396, 120, 156-E12 (1992)

Mid-Infrared Imaging of Orion BN/KL: Astrometry of IRc2 and the SiO Maser. *Daniel Y. Gezari.* 396, L43, 160-G8 (1992)

Limb Observations of the 12.32 Micron Solar Emission Line during the 1991 July Total Eclipse. *Drake Deming, Donald E. Jennings, George McCabe, Robert Noyes, Gunter Wiedemann, & Fred Espenak.* 396, L53, 161-A6 (1992)

A Model of the 8–25 Micron Point Source Infrared Sky. *Richard J. Wainscoat, Martin Cohen, Kevin Volk, Helen J. Walker, & Deborah E. Schwartz.* 83, 111, 58-D11 (1992)

New Excitation Rates and Line Ratios for [Fe II]. *Anil K. Pradhan & Hong Lin Zhang.* 409, L77, 111-G8 (1993)

New Upper Limits on Intergalactic Infrared Radiation from High-Energy Astrophysics. *F. W. Stecker & O. C. De Jager.* 415, L71, 199-E1 (1993)

A New Method for Determining the Hubble Constant from Sub-TeV Gamma-Ray Observations. *M. H. Salamon, F. W. Stecker, & O. C. de Jager.* 423, L1, 53-B1 (1994)

A Laboratory Approach to the Interstellar Sulfide Dust Problem. *B. Begemann, J. Dorschner, T. Henning, H. Mutschke, & E. Thamm.* 423, L71, 54-C1 (1994)

Spectropolarimetry of Five Objects toward the Galactic Center from 1.4 to 4.2 Microns. *Tetsuya Nagata, Naoto Kobayashi, & Shuji Sato.* 423, L113, 60-F11 (1994)

The Infrared Telescope in Space (IRTS). *H. Murakami, J. Bock, M. M. Freund, H. Guo, T. Hirao, A. E. Lange, H. Matsuhara, T. Matsumoto, S. Matsuura, T. J. McMahon, M. Murakami, T. Nakagawa, M. Noda, K. Noguchi, H. Okuda, K. Okumura, T. Onaka, T. L. Roellig, S. Sato, H. Shibai, T. Tanabé, T. Watabe, T. Yagi, N. Yajima, & M. Yui.* 428, 354, 132-E8 (1994)

Near-Infrared Spectrometer on the Infrared Telescope in Space. *Manabu Noda, Toshio Matsumoto, Shuji Matsuura, Kunio Noguchi, Masahiro Tanaka, Mark A. Lim, & Hiroshi Murakami.* 428, 363, 132-F5 (1994)

The Mid-Infrared Spectrometer on the Infrared Telescope in Space (IRTS) Mission. *Thomas L. Roellig, Takashi Onaka, Thomas J. McMahon, & T. Tanabé.* 428, 370, 132-G1 (1994)

Far-Infrared Line Mapper (FILM) on the Infrared Telescope in Space. *Hiroshi Shibai, Masao Yui, Hideo Matsuhara, Norihisa Hiromoto, Takao Nakagawa, & Haruyuki Okuda.* 428, 377, 132-G11 (1994)

The Far-Infrared Photometer on the Infrared Telescope in Space. *A. E. Lange, M. M. Freund, S. Sato, T. Hirao, T. Matsumoto, & T. Watabe.* 428, 384, 133-A6 (1994)

Arcminute Sky Fluctuations at 1.25 Millimeters. *Paola Andreani.* 428, 447, 135-F11 (1994)

Infrared Spectra of Crystalline Phase Ices Condensed on Silicate Smokes at $T < 20$ K. *Marla H. Moore, Robert F. Ferrante, Reggie L. Hudson, Joseph A. Nuth III, & Bertram Donn.* 428, L81, 143-A7 (1994)

Imaging Spectroscopy of the Solar CO Lines at 4.67 Microns. *Han Uitenbroek, R. W. Noyes, & Douglas Rabin.* 432, L67, 200-B5 (1994)

Laser Action in Far-Infrared Astrophysical Sources. *Jianfang Peng & Anil K. Pradhan.* 432, L123, 207-B7 (1994)

Stellar Velocity Dispersion in Arp 220 and NGC 6240: Elliptical Galaxies in Formation. *René Doyon, M. Wells, G. S. Wright, R. D. Joseph, D. Nadeau, & P. A. James.* 437, L23, 291-D13 (1994)

Polarization of Thermal Emission from Aspherical Dust Grains in an Anisotropic Radiation Field. *Takashi Onaka.* 439, L21, 30-A10 (1995)

An Upper Limit to the Infrared Background from Observations of TeV Gamma Rays. *S. D. Biller, C. W. Akerlof, J. Buckley, M. F. Cawley, M. Chantell, D. J. Fegan, S. Fennell, J. A. Gaidos, A. M. Hillas, A. D. Kerrick, R. C. Lamb, D. A. Lewis, D. I. Meyer, G. Mohanty, K. S. O'Flaherty, M. Punch, P. T. Reynolds, H. J. Rose, A. C. Rovero, M. S. Schubnell, G. Sembroski, T. C. Weekes, & C. Wilson.* 445, 227, 135-F1 (1995)

A New 3.25 Micron Absorption Feature Toward Monoceros R2/IRS 3. *K. Sellgren, T. Y. Brooke, R. G. Smith, & T. R. Geballe.* 449, L69, 217-B8 (1995)

INFRARED: INTERSTELLAR: CONTINUUM

The Spectra of IC 418 and IC 5117 from 1.5 to 1.75 Microns. *C. Y. Zhang & Sun Kwok.* 385, 255, 15-B1 (1992)

Dust and Extinction in the Planetary Nebula NGC 7027. *Charles E. Woodward, Judith L. Pipher, W. J. Forrest, Andrea Moneti, & Mark A. Shure.* 385, 567, 20-B12 (1992)

Extended Red Emission from Dust in Planetary Nebulae. *D. G. Furton & A. N. Witt.* 386, 587, 32-F1 (1992)

Galactic Structure from the Spacelab Infrared Telescope. I. 2.4 Micron Map. *S. M. Kent, D. Mink, G. Fazio, D. Koch, G. Melnick, A. Tardiff, & C. Maxson.* 78, 403, 8-A9 (1992)

The Luminosity of the Galactic Center. *J. A. Davidson, M. W. Werner, X. Wu, D. F. Lester, P. M. Harvey, M. Joy, & M. Morris.* 387, 189, 39-C8 (1992)

The Sharpless 187 Gas Complex: A Multifrequency Study. *G. Joncas, D. Durand, & R. S. Roger.* 387, 591, 46-A9 (1992)

Near-Infrared Observations of the Proto–Planetary Nebula AFGL 618. *William B. Latter, Philip R. Maloney, Douglas M. Kelly, John H. Black, G. H. Rieke, & M. J. Rieke.* 389, 347, 64-C3 (1992)

The Juggler: A Three-lobed Near-Infrared Reflection Nebula toward CRL 2136 = OH 17.6+0.2. *Joel H. Kastner, David A. Weintraub, & C. Aspin.* 389, 357, 64-D1 (1992)

Thermal Dust Imaging: The Onset of Asymmetry in the Ultracompact H II Region G5.89−0.39. *Roger Ball, John F. Arens, J. Garrett Jernigan, Eric Keto, & Margaret M. Meixner.* 389, 616, 69-B1 (1992)

Far-Infrared Observations of M17SW: The Clumpy Structure of the Photodissociation Region. *Margaret Meixner, Michael R. Haas, A. G. G. M. Tielens, E. F. Erickson, & M. Werner.* 390, 499, 81-E3 (1992)

Near-Infrared Observations of Young Stellar Objects in the ρ Ophiuchi Dark Cloud. *Thomas P. Greene & Erick T. Young.* 395, 516, 149-B5 (1992)

An Infrared Supershell Surrounding the Cygnus OB1 Association. *Jon M. Saken, J. Michael Shull, Catharine D. Garmany, Joy Nichols-Bohlin, & Robert A. Fesen.* 397, 537, 177-E10 (1992)

IRAS Observations and the Stellar Content of H II Regions in the Large Magellanic Cloud. *Kathleen DeGioia-Eastwood.* 397, 542, 177-F7 (1992)

Polarization of the Far-Infrared Emission from the Thermal Filaments of the Galactic Center Arc. *M. Morris, J. A. Davidson, M. Werner, J. Dotson, D. F. Figer, R. Hildebrand, G. Novak, & S. Platt.* 399, L63, 200-G6 (1992)

Scattering of Infrared Radiation by Dust in NGC 7023 and NGC 2023. *K. Sellgren, M. W. Werner, & H. L. Dinerstein.* 400, 238, 211-G9 (1992)

Infrared Emission from X-Ray and Optically Emitting Regions in the Cygnus Loop Supernova Remnant. *Richard G. Arendt, Eli Dwek, & David Leisawitz.* 400, 562, 217-D1 (1992)

The Environments of Young Stars: Mid-Infrared and Molecular Line Imaging. *Eric Keto, Deanne Proctor, Roger Ball, John Arens, & Garrett Jernigan.* 401, L113, 233-E11 (1992)

Magnetic Field in a Low-Mass Protostar Disk: Millimeter Polarimetry of IRAS 16293−2422. *Motohide Tamura, Saeko S. Hayashi, Takuya Yamashita, William D. Duncan, & James H. Hough.* 404, L21, 33-F1 (1993)

Models of Clumpy Photodissociation Regions. *M. Meixner & A. G. G. M. Tielens.* 405, 216, 43-G2 (1993)

A Multiwavelength Study of the Eridanus Soft X-Ray Enhancement. *D. N. Burrows, K. P. Singh, J. A. Nousek, G. P. Garmire, & J. Good.* 406, 97, 56-C7 (1993)

Near-Infrared Imaging of the Becklin-Neugebauer–IRc2 Region in Orion with Subarcsecond Resolution. *C. Dougados, P. Léna, S. T. Ridgway, J. C. Christou, & R. G. Probst.* 406, 112, 56-E5 (1993)

Interstellar Extinction in the Infrared: The Molecular Cloud toward HD 62542. *D. C. B. Whittet, P. G. Martin, E. L. Fitzpatrick, & D. Massa.* 408, 573, 92-C11 (1993)

Photometry and Imaging of the Peculiar Planetary Nebula IRAS 21282+5050. *Sun Kwok, Bruce J. Hrivnak, & Philip P. Langill.* 408, 586, 92-E3 (1993)

Interstellar Matter near the Pleiades. IV. The Wake of the Pleiades through the Interstellar Medium in Taurus. *Richard E. White & John Bally.* 409, 234, 99-G13 (1993)

Spatially Resolved Spectra of the Unidentified Infrared Features around HD 44179 (The Red Rectangle). *G. C. Sloan, G. L. Grasdalen, & Paul D. LeVan.* 409, 412, 102-B3 (1993)

2–12.5 Micron Imaging of IRAS 21282+5050: The Structure of a Young Planetary Nebula. *M. Meixner, C. J. Skinner, P. Temi, D. Rank, Jesse Bregman, J. R. Ball, E. Keto, J. F. Arens, & J. G. Jernigan.* 411, 266, 130-E3 (1993)

3.3 and 11.3 Micron Images of HD 44179: Evidence for an Optically Thick Polycyclic Aromatic Hydrocarbon Disk. *Jesse D. Bregman, David Rank, Pasquale Temi, Doug Hudgins, & Laura Kay.* 411, 794, 139-F1 (1993)

The Nature of Unidentified Far-Infrared Point Sources. *William T. Reach, Carl Heiles, & Bon-Chul Koo.* 412, 127, 143-F1 (1993)

Detection of the [N II] 122 and 205 Micron Lines: Densities in G333.6−0.2. *Sean W. J. Colgan, Michael R. Haas, Edwin F. Erickson, Robert H. Rubin, Janet P. Simpson, & R. W. Russell.* 413, 237, 159-B13 (1993)

An *IRAS* Sample from Co-added Images of L1641. *H. Chen, A. T. Tokunaga, & Y. Fukui.* 416, 235, 204-A4 (1993)

Polarization of the Thermal Emission from the Dust Ring at the Center of the Galaxy. *R. H. Hildebrand, J. A. Davidson, J. Dotson, D. F. Figer, G. Novak, S. R. Platt, & L. Tao.* 417, 565, 226-D1 (1993)

J H K L Imaging and *K* Polarimetry of the Bipolar Outflow NGC 2071. *D. M. Walther, E. I. Robson, C. Aspin, & W. R. F. Dent.* 418, 310, 234-G9 (1993)

The L1448 Molecular Jet. *John Bally, Elizabeth A. Lada, & Adair P. Lane.* 418, 322, 235-A10 (1993)

Luminous Radio-quiet Sources in W3(Main). *E. F. Ladd, J. R. Deane, D. B. Sanders, & C. G. Wynn-Williams.* 419, 186, 248-D11 (1993)

INFRARED: INTERSTELLAR: LINES

The Molecular Hydrogen Emission around L1551 IRS 5: Shock- Heated Molecular Gas at the Base of the Molecular Outflow. *Takuya Yamashita & Motohide Tamura.* 387, L93, 48-E5 (1992)

Infrared Emission Spectra of Benzene and Naphthalene: Implications for the Interstellar Polycyclic Aromatic Hydrocarbon Hypothesis. *Jerrell D. Brenner & John R. Barker.* 388, L39, 52-D6 (1992)

Near-Infrared Observations of the Proto–Planetary Nebula AFGL 618. *William B. Latter, Philip R. Maloney, Douglas M. Kelly, John H. Black, G. H. Rieke, & M. J. Rieke.* 389, 347, 64-C3 (1992)

Far-Infrared Observations of M17SW: The Clumpy Structure of the Photodissociation Region. *Margaret Meixner, Michael R. Haas, A. G. G. M. Tielens, E. F. Erickson, & M. Werner.* 390, 499, 81-E3 (1992)

The High-Excitation Region of NGC 7027. *N. Rowlands, J. R. Houck, T. L. Hayward, & J. W. Miles.* 390, L93, 85-C1 (1992)

The 8–13 Micron Spectrum of the Young Stellar Object WL 16. *M. S. Hanner, A. T. Tokunaga, & T. R. Geballe.* 395, L111, 154-C12 (1992)

Raman and Infrared Spectra of Polycyclic Aromatic Hydrocarbon Molecules of Possible Astrophysical Interest. *L. Colangeli, V. Mennella, G. A. Baratta, E. Bussoletti, & G. Strazzulla.* 396, 369, 159-F5 (1992)

Submillimeter Detection of Extragalactic C I Emission: IC 342. *Thomas H. Büttgenbach, Jocelyn Keene, T. G. Phillips, & Christopher K. Walker.* 397, L15, 173-C1 (1992)

Detection of [Fe II] Emission in the Galactic Center. *D. L. DePoy.* 398, 512, 190-E1 (1992)

^{13}CO and HCO^+ Observations of *IRAS* Sources in L1641. *Hua Chen, Yasuo Fukui, & Ji Yang.* 398, 544, 190-G12 (1992)

Infrared Spectroscopy of Dense Clouds in the C−H Stretch Region: Methanol and "Diamonds." *L. J. Allamandola, S. A. Sandford, A. G. G. M. Tielens, & T. M. Herbst.* 399, 134, 196-G7 (1992)

Mid-Infrared Rotational Line Emission from Interstellar Molecular Hydrogen. *Michael G. Burton, D. J. Hollenbach, & A. G. G. M. Tielens.* 399, 563, 204-G7 (1992)

Neutral Gas in the Central 2 Parsecs of the Galaxy. *J. M. Jackson, N. Geis, R. Genzel, A. I. Harris, S. Madden, A. Poglitsch, G. J. Stacey, & C. H. Townes.* 402, 173, 3-C1 (1993)

Spectroscopic Constraints on the Properties of Dust in Active Galactic Nuclei. *Ari Laor & Bruce T. Draine.* 402, 441, 8-B5 (1993)

The $^{12}C/^{13}C$ Abundance Ratio in NGC 2264. *George F. Mitchell & Jean-Pierre Maillard.* 404, L79, 40-F8 (1993)

A Search for the Rotational Transitions of H_2D^+ at 1370 GHz and H_3O^+ at 985 GHz. *R. T. Boreiko & A. L. Betz.* 405, L39, 47-F11 (1993)

H_2 in Interstellar and Extragalactic Ices: Infrared Characteristics, Ultraviolet Production, and Implications. *Scott A. Sandford & Louis J. Allamandola.* 409, L65, 111-F1 (1993)

The Ratio of Optical-to-Infrared Emission Line Strengths in Ar III as Electron Density Diagnostics for Planetary Nebulae. *F. P. Keenan & E. S. Conlon.* 410, 426, 117-C12 (1993)

Spectral Imaging of the 3.3 and 11.3 Micron Emission Bands in NGC 1333: Discovery of Spatially Separate Band Emissions. *Jesse Bregman, David Rank, Scott A. Sandford, & Pasquale Temi.* 410, 668, 122-A5 (1993)

Observation of [C II] 158 Micron Emission from the Diffuse Interstellar Medium at High Galactic Latitude. *J. Bock, V. V. Hristov, M. Kawada, H. Matsuhara, T. Matsumoto, S. Matsuura, P. D. Mauskopf, P. L. Richards, M. Tanaka, & A. E. Lange.* 410, L115, 126-D1 (1993)

Detection of the 2165 Inverse Centimeter (4.619 Micron) XCN Band in the Spectrum of L1551 IRS 5. *Stephen C. Tegler, David A. Weintraub, Louis J. Allamandola, Scott A. Sandford, Terrence W. Rettig, & Humberto Campins.* 411, 260, 130-D9 (1993)

Detection of the [N II] 122 and 205 Micron Lines: Densities in G333.6−0.2. *Sean W. J. Colgan, Michael R. Haas, Edwin F. Erickson, Robert H. Rubin, Janet P. Simpson, & R. W. Russell.* 413, 237, 159-B13 (1993)

Cometary Globules in the Southeast Quadrant of the Rosette Nebula. *Nimesh A. Patel, Taoling Xie, & Paul F. Goldsmith.* 413, 593, 163-G7 (1993)

Infrared Frequencies and Intensities for Astrophysically Important Polycyclic Aromatic Hydrocarbon Cations. *Jan Szczepanski & Martin Vala.* 414, 646, 179-C4 (1993)

Rotational Frequencies of Transition Metal Hydrides for Astrophysical Searches in the Far-Infrared. *John M. Brown, Stuart P. Beaton, & Kenneth M. Evenson.* 414, L125, 186-C6 (1993)

Theoretical Modeling of the Infrared Fluorescence from Interstellar Polycyclic Aromatic Hydrocarbons. *W. A. Schutte, A. G. G. M. Tielens, & L. J. Allamandola.* 415, 397, 189-G12 (1993)

Excitation of the [Fe III] Bubble Surrounding the Galactic Center "Mini-Cavity." *D. Lutz, A. Krabbe, & R. Genzel.* 418, 244, 234-B1 (1993)

Molecular Hydrogen in the IRAS 03282+3035 Stellar Jet. *John Baliy, David Devine, Mark Hereld, & Bernard J. Rauscher.* 418, L75, 245-D7 (1993)

The He I 2.06 Micron to Brackett γ Ratio as a Nebular Diagnostic. *Joseph C. Shields.* 419, 181, 248-D4 (1993)

The [C II] 158 Micron Emission from the Horsehead Nebula. *S. Zhou, D. T. Jaffe, J. E. Howe, N. Geis, F. Herrmann, S. C. Madden, A. Poglitsch, & G. J. Stacey.* 419, 190, 248-E3 (1993)

A [C II] 158 Micron Line Map of the ρ Ophiuchi Cloud. *Yukari Yamashita Yui, Takao Nakagawa, Yasuo Doi, Haruyuki Okuda, Hiroshi Shibai, Tetsuo Nishimura, & Frank J. Low.* 419, L37, 252-F3 (1993)

INFRARED: ISM: CONTINUUM

High-Resolution 6450–24500 $\AA$ Spectra of η Carinae. *Fred Hamann, D. L. DePoy, Sveneric Johansson, & Jay Elias.* 422, 626, 39-F1 (1994)

Spectral Imaging of the Orion Bar at 3.3, 8.4, and 11.3 Microns: Comparison with a Fluorescent Polycyclic Aromatic Hydrocarbon Model. *Jesse Bregman, Kristen Larson, David Rank, & Pasquale Temi.* 423, 326, 50-B10 (1994)

High-Resolution Far-Infrared Observations of the Ring Nebula. *C. Y. Zhang, P. M. Harvey, Beverly J. Smith, C. Colomé, & J. DiFrancesco.* 425, 687, 90-B13 (1994)

A Near-Infrared Study of the Monoceros R2 Star Formation Region. *Eric M. Howard, Judith L. Pipher, & William J. Forrest.* 425, 707, 90-D12 (1994)

IRAS Colors within M31: Evidence for Deficiency of Very Small Grains? *Cong Xu & George Helou.* 426, 109, 97-D7 (1994)

Radio Continuum, Ammonia, and Water Maser Observations of Bright, Unassociated *IRAS* Point Sources. *Mari Paz Miralles, Luis F. Rodríguez, & Eugenio Scalise.* 92, 173, 33-F3 (1994)

Day 640 Infrared Line and Continuum Measurements: Dust Formation in SN 1987A. *Sean W. J. Colgan, Michael R. Haas, Edwin F. Erickson, Steven D. Lord, & David J. Hollenbach.* 427, 874, 123-E3 (1994)

Large-Scale Characteristics of Interstellar Dust from *COBE* DIRBE Observations. *T. J. Sodroski, C. Bennett, N. Boggess, E. Dwek, B. A. Franz, M. G. Hauser, T. Kelsall, S. H. Moseley, N. Odegard, R. F. Silverberg, & J. L. Weiland.* 428, 638, 138-C1 (1994)

High-Resolution Images of the Dust and Ionized Gas Distribution in the Carina Nebula. *Jonathan B. Z. Whiteoak.* 429, 225, 146-G7 (1994)

A Multiwavelength Study of IRAS 19550+3248: A Protostar Possibly Formed by a Cloud-Cloud Collision. *Bon-Chul Koo, Youngung Lee, G. A. Fuller, Myung Gyoon Lee, Suk-Minn Kwon, & Jae-Hoon Jung.* 429, 233, 147-A7 (1994)

Spectral Imaging of the Ney-Allen Nebula at 10 and 20 Microns. *T. L. Hayward.* 429, 726, 154-F5 (1994)

Thermal Infrared Imaging of Subarcsecond Structure in the Trapezium Nebula. *T. L. Hayward, J. R. Houck, & J. W. Miles.* 433, 157, 210-C1 (1994)

G5.89−0.39: A Compact H II Region with a Very Dense Circumstellar Dust Torus. *Paul M. Harvey, Daniel F. Lester, Cecilia Colomé, Beverly Smith, Jean-Louis Monin, & Isabelle Vauglin.* 433, 187, 210-F1 (1994)

A K' Imaging Survey of Molecular Outflow Sources. *Klaus-Werner Hodapp.* 94, 615, 60-D12 (1994)

A Quantitative Analysis of *IRAS* Maps of Molecular Clouds. *Jennifer J. Wiseman & Fred C. Adams.* 435, 708, 255-G3 (1994)

Ultraviolet-illuminated Molecular Cloud Boundaries: Extended [C II] 158 Micron Emission toward L1630. *D. T. Jaffe, S. Zhou, J. E. Howe,*

F. Herrmann, S. C. Madden, A. Poglitsch, P. P. van der Werf, & G. J. Stacey. 436, 203, 264-A10 (1994)

Discovery of a Molecular Hydrogen Jet near IC 348. *Mark J. McCaughrean, John T. Rayner, & Hans Zinnecker.* 436, L189, 282-C9 (1994)

The Near-Infrared Structure and Spectra of the Bipolar Nebulae M2-9 and AFGL 2688: The Role of Ultraviolet Pumping and Shocks in Molecular Hydrogen Excitation. *Joseph L. Hora & William B. Latter.* 437, 281, 287-A8 (1994)

IRAS Images of Nearby Dark Clouds. *Douglas O. S. Wood, Philip C. Myers, & Debra A. Daugherty.* 95, 457, 70-E3 (1994)

Spatially Resolved Submillimeter Continuum Emission toward L1551 IRS 5. *E. F. Ladd, G. A. Fuller, R. Padman, P. C. Myers, & Fred C. Adams.* 439, 771, 35-C2 (1995)

Millimeter Observations of a Complete Sample of *IRAS* Galaxies: Dust Emission and Absorption in Spirals. *Alberto Franceschini & Paola Andreani.* 440, L5, 48-B8 (1995)

Adaptive Optics Imaging of Proto–Planetary Nebulae: Frosty Leo and the Red Rectangle. *F. Roddier, C. Roddier, J. E. Graves, & M. J. Northcott.* 443, 249, 98-E7 (1995)

High-Resolution Far-Infrared Observations of DR 21. *Cecilia Colomé, Paul M. Harvey, Daniel F. Lester, Murray F. Campbell, & Harold M. Butner.* 447, 236, 175-E5 (1995)

Infrared Emission from Globular Clusters: Limits on Stellar Mass Loss and Interstellar Dust. *G. R. Knapp, J. E. Gunn, & A. J. Connolly.* 448, 195, 194-G4 (1995)

Does Near-Infrared Polarimetry Reveal the Magnetic Field in Cold Dark Clouds? *Alyssa A. Goodman, Terry J. Jones, Elizabeth A. Lada, & Philip C. Myers.* 448, 748, 205-B4 (1995)

The Distribution of Warm Dust in the Star-forming Region Cepheus A: Infrared Constraints. *Cecilia Colomé & Paul M. Harvey.* 449, 656, 221-F8 (1995)

The Shapes and Alignment Properties of Interstellar Dust Grains. *Roger H. Hildebrand & Mark Dragovan.* 450, 663, 239-G13 (1995)

Far-Infrared Spectral Observations of the Galaxy by *COBE*. *W. T. Reach, E. Dwek, D. J. Fixsen, T. Hewagama, J. C. Mather, R. A. Shafer, A. J. Banday, C. L. Bennett, E. S. Cheng, R. E. Eplee, Jr., D. Leisawitz, P. M. Lubin, S. M. Read, L. P. Rosen, F. G. D. Shuman, G. F. Smoot, T. J. Sodroski, & E. L. Wright.* 451, 188, 248-E10 (1995)

Investigating the Near-Infrared Properties of Planetary Nebulae. I. Narrowband Images. *William B. Latter, Douglas M. Kelly, Joseph L. Hora, & Lynne K. Deutsch.* 100, 159, 48-A8 (1995)

High-Resolution Far-Infrared Mapping of the Star-forming Region RCW 122C. *C. Y. Zhang, P. M. Harvey, Beverly J. Smith, C. Colomé, & J. DiFrancesco.* 452, 308, 266-D1 (1995)

Discovery of an Extended Nebula around AFGL 2343 (HD 179821) at 10 Microns. *G. W. Hawkins, C. J. Skinner, M. M. Meixner, J. G. Jernigan, J. F. Arens, E. Keto, & J. R. Graham.* 452, 314, 266-D10 (1995)

The Nebular Extinction in the Orion Nebula. *Manuel A. Bautista, Richard W. Pogge, & D. L. DePoy.* 452, 685, 274-B7 (1995)

IRAS LRS Spectra of the Sharpless H II Regions. *P. S. Chen, H. Gao, & G. Z. Xiong.* 100, 389, 51-D13 (1995)

X-Ray Morphology, Kinematics, and Geometry of the Eridanus Soft X-Ray Enhancement. *Z. Guo, D. N. Burrows, W. T. Sanders, S. L. Snowden, & B. E. Penprase.* 453, 256, 284-E7 (1995)

The Infrared Nebula and Outflow in Lynds 483. *G. A. Fuller, E. A. Lada, C. R. Masson, & P. C. Myers.* 453, 754, 294-C3 (1995)

Moderate-Density Regions in the Lynds 134 Cloud Complex. *R. J. Laureijs, Y. Fukui, G. Helou, A. Mizuno, K. Imaoka, & F. O. Clark.* 101, 87, 54-A10 (1995)

High-Resolution Far-Infrared Observations and Radiative-Transfer Models of W3 IRS 4 and IRS 5. *M. F. Campbell, H. M. Butner, P. M. Harvey, N. J. Evans II, M. B. Campbell, & C. N. Sabbey.* 454, 831, 313-C6 (1995)

INFRARED: ISM: LINES AND BANDS

Nebular Properties from Far-Infrared Spectroscopy. *Robert H. Rubin, Janet P. Simpson, Steven D. Lord, Sean W. J. Colgan, Edwin F. Erickson, & Michael R. Haas.* 420, 772, 12-E1 (1994)

Near-Infrared Spectroscopy of Proto–Planetary Nebulae. *Bruce J. Hrivnak, Sun Kwok, & T. R. Geballe.* 420, 783, 12-F1 (1994)

The Bipolar Symmetry of Ring-like Planetary Nebulae: Molecular Hydrogen Emission from Halos. *Joel H. Kastner, Ian Gatley, K. M. Merrill, R. Probst, & David A. Weintraub.* 421, 600, 25-F2 (1994)

Starburst Models of Merging Galaxies. *A. H. Prestwich, R. D. Joseph, & Gillian S. Wright.* 422, 73, 31-A3 (1994)

The He I 2.06 Micron to Brγ Ratio in 12 Planetary Nebulae. *D. L. DePoy & Joseph C. Shields.* 422, 187, 32-D7 (1994)

High-Resolution 6450–24500 Å Spectra of η Carinae. *Fred Hamann, D. L. DePoy, Sveneric Johansson, & Jay Elias.* 422, 626, 39-F1 (1994)

Laboratory Measurements of Rotational Transitions of Lithium Hydride in the Far-Infrared. *M. Bellini, P. de Natale, M. Inguscio, E. Fink, D. Galli, & F. Palla.* 424, 507, 68-B4 (1994)

A Near-Infrared Study of the Monoceros R2 Star Formation Region. *Eric M. Howard, Judith L. Pipher, & William J. Forrest.* 425, 707, 90-D12 (1994)

[C II] 158 Micron and [O I] 63 Micron Observations of the Galactic Center Region. *Kohei Mizutani, Toshinori Maihara, Hideo Matsuhara, Takao Nakagawa, Hiroshi Shibai, Haruyuki Okuda, Yukiyasu Kobayashi, Norihisa Hiromoto, Tetsuo Nishimura, & Frank J. Low.* 91, 613, 27-G5 (1994)

Solid Carbon Monoxide in the Serpens Dark Cloud. *J. E. Chiar, A. J. Adamson, T. H. Kerr, & D. C. B. Whittet.* 426, 240, 99-B2 (1994)

Probing the Galactic Disk and Halo. I. The NGC 3783 Sight Line. *Limin Lu, Blair D. Savage, & Kenneth R. Sembach.* 426, 563, 105-D7 (1994)

0.95–1.3 Micron Spectrophotometry of Two Bright Filaments of the Crab Nebula. *Richard J. Rudy, George S. Rossano, & R. C. Puetter.* 426, 646, 106-D10 (1994)

Radio Continuum, Ammonia, and Water Maser Observations of Bright, Unassociated *IRAS* Point Sources. *Mari Paz Miralles, Luis F. Rodríguez, & Eugenio Scalise.* 92, 173, 33-F3 (1994)

The Highly Ionized Regions of NGC 6302 and NGC 6537. *N. Rowlands, J. R. Houck, & T. Herter.* 427, 867, 123-D8 (1994)

Day 640 Infrared Line and Continuum Measurements: Dust Formation in SN 1987A. *Sean W. J. Colgan, Michael R. Haas, Edwin F. Erickson, Steven D. Lord, & David J. Hollenbach.* 427, 874, 123-E3 (1994)

The S140 Core: Aperture Synthesis HCO^+ and SO Observations. *D. J. Wilner & W. J. Welch.* 427, 898, 123-G3 (1994)

Carbon Recombination Lines as a Diagnostic of Photodissociation Regions. *A. Natta, C. M. Walmsley, & A. G. G. M. Tielens.* 428, 209, 130-F12 (1994)

Detection of Absorption by H_2 in Molecular Clouds: A Direct Measurement of the H_2:CO Ratio. *J. H. Lacy, R. Knacke, T. R. Geballe, & A. T. Tokunaga.* 428, L69, 142-G1 (1994)

Overtone Emission from Interstellar Polycyclic Aromatic Hydrocarbons. *W. W. Duley.* 429, L91, 158-D11 (1994)

Nebular Properties and the Ionizing Radiation Field in the Galactic Center. *Joseph C. Shields & Gary J. Ferland.* 430, 236, 162-A9 (1994)

A Survey of the Large Magellanic Cloud in the [C II] 158 Micron Line. *Kenji Mochizuki, Takao Nakagawa, Yasuo Doi, Yukari Y. Yui, Haruyuki Okuda, Hiroshi Shibai, Masao Yui, Tetsuo Nishimura, & Frank J. Low.* 430, L37, 165-E13 (1994)

The Nature of CO and H_2O Ices in the Corona Australis Molecular Cloud. *Masuo Tanaka, Tetsuya Nagata, Shuji Sato, & Tetsuo Yamamoto.* 430, 779, 171-E8 (1994)

Shocked Pure-rotational Emission from H_2 in Orion. *Parvinder S. Parmar, John H. Lacy, & Jeffrey M. Achtermann.* 430, 786, 171-F3 (1994)

Infrared Absorption Due to Hydrogenated Amorphous Carbon in the Diffuse Interstellar Medium. *W. W. Duley.* 430, L133, 175-B5 (1994)

Interpretation of the 4141 Inverse Centimeters (2.415 Microns) Interstellar Infrared Absorption Feature. *V. Buch & J. P. Devlin.* 431, L135, 192-C11 (1994)

Near-Infrared Observations of W51. *Jeffrey D. Goldader & C. G. Wynn-Williams.* 433, 164, 210-D1 (1994)

The 3.2–3.6 Micron Spectra of Monoceros R2/IRS-3 and Elias 16. *K. Sellgren, R. G. Smith, & T. Y. Brooke.* 433, 179, 210-E5 (1994)

Two Micron Spectrophotometry of the Orion Nebula and the Detection of Significant [Fe III] Emission. *D. L. DePoy & Richard W. Pogge.* 433, 725, 220-B1 (1994)

Vibrational Excitation in the Products of Electron-Ion Recombination: A Test of Theory for Ions of Interstellar Significance. *Nigel G. Adams & Lucia M. Babcock.* 434, 184, 228-A1 (1994)

Detection of the Overtone of the 3.3 Micron Emission Feature in IRAS 21282+5050. *T. R. Geballe, C. Joblin, L. B. d'Hendecourt, M. Jourdain de Muizon, A. G. G. M. Tielens, & A. Léger.* 434, L15, 232-C8 (1994)

Relative Emission-Line Strengths for the 146 and 63 Micron Transitions in O I and a Comparison with Far-Infrared Observations of Photodissociation

Regions. *F. P. Keenan, E. S. Conlon, & R. H. Rubin.* 434, 811, 239-B3 (1994)

On the Origin of the Diffuse C^+ 158 Micron Line Emission. *Carl Heiles.* 436, 720, 275-D3 (1994)

H_2 Emission as a Tracer of Molecular Hydrogen: Large-Scale Observations of Orion. *M. L. Luhman, D. T. Jaffe, L. D. Keller, & Soojong Pak.* 436, L185, 282-C1 (1994)

Discovery of a Molecular Hydrogen Jet near IC 348. *Mark J. McCaughrean, John T. Rayner, & Hans Zinnecker.* 436, L189, 282-C9 (1994)

Photon-dominated Regions around Cool Stars: The Effects of the Color Temperature of the Radiation Field. *Marco Spaans, A. G. G. M. Tielens, Ewine F. van Dishoeck, & E. L. O. Bakes.* 437, 270, 286-G7 (1994)

Near-Infrared Absorption Spectroscopy of Interstellar Hydrocarbon Grains. *Y. J. Pendleton, S. A. Sandford, L. J. Allamandola, A. G. G. M. Tielens, & K. Sellgren.* 437, 683, 295-B9 (1994)

The Galactic Distribution of Aliphatic Hydrocarbons in the Diffuse Interstellar Medium. *Scott A. Sandford, Yvonne J. Pendleton, & Louis J. Allamandola.* 440, 697, 52-G2 (1995)

A Comparison of Near-Infrared Spectra of the Galactic Center Compact He I Emission-Line Sources and Early-Type Mass-losing Stars. *R. D. Blum, D. L. DePoy, & K. Sellgren.* 441, 603, 70-D7 (1995)

3.4 Micron Emission from Ultraviolet Excitation of Alkanes. *G. P. Pinho & W. W. Duley.* 442, L41, 85-C1 (1995)

Laboratory Studies of 3.3 Micron Emission from Naphthalene Induced by 193 and 248 Nanometer Excitation. *Richard M. Williams & Stephen R. Leone.* 443, 675, 107-B13 (1995)

Diamond, Aromatic, and Aliphatic Components of Interstellar Dust Grains: Random Covalent Networks in Carbonaceous Grains. *W. W. Duley.* 445, 240, 135-G7 (1995)

Patterns of High-Velocity Molecular Gas near Sagittarius A*. *H. S. Liszt & W. B. Burton.* 98, 679, 32-F4 (1995)

High Spatial Resolution Fabry-Perot Imaging of M82: Near-Infrared Recombination Line Observations. *Shobita Satyapal, Dan M. Watson, Judith L. Pipher, William J. Forrest, Diana Coppenbarger, S. Nicholas Raines, Scott Libonate, François Piché, Matthew A. Greenhouse, Howard A. Smith, Keith L. Thompson, Jacqueline Fischer, Charles E. Woodward, & Tracy Hodge.* 448, 611, 203-B10 (1995)

Negative Search for a Counterpart to the Gamma-Ray Repeater Source 0525−66. *John R. Dickel, You-Hua Chu, Christopher Gelino, Ross Beyer, Michael G. Burton, D. K. Milne, Jason Spyromilio, David A. Green, Christopher Wilkinson, & Norbert Junkes.* 448, 623, 203-D1 (1995)

Infrared Diagnostics of the Formation of H_2 on Interstellar Dust. *J. Le Bourlot, G. Pineau des Forêts, E. Roueff, A. Dalgarno, & R. Gredel.* 449, 178, 212-E11 (1995)

Detection of Pure Rotational H_2 Emission from the Supernova Remnant IC 443: Further Evidence for a Partially Dissociating J-Shock. *Matthew J. Richter, James. R. Graham, Gillian S. Wright, Douglas M. Kelly, & John H. Lacy.* 449, L83, 217-D2 (1995)

Solid Carbonyl Sulphide (OCS) in W33A. *M. E. Palumbo, A. G. G. M. Tielens, & A. T. Tokunaga.* 449, 674, 222-A10 (1995)

Observation of Infrared and Radio Lines of Molecules toward GL 2591 and Comparison to Physical and Chemical Models. *John S. Carr, Neal J. Evans II, J. H. Lacy, & Shudong Zhou.* 450, 667, 240-A7 (1995)

Infrared Imaging and Spectroscopy of the Molecular Shock in IC 443. *Matthew J. Richter, James R. Graham, & Gillian S. Wright.* 454, 277, 303-B1 (1995)

A Multiwavelength Study of 30 Doradus: The Interstellar Medium in a Low-Metallicity Galaxy. *A. Poglitsch, A. Krabbe, S. C. Madden, T. Nikola, N. Geis, L. E. B. Johansson, G. J. Stacey, & A. Sternberg.* 454, 293, 303-C8 (1995)

Ionized Carbon in NGC 6334. *R. T. Boreiko & A. L. Betz.* 454, 307, 303-E3 (1995)

Organic Compounds Produced by Photolysis of Realistic Interstellar and Cometary Ice Analogs Containing Methanol. *Max P. Bernstein, Scott A. Sandford, Louis J. Allamandola, Sherwood Chang, & Maureen A. Scharberg.* 454, 327, 303-G1 (1995)

Twin Herbig-Haro Jets and Molecular Outflows in L1228. *John Bally, David Devine, Robert A. Fesen, & Adair P. Lane.* 454, 345, 304-A9 (1995)

Discovery of Herbig-Haro Objects and Molecular Hydrogen Jets near Bok Globule CB 34. *Miguel C. Moreira & João L. Yun.* 454, 850, 313-E1 (1995)

Accurate Wavenumbers for Mid-Infrared Fine-Structure Lines. *Douglas M. Kelly & John H. Lacy.* 454, L161, 317-A1 (1995)

Time-dependent Photodissociation Regions. *David Hollenbach & Antonella Natta.* 455, 133, 320-A12 (1995)

High-Resolution Studies of Solid CO in the Taurus Dark Cloud: Characterizing the Ices in Quiescent Clouds. *J. E. Chiar, A. J. Adamson, T. H. Kerr, & D. C. B. Whittet.* 455, 234, 321-C14 (1995)

High-Density Amorphous Ice, the Frost on Interstellar Grains. *P. Jenniskens, D. F. Blake, M. A. Wilson, & A. Pohorille.* 455, 389, 323-D10 (1995)

Deficit of Far-Infrared [C II] Line Emission toward the Galactic Center. *Takao Nakagawa, Yasuo Doi, Yukari Yamashita Yui, Haruyuki Okuda, Kenji Mochizuki, Hiroshi Shibai, Tetsuo Nishimura, & Frank J. Low.* 455, L35, 324-G3 (1995)

Approaching the Interstellar Grain Organic Refractory Component. *J. Mayo Greenberg, Aigen Li, Celia X. Mendoza-Gómez, Willem A. Schutte, Perry A. Gerakines, & Menno de Groot.* 455, L177, 334-F1 (1995)

INFRARED: SOLAR SYSTEM

Occurrence of Global-Scale Emissions on Jupiter: Proposed Identification of Jovian Dimer H_2 Emission. *L. M. Trafton & J. K. G. Watson.* 385, 320, 15-G8 (1992)

Submillimeter Spectrum of Low-Temperature Hydrogen: The Pure Translational Band of H_2 and the $R(0)$ Line of HD. *E. H. Wishnow, I. Ozier, & H. P. Gush.* 392, L43, 106-F1 (1992)

Line-resolved Spectroscopy of the Jovian H_3^+ Auroral Emission at 3.5 Micrometers. *Pierre Drossart, Jean-Pierre Maillard, John Caldwell, & Jan Rosenqvist.* 402, L25, 6-E1 (1993)

Detection of H_3^+ from Uranus. *L. M. Trafton, T. R. Geballe, S. Miller, J. Tennyson, & G. E. Ballester.* 405, 761, 52-E1 (1993)

Detection of H_3^+ Infrared Emission Lines in Saturn. *T. R. Geballe, M.-F. Jagod, & T. Oka.* 408, L109, 95-F7 (1993)

Solar Magnetic Field Studies Using the 12 Micron Emission Lines. II. Stokes Profiles and Vector Field Samples in Sunspots. *Tilak Hewagama, Drake Deming, Donald E. Jennings, Vladimir Osherovich, Gunter Wiedemann, David Zipoy, Donald L. Mickey, & Howard Garcia.* 86, 313, 18-B7 (1993)

A Non-LTE Model for the Jovian Methane Infrared Emissions at High Spectral Resolution. *Rangasayi N. Halthore, J. E. Allen, Jr., & Philip L. DeCola.* 424, L61, 70-A4 (1994)

The 8–13 Micron Spectra of Comets and the Composition of Silicate Grains. *Martha S. Hanner, David K. Lynch, & Ray W. Russell.* 425, 274, 83-F3 (1994)

Line Strength and Self-broadening Coefficient of the Pure Rotational $S(1)$ Quadrupole Line in H_2. *Dennis C. Reuter & J. Marcos Sirota.* 428, L77, 143-A1 (1994)

COBE DIRBE Near-Infrared Polarimetry of the Zodiacal Light: Initial Results. *G. B. Berriman, N. W. Boggess, M. G. Hauser, T. Kelsall, C. M. Lisse, S. H. Moseley, W. T. Reach, & R. F. Silverberg.* 431, L63, 183-C1 (1994)

Infrared Observations of Comet Austin (1990 V) by the *COBE*/Diffuse Infrared Background Experiment. *C. M. Lisse, H. T. Freudenreich, M. G. Hauser, T. Kelsall, S. H. Moseley, W. T. Reach, & R. F. Silverberg.* 432, L71, 200-B13 (1994)

Near- and Far-Infrared Observations of Interplanetary Dust Bands from the *COBE* Diffuse Infrared Background Experiment. *William J. Spiesman, Michael G. Hauser, Thomas Kelsall, Carey M. Lisse, S. Harvey Moseley, Jr., William T. Reach, Robert F. Silverberg, Sally W. Stemwedel, & Janet L. Weiland.* 442, 662, 89-B8 (1995)

Detection of $H_2{}^{18}O$ in Jupiter. *Keith S. Noll, T. R. Geballe, & Roger F. Knacke.* 453, L49, 290-A11 (1995)

IRAS Measurements of Diffuse Solar System Radiation: Annual Sky Brightness Variation and Geometry of the Interplanetary Dust Cloud. *J. M. Vrtilek & M. G. Hauser.* 455, 677, 331-C6 (1995)

INFRARED: SOURCES

An Infrared Jet in Centaurus A: A Link to the Extranuclear Activity in Distant Radio Galaxies? *Marshall Joy, P. M. Harvey, E. V. Tollestrup, K. Sellgren, P. J. McGregor, & A. R. Hyland.* 366, 82, 2-A13 (1991)

Far-Infrared Observations and the Structure of Wolf-Rayet Ring Nebulae. *A. P. Marston.* 366, 181, 3-C9 (1991)

Far-Infrared and Submillimeter-Wavelength Observations of Star-forming Dense Cores. I. Spectra. *E. F. Ladd, Fred C. Adams, S. Casey, J. A. Davidson, G. A. Fuller, D. A. Harper, P. C. Myers, & R. Padman.* 366, 203, 3-E7 (1991)

The Circumstellar Disks of β Pictoris Analogs. *C. A. Grady, Frederick C. Bruhweiler, K. P. Cheng, W. A. Chiu, & Y. Kondo.* 367, 296, 15-F9 (1991)

Distribution of Dust about o Ceti and α Orionis Based on 11 Micron Spatial Interferometry. *M. Bester, W. C. Danchi, C. G. Degiacomi, C. H. Townes, & T. R. Geballe.* 367, L27, 17-E1 (1991)

The Number Counts and Infrared Backgrounds from Infrared-bright Galaxies. *P. B. Hacking & B. T. Soifer.* 367, L49, 22-B7 (1991)

Search for Vega-like Nearby Stars with 12 Micron Excess. *Hartmut H. Aumann & Ronald G. Probst.* 368, 264, 26-D1 (1991)

CO Excitation and H_2 Masses of Infrared-luminous Galaxies. *Simon J. E. Radford, P. M. Solomon, & D. Downes.* 368, L15, 28-C7 (1991)

An Infrared Analysis of Puppis A. *Richard G. Arendt, Eli Dwek, & Robert Petre.* 368, 474, 31-A7 (1991)

Dust Properties around Evolved Stars from Far-Infrared Size Limits. *Paul M. Harvey, Daniel F. Lester, David Brock, & Marshall Joy.* 368, 558, 32-A8 (1991)

On the Possible Bipolar Nature of 21 Micron *IRAS* Sources. *Bruce J. Hrivnak & S. Kwok.* 368, 564, 32-B1 (1991)

Young Stellar Objects Detected by *IRAS*. *Frank O. Clark.* 75, 611, 9-B5 (1991)

Infrared Polarimetry of Quasars. *Michael L. Sitko & Yudong Zhu.* 369, 106, 37-C5 (1991)

Zodiacal Emission. II. Dust near the Ecliptic. *William T. Reach.* 369, 529, 44-C13 (1991)

The Joint Far-Infrared–Optical Luminosity Function for Spiral Galaxies and Data for the Abell 400 and Cancer Clusters. *Edvige Corbelli, Edwin E. Salpeter, & John M. Dickey.* 370, 49, 47-F4 (1991)

The Effect of Inclination-dependent Selection on *IRAS* Galaxy Detection Rates. *A. J. Connolly, R. D. Joseph, & P. A. James.* 370, 140, 48-G6 (1991)

Molecular Gas in Luminous Infrared Galaxies. *D. B. Sanders, N. Z. Scoville, & B. T. Soifer.* 370, 158, 49-B1 (1991)

High-Resolution CO Observations of Luminous Infrared Galaxies with Large L_{ir}/L_B Ratios: IRAS 10173+0828, Zw 049.057, IRAS 17208−0014. *P. Planesas, I. F. Mirabel, & D. B. Sanders.* 370, 172, 49-C5 (1991)

Far-Infrared Counterpart to the Optical and H I Plume in the Leo Triplet of Galaxies: NGC 3623, NGC 3627, and NGC 3628. *D. H. Hughes, P. N. Appleton, & J. M. Schombert.* 370, 176, 49-C11 (1991)

IRAS 23545+6508, a Dissociating Star: Prototype for a New Observational Class? *P. E. Dewdney, R. S. Roger, C. R. Purton, & W. H. McCutcheon.* 370, 243, 50-C1 (1991)

A Search for Embedded Young Stellar Objects in and near the IC 1396 Complex. *Richard D. Schwartz, Armen L. Gyulbudaghian, & Bruce A. Wilking.* 370, 263, 50-D9 (1991)

What *COBE* Might See: The Far-Infrared Cosmological Background. *C. A. Beichman & G. Helou.* 370, L1, 53-B1 (1991)

Interstellar Matter in Early-Type Galaxies. I. The Catalog. *Morton S. Roberts, David E. Hogg, Joel N. Bregman, William R. Forman, & Christine Jones.* 75, 751, 11-F5 (1991)

Bok Globules and Small Molecular Clouds: Deep *IRAS* Photometry and ^{12}CO Spectroscopy. *Dan P. Clemens, João Lin Yun, & Mark H. Heyer.* 75, 877, 13-E1 (1991)

A Survey for Infrared Excesses among High Galactic Latitude SAO Stars. *Robert E. Stencel & Dana E. Backman.* 75, 905, 14-A1 (1991)

Protostellar Condensations in the Core of NGC 2024. *D. C. Lis, J. E. Carlstrom, & T. G. Phillips.* 370, 583, 55-F5 (1991)

Far-Infrared Line and Continuum Observations of G0.095+0.012 and the E2 Thermal Radio Filament near the Galactic Center. *Edwin F. Erickson, Sean W. J. Colgan, J. P. Simpson, Robert H. Rubin, Mark Morris, & Michael R. Haas.* 370, L69, 59-C1 (1991)

A Near-Infrared Imaging Survey of Interacting Galaxies: The Disk-Disk Merger Candidates Subset. *S. A. Stanford & H. A. Bushouse.* 371, 92, 61-C1 (1991)

Far-Infrared Properties of NGC 6822. *John S. Gallagher III, Deidre A. Hunter, Fred C. Gillett, & Walter L. Rice.* 371, 142, 61-G1 (1991)

The Infrared Properties of Compact Galactic Radio Sources: The Young and the Restless. *Richard L. White, Robert H. Becker, & David J. Helfand.* 371, 148, 62-A1 (1991)

A 2.2 Micron Survey in the L1630 Molecular Cloud. *Elizabeth A. Lada, D. L. DePoy, Neal J. Evans II, & Ian Gatley.* 371, 171, 62-C1 (1991)

Emission from Dust in Visual Reflection Nebulae at Infrared and Submillimeter Wavelengths. *Sean C. Casey.* 371, 183, 62-D1 (1991)

Near-Infrared Emission-Line Images of Three Herbig-Haro Objects. *Karl R. Stapelfeldt, Charles A. Beichman, J. Jeff Hester, Nicholas Z. Scoville, & Thomas N. Gautier III.* 371, 226, 63-A1 (1991)

An Extremely High Velocity CO Outflow from NGC 7538 IRS 9. *George F. Mitchell & Tatsuhiko I. Hasegawa.* 371, L33, 66-E1 (1991)

The Rate and Efficiency of High-Mass Star Formation along the Hubble Sequence. *Nicholas A. Devereux & Judith S. Young.* 371, 515, 68-A1 (1991)

Multifrequency VLA Observations of Radio Continuum from IRAS 16293−2422. *R. Estalella, G. Anglada, L. F. Rodríguez, & G. Garay.* 371, 626, 69-C12 (1991)

The Carbon-rich Proto–Planetary Nebula IRAS 22272+5435. *Bruce J. Hrivnak & Sun Kwok.* 371, 631, 69-D6 (1991)

IRAS Detection of Very Cold Dust in the Lynds 134 Cloud Complex. *R. J. Laureijs, F. O. Clark, & T. Prusti.* 372, 185, 76-C4 (1991)

A Redshift Survey of *IRAS* Galaxies. II. Methods for Determining Self-consistent Velocity and Density Fields. *Amos Yahil, Michael A. Strauss, Marc Davis, & John P. Huchra.* 372, 380, 80-E5 (1991)

A Redshift Survey of *IRAS* Galaxies. III. Reconstruction of the Velocity and Density Fields in *N*-Body Model Universes. *Marc Davis, Michael A. Strauss, & Amos Yahil.* 372, 394, 80-F7 (1991)

The Influence of High-Density Environment on the Radio–Far-Infrared Correlation of Spiral Galaxies. *T. K. Menon.* 372, 419, 81-A7 (1991)

Optical and Near-Infrared Polarimetry of the Infrared Luminous Galaxy IRAS 23060+0505. *J. H. Hough, C. Brindle, Beverley J. Wills, D. Wills, & J. Bailey.* 372, 478, 81-F9 (1991)

Molecular Outflows in the L1641 Region of Orion. *James A. Morgan & John Bally.* 372, 505, 82-B1 (1991)

Discovery of an Infrared Nucleus in Cygnus A: An Obscured Quasar Revealed? *S. Djorgovski, N. Weir, K. Matthews, & J. R. Graham.* 372, L67, 85-C5 (1991)

The Extinction to the H_2 Line Emission in the DR 21 Outflow Source. *Daniel Nadeau, Martin Riopel, & T. R. Geballe.* 372, L103, 85-F5 (1991)

A Millimeter-Wave Line Study of L1287: A Case of Induced Star Formation by Stellar Wind Compression? *Ji Yang, Tomofumi Umemoto, Takahiro Iwata, & Yasuo Fukui.* 373, 137, 87-F7 (1991)

Near-Infrared Long-Slit Spectroscopy of IRAS 14348−1447. *Tadashi Nakajima, Kimiaki Kawara, Minoru Nishida, & Brooke Gregory.* 373, 452, 93-E6 (1991)

The Dense, Inner Part of the Protostellar Disk: Protostar Candidates in GGD 27 IRS. *Takuya Yamashita, Yasuhiro Murata, Ryohei Kawabe, Norio Kaifu, & Motohide Tamura.* 373, 560, 95-A1 (1991)

Spatial Studies of Planetary Nebulae with *IRAS*. *G. W. Hawkins & B. Zuckerman.* 374, 227, 100-G11 (1991)

Two Micron Morphology of Candidate Protostars. *Motohide Tamura, Ian Gatley, William Waller, & Michael W. Werner.* 374, L25, 103-E7 (1991)

Infrared Emission in Paired Galaxies. II. Luminosity Functions and Far-Infrared Properties. *Cong Xu & Jack W. Sulentic.* 374, 407, 104-C5 (1991)

Time Evolution of Interstellar Dust and Far-Infrared Luminosity of Disk Galaxies. *Boqi Wang.* 374, 456, 104-G1 (1991)

Integrated Far-Infrared Background from Galaxies. *Boqi Wang.* 374, 465, 104-G12 (1991)

Infrared Images of M17. *Charles J. Lada, D. L. DePoy, K. M. Merrill, & Ian Gatley.* 374, 533, 105-G1 (1991)

A Survey of the 158 Micron [C II] Fine-Structure Line in the Central 50 Parsecs of The Galaxy. *A. Poglitsch, G. J. Stacey, N. Geis, M. Haggerty, J. Jackson, M. Rumitz, R. Genzel, & C. H. Townes.* 374, L33, 110-B5 (1991)

Ram-Pressure Stripping of the Multiphase Interstellar Medium of the Virgo Cluster Elliptical Galaxy M86 (NGC 4406). *David A. White, A. C. Fabian, W. Forman, C. Jones, & C. Stern.* 375, 35, 111-D9 (1991)

Diffuse Galactic Emission at Millimetric Wavelengths. *P. Andreani, G. Dall'Oglio, L. Martinis, L. Piccirillo, L. Pizzo, L. Rossi, & C. Venturino.* 375, 148, 112-G5 (1991)

Observations That Link Infrared Cirrus and Ultraviolet Extinction. *John A. Hackwell, James H. Hecht, & Mauricio Tapia.* 375, 163, 113-A9 (1991)

Telescope Beam-Profile Diagnostics and the Solar Limb. *Charles A. Lindsey & Thomas L. Roellig.* 375, 414, 116-A9 (1991)

Infrared Broad Emission Lines from an Obscured Quasar, IRAS 23060+0505. *Tadashi Nakajima, Nathaniel P. Carleton, & Minoru Nishida.* 375, L1, 117-A7 (1991)

An Infrared/Optical Investigation of 100 Micron "Cirrus." *Elizabeth S. Paley, Frank J. Low, John T. McGraw, Roc M. Cutri, & Hans-Walter Rix.* 376, 335, 129-A13 (1991)

NGC 1333 IRAS 4: A Very Young, Low-Luminosity Binary System. *Göran Sandell, Colin Aspin, William D. Duncan, Adrian P. G. Russell, & E. Ian Robson.* 376, L17, 130-C1 (1991)

NGC 7538 IRS 1: Subarcsecond Resolution Recombination Line and $^{15}NH_3$ Maser Observations. *R. A. Gaume, K. J. Johnston, H. A. Nguyen, T. L. Wilson, H. R. Dickel, W. M. Goss, & M. C. H. Wright.* 376, 608, 133-G12 (1991)

A Double Radio Source at the Center of the Outflow in L723. *Guillem Anglada, Robert Estalella, Luis F. Rodríguez, José M. Torrelles, Rosario López, & Jorge Cantó.* 376, 615, 134-A7 (1991)

Testing Models of Low-Mass Star Formation: High-Resolution Far-Infrared Observations of L1551 IRS 5. *Harold M. Butner, Neal J. Evans II, Daniel F. Lester, Russell M. Levreault, & Stephen E. Strom.* 376, 636, 134-C6 (1991)

Two Micron Spectroscopy of Infrared Sources in NGC 2071. *D. M. Walther, T. R. Geballe, & E. I. Robson.* 377, 246, 141-A9 (1991)

Infrared Emission Regions in the Interacting Galaxy System Arp 299. *C. G. Wynn-Williams, S. A. Eales, E. E. Becklin, K.-W. Hodapp, R. D. Joseph, I. S. McLean, D. A. Simons, & G. S. Wright.* 377, 426, 145-A13 (1991)

Compact Starbursts in Ultraluminous Infrared Galaxies. *J. J. Condon, Z.-P. Huang, Q. F. Yin, & T. X. Thuan.* 378, 65, 151-G5 (1991)

Galactic Structure from the *Spacelab* Infrared Telescope. II. Luminosity Models of the Milky Way. *S. M. Kent, T. M. Dame, & G. Fazio.* 378, 131, 152-F1 (1991)

IRAS 17380−3031: A New Dusty Late WC-Type Wolf-Rayet Star. *Martin Cohen, K. A. van der Hucht, P. M. Williams, & P. S. Thé.* 378, 302, 154-F7 (1991)

Infrared Polarization Images of Star-forming Regions. I. The Ubiquity of Bipolar Structure. *M. Tamura, Ian Gatley, R. R. Joyce, M. Ueno, H. Suto, & M. Sekiguchi.* 378, 611, 160-A1 (1991)

Massive Star Formation and Superwinds in IRAS 19254−7245 (The "Superantennae"). *Luis Colina, Sebastian Lipari, & F. Macchetto.* 379, 113, 164-D5 (1991)

The LkHα 101 Infrared Cluster. *M. Barsony, J. M. Schombert, & K. Kis-Halas.* 379, 221, 165-G1 (1991)

Excitation of the Hydroxyl Maser in OH/IR Stars. *Dale F. Dickinson.* 379, L29, 169-C11 (1991)

A Catalog of Bright-rimmed Clouds with *IRAS* Point Sources: Candidates for Star Formation by Radiation-driven Implosion. I. The Northern Hemisphere. *Koji Sugitani, Yasuo Fukui, & Katsuo Ogura.* 77, 59, 44-B1 (1991)

Direct Evidence for a Bar at the Galactic Center. *Leo Blitz & David N. Spergel.* 379, 631, 172-E1 (1991)

Location of the Thermal Continuum Source Sagittarius D. *Dariusz C. Lis.* 379, L53, 175-B10 (1991)

Search for Starbursts among X-Ray–selected Galaxies: Optical Spectroscopy. *Antonella Fruscione & Richard E. Griffiths.* 380, L13, 181-C1 (1991)

Infrared Hot Spots in the Nucleus of NGC 253. *Duncan A. Forbes, Martin J. Ward, & D. L. DePoy.* 380, L63, 188-C6 (1991)

Radial Dust Density Profiles in Small Molecular Clouds. *João Lin Yi n & Dan P. Clemens.* 381, 474, 196-E7 (1991)

Near-Infrared Observations of the $z \sim 2.3$ *IRAS* Source FSC 10214+4724. *B. T. Soifer, G. Neugebauer, J. R. Graham, K. Matthews, J. M. Mazzarella, C. J. Lonsdale, M. Rowan-Robinson, T. Broadhurst, A. Lawrence, & R. McMahon.* 381, L55, 199-D1 (1991)

Cocoon Stars in the Large Magellanic Cloud. *Neill Reid.* 382, 143, 202-A4 (1991)

A Cluster of He I Emission-Line Stars in the Galactic Center. *A. Krabbe, R. Genzel, S. Drapatz, & V. Rotaciuc.* 382, L19, 205-C1 (1991)

Infrared Images, Virgo Spirals, and the Tully-Fisher Law. *R. F. Peletier & S. P. Willner.* 382, 382, 206-C13 (1991)

Multifrequency Observations of BL Lacertae in 1988. *N. Kawai, M. Matsuoka, J. N. Bregman, H. D. Aller, M. F. Aller, P. A. Hughes, S. A. Balbus, T. J. Balonek, K. C. Chambers, R. E. S. Clegg, S. D. Clements, R. J. Leacock, A. G. Smith, R. Goodrich, J. S. Miller, M. Hereld, M. G. Hoare, V. A. Hughes, G. K. Miley, G. H. Moriarty-Schieven, K. Matthews, G. Neugebauer, T. Ohashi, P. F. Roche, H. A. Thronson, E. Valtaoja, H. Terasranta, J. R. Webb, B. J. Wills, & D. Wills.* 382, 508, 207-G8 (1991)

A Nearly Unipolar CO Outflow from the HH 46–47 System. *Lawrence M. Chernin & Colin R. Masson.* 382, L93, 211-E3 (1991)

On the Nature of the Excess 100 Micron Flux Associated with Carbon Stars. *Michael P. Egan & Chun Ming Leung.* 383, 314, 216-B1 (1991)

Infrared Recombination Lines of Hydrogen from Young Objects in the Southern Galactic Plane. *Sara C. Beck, Jacqueline Fischer, & Howard A. Smith.* 383, 336, 216-D1 (1991)

Infrared Dust and Millimeter-Wave Carbon Monoxide Emission in the Orion Region. *John Bally, William D. Langer, & Weihong Liu.* 383, 645, 222-C6 (1991)

Infrared Molecular Spectroscopy toward the Orion IRc2 and IRc7 Sources: A New Probe of Physical Conditions and Abundances in Molecular Clouds. *Neal J. Evans II, J. H. Lacy, & John S. Carr.* 383, 674, 222-E13 (1991)

New Candidates for Carbon Stars with Silicate Features. *S. Josephine Chan & Sun Kwok.* 383, 837, 224-F1 (1991)

Aperture Synthesis CS(2–1) Observations of a Young Stellar Object GL 490: Accretion Flow in Gas Disk. *Akiko Nakamura, Ryohei Kawabe, Yoshimi Kitamura, Masato Ishiguro, Yasuhiro Murata, & Nagayoshi Ohashi.* 383, L81, 226-F5 (1991)

New Low-Resolution Spectrometer Spectra for *IRAS* Sources. *Kevin Volk, Sun Kwok, R. E. Stencel, & E. Brugel.* 77, 607, 53-A1 (1991)

INFRARED: SPECTRA

Far-Infrared Lines from G45.13+0.14 A and K3-50 A: Density Fluctuations in Compact H II Regions. *Sean W. J. Colgan, J. P. Simpson, Robert H. Rubin, Edwin F. Erickson, M. R. Haas, & Jürgen Wolf.* 366, 172, 3-B13 (1991)

Far-Infrared and Submillimeter-Wavelength Observations of Star-forming Dense Cores. I. Spectra. *E. F. Ladd, Fred C. Adams, S. Casey, J. A. Davidson, G. A. Fuller, D. A. Harper, P. C. Myers, & R. Padman.* 366, 203, 3-E7 (1991)

CO Fundamental Bands in Late-Type Stars. II. Spectrum Simulations for F–K Stars. *Gunter Wiedemann & Thomas R. Ayres.* 366, 277, 4-D9 (1991)

Infrared Spectroscopy of T Tauri Stars. *C. Giovanardi, S. Gennari, A. Natta, & R. Stanga.* 367, 173, 14-B11 (1991)

Emission Features in the Spectrum of NGC 7027 near 3.3 Microns at Very High Resolution. *R. P. Lowe, J. M. Moorhead, W. H. Wehlau, & J.-P. Maillard.* 368, 195, 25-E1 (1991)

Energy Distributions of Symbiotic Novae. *Greg L. Bryan & Sun Kwok.* 368, 252, 26-C1 (1991)

Near-Infrared Spectroscopy of the Planetary Nebula NGC 6572. *Richard J. Rudy, George S. Rossano, Peter Erwin, & R. C. Puetter.* 368, 468, 30-G13 (1991)

Axisymmetric Models of Circumstellar Dust Shells. *Alan J. Collison & John D. Fix.* 368, 545, 31-G7 (1991)

IRAS Low-Resolution Spectral Observations of the 10 and 18 Micron Silicate Emission Features. *Janet P. Simpson.* 368, 570, 32-B13 (1991)

Observations of ^{12}CO and ^{13}CO $J = 9–8$ in Galactic Molecular Clouds. *R. T. Boreiko & A. L. Betz.* 369, 382, 42-E1 (1991)

High-Resolution Imaging of Brackett-γ and H_2 1–0 $S(1)$ Emission in the Seyfert Galaxy NGC 1068. *V. Rotaciuc, A. Krabbe, M. Cameron, S. Drapatz, R. Genzel, A. Sternberg, & J. W. V. Storey.* 370, L23, 53-D6 (1991)

Far-Infrared Fourier Transform Spectroscopy of $^{12}C^{18}O$. *P. De Natale, M. Inguscio, C. Rois Orza, & L. R. Zink.* 370, L53, 53-G5 (1991)

The Origin of the Far-Infrared Continuum in Active Galactic Nuclei. *L. K. Hunt.* 370, 511, 54-F9 (1991)

Mapping of Infrared Helium and Hydrogen Line Profiles in the Central Few Arcseconds of the Galaxy. *T. R. Geballe, K. Krisciunas, J. A. Bailey, & R. Wade.* 370, L73, 59-C8 (1991)

Near-Infrared Long-Slit Spectra of NGC 1068. *M. Tamura, S. G. Kleinmann, N. Z. Scoville, & R. R. Joyce.* 371, 131, 61-F3 (1991)

Episodic Outflows from High-Mass Protostars. *G. F. Mitchell, J.-P. Maillard, & T. I. Hasegawa.* 371, 342, 64-D1 (1991)

The Interstellar C-H Stretching Band near 3.4 Microns: Constraints on the Composition of Organic Material in the Diffuse Interstellar Medium. *S. A. Sandford, L. J. Allamandola, A. G. G. M. Tielens, K. Sellgren, M. Tapia, & Y. Pendleton.* 371, 607, 69-B1 (1991)

A New Method for Analyzing *IRAS* Data to Determine the Dust Temperature Distribution. *Taoling Xie, Paul F. Goldsmith, & Weimin Zhou.* 371, L81, 73-D12 (1991)

Atomic Oxygen Fine-Structure Splittings with Tunable Far-Infrared Spectroscopy. *Lyndon R. Zink, Kenneth M. Evenson, Fusakazu Matsushima, Thomas Nelis, & Ruth L. Robinson.* 371, L85, 73-E3 (1991)

The Mid-Infrared Spectrum of the Carbon Star HD 38218 and Its Possible Relation to Polycyclic Aromatic Hydrocarbons. *Richard H. Buss, Jr., A. G. G. M. Tielens, & Theodore P. Snow.* 372, 281, 77-D8 (1991)

The H_2 Line Profiles in the Cygnus Loop: Evidence for J-Shocks with Magnetic Precursors. *James R. Graham, Gillian S. Wright, & T. R. Geballe.* 372, L21, 79-C7 (1991)

Detection of Low-*J* Pure-Rotational Emission from H_2 in the Orion Bar Region: Evidence for Small-Scale Clumpiness. *Parvinder S. Parmar, John H. Lacy, & Jeffrey M. Achtermann.* 372, L25, 79-D1 (1991)

Detection of Silicates in the β Pictoris Disk. *C. M. Telesco & R. F. Knacke.* 372, L29, 79-D7 (1991)

Size and Density Distribution of Very Small Dust Grains in the Barnard 5 Cloud. *Dariusz C. Lis & Chun Ming Leung.* 372, L107, 85-F9 (1991)

A Sensitive Upper Limit on the Methane Abundance in Comet Levy (1990c). *T. Y. Brooke, A. T. Tokunaga, H. A. Weaver, G. Chin, & T. R. Geballe.* 372, L113, 85-G1 (1991)

The Far-Infrared Morphology of the Double-ringed Galaxy NGC 4736 (M94): A Ring Surrounding an Extended Nucleus. *Beverly J. Smith, D. F. Lester, P. M. Harvey, & R. W. Pogge.* 373, 66, 86-G5 (1991)

Parsec-Scale Penetration of Ultraviolet Photons into Molecular Clouds: [C II] 158 Micron Mapping of W3, NGC 1977, and NGC 2023. *J. E. Howe, D. T. Jaffe, R. Genzel, & G. J. Stacey.* 373, 158, 88-A5 (1991)

The SiH Vibrational Stretch as an Indicator of the Chemical State of Interstellar Grains. *Marla H. Moore, Toshihiko Tanabé, & Joseph A. Nuth.* 373, L31, 91-D7 (1991)

The 158 Micron [C II] Line: A Measure of Global Star Formation Activity in Galaxies. *G. J. Stacey, N. Geis, R. Genzel, J. B. Lugten, A. Poglitsch, A. Sternberg, & C. H. Townes.* 373, 423, 93-C1 (1991)

Broad Paschen-Alpha Emission in Two Extremely Infrared Luminous Seyfert 2 Galaxies. *Dean C. Hines.* 374, L9, 103-C7 (1991)

Infrared Fluorescence of H_2 in NGC 6240: A Starburst Origin for the H_2 Luminosity. *Masuo Tanaka, Tetsuo Hasegawa, & Ian Gatley.* 374, 516, 105-E9 (1991)

Large-Scale [C II] 158 Micron Emission from the Galaxy. *Hiroshi Shibai, Haruyuki Okuda, Takao Nakagawa, Hideo Matsuhara, Toshinori Maihara, Kohei Mizutani, Yukiyasu Kobayashi, Norihisa Hiromoto, Tetsuo Nishimura, & Frank J. Low.* 374, 522, 105-F1 (1991)

Observations of [Si II] (35 Micron) and [S I] (25 Micron) in Orion: Evidence for a Wind Shock near IRc2. *Michael R. Haas, David Hollenbach, & Edwin F. Erickson.* 374, 555, 106-B1 (1991)

A Survey of the 158 Micron [C II] Fine-Structure Line in the Central 50 Parsecs of The Galaxy. *A. Poglitsch, G. J. Stacey, N. Geis, M. Haggerty, J. Jackson, M. Rumitz, R. Genzel, & C. H. Townes.* 374, L33, 110-B5 (1991)

Infrared Broad Emission Lines from an Obscured Quasar, IRAS 23060+0505. *Tadashi Nakajima, Nathaniel P. Carleton, & Minoru Nishida.* 375, L1, 117-A7 (1991)

Near-Infrared Emission of Neutral Carbon from Photon-dominated Regions. *V. Escalante, A. Sternberg, & A. Dalgarno.* 375, 630, 120-E1 (1991)

Origins of the 12–200 Micron Flux in NGC 6946: Starlight and Continuum Dust Emission from an Sc Galaxy. *G. Engargiola.* 76, 875, 36-G5 (1991)

Discovery of Interstellar Methane: Observations of Gaseous and Solid CH_4 Absorption toward Young Stars in Molecular Clouds. *J. H. Lacy, J. S. Carr, Neal J. Evans II, F. Baas, J. M. Achtermann, & J. F. Arens.* 376, 556, 133-C9 (1991)

The Spectrum of NGC 7027 from 3080 to 2630 Wavenumbers (3.25–3.80 Microns): Detection of New Atomic and Molecular Hydrogen Lines and New Constraints on the Chemical Sidegroups on Polycyclic Aromatic Hydrocarbons. *Scott A. Sandford.* 376, 599, 133-G1 (1991)

Solar Gravitational Redshift from the Infrared Oxygen Triplet. *James C. LoPresto, Charles Schrader, & A. Keith Pierce.* 376, 757, 135-F11 (1991)

Low-Density Photodissociation Regions. *David J. Hollenbach, Takamasa Takahashi, & A. G. G. M. Tielens.* 377, 192, 140-C11 (1991)

Two Micron Spectroscopy of Infrared Sources in NGC 2071. *D. M. Walther, T. R. Geballe, & E. I. Robson.* 377, 246, 141-A9 (1991)

The Solar Mg I Spectrum from ATMOS. I. Identification and Preliminary Discussion. *John T. Jefferies.* 377, 337, 142-B5 (1991)

Shape and Clustering Effects on the Optical Properties of Amorphous Carbon. *François Rouleau & P. G. Martin.* 377, 526, 146-C3 (1991)

Partially Dissociative Jump Shocks in Molecular Hydrogen. *C. A. Chang & P. G. Martin.* 378, 202, 153-E1 (1991)

Pure Rotational Spectrum of Hydrogen Deuteride by Far-Infrared Fourier Transform Spectroscopy. *Lorenzo Ulivi, Paolo De Natale, & Massimo Inguscio.* 378, L29, 157-D7 (1991)

X-Ray Irradiation of Interstellar Grains in Active Galaxies: Evaporation and Infrared Spectra. *G. Mark Voit.* 379, 122, 164-E1 (1991)

Radiation Transport in Dust in Disk Geometry. I. Application to Externally Heated Interstellar Clouds. *George F. Spagna, Jr., Chun Ming Leung, & Michael P. Egan.* 379, 232, 166-A5 (1991)

Ionized Carbon in the Large Magellanic Cloud. *R. T. Boreiko & A. L. Betz.* 380, L27, 181-D9 (1991)

On the State of the Emitter of the 3.3 Micron Unidentified Infrared Band: Absorption Spectroscopy of Polycyclic Aromatic Hydrocarbon Species. *Gregory C. Flickinger, Thomas J. Wdowiak, & Percy L. Gómez.* 380, L43, 181-F1 (1991)

High-Resolution Spectra of the 3.29 Micron Interstellar Emission Feature: A Summary. *A. T. Tokunaga, K. Sellgren, R. G. Smith, T. Nagata, A. Sakata, & Y. Nakada.* 380, 452, 183-G8 (1991)

Galactic Center Gasdynamics: A One-armed Spiral in a Keplerian Disk. *J. H. Lacy, J. M. Achtermann, & E. Serabyn.* 380, L71, 188-D6 (1991)

Interstellar Solid CO: Polar and Nonpolar Interstellar Ices. *A. G. G. M. Tielens, A. T. Tokunaga, T. R. Geballe, & F. Baas.* 381, 181, 191-C5 (1991)

Preliminary Spectral Observations of the Galaxy with a 7° Beam by the *Cosmic Background Explorer* (*COBE*). *E. L. Wright, J. C. Mather, C. L. Bennett, E. S. Cheng, R. A. Shafer, D. J. Fixsen, R. E. Eplee, Jr., R. B. Isaacman, S. M. Read, N. W. Boggess, S. Gulkis, M. G. Hauser, M. Janssen, T. Kelsall, P. M. Lubin, S. S. Meyer, S. H. Moseley, Jr., T. L. Murdock, R. F. Silverberg, G. F. Smoot, R. Weiss, & D. T. Wilkinson.* 381, 200, 191-D12 (1991)

Near-Infrared Observations of the $z \sim 2.3$ *IRAS* Source FSC 10214+4724. *B. T. Soifer, G. Neugebauer, J. R. Graham, K. Matthews, J. M. Mazzarella, C. J. Lonsdale, M. Rowan-Robinson, T. Broadhurst, A. Lawrence, & R. McMahon.* 381, L55, 199-D1 (1991)

Infrared Spectroscopy of Cygnus A: Implications for the Obscured Active Nucleus. *Martin J. Ward, Philip R. Blanco, Andrew S. Wilson, & Minoru Nishida.* 382, 115, 201-E11 (1991)

CN and HCN in the Infrared Spectrum of IRC +10216. *G. R. Wiedemann, Kenneth H. Hinkle, John J. Keady, D. Deming, & D. E. Jennings.* 382, 321, 204-B10 (1991)

A Cluster of He I Emission-Line Stars in the Galactic Center. *A. Krabbe, R. Genzel, S. Drapatz, & V. Rotaciuc.* 382, L19, 205-C1 (1991)

The Optical Depth of the 158 Micron [^{12}C II] Line: Detection of the $F = 1 \rightarrow 0$ [^{13}C II] Hyperfine-Structure Component. *G. J. Stacey, C. H. Townes, A. Poglitsch, S. C. Madden, J. M. Jackson, F. Herrmann, R. Genzel, & N. Geis.* 382, L37, 205-E1 (1991)

A Standard Stellar Spectral Sequence in the Red/Near-Infrared: Classes K5 to M9. *J. Davy Kirkpatrick, Todd J. Henry, & Donald W. McCarthy, Jr.* 77, 417, 50-C5 (1991)

10 Micron Spectra of Protostars and the Solid Methanol Abundance. *W. A. Schutte, A. G. G. M. Tielens, & S. A. Sandford.* 382, 523, 208-A11 (1991)

Near-Infrared [Fe II] Emission of M82 Supernova Remnants: Implications for Tracing the Supernova Content of Galaxies. *Matthew A. Greenhouse, Charles E. Woodward, Harley A. Thronson, Jr., Richard J. Rudy, George S. Rossano, Peter Erwin, & R. C. Puetter.* 383, 164, 214-B1 (1991)

Infrared Recombination Lines of Hydrogen from Young Objects in the Southern Galactic Plane. *Sara C. Beck, Jacqueline Fischer, & Howard A. Smith.* 383, 336, 216-D1 (1991)

The 1.0–1.3 Micron Spectrum of LkHα 101. *Richard J. Rudy, Peter Erwin, George S. Rossano, & R. C. Puetter.* 383, 344, 216-D7 (1991)

Electric Field Strengths from the Solar 12 Micron Lines. *Edward S. Chang & William G. Schoenfeld.* 383, 450, 217-G9 (1991)

3.3 Micron Emission from Ultraviolet Excitation of Some Aromatic Molecules. *Jun Shan, Masako Suto, & L. C. Lee.* 383, 459, 218-A7 (1991)

Detection of ^{13}C-Ethane in Jupiter's Atmosphere. *Günter Wiedemann, Gordon L. Bjoraker, & Donald E. Jennings.* 383, L29, 219-D7 (1991)

On the Near-Infrared Spectrum of FU Orionis. *Nuria Calvet, Lee Hartmann, & Scott J. Kenyon.* 383, 752, 223-E6 (1991)

New Low-Resolution Spectrometer Spectra for *IRAS* Sources. *Kevin Volk, Sun Kwok, R. E. Stencel, & E. Brugel.* 77, 607, 53-A1 (1991)

INFRARED: STARS

Spatial Structure in the 10 Micron Spectrum of HD 44179 (The Red Rectangle). *G. L. Grasdalen, G. C. Sloan, & P. D. LeVan.* 384, L25, 6-D1 (1992)

IRAS 16293−2422: A Very Young Binary System? *Lee G. Mundy, Alwyn Wootten, Bruce A. Wilking, Geoffrey A. Blake, & Anneila I. Sargent.* 385, 306, 15-F5 (1992)

Discovery of Outflows from Young Stellar Objects in Bok Globules. *João Lin Yun & Dan P. Clemens.* 385, L21, 17-C6 (1992)

A Catalog of Co-added *IRAS* Fluxes of Orion Population Stars. *Wm. Bruce Weaver & Gordon Jones.* 78, 239, 4-G7 (1992)

Star Formation in Taurus. I. The *IRAS* Faint Source Survey. *C. A. Beichman, F. Boulanger, & M. Moshir.* 386, 248, 27-C5 (1992)

Gravitational Lensing by a Massive Black Hole at the Galactic Center. *Mark Wardle & Farhad Yusef-Zadeh.* 387, L65, 48-C1 (1992)

The 3 Micron Spectrum of the Classical Be Star β Monocerotis A. *K. Sellgren & R. G. Smith.* 388, 178, 51-B13 (1992)

Velocity Streaming of *IRAS* Main-Sequence Disk Stars and the Episodic Enhancement of Particulate Disks by Interstellar Clouds. *Daniel P. Whitmire, John J. Matese, & Patrick G. Whitman.* 388, 190, 51-D1 (1992)

A Near-Infrared Search for Brown Dwarfs in the Pleiades. *D. A. Simons & E. E. Becklin.* 390, 431, 80-F10 (1992)

A True-Field Magnetogram in a Solar Plage Region. *Douglas Rabin.* 390, L103, 85-D1 (1992)

Candidates for Extreme Carbon Stars. *Kevin Volk, Sun Kwok, & Philip P. Langill.* 391, 285, 89-D12 (1992)

Infrared Studies of Pre–Main-Sequence Intermediate-Mass Stars: LkHα 198. *Antonella Natta, Francesco Palla, Harold M. Butner, Neal J. Evans II, & Paul M. Harvey.* 391, 805, 98-A1 (1992)

Interstellar Polarization from 3 to 5 Microns in Reddened Stars. *P. G. Martin, A. J. Adamson, D. C. B. Whittet, J. H. Hough, J. A. Bailey, S.-H. Kim, S. Sato, M. Tamura, & T. Yamashita.* 392, 691, 110-G3 (1992)

8–14 Micron Spectroscopy of Carbon Stars Associated with Silicate Dust. *Paul D. LeVan, G. C. Sloan, Irene R. Little-Marenin, & G. L. Grasdalen.* 392, 702, 111-A1 (1992)

Constraints on the Galactic Bulge Using *IRAS* Variable Point Sources. *Martin D. Weinberg.* 392, L67, 113-C10 (1992)

The Nature of Dust around the Post–Asymptotic Giant Branch Objects HD 161796 and HD 179821. *K. Justtanont, M. J. Barlow, C. J. Skinner, & A. G. G. M. Tielens.* 392, L75, 113-D8 (1992)

Global Star Formation in the L1630 Molecular Cloud. *Elizabeth A. Lada.* 393, L25, 120-D7 (1992)

Measurement of CO Overtone Line Profiles in SVS 13. *John S. Carr & Alan T. Tokunaga.* 393, L67, 127-D7 (1992)

Emission-Line Studies of Young Stars. III. Correlations with the Infrared Excess. *Fred Hamann & S. E. Persson.* 394, 628, 137-C5 (1992)

The 8–13 Micron Spectrum of the Young Stellar Object WL 16. *M. S. Hanner, A. T. Tokunaga, & T. R. Geballe.* 395, L111, 154-C12 (1992)

OH/IR Star Color Mimics. *B. M. Lewis.* 396, 251, 158-B13 (1992)

Newly Identified Main-Sequence A Stars with Circumstellar Dust. *K.-P. Cheng, F. C. Bruhweiler, Y. Kondo, & C. A. Grady.* 396, L83, 167-C1 (1992)

IRAS Observations of Young Stellar Objects in the Corona Australis Dark Cloud. *Bruce A. Wilking, Thomas P. Greene, Charles J. Lada, Michael R. Meyer, & Erick T. Young.* 397, 520, 177-C9 (1992)

OH/IR Stars in the Magellanic Clouds. *P. R. Wood, J. B. Whiteoak, S. M. G. Hughes, M. S. Bessell, F. F. Gardner, & A. R. Hyland.* 397, 552, 177-G5 (1992)

Near-Infrared Spectrophotometry of FU Orionis Variables. *S. Sato, K. Okita, T. Yamashita, K. Mizutani, H. Shiba, Y. Kobayashi, & H. Takami.* 398, 273, 185-B7 (1992)

The Near-Infrared [Fe II] Lines of MWC 922. *Richard J. Rudy, Peter Erwin, George S. Rossano, & R. C. Puetter.* 398, 278, 185-C1 (1992)

8–13 Micron Spectroscopy of Nova Herculis 1991. *David K. Lynch, John A. Hackwell, & Ray W. Russell.* 398, 632, 192-A5 (1992)

Multiple Jets from the Young Star IRAS 21334+5039. *Howard A. Smith & Jacqueline Fischer.* 398, L99, 194-D1 (1992)

Nonequilibrium Iron Oxide Formation in Some Low-Mass Post–Asymptotic Giant Branch Stars. *Frans J. M. Rietmeijer.* 400, L39, 214-E6 (1992)

Another Neon Nova: Early Infrared Photometry and Spectroscopy of Nova Cygni 1992. *T. L. Hayward, R. D. Gehrz, J. W. Miles, & J. R. Houck.* 401, L101, 233-D5 (1992)

CO Observations of Candidates for Carbon-rich Asymptotic Giant Branch and Post–Asymptotic Giant Branch Stars. *Kevin Volk, Sun Kwok, & Andrew W. Woodsworth.* 402, 292, 4-F10 (1993)

The Spectroscopic Properties of Extreme M Dwarfs in the 2 Micron Region. *T. J. Davidge & P. C. Boeshaar.* 403, L47, 20-E10 (1993)

Spatially Resolved Spectra of Silicate Dust around α Orionis. *G. C. Sloan, G. L. Grasdalen, & Paul D. LeVan.* 404, 328, 32-A3 (1993)

An *IRAS* Survey of Star-forming Regions toward Cygnus. *Sten F. Odenwald & Phil R. Schwartz.* 405, 706, 51-G7 (1993)

The IRC +10216 Circumstellar Envelope. III. Infrared Molecular Line Profiles. *J. J. Keady & S. T. Ridgway.* 406, 199, 57-E5 (1993)

First Detection of Ionized Helium Absorption Lines in Infrared *K* Band Spectra of O-Type Stars. *Peter S. Conti, David L. Block, T. R. Geballe, & Margaret Murray Hanson.* 406, L21, 60-G5 (1993)

Infrared Observations of the Remarkable Main-Sequence Star HD 98800. *B. Zuckerman & E. E. Becklin.* 406, L25, 60-G10 (1993)

Bright Near-Infrared Sources within 1deg of the Galactic Center. I. Survey and 1–20 Micron Photometry. *Tetsuya Nagata, A. R. Hyland, S. M. Straw, Shuji Sato, & Kimiaki Kawara.* 406, 501, 64-A10 (1993)

Infrared Studies of Circumstellar Matter around Herbig Ae/Be and Related Stars. *Antonella Natta, Francesco Palla, Harold M. Butner, Neal J. Evans II, & Paul M. Harvey.* 406, 674, 66-C4 (1993)

Embedded Star Clusters Associated with Luminous *IRAS* Point Sources. *John M. Carpenter, Ronald L. Snell, F. Peter Schloerb, & M. F. Skrutskie.* 407, 657, 78-F11 (1993)

Near-Infrared 0.15″ Resolution Imaging of the Galactic Center. *A. Eckart, R. Genzel, R. Hofmann, B. J. Sams, & L. E. Tacconi-Garman.* 407, L77, 82-E1 (1993)

The Spectral Energy Distribution of Star-forming Regions. *Ralf Siebenmorgen.* 408, 218, 85-G3 (1993)

η Carinae: A New Model. *J. M. Borgwald & M. W. Friedlander.* 408, 230, 86-A3 (1993)

High-Resolution Mid-Infrared Spectra of Co II, Ni I, and Fe II in SN 1987A. *D. E. Jennings, R. J. Boyle, G. R. Wiedemann, & S. H. Moseley.* 408, 277, 86-E5 (1993)

Infrared Images of the Young Cluster NGC 2264. *Charles J. Lada, Erick T. Young, & Thomas P. Greene.* 408, 471, 91-A11 (1993)

Near-Infrared Discovery of the L810 Nebula Illuminator. *João Lin Yun, Dan P. Clemens, Mark J. McCaughrean, & Marcia Rieke.* 408, L101, 95-E9 (1993)

Observations of the Ca II Infrared Triplet in Chromospherically Active Single and Binary Stars. *Robert C. Dempsey, Bernard W. Bopp, Gregory W. Henry, & Douglas S. Hall.* 86, 293, 17-G7 (1993)

Circumstellar Shells Resolved in *IRAS* Survey Data. II. Analysis. *K. Young, T. G. Phillips, & G. R. Knapp.* 409, 725, 108-B3 (1993)

An Infrared Survey for Embedded Young Stars in the Perseus Molecular Cloud Complex. *E. F. Ladd, E. A. Lada, & P. C. Myers.* 410, 168, 114-C1 (1993)

Detection of O I and Si II Far-Infrared Fine-Structure Emission from α Orionis. *Michael R. Haas & Alfred E. Glassgold.* 410, L111, 126-C9 (1993)

Circumstellar Shells Resolved in the *IRAS* Survey Data. I. Data Processing Procedure, Results, and Confidence Tests. *K. Young, T. G. Phillips, & G. R. Knapp.* 86, 517, 21-B11 (1993)

IRAS Variables as Galactic Structure Tracers: Classification of the Bright Variables. *L. E. Allen, S. G. Kleinmann, & M. D. Weinberg.* 411, 188, 129-D11 (1993)

Infrared Imaging of the Galactic Center and the Search for Sagittarius A*. *T. M. Herbst, S. V. W. Beckwith, & Mark Shure.* 411, L21, 133-F13 (1993)

The Inner-Disk and Stellar Properties of the Young Stellar Object WL 16. *John S. Carr, Alan T. Tokunaga, Joan Najita, Frank H. Shu, & Alfred E. Glassgold.* 411, L37, 134-A13 (1993)

An Alternative to Unseen Companions to T Tauri Stars. *Alan P. Boss & Harold W. Yorke.* 411, L99, 142-F11 (1993)

Infrared Luminosity Functions for the Young Stellar Population Associated with the L1641 Molecular Cloud. *Karen M. Strom, Stephen E. Strom, & K. M. Merrill.* 412, 233, 145-A8 (1993)

Infrared CO Emission from Young Stars: High-Resolution Spectroscopy. *C. J. Chandler, J. E. Carlstrom, N. Z. Scoville, W. R. F. Dent, & T. R. Geballe.* 412, L71, 155-D13 (1993)

Long-Period Oxygen-rich Optical Miras in the Solar Neighborhood. *M. Jura, A. Yamamoto, & S. G. Kleinmann.* 413, 298, 160-A2 (1993)

IRS 16: The Galaxy's Central Wimp? *Peter Tamblyn & G. H. Rieke.* 414, 573, 178-D1 (1993)

The Contribution of Disks and Envelopes to the Millimeter Continuum Emission from Very Young Low-Mass Stars. *S. Terebey, C. J. Chandler, & P. André.* 414, 759, 180-F6 (1993)

The Embedded Young Stars in the Taurus-Auriga Molecular Cloud. II. Models for Scattered Light Images. *Scott J. Kenyon, Barbara A. Whitney, Mercedes Gomez, & Lee Hartmann.* 414, 773, 180-G9 (1993)

Submillimeter Studies of Main-Sequence Stars. *B. Zuckerman & E. E. Becklin.* 414, 793, 181-B4 (1993)

Infrared Spectra of Transition Objects and the Composition and Evolution of Carbon Dust. *R. H. Buss, Jr., A. G. G. M. Tielens, M. Cohen, M. W. Werner, J. D. Bregman, & F. C. Witteborn.* 415, 250, 188-B3 (1993)

Evidence for Hydrated Silicates toward SN 1987A. *Ralf Timmermann & Harold P. Larson.* 415, 820, 198-A13 (1993)

Airborne Spectrophotometry of SN 1987A from 1.7 to 12.6 Microns: Time History of the Dust Continuum and Line Emission. *Diane H. Wooden, David M. Rank, Jesse D. Bregman, Fred C. Witteborn, A. G. G. M. Tielens, Martin Cohen, Philip A. Pinto, & Timothy S. Axelrod.* 88, 477, 46-F9 (1993)

Detection of Silicates in the 51 Ophiuchi System. *S. B. Fajardo-Acosta, C. M. Telesco, & R. F. Knacke.* 417, L33, 223-B9 (1993)

A Deeply Embedded Companion to LkHα 198. *P. O. Lagage, G. Olofsson, S. Cabrit, C. J. Cesarsky, L. Nordh, & J. M. Rodriguez Espinosa.* 417, L79, 230-D6 (1993)

The Silicates in the Disk of β Pictoris. *R. F. Knacke, S. B. Fajardo-Acosta, C. M. Telesco, J. A. Hackwell, D. K. Lynch, & R. W. Russell.* 418, 440, 236-D13 (1993)

New OH/IR Stars from Color-selected *IRAS* Sources. III. A Complete Survey. *Jayaram N. Chengalur, B. M. Lewis, J. Eder, & Yervant Terzian.* 89, 189, 51-D3 (1993)

Expanding Atmospheric Model Including a Chromosphere. I. Study of the Infrared Excess in Be Stars. *Andrea C. Vázquez, Lydia S. Cidale, & Adela E. Ringuelet.* 419, 286, 249-F10 (1993)

Detection of Water Vapor in T Tauri Stars. *H. Shiba, S. Sato, T. Yamashita, Y. Kobayashi, & H. Takami.* 89, 299, 53-F1 (1993)

The Structure and Nature of NGC 2071 IRS 1: High-Resolution Radio Continuum Maps. *Howard A. Smith & Sara C. Beck.* 420, 643, 10-F7 (1994)

Discovery of a Deeply Embedded Companion to LkHα 234. *David A. Weintraub, Joel H. Kastner, & Ashwin Mahesh.* 420, L87, 15-F1 (1994)

Stellar Density Enhancements Associated with *IRAS* Sources in L1641. *Hua Chen & Alan T. Tokunaga.* 90, 149, 2-G12 (1994)

The Temporal Evolution of the 4–14 Micron Spectrum of V1974 Cygni (Nova Cygni 1992). *R. D. Gehrz, Charles E. Woodward, M. A. Greenhouse, S. Starrfield, D. H. Wooden, F. C. Witteborn, S. A. Sandford, L. J. Allamandola, J. D. Bregman, & M. Klapisch.* 421, 762, 27-F6 (1994)

Deep Infrared Array Photometry of Globular Clusters. I. M4. *T. J. Davidge & D. A. Simons.* 423, 640, 56-D13 (1994)

Infrared Spectroscopy and Imaging Polarimetry of the Disk around the T Tauri Star RNO 91. *David A. Weintraub, Stephen C. Tegler, Joel H. Kastner, & Terrence Rettig.* 423, 674, 57-A3 (1994)

Carbon Monoxide Fundamental Bands in Late-Type Stars. III. Chromosphere or CO-mosphere? *G. Wiedemann, T. R. Ayres, D. E. Jennings, & S. H. Saar.* 423, 806, 58-F6 (1994)

Near-Infrared Observations of the 1E 1740.7−2942 Field at the Galactic Center. *Joseph W. Haller & Fulvio Melia.* 423, L109, 60-F5 (1994)

K-Band Spectroscopy of OB Stars: A Preliminary Classification. *Margaret Murray Hanson & Peter S. Conti.* 423, L139, 61-C7 (1994)

Near-Infrared Spectroscopy of Young Stellar Objects. *D. M. Kelly, G. H. Rieke, & B. Campbell.* 425, 231, 83-B5 (1994)

The *K*-Band Surface Brightness of Late-Type Stars and the Distance to Cataclysmic Variables. *Tod F. Ramseyer.* 425, 243, 83-C5 (1994)

Optical Variability in the Unusual K5 V Infrared-Excess Star HD 98800. *Gregory W. Henry & Douglas S. Hall.* 425, L25, 85-D9 (1994)

COBE Diffuse Infrared Background Experiment Observations of Galactic Reddening and Stellar Populations. *R. G. Arendt, G. B. Berriman, N. Boggess, E. Dwek, M. G. Hauser, T. Kelsall, S. H. Moseley, T. L. Murdock, N. Odegard, R. F. Silverberg, T. J. Sodroski, & J. L. Weiland.* 425, L85, 94-E1 (1994)

A Catalog of Bright-rimmed Clouds with *IRAS* Point Sources: Candidates for Star Formation by Radiation-driven Implosion. II. The Southern Hemisphere. *Koji Sugitani & Katsuo Ogura.* 92, 163, 33-D11 (1994)

Silicon Monoxide in SN 1987A. *Weihong Liu & A. Dalgarno.* 428, 769, 139-G5 (1994)

A 7 Micron Dust Emission Feature in Oxygen-rich Circumstellar Shells. *J. H. Goebel, J. D. Bregman, & F. C. Witteborn.* 430, 317, 163-B3 (1994)

Observations of the Acceleration Regions of OH/IR Stars. *John D. Fix & Mark G. Mulhern.* 430, 824, 172-B5 (1994)

Supplement to the Arecibo 1612 MHz Survey of Color-selected *IRAS* Sources. *B. M. Lewis.* 93, 549, 50-D9 (1994)

Constraining Circumstellar Environments: Far-Infrared Observations of Herbig Ae/Be Stars. *James Di Francesco, Neal J. Evans II, Paul M. Harvey, Lee G. Mundy, & Harold M. Butner.* 432, 710, 204-G8 (1994)

Near-Infrared (*J*, *H*, *K*) Imaging of Herbig Ae/Be Stars. *Wenbin Li, Neal J. Evans II, Paul M. Harvey, & Cecilia Colomé.* 433, 199, 210-G3 (1994)

Silicates and Aromatic Hydrocarbons in the 10 Micron Spectrum of the Taurus Dark Cloud Source Elias 1. *Martha S. Hanner, Timothy Y. Brooke, & Alan T. Tokunaga.* 433, L97, 224-C7 (1994)

Flat Spectrum T Tauri Stars: The Case for Infall. *Nuria Calvet, Lee Hartmann, Scott J. Kenyon, & Barbara A. Whitney.* 434, 330, 230-A6 (1994)

Further Mid-Infrared Study of the ρ Ophiuchi Cloud Young Stellar Population: Luminosities and Masses of Pre–Main-Sequence Stars. *Thomas P. Greene, Bruce A. Wilking, Philippe André, Erick T. Young, & Charles J. Lada.* 434, 614, 236-C6 (1994)

10 Micron Imaging of UZ Tauri: Evidence for Circumstellar Disk Clearing due to a Close Companion Star. *A. M. Ghez, J. P. Emerson, J. R. Graham, M. Meixner, & C. J. Skinner.* 434, 707, 237-E3 (1994)

Protostellar Accretion Disks Resolved with the JCMT-CSO Interferometer. *O. P. Lay, J. E. Carlstrom, R. E. Hills, & T. G. Phillips.* 434, L75, 241-G9 (1994)

Deep Infrared Array Photometry of Globular Clusters. II. M71. *T. J. Davidge & D. A. Simons.* 435, 207, 246-B11 (1994)

[Fe II] 1.53 and 1.64 Micron Emission from Pre–Main-Sequence Stars. *Fred Hamann, Michal Simon, John S. Carr, & Lisa Prato.* 436, 292, 265-C10 (1994)

Circumprotostellar Environments. II. Envelopes, Activity, and Evolution. *G. H. Moriarty-Schieven, P. G. Wannier, Jocelyn Keene, & M. Tamura.* 436, 800, 276-F1 (1994)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. I. The $7° < |B| < 8°$ Strips. *H. Izumiura, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, N. Ukita, & I. Yamamura.* 437, 419, 288-G11 (1994)

10 Micron Spectroscopy of Young Stars in the ρ Ophiuchi Cloud. *M. S. Hanner, T. Y. Brooke, & A. T. Tokunaga.* 438, 250, 4-G9 (1995)

The Evolutionary Status of the Stellar Population in the ρ Ophiuchi Cloud Core. *Karen M. Strom, Jeremy Kepner, & Stephen E. Strom.* 438, 813, 15-D7 (1995)

The Temporal Evolution of the 1–5 Micron Spectrum of V1974 Cygni (Nova Cygni 1992). *Charles E. Woodward, Matthew A. Greenhouse, R. D. Gehrz, Y. J. Pendleton, R. R. Joyce, D. Van Buren, J. Fischer, N. J. Jennerjohn, & C. D. Kaminski.* 438, 921, 16-G7 (1995)

Multiple Star Formation in Bok Globule CB 34. *João F. Alves & João L. Yun.* 438, L107, 20-C1 (1995)

Near-Infrared Spectra of Compact Stellar Wind Sources at the Galactic Center. *S. Libonate, J. L. Pipher, W. J. Forrest, & M. L. N. Ashby.* 439, 202, 24-A10 (1995)

Evidence for Chemical Processing of Precometary Icy Grains in Circumstellar Environments of Pre–Main-Sequence Stars. *Stephen C. Tegler, David A. Weintraub, Terrence W. Rettig, Yvonne J. Pendleton, Douglas C. B. Whittet, & Craig A. Kulesa.* 439, 279, 25-A9 (1995)

RY Scuti: Infrared and Radio Observations of the Mass-Loss Wind of a Massive Binary Star System. *R. D. Gehrz, T. L. Hayward, J. R. Houck, J. W. Miles, R. M. Hjellming, T. J. Jones, Charles E. Woodward, Ricarda Prentice, W. J. Forrest, S. Libonate, & S. Solomon.* 439, 417, 26-G11 (1995)

A Search for T Tauri Stars in High-Latitude Molecular Clouds. II. The *IRAS* Faint Source Survey Catalog. *Loris Magnani, Jean-Pierre Caillault, Ari Buchalter, & C. A. Beichman.* 96, 159, 3-F3 (1995)

Infrared Photometry of the Black Hole Candidate Sagittarius A*. *Laird M. Close, Donald W. McCarthy, Jr., & Fulvio Melia.* 439, 682, 34-A1 (1995)

Spectral Energy of First Protostellar Cores: Detecting "Class −I" Protostars with *ISO* and *SIRTF*. *Alan P. Boss & Harold W. Yorke.* 439, L55, 40-E11 (1995)

Modeling the Light-Travel-Time Effect on the Far-Infrared Size of IRC +10216. *Edward L. Wright & Frederick K. Baganoff.* 440, 322, 45-E9 (1995)

LkHα 198 Revisited. *Harold M. Butner & Antonella Natta.* 440, 874, 55-B10 (1995)

Direct Measurement of the Inner Radius of the Dust Shell around the Cool Supergiant Star α Scorpii. *E. E. Bloemhof & R. M. Danen.* 440, L93, 58-C2 (1995)

Dust Particle Settling in Passive Disks around T Tauri Stars: Models and *IRAS* Observations. *Kotaro Miyake & Yoshitsugu Nakagawa.* 441, 361, 64-C13 (1995)

Infrared Properties of Circumstellar Dust Envelopes of Oxygen-rich Asymptotic Giant Branch Stars. *O. Hashimoto.* 442, 286, 81-B3 (1995)

Another Look at the *UBV* Variability of T Tauri Stars. *Pedro N. Safier.* 444, 818, 127-F12 (1995)

The Dust Disk around the Vega-Excess Star SAO 26804. *C. J. Skinner, K. J. Sylvester, J. R. Graham, M. J. Barlow, M. Meixner, E. Keto, J. F. Arens, & J. G. Jernigan.* 444, 861, 128-C13 (1995)

The Displacement of the Sun from the Galactic Plane Using *IRAS* and FAUST Source Counts. *Martin Cohen.* 444, 874, 128-E2 (1995)

Detection of Shocked Molecular Hydrogen in Infrared Companions to T Tauri Stars: Evidence for Ongoing Accretion. *T. M. Herbst, C. D. Koresko, & Christoph Leinert.* 444, L93, 130-F13 (1995)

Deep Infrared Array Photometry of Globular Clusters. III. M13. *T. J. Davidge & W. E. Harris.* 445, 211, 135-D7 (1995)

Infrared Emission and Dynamics of Outflows in Late-Type Stars. *Željko Ivezić & Moshe Elitzur.* 445, 415, 138-C6 (1995)

The Fate of the Solid Matter Orbiting HR 4796A. *M. Jura, A. M. Ghez, Russel J. White, D. W. McCarthy, R. C. Smith, & P. G. Martin.* 445, 451, 138-F11 (1995)

High Angular Resolution Spectroscopic and Polarimetric Imaging of the Galactic Center in the Near-Infrared. *A. Eckart, R. Genzel, R. Hofmann, B. J. Sams, & L. E. Tacconi-Garman.* 445, L23, 140-E1 (1995)

Of-Type Stars HD 16691 and HD 190429 Show WN-like Spectra in Infrared *K* Band. *Peter S. Conti, Margaret Murray Hanson, Patrick W. Morris, Allan J. Willis, & Stephen J. Fossey.* 445, L35, 140-F11 (1995)

Morphology, Near-Infrared Luminosity, and Mass of the Galactic Bulge from *COBE* DIRBE Observations. *E. Dwek, R. G. Arendt, M. G. Hauser, T. Kelsall, C. M. Lisse, S. H. Moseley, R. F. Silverberg, T. J. Sodroski, & J. L. Weiland.* 445, 716, 145-B1 (1995)

Neural Network Classification of the Near-Infrared Spectra of A-Type Stars. *Wm. Bruce Weaver & Ana V. Torres-Dodgen.* 446, 300, 157-D1 (1995)

Infrared Spectroscopy of Herbig-Haro Objects. *Richard D. Schwartz, A. S. B. Schultz, Martin Cohen, & Peredur M. Williams.* 446, 318, 157-E8 (1995)

The Subarcsecond 10 Micron Size of LkHα 101: Constraints on Circumstellar Dust. *R. M. Danen, C. R. Gwinn, & E. E. Bloemhof.* 447, 391, 177-F13 (1995)

A Circumstellar H_2O Maser Associated with the Circumnuclear Molecular Disk at the Galactic Center? *Deborah A. Levine, Donald F. Figer, Mark Morris, & Ian S. McLean.* 447, L101, 190-G7 (1995)

1 Millimeter Polarimetry of Young Stellar Objects: Low-Mass Protostars and T Tauri Stars. *Motohide Tamura, J. H. Hough, & Saeko S. Hayashi.* 448, 346, 197-A2 (1995)

Identification of Ionizing Sources and Young Stellar Objects in M17. *Margaret Murray Hanson & Peter S. Conti.* 448, L45, 200-A9 (1995)

The Infrared Spectrum of the Optically Thin Dust Shell of V705 Cassiopeiae (Nova Cassiopeiae 1993). *R. D. Gehrz, M. A. Greenhouse, T. L. Hayward, J. R. Houck, C. G. Mason, & C. E. Woodward.* 448, L119, 209-E9 (1995)

The 11 Micron Emissions of Carbon Stars. *J. H. Goebel, P. Cheeseman, & F. Gerbault.* 449, 246, 213-E9 (1995)

The First 8–13 Micron Spectra of Asymptotic Giant Branch Stars in the Magellanic Clouds. *M. A. T. Groenewegen et al., C. H. Smith, P. R. Wood, A. Omont, & T. Fujiyoshi.* 449, L119, 227-A8 (1995)

Star Formation in the Gemini OB1 Molecular Cloud Complex. *John M. Carpenter, Ronald L. Snell, & F. Peter Schloerb.* 450, 201, 230-G5 (1995)

An Infrared Spectroscopic Survey of the ρ Ophiuchi Young Stellar Cluster: Masses and Ages from the H-R Diagram. *Thomas P. Greene & Michael R. Meyer.* 450, 233, 231-C3 (1995)

Rayleigh Beacon Adaptive Optics Imaging of ADS 9731: Measurements of the Isoplanatic Field of View. *Julian C. Christou, Brent Ellerbroek, Robert Q. Fugate, Domenico Bonaccini, & Ruggero Stanga.* 450, 369, 233-A12 (1995)

Full Adaptive Optics Images of ADS 9731 and μ Cassiopeiae: Orbits and Masses. *Jack D. Drummond, Julian C. Christou, & Robert Q. Fugate.* 450, 380, 233-B12 (1995)

Silicate Emission at 10 Microns in Variables on the Asymptotic Giant Branch. *G. C. Sloan & S. D. Price.* 451, 758, 257-E13 (1995)

Spatially Resolved Mid-Infrared Observations of Circumstellar Dust around AB Aurigae. *Kenneth A. Marsh, Jeffrey E. Van Cleve, M. J. Mahoney, T. L. Hayward, & J. R. Houck.* 451, 777, 257-G10 (1995)

NGC 1333 IRAS 4: Further Multiplicity Revealed with the CSO-JCMT Interferometer. *O. P. Lay, J. E. Carlstrom, & R. E. Hills.* 452, L73, 270-F7 (1995)

In Search of HL Tauri. *David A. Weintraub, Joel H. Kastner, & Barbara A. Whitney.* 452, L141, 280-E6 (1995)

An *IRAS*-based Search for New Dusty Late-Type WC Wolf-Rayet Stars. *Martin Cohen.* 100, 413, 51-G1 (1995)

Bipolar Jets from Extremely Young Stars Observed in Molecular Hydrogen Emission. *Klaus-Werner Hodapp & E. F. Ladd.* 453, 715, 293-E13 (1995)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. III. Kinematics of the Bulge Stars. *H. Izumiura, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, N. Ukita, & I. Yamamura.* 453, 837, 295-D7 (1995)

The Low-Mass IMF in the ρ Ophiuchi Cluster. *D. M. Williams, F. Comerón, G. H. Rieke, & M. J. Rieke.* 454, 144, 301-C2 (1995)

Four Newly Identified Sources with 21 Micron Emission. *Sun Kwok, Bruce J. Hrivnak, & T. R. Geballe.* 454, 394, 304-F8 (1995)

Pre–Main-Sequence Evolution in the Taurus-Auriga Molecular Cloud. *Scott J. Kenyon & Lee Hartmann.* 101, 117, 54-D3 (1995)

The 30 Micron Emission Band in Carbon-rich Pre–Planetary Nebulae. *A. Omont, S. H. Moseley, P. Cox, W. Glaccum, S. Casey, T. Forveille, Kin-Wing Chan, R. Szczerba, R. F. Loewenstein, P. M. Harvey, & S. Kwok.* 454, 819, 313-B2 (1995)

Young Star Clusters in Bright-rimmed Clouds: Small-Scale Sequential Star Formation? *Koji Sugitani, Motohide Tamura, & Katsuo Ogura.* 455, L39, 324-G9 (1995)

Interstellar Extinction from 0.35 to 2.2 Microns: A Study Based on Luminous Southern Stars. *Lida He, D. C. B. Whittet, D. Kilkenny, & J. H. Spencer Jones.* 101, 335, 58-D12 (1995)

INSTABILITIES

Nonaxisymmetric Instabilities in Rotating Shear Flows: Internal Gravity Modes in Stratified Media and Analogies with Plane Flows. *P. Ghosh & M. A. Abramowicz.* 366, 221, 3-F13 (1991)

Thermal Instabilities in Proto–Globular Clusters Resulting from Time-dependent Potentials. *Stephen D. Murray & Douglas N. C. Lin.* 367, 149, 13-G6 (1991)

A Search for Instability in Two Families of Spherical Stellar Models. *Martin D. Weinberg.* 368, 66, 24-A1 (1991)

The Dynamic Instability of Adiabatic Blast Waves. *Dongsu Ryu & Ethan T. Vishniac.* 368, 411, 30-B12 (1991)

Rayleigh-Taylor Instabilities and Mixing in the Helium Star Models for Type Ib/Ic Supernovae. *Izumi Hachisu, Takuya Matsuda, Ken'ichi Nomoto, & Toshikazu Shigeyama.* 368, L27, 35-B4 (1991)

Self-Organization of Cosmic Radiation Pressure Instability. *Craig J. Hogan.* 369, 300, 41-D8 (1991)

The Finite-Amplitude Behavior of the Joule Mode under Astrophysical Conditions. *G. Bodo, S. Massaglia, R. Rosner, & A. Ferrari.* 370, 398, 52-C1 (1991)

On the Thermal Stability of Slabs, Cylinders, and Spheres. *Miguel H. Ibáñez S., & Florencio P. Plachco M.* 370, 743, 57-F1 (1991)

On Magnetothermal Instability in Cluster Cooling Flows. *Steven A. Balbus.* 372, 25, 74-C13 (1991)

A Powerful Local Shear Instability in Weakly Magnetized Disks. I. Linear Analysis. *Steven A. Balbus & John F. Hawley.* 376, 214, 127-E11 (1991)

A Powerful Local Shear Instability in Weakly Magnetized Disks. II. Nonlinear Evolution. *John F. Hawley & Steven A. Balbus.* 376, 223, 127-F8 (1991)

Stability of Nonrotating Stellar Systems. II. Prolate Shell-Orbit Models. *David Merritt & Lars Hernquist.* 376, 439, 131-G13 (1991)

Nonlinear Instability of the Accretion Line. *Noam Soker.* 376, 750, 135-F1 (1991)

Modes of Oscillation of a Uniformly Rotating, Homogeneous Spheroid of Stars. *Peter O. Vandervoort.* 377, 49, 138-F1 (1991)

Cloud Formation by Combined Instabilities in Galactic Gas Layers: Evidence for a *Q* Threshold in the Fragmentation of Shearing Wavelets. *Bruce G. Elmegreen.* 378, 139, 152-F11 (1991)

The Secular Instability of Axisymmetric Collisionless Star Clusters. *Henry E. Kandrup.* 380, 511, 184-E9 (1991)

A Model for Tidally Driven Eccentric Instabilities in Fluid Disks. *Stephen H. Lubow.* 381, 259, 192-B12 (1991)

Simulations of Tidally Driven Eccentric Instabilities with Application to Superhumps. *Stephen H. Lubow.* 381, 268, 192-C9 (1991)

Three-dimensional Simulations of Black Hole Tori. *John F. Hawley.* 381, 496, 196-G9 (1991)

Two-dimensional Hydrodynamic Calculations of the Nonlinear Development of the Goldreich-Schubert-Fricke Instability in a Rotating Annulus. *D. G. Korycansky.* 381, 515, 197-B1 (1991)

Inverse-Compton Gamma-Ray Emission from Chaotic, Early-Type Stellar Winds and Its Detectability by *Gamma Ray Observatory*. *Wan Chen & Richard L. White.* 381, L63, 199-E1 (1991)

Influence of a Dark Halo on the Stability of Elliptical Galaxies. *M. Stiavelli & L. S. Sparke.* 382, 466, 207-D1 (1991)

On the Effects of Interstellar Gas on the Oscillations and the Stability of Galaxies. *Peter O. Vandervoort.* 383, 498, 220-E1 (1991)

Self-Organization of Cosmic Radiation Pressure Instability. II. One-dimensional Simulations. *Craig J. Hogan & Jorden Woods.* 384, 111, 2-D4 (1992)

Acoustic Instability in Cosmic-Ray Mediated Shocks. *Hyesung Kang, T. W. Jones, & Dongsu Ryu.* 385, 193, 14-D1 (1992)

Emergence of Magnetic Flux from the Convection Zone into the Solar Atmosphere. I. Linear and Nonlinear Adiabatic Evolution of the Convective-Parker Instability. *S. Nozawa, K. Shibata, R. Matsumoto, A. C. Sterling, T. Tajima, Y. Uchida, A. Ferrari, & R. Rosner.* 78, 267, 5-D5 (1992)

Magnetic Interchange Instability of Accretion Disks. *M. Kaisig, T. Tajima, & R. V. E. Lovelace.* 386, 83, 25-B7 (1992)

Resonance Line Radiation Instability in Fully Ionized Plasmas. *William G. Mathews.* 386, 90, 25-C1 (1992)

Instabilities in Astrophysical Jets. I. Linear Analysis of Body and Surface Waves. *Jun-Hui Zhao, Jack O. Burns, Philip E. Hardee, & Michael L. Norman.* 387, 69, 37-G7 (1992)

Instabilities in Astrophysical Jets. II. Numerical Simulations of Slab Jets. *Jun-Hui Zhao, Jack O. Burns, Michael L. Norman, & Martin E. Sulkanen.* 387, 83, 38-B1 (1992)

Inhibition of Electron Thermal Conduction by Electromagnetic Instabilities. *Amir Levinson & David Eichler.* 387, 212, 39-E5 (1992)

On the Instability Strip of the Cepheid Stars. *C. Chiosi, P. Wood, G. Bertelli, & A. Bressan.* 387, 320, 41-A1 (1992)

Asymmetric Morphology of the Propagating Jet. II. The Effect of Atmospheric Gradients. *Philip E. Hardee, Raymond E. White III, Michael L. Norman, Michael A. Cooper, & David A. Clarke.* 387, 460, 44-D8 (1992)

Radiative Instabilities and 1000 Second Fluctuations in Astrophysical Masers. *Gerardo A. Scappaticci & William D. Watson.* 387, L73, 48-C10 (1992)

Convective Instability in Differentially Rotating Disks. *Dongsu Ryu & Jeremy Goodman.* 388, 438, 55-F12 (1992)

The Stability of Accretion Tori. IV. Fission and Fragmentation of Slender, Self-gravitating Annuli. *Dimitris M. Christodoulou & Ramesh Narayan.* 388, 451, 56-A1 (1992)

Magnetic Fields and Radiative Shocks in Protogalaxies and the Origin of Globular Clusters. *Paul R. Shapiro, Alejandro Clocchiatti, & Hyesung Kang.* 389, 269, 63-C11 (1992)

Mixing in Ejecta of Supernovae. I. General Properties of Two-dimensional Rayleigh-Taylor Instabilities and Mixing Width in Ejecta of Supernovae. *Izumi Hachisu, Takuya Matsuda, Ken'ichi Nomoto, & Toshikazu Shigeyama.* 390, 230, 76-G7 (1992)

Swing Amplification of Nonaxisymmetric Perturbations in Stars and Gas in a Sheared Galactic Disk. *Chanda J. Jog.* 390, 378, 80-B1 (1992)

Hydrodynamic Instabilities in Supernova Remnants: Self-similar Driven Waves. *Roger A. Chevalier, John M. Blondin, & Robert T. Emmering.* 392, 118, 102-D9 (1992)

Initiation of Bipolar Flows by Magnetic Field Twisting in Protostellar Nebulae. *William I. Newman, Alice L. Newman, & Richard V. E. Lovelace.* 392, 622, 110-A1 (1992)

Is the Oort *A*-Value a Universal Growth Rate Limit for Accretion Disk Shear Instabilities? *Steven A. Balbus & John F. Hawley.* 392, 662, 110-D12 (1992)

Superhump Timing in SU Ursae Majoris Systems: Implications of the Data for the Precessing Disk Model. *Lawrence A. Molnar & Henry A. Kobulnicky.* 392, 678, 110-F3 (1992)

Swinging Spiral Waves and Alfvén Turbulence in Accretion Disks. *M. Tagger, R. Pellat, & F. V. Coroniti.* 393, 708, 124-F1 (1992)

Giant Molecular Cloud Formation through the Parker Instability in a Skewed Magnetic Field. *Tomoyuki Hanawa, Ryoji Matsumoto, & Kazunari Shibata.* 393, L71, 127-E1 (1992)

The Stability of QSO/AGN Broad Emission Line Clouds. *I. S. Krinsky & R. C. Puetter.* 394, 472, 135-C1 (1992)

Hydrodynamics of the Hot Component of the Galactic Halo. II. Radiative and Dynamical Instabilities. *A. Ferrara & G. Einaudi.* 395, 475, 148-D9 (1992)

Dynamical Stability of Two-dimensional Accretion Flows: An Analytic Study. *Omri Gat & Mario Livio.* 396, 542, 164-C1 (1992)

An Examination of the $m = 1$ Instability in a Low-Mass Protoplanetary Disk. *Hyerim Noh, Ethan T. Vishniac, & William D. Cochran.* 397, 347, 172-B11 (1992)

On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. I. General Results. *Miguel H. Ibáñez S., Antonio Parravano, & César A. Mendoza B.* 398, 177, 184-B1 (1992)

Tidally Driven Inclination Instability in Keplerian Disks. *Stephen H. Lubow.* 398, 525, 190-F3 (1992)

Local Magnetohydrodynamic Instabilities and the Wave-driven Dynamo in Accretion Disks. *Ethan T. Vishniac & Patrick Diamond.* 398, 561, 191-B5 (1992)

Growth and Decay of Disturbances in Stratified Shear Flow in a Rotating Frame. *D. G. Korycansky.* 399, 176, 197-D3 (1992)

The Effect of Line Tying on Parker's Instability. *Ellen G. Zweibel & David L. Bruhwiler.* 399, 318, 199-C11 (1992)

Spatial Stability of the Magnetized Slab Jet. *Philip E. Hardee, Michael A. Cooper, Michael L. Norman, & James M. Stone.* 399, 478, 203-G11 (1992)

Band Splitting in Solar Type II Radio Bursts. *R. A. Treumann & J. LaBelle.* 399, L167, 208-E7 (1992)

Rapid Time Variations and Radiative Instabilities of Astrophysical Masers. *Gerardo A. Scappaticci & William D. Watson.* 400, 351, 213-C7 (1992)

Nonlinear Dynamics of a Three-dimensional Jet. *Philip E. Hardee & David A. Clarke.* 400, L9, 214-B6 (1992)

A Powerful Local Shear Instability in Weakly Magnetized Disks. III. Long-Term Evolution in a Shearing Sheet. *John F. Hawley & Steven A. Balbus.* 400, 595, 217-F12 (1992)

A Powerful Local Shear Instability in Weakly Magnetized Disks. IV. Nonaxisymmetric Perturbations. *Steven A. Balbus & John F. Hawley.* 400, 610, 218-A1 (1992)

An Instability Associated with a Magnetosphere-Disk Interaction. *H. C. Spruit & Ronald E. Taam.* 402, 593, 10-A5 (1993)

The Cosmic Doppler Instability. *Craig J. Hogan.* 403, 445, 21-B1 (1993)

The Kelvin-Helmholtz Instability in Photospheric Flows: Effects on Coronal Heating and Structure. *Judith T. Karpen, Spiro K. Antiochos, Russell B. Dahlburg, & Daniel S. Spicer.* 403, 769, 25-C13 (1993)

Parker Instability in a Realistic Gravitational Field. *Ahmet T. Giz & Frank H. Shu.* 404, 185, 30-C3 (1993)

Formation of Large-Scale Cosmic Structure by the Doppler Instability. *Y. B. Band.* 404, 425, 34-C1 (1993)

Effects of Magnetic Fields and Rotation on the Fragmentation of Filamentary Molecular Clouds: Comparison of the Theory with the Orion A Cloud. *Tomoyuki Hanawa, Fumitaka Nakamura, Tomoaki Matsumoto, Takenori Nakano, Ken'ichi Tatematsu, Tomofumi Umemoto, Osamu Kameya, Naomi Hirano, Tetsuo Hasegawa, Norio Kaifu, & Satoshi Yamamoto.* 404, L83, 40-G1 (1993)

The Stability of Cosmic-Ray–dominated Shocks: A Secondary Instability. *Dongsu Ryu, Hyesung Kang, & T. W. Jones.* 405, 199, 43-E7 (1993)

Parametric Instabilities of Circularly Polarized Alfvén Waves in High-β Plasmas. *Hiromitsu Hamabata.* 406, 563, 64-G5 (1993)

A Local Instability of Tidally Distorted Accretion Disks. *Jeremy Goodman.* 406, 596, 65-C8 (1993)

Nonlinear Growth of Dynamical Overstabilities in Blast Waves. *Mordecai-Mark Mac Low & Michael L. Norman.* 407, 207, 71-E11 (1993)

On the Nonlinear Instability of a Thermal Field. *Miguel H. Ibáñez S., Antonio Parravano, & César A. Mendoza B.* 407, 611, 78-B13 (1993)

Unstable Degenerates Revisited. *John Faulkner.* 408, 600, 92-F5 (1993)

Local Hydrodynamic Instability of Rotating Stars. *Alexander Lifschitz & Norman Lebovitz.* 408, 603, 92-F9 (1993)

Two-dimensional Viscous Accretion Disk Models. II. On Viscous Overstability. *W. Kley, J. C. B. Papaloizou, & D. N. C. Lin.* 409, 739, 108-C6 (1993)

A Generalized Zel'dovich Approximation to Gravitational Instability. *M. Giavalisco, B. Mancinelli, P. J. Mancinelli, & A. Yahil.* 411, 9, 127-B12 (1993)

On the Convective Instability of the Cometary Ionosphere. *A. I. Ershkovich & P. L. Israelevich.* 411, 891, 140-G12 (1993)

On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. II. Application to the Interstellar Medium. *Antonio Parravano, Miguel H. Ibáñez S., & César A. Mendoza B.* 412, 625, 151-E6 (1993)

The Stability of Accretion Tori. V. Unstable Modes and Avoided Crossings in Extended, Self-gravitating Annuli. *Dimitris M. Christodoulou.* 412, 696, 152-D13 (1993)

Oscillatory Instability of Radiative Shocks with Transverse Magnetic Field: Linear Analysis and Nonlinear Simulations. *G. Tóth & B. T. Draine.* 413, 176, 158-C8 (1993)

Anomalous Energy and Momentum Transfer of Intense Neutrinos in Supernova Explosions. *Tzihong Chiueh.* 413, L35, 162-E11 (1993)

Formation of Quasar Clouds by Thermal Instability in the Presence of Alfvén Wave Heating. *D. R. Gonçalves, V. Jatenco-Pereira, & R. Opher.* 414, 57, 170-F12 (1993)

Radiative Instability in Synchrotron-emitting Plasmas. *P. Rossi, G. Bodo, S. Massaglia, & A. Ferrari.* 414, 112, 171-D7 (1993)

Three-dimensional Magnetohydrodynamics of the Emerging Magnetic Flux in the Solar Atmosphere. *R. Matsumoto, T. Tajima, K. Shibata, & M. Kaisig.* 414, 357, 174-D8 (1993)

A Hydrodynamical Model for the Explosion of a Neutron Star Just below the Minimum Mass. *Monica Colpi, Stuart L. Shapiro, & Saul A. Teukolsky.* 414, 717, 180-B10 (1993)

Propagation and Stability Properties of Radio Jets in Cluster Cooling Flow Atmospheres. *Chris Loken, Jack O. Burns, Michael L. Norman, & David A. Clarke.* 417, 515, 225-F9 (1993)

Rings of Fire: Nuclear Burning as the Origin of Sub-Hertz Noise and Weak X-Ray Bursts in Accreting Neutron Stars. *Lars Bildsten.* 418, L21, 238-C8 (1993)

Temperatures of Enhanced Stability in Hot Thin Plasmas. *Neil Gehrels & Ellen D. Williams.* 418, L25, 238-D1 (1993)

Stability of Detonations in Supernovae. *A. M. Khokhlov.* 419, 200, 248-F5 (1993)

Dynamical Instabilities in Hollow Halo Models. *Joshua E. Barnes.* 419, L17, 252-C11 (1993)

Star Formation at Compressed Interfaces in Turbulent Self-gravitating Clouds. *B. G. Elmegreen.* 419, L29, 252-E1 (1993)

The Stability of Thick, Self-gravitating Disks in Protostellar Systems. *John W. Woodward, Joel E. Tohline, & Izumi Hachisu.* 420, 247, 4-A7 (1994)

Dynamics of the Magnetic Shearing Instability and Magnetohydrodynamic Turbulence in Accretion Disks. I. Vertical Magnetic Field. *W. Zhang, P. H. Diamond, & E. T. Vishniac.* 420, 705, 11-F2 (1994)

Hydrodynamic Instability and Coalescence of Binary Neutron Stars. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 420, 811, 13-A10 (1994)

Local Shear Instabilities in Weakly Ionized, Weakly Magnetized Disks. *Omer M. Blaes & Steven A. Balbus.* 421, 163, 18-A12 (1994)

The Effects of Kelvin-Helmholtz Instability on Resonance Absorption Layers in Coronal Loops. *Judith T. Karpen, Russell B. Dahlburg, & Joseph M. Davila.* 421, 372, 20-E10 (1994)

Nonlinear Evolution of Tidally Distorted Accretion Disks: Two-dimensional Simulations. *Dongsu Ryu & Jeremy Goodman.* 422, 269, 33-D10 (1994)

Magnetogravitational Instability of Self-gravitating Dusty Plasma. *R. K. Chhajlani & A. K. Parihar.* 422, 746, 41-B6 (1994)

Equilibrium, Stability, and Orbital Evolution of Close Binary Systems. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 423, 344, 50-D9 (1994)

The Formation of Stellar Systems by Gravitational Instability in the Cygnus Superbubble. *F. Comerón & J. Torra.* 423, 652, 56-F1 (1994)

On the Acceleration of Nuclear Flame Fronts in White Dwarfs. *F. X. Timmes.* 423, L131, 61-B5 (1994)

Stability against Phase Mixing of Collisionless Self-gravitating Matter. *Jens Hjorth.* 424, 106, 63-C11 (1994)

The Formation of Stellar Groups and Clusters in Molecular Cloud Cores. *Kanan Patel & Ralph E. Pudritz.* 424, 688, 73-D7 (1994)

On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. III. Molecular Gas. *Miguel H. Ibáñez S., & Antonio Parravano.* 424, 763, 74-C8 (1994)

X-Ray Enhancement of SN 1987A Due to Interaction with Its Ringlike Nebula. *Kuniaki Masai & Ken'ichi Nomoto.* 424, 924, 76-C3 (1994)

Nickel Bubble Instability and Mixing in SN 1987A. *Mikhail Basko.* 425, 264, 83-E5 (1994)

Instabilities of Counterrotating Stellar Disks. *J. A. Sellwood & David Merritt.* 425, 530, 88-C5 (1994)

Bending Instabilities in Stellar Systems. *David Merritt & J. A. Sellwood.* 425, 551, 88-E5 (1994)

Starbursts by Gravitational Collapse in the Inner Lindblad Resonance Rings of Galaxies. *B. G. Elmegreen.* 425, L73, 94-C8 (1994)

Testing the Gravitational Instability Hypothesis? *Arif Babul, David H. Weinberg, Avishai Dekel, & Jeremiah P. Ostriker.* 427, 1, 110-B1 (1994)

The Nonlinear Evolution of Rare Events. *Francis Bernardeau.* 427, 51, 110-F1 (1994)

Gravitational Instability and Disk Star Formation. *Boqi Wang & Joseph Silk.* 427, 759, 122-B4 (1994)

Nonlinear Instabilities in Shock-bounded Slabs. *Ethan T. Vishniac.* 428, 186, 130-E1 (1994)

Streaming Instability in Relativistically Hot Pulsar Magnetospheres. *James C. Weatherall.* 428, 261, 131-D5 (1994)

Gravitational Instabilities in a Proto–Planetary Disk Including the Effects of Magnetic Fields. *Hyerim Noh, Ethan T. Vishniac, & William D. Cochran.* 428, 275, 131-E9 (1994)

Nonlinear Approximations to Gravitational Instability: A Comparison in Second-Order Perturbation Theory. *Dipak Munshi & Alexei A. Starobinsky.* 428, 433, 135-E6 (1994)

Gravitational Instability of Cold Matter. *Edmund Bertschinger & Bhuvnesh Jain.* 431, 486, 184-E12 (1994)

Acoustic Instability Driven by Cosmic-Ray Streaming. *Mitchell C. Begelman & Ellen G. Zweibel.* 431, 689, 187-B6 (1994)

Low-Frequency Quasi-periodic Oscillations in Low-Mass X-Ray Binaries and Galactic Black Hole Candidates. *Xingming Chen & Ronald E. Taam.* 431, 732, 187-F3 (1994)

Secondary Maxima of Black Hole X-Ray Transients: A Clue to Understanding X-Ray Irradiation. *S. Mineshige.* 431, L99, 191-F7 (1994)

Cosmic Bullets as Particle Accelerators and Radio Sources. *T. W. Jones, Hyesung Kang, & I. L. Tregillis.* 432, 194, 195-E11 (1994)

Parasitic Instabilities in Magnetized, Differentially Rotating Disks. *Jeremy Goodman & Guohong Xu.* 432, 213, 195-G7 (1994)

Hydrodynamics of Binary Coalescence. I. Polytropes with Stiff Equations of State. *Frederic A. Rasio & Stuart L. Shapiro.* 432, 242, 196-C2 (1994)

On the Thermochemical Stability of the Pregalactic Gas. I. The Equilibrium States. *Patricia Rosenzweig, Antonio Parravano, Miguel H. Ibáñez S., & Yu. I. Izotov.* 432, 485, 202-A7 (1994)

Causally Limited Viscosity and the Stability Properties of Isothermal Accretion Disks. *Xue-Bing Wu & Lan-Tian Yang.* 432, 672, 204-D3 (1994)

Stability Criteria for Massive Current Sheets in Two-dimensional Potential Magnetic Fields. *J. J. Aly, S. Colombi, & T. Lepeltier.* 432, 793, 205-G9 (1994)

Axisymmetric Neutrino Radiation and the Mechanism of Supernova Explosions. *Tetsuya Shimizu, Shoichi Yamada, & Katsuhiko Sato.* 432, L119, 207-B1 (1994)

Supercloud Formation by Gravitational Collapse of Magnetic Gas in the Crest of a Spiral Density Wave. *B. G. Elmegreen.* 433, 39, 208-F5 (1994)

Four Experiments on Thermal Instabilities in Stellar Envelopes. *Alvio Renzini & Claudio Ritossa.* 433, 293, 212-A5 (1994)

The CO/SiO Radiative Instability in Cool Star Atmospheres Revisited. *M. Cuntz & D. O. Muchmore.* 433, 303, 212-B3 (1994)

Prompt Convection in Core Collapse Supernovae. *Stephen W. Bruenn & Anthony Mezzacappa.* 433, L45, 215-C1 (1994)

Generation of Spatial Structures by Nonlinear Mass-Exchange Processes in a Multicomponent Rotating Disk. *V. I. Korchagin & A. D. Ryabtsev.* 433, 520, 217-D9 (1994)

Thermally Unstable Perturbations in Stratified Conducting Atmospheres. *Fabio Reale, Salvatore Serio, & Giovanni Peres.* 433, 811, 221-C1 (1994)

Waves and Instabilities of a Toroidal Magnetic Flux Tube in a Rotating Star. *A. Ferriz-Mas & M. Schüssler.* 433, 852, 221-F10 (1994)

Linear Stability of Spherical Collisionless Stellar Systems. *G. Bertin, F. Pegoraro, F. Rubini, & E. Vesperini.* 434, 94, 226-D8 (1994)

On the Global Stability of Magnetized Accretion Disks. I. Axisymmetric Modes. *Charles Curry, Ralph E. Pudritz, & Peter G. Sutherland.* 434, 206, 228-C7 (1994)

Radiative Shock Overstability of Finite-sized Objects. *Ruth Dgani & Noam Soker.* 434, 262, 229-A11 (1994)

Nonaxisymmetric Three-dimensional Instability in Thin Accretion Disks. *Tzihong Chiueh & Yao-Huan Tseng.* 435, 379, 248-E11 (1994)

Disk-Instability Model for Black Hole Transients: Interplay of Thermal and Tidal Instabilities. *S. Ichikawa, S. Mineshige, & T. Kato.* 435, 748, 256-D2 (1994)

Nonlinear Instability of Accelerating Shock Waves with Application to Supernovae. *Ding Luo & Roger A. Chevalier.* 435, 815, 257-C9 (1994)
When Star Formation Stops: Galaxy Edges and Low Surface Brightness Disks. *B. G. Elmegreen & A. Parravano.* 435, L121, 260-A3 (1994)
Nonaxisymmetric Evolution in Protostellar Disks. *Gregory Laughlin & Peter Bodenheimer.* 436, 335, 265-G13 (1994)
What is the Condition for Fast Magnetic Reconnection? *T. Yokoyama & K. Shibata.* 436, L197, 282-E7 (1994)
Hydrodynamics of Rotating Stars and Close Binary Interactions: Compressible Ellipsoid Models. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 437, 742, 295-G13 (1994)
Critical Angular Velocities of Rotating Neutron Stars. *Lee Lindblom.* 438, 265, 5-B4 (1995)
Jeans Mass for Anisotropic Matter. *L. Herrera & N. O. Santos.* 438, 308, 5-F7 (1995)
Thermal Equilibria of Accretion Disks. *Marek A. Abramowicz, Xingming Chen, Shoji Kato, Jean-Pierre Lasota, & Oded Regev.* 438, L37, 10-C5 (1995)
Gravitational Radiation–driven Secular Instability of Rotating Polytropes. *Shin'ichirou Yoshida & Yoshiharu Eriguchi.* 438, 830, 15-F1 (1995)
Propagation of Nuclear Burning Fronts on Accreting Neutron Stars: X-Ray Bursts and Sub-Hertz Noise. *Lars Bildsten.* 438, 852, 16-A2 (1995)
Hydrodynamics of Binary Coalescence. II. Polytropes with $\Gamma = 5/3$. *Frederic A. Rasio & Stuart L. Shapiro.* 438, 887, 16-D1 (1995)
A Helical Jet in the Orthogonally Misaligned BL Lacertae Object Markarian 501 (B1652+398). *J. E. Conway & J. M. Wrobel.* 439, 98, 22-E3 (1995)
Rapid Polarization Variability in Intense Sources. *R. T. Gangadhara & V. Krishan.* 440, 116, 42-G1 (1995)
Local Three-dimensional Magnetohydrodynamic Simulations of Accretion Disks. *John F. Hawley, Charles F. Gammie, & Steven A. Balbus.* 440, 742, 53-D4 (1995)
Oscillatory Modes in Near-critical Accretion Flows. *Guy S. Miller & Myeong-Gu Park.* 440, 771, 53-F11 (1995)
Simulation of the Instability of Mach 2 and Mach 4 Gaseous Jets in Two and Three Dimensions. *Gene M. Bassett & Paul R. Woodward.* 441, 582, 70-B1 (1995)
Dynamics of Gravitational Instability Is Nonlocal. *Lev Kofman & Dmitry Pogosyan.* 442, 30, 77-E12 (1995)
Gravitational Radiation from Rapidly Rotating Nascent Neutron Stars. *Dong Lai & Stuart L. Shapiro.* 442, 259, 80-F11 (1995)
Incorporation of Ambipolar Diffusion into the ZEUS Magnetohydrodynamics Code. *Mordecai-Mark Mac Low, Michael L. Norman, Arieh Königl, & Mark Wardle.* 442, 726, 90-B10 (1995)
The Radial-azimuthal Instability of Accretion Disks. I. Radiation Pressure Domination. *Xue-Bing Wu, Qi-Bin Li, Yong-Heng Zhao, & Lan-Tian Yang.* 442, 736, 90-C10 (1995)
The Radial-azimuthal Instability of Accretion Disks. II. Gas Pressure Domination. *Xue-Bing Wu, Qi-Bin Li, Yong-Heng Zhao, & Lan-Tian Yang.* 442, 743, 90-D7 (1995)
A New Criterion for Bar-forming Instability in Rapidly Rotating Gaseous and Stellar Systems. I. Axisymmetric Form. *Dimitris M. Christodoulou, Isaac Shlosman, & Joel E. Tohline.* 443, 551, 105-D8 (1995)
A New Criterion for Bar-forming Instability in Rapidly Rotating Gaseous and Stellar Systems. II. Nonaxisymmetric Form. *Dimitris M. Christodoulou, Isaac Shlosman, & Joel E. Tohline.* 443, 563, 105-E10 (1995)
Hydrodynamics of Coalescing Binary Neutron Stars: Ellipsoidal Treatment. *Dong Lai & Stuart L. Shapiro.* 443, 705, 107-E12 (1995)
Unified Description of Accretion Flows around Black Holes. *Xingming Chen, Marek A. Abramowicz, Jean-Pierre Lasota, Ramesh Narayan, & Insu Yi.* 443, L61, 111-E4 (1995)
Hydrodynamic Instabilities in Supernova Remnants: Early Radiative Cooling. *Roger A. Chevalier & John M. Blondin.* 444, 312, 117-F11 (1995)
Hydrodynamics of Semiconvection. *William J. Merryfield.* 444, 318, 117-G7 (1995)
Nonaxisymmetric Secular Instabilities Driven by Star/Disk Coupling. *James N. Imamura, Joseph Toman, Richard H. Durisen, Brian K. Pickett, & Shelby Yang.* 444, 363, 118-E4 (1995)
Mass Transfer Cycles in Cataclysmic Variables. *A. R. King, J. Frank, U. Kolb, & H. Ritter.* 444, L37, 121-F7 (1995)
The Minimum Mass Ratio of W Ursae Majoris Binaries. *Frederic A. Rasio.* 444, L41, 121-G1 (1995)
Fragmentation of Filamentary Molecular Clouds with Longitudinal Magnetic Fields: Formation of Disks and Their Collapse. *Fumitaka Nakamura, Tomoyuki Hanawa, & Takenori Nakano.* 444, 770, 127-B2 (1995)
Instabilities and the Transport of Polarized Astrophysical Maser Radiation. *Bradley K. Wallin & William D. Watson.* 445, 465, 139-A4 (1995)
Magnetic Viscosity by Localized Shear Flow Instability in Magnetized Accretion Disks. *R. Matsumoto & T. Tajima.* 445, 767, 145-G1 (1995)
Phase-Transition Theory of Instabilities. I. Second-Harmonic Instability and Bifurcation Points. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 472, 162-E12 (1995)
Phase-Transition Theory of Instabilities. II. Fourth-Harmonic Bifurcations and λ-Transitions. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 485, 162-G3 (1995)
Phase-Transition Theory of Instabilities. III. The Third-Harmonic Bifurcation on the Jacobi Sequence and the Fission Problem. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 500, 163-A8 (1995)
Phase-Transition Theory of Instabilities. IV. Critical Points on the Maclaurin Sequence and Nonlinear Fission Processes. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 510, 163-B7 (1995)
Line-driven Instability Growth Rates in Wolf-Rayet Winds. *Kenneth G. Gayley & Stanely P. Owocki.* 446, 801, 167-B4 (1995)
The Statistical Physics of Solar Active Regions and the Fundamental Nature of Solar Flares. *Edward T. Lu.* 446, L109, 171-E3 (1995)
Instabilities in Photoionized Interstellar Gas. *Edvige Corbelli & Andrea Ferrara.* 447, 708, 185-G1 (1995)
On the Origin of the Observed Knots in Novae. *Shlomi Pistinner & Giora Shaviv.* 448, L37, 199-G8 (1995)
Cold Accretion Disks with Coronae and Advection. *Xingming Chen.* 448, 803, 206-A4 (1995)
Radiative Instabilities in Three-dimensional Astrophysical Masers. *Gerardo A. Scappaticci & William D. Watson.* 448, 862, 206-G1 (1995)
Magnetic Buoyancy, Vorticity, and Three-dimensional Flux-Tube Formation. *P. C. Matthews, D. W. Hughes, & M. R. E. Proctor.* 448, 938, 207-G11 (1995)
Theoretical Properties of the Ω-Loops in the Convection Zone of the Sun. IV. Stability of Updrafts. *E. N. Parker.* 448, 942, 208-A7 (1995)
Nonlinear Energy Transfer in Solar Magnetic Loops. *Daniel O. Gómez, Edward E. DeLuca, & Alexander N. McClymont.* 448, 954, 208-B8 (1995)
Destabilization of Strongly Magnetized Jets. *Philip E. Hardee & David A. Clarke.* 449, 119, 211-G4 (1995)
Numerical Analysis of the Dynamic Stability of Radiative Shocks. *Russell Strickland & John M. Blondin.* 449, 727, 222-G5 (1995)
Emission and Dynamics of a Heavy Three-dimensional Magnetized Jet. *Philip E. Hardee & David A. Clarke.* 451, L25, 252-D11 (1995)
The Optimal N-Body Method for Stability Studies of Galaxies. *David J. D. Earn & J. A. Sellwood.* 451, 533, 254-E12 (1995)
Thermal Instability and Pulsations of the Flame Front in White Dwarfs. *Vitaliy V. Bychkov & Michael A. Liberman.* 451, 711, 257-A7 (1995)
Local Nonlinear Approximations to the Growth of Cosmic Structures. *Paul J. Mancinelli & Amos Yahil.* 452, 75, 263-B8 (1995)
The Evolution of Accretion Disks with Coronae: A Model for the Low-Frequency Quasi-periodic Oscillations in X-Ray Binaries. *Marek A. Abramowicz, Xingming Chen, & Ronald E. Taam.* 452, 379, 267-C11 (1995)
Microscopic Instabilities of Nuclear Flames in Type Ia Supernovae. *J. C. Niemeyer & W. Hillebrandt.* 452, 779, 275-C12 (1995)
A Numerical Study of Rayleigh-Taylor Instability in Magnetic Fluids. *Byung-Il Jun, Michael L. Norman, & James M. Stone.* 453, 332, 285-F9 (1995)
General Local Stability Criteria for Stratified, Weakly Magnetized Rotating Systems. *Steven A. Balbus.* 453, 380, 286-C13 (1995)
On the Global Stability of Magnetized Accretion Disks. II. Vertical and Azimuthal Magnetic Fields. *Charles Curry & Ralph E. Pudritz.* 453, 697, 293-D6 (1995)
The Corrugation Instability in Slow Magnetosonic Shock Waves. *James M. Stone & Mark Edelman.* 454, 182, 301-G7 (1995)
Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. V. Coriolis Force and the Centrifugal Potential Barrier. *E. N. Parker.* 454, 927, 314-E10 (1995)

A Turbulent Model for the Interstellar Medium. II. Magnetic Fields and Rotation. *Thierry Passot, Enrique Vázquez-Semadeni, & Annick Pouquet.* 455, 536, 329-D1 (1995)

An Empirical Condition for Stability of Hierarchical Triple Systems. *Peter Eggleton & Ludmila Kiseleva.* 455, 640, 330-F8 (1995)

INSTRUMENTATION: DETECTORS

A Rotating Tomographic Imager for Solar Extreme-Ultraviolet/Soft X-Ray Emission. *Joseph M. Davila & W. T. Thompson.* 389, L91, 73-F8 (1992)

COBE Differential Microwave Radiometers: Calibration Techniques. *C. L. Bennett, G. F. Smoot, M. Janssen, S. Gulkis, A. Kogut, G. Hinshaw, C. Backus, M. G. Hauser, J. C. Mather, L. Rokke, L. Tenorio, R. Weiss, D. T. Wilkinson, E. L. Wright, G. De Amici, N. W. Boggess, E. S. Cheng, P. D. Jackson, P. Keegstra, T. Kelsall, R. Kummerer, C. Lineweaver, S. H. Moseley, T. L. Murdock, J. Santana, R. A. Shafer, & R. F. Silverberg.* 391, 466, 93-F7 (1992)

Calibration of the Energetic Gamma-Ray Experiment Telescope (EGRET) for the *Compton Gamma-Ray Observatory*. *D. J. Thompson, D. L. Bertsch, C. E. Fichtel, R. C. Hartman, R. Hofstadter, E. B. Hughes, S. D. Hunter, B. W. Hughlock, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, C. von Montigny, P. L. Nolan, H. I. Nel, K. Pinkau, H. Rothermel, E. J. Schneid, M. Sommer, P. Sreekumar, D. Tieger, & A. H. Walker.* 86, 629, 22-F1 (1993)

Instrument Description and Performance of the Imaging Gamma-Ray Telescope COMPTEL aboard the *Compton Gamma-Ray Observatory*. *V. Schönfelder, H. Aarts, K. Bennett, H. de Boer, J. Clear, W. Collmar, A. Connors, A. Deerenberg, R. Diehl, A. von Dordrecht, J. W. den Herder, W. Hermsen, M. Kippen, L. Kuiper, G. Lichti, J. Lockwood, J. Macri, M. McConnell, D. Morris, R. Much, J. Ryan, G. Simpson, M. Snelling, G. Stacy, H. Steinle, A. Strong, B. N. Swanenburg, B. Taylor, C. de Vries, & C. Winkler.* 86, 657, 23-A5 (1993)

The Oriented Scintillation Spectrometer Experiment: Instrument Description. *W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, W. R. Purcell, D. A. Grabelsky, M. P. Ulmer, D. A. Hillis, G. V. Jung, & R. A. Cameron.* 86, 693, 23-D3 (1993)

In-Flight Performance and Preliminary Results from the Far Ultraviolet Space Telescope (Faust) Flown on ATLAS-1. *Stuart Bowyer, Timothy P. Sasseen, Michael Lampton, & Xiaoyi Wu.* 415, 875, 198-G12 (1993)

A Deeply Embedded Companion to LkHα 198. *P. O. Lagage, G. Olofsson, S. Cabrit, C. J. Cesarsky, L. Nordh, & J. M. Rodriguez Espinosa.* 417, L79, 230-D6 (1993)

The Position of PSR 0540−69. *A. Shearer, M. Redfern, H. Pedersen, T. Rowold, P. O'Kane, R. Butler, C. O'Byrne, & M. Cullum.* 423, L51, 53-G3 (1994)

The Cosmic-Ray Energy Spectrum Observed by the Fly's Eye. *D. J. Bird, S. C. Corbató, H. Y. Dai, B. R. Dawson, J. W. Elbert, B. L. Emerson, K. D. Green, M. A. Huang, D. B. Kieda, M. Luo, S. Ko, C. G. Larsen, E. C. Loh, M. H. Salamon, J. D. Smith, P. Sokolsky, P. Sommers, J. K. K. Tang, & S. B. Thomas.* 424, 491, 67-G13 (1994)

GRIS Background Reduction Results Using Isotopically Enriched Ge. *S. D. Barthelmy, L. M. Bartlett, N. Gehrels, M. Leventhal, B. J. Teegarden, J. Tueller, S. Belyaev, V. Lebedev, & H. V. Klapdor-Kleingrothaus.* 427, 519, 116-D6 (1994)

Measurement of the Sunyaev-Zel'dovich Effect toward Abell 2163 at a Wavelength of 2.2 Millimeters. *T. M. Wilbanks, P. A. R. Ade, M. L. Fischer, W. L. Holzapfel, & A. E. Lange.* 427, L75, 126-F13 (1994)

A Wide-Field Monitor for *INTEGRAL*. *Niels Lund.* 92, 337, 36-C9 (1994)

A 3 × 3 CsI(Tl) Array as an Example of a Segmented Detector. *J. A. Ruiz, J. L. Ferrero, G. Bernabeu, V. Reglero, & F. Sanchez.* 92, 659, 40-F1 (1994)

A Positron Annihilation Radiation Telescope Using Laue Diffraction in a Crystal Lens. *Peter von Ballmoos & Robert K. Smither.* 92, 663, 40-F7 (1994)

A New Telescope for Wide-Band Gamma-Ray Astronomy: The Silicon Compton Recoil Telescope (SCRT). *O. Tümay Tümer, Farid Ait-Ouamer, Scott C. Blair, Gary L. Case, Brendan P. O'Neill, Terrence J. O'Neill, R. Stephen White, & Allen D. Zych.* 92, 671, 40-G2 (1994)

Spallation Products Induced in CsI(Tl) by High-Energy Protons. *J. A. Ruiz, E. Porras, J. L. Ferrero, V. Reglero, F. Sanchez, F. Lei, A. J. Bird, T. Carter, & A. J. Dean.* 92, 683, 41-A6 (1994)

High Time Resolution Infrared Observations of the Crab Nebula Pulsar. *S. M. Ransom, G. G. Fazio, S. S. Eikenberry, J. Middleditch, J. Kristian, K. Hays, & C. R. Pennypacker.* 431, L43, 182-G11 (1994)

Gamma-Ray Observations in the Galactic Center Region with an Imaging Detector. *Jalal Samimi & Robert L. Kinzer.* 434, 136, 227-A8 (1994)

In-Orbit Performance of the COSTAR-corrected Faint Object Camera. *R. I. Jedrzejewski, G. Hartig, P. Jakobsen, J. H. Crocker, & H. C. Ford.* 435, L7, 251-B12 (1994)

The Faint Limit of the *Hubble Space Telescope* Faint Object Spectrograph and Rejection of the Cosmic-Ray Background. *David Tytler & Christopher Davis.* 438, 420, 7-C5 (1995)

Calibrating the Broad Band X-Ray Telescope. *K. A. Weaver, K. A. Arnaud, E. A. Boldt, D. Christian, M. Corcoran, S. S. Holt, K. Jahoda, R. Kelley, F. E. Marshall, R. F. Mushotzky, R. Petre, G. Rawley, P. J. Serlemitsos, E. M. Schlegel, A. P. Smale, J. H. Swank, A. E. Szymkowiak, & S. Yamauchi.* 96, 303, 5-D13 (1995)

Dead-Time Modifications to Fast Fourier Transform Power Spectra. *W. Zhang, K. Jahoda, J. H. Swank, E. H. Morgan, & A. B. Giles.* 449, 930, 225-E9 (1995)

Determination of the Galactic ^{26}Al Source Distribution with a Novel Imaging Telescope. *E. Aprile, E. L. Chupp, A. Bolotnikov, & P. P. Dunphy.* 453, 685, 293-C5 (1995)

Performance and Preliminary Calibration of the Hopkins Ultraviolet Telescope on the Astro-2 Mission. *Jeffrey W. Kruk, Samuel T. Durrance, Gerard A. Kriss, Arthur F. Davidsen, William P. Blair, Brian R. Espey, & David S. Finley.* 454, L1, 307-C1 (1995)

INSTRUMENTATION: INTERFEROMETERS

Determination of the Visual Orbit of the Spectroscopic Binary α Andromedae with Submilliarcsecond Precison. *Xiaopei Pan, Michael Shao, M. Mark Colavita, J. Thomas Armstrong, David Mozurkewich, Maddali Vivekanand, Craig S. Denison, Richard S. Simon, & Kenneth J. Johnston.* 384, 624, 9-G9 (1992)

First Results of an On-Line Adaptive Optics System with Atmospheric Wavefront Sensing by an Artificial Neural Network. *M. Lloyd-Hart, P. Wizinowich, B. McLeod, D. Wittman, D. Colucci, R. Dekany, D. McCarthy, J. R. P. Angel, & D. Sandler.* 390, L41, 78-F8 (1992)

Atmospheric Fluctuations: Empirical Structure Functions and Projected Performance of Future Instruments. *M. Bester, W. C. Danchi, C. G. Degiacomi, L. J. Greenhill, & C. H. Townes.* 392, 357, 105-D1 (1992)

Solar Magnetic Field Studies Using the 12 Micron Emission Lines. II. Stokes Profiles and Vector Field Samples in Sunspots. *Tilak Hewagama, Drake Deming, Donald E. Jennings, Vladimir Osherovich, Gunter Wiedemann, David Zipoy, Donald L. Mickey, & Howard Garcia.* 86, 313, 18-B7 (1993)

High Angular Resolution Measurements of Algol. *Xiaopei Pan, Michael Shao, & M. Mark Colavita.* 413, L129, 169-C1 (1993)

A Fabry-Perot Imager for Near-Infrared Astrophysics at the Communications Research Laboratory 1.5 Meter Telescope, and Imaging of Hydrogen Recombination Lines in the Orion Nebula. *Hajime Sugai, Tomonori Usuda, Hirokazu Kataza, Masuo Tanaka, Hironobu Kawabata, Motoko Y. Inoue, Hideki Takami, Tetsuo Aoki, & Norihisa Hiromoto.* 427, 511, 116-C10 (1994)

Detection of a VLBI Counterjet in NGC 1275: A Possible Probe of the Parsec-Scale Accretion Region. *R. C. Walker, J. D. Romney, & J. M. Benson.* 430, L45, 165-F13 (1994)

INSTRUMENTATION: MISCELLANEOUS

Liquid Mirrors: Optical Shop Tests and Contributions to the Technology. *E. F. Borra, R. Content, L. Girard, S. Szapiel, L. M. Tremblay, & E. Boily.* 393, 829, 126-C1 (1992)

Tip-Tilt Compensation: Resolution Limits for Ground-based Telescopes Using Laser Guide Star Adaptive Optics. *Scot S. Olivier, Claire E. Max, Donald T. Gavel, & James M. Brase.* 407, 428, 74-D1 (1993)

Optical Shop Tests of a f/1.2 2.5 Meter Diameter Liquid Mirror. *E. F. Borra, R. Content, & L. Girard.* 418, 943, 244-D1 (1993)

A Wide Sky Coverage Ferrofluid Mercury Telescope. *William L. H. Shuter & Lorne A. Whitehead.* 424, L139, 79-F12 (1994)

Planet Detectability by an Adaptive Optics Stellar Coronagraph. *Tadashi Nakajima.* 425, 348, 84-F1 (1994)

The Solar Diameter and Oblateness Measured by the Solar Disk Sextant on the 1992 September 30 Balloon Flight. *S. Sofia, W. Heaps, & L. W. Twigg.* 427, 1048, 125-F2 (1994)

A Coronagraphic Search for Brown Dwarfs around Nearby Stars. *T. Nakajima, S. T. Durrance, D. A. Golimowski, & S. R. Kulkarni.* 428, 797, 140-B11 (1994)

The Polarization Sensitivity of the Liquid Xenon Imaging Telescope. *E. Aprile, A. Bolotnikov, D. Chen, R. Mukherjee, & F. Xu.* 92, 689, 41-A13 (1994)

The On-Orbit Performance of WFPC2. *John T. Trauger, Gilda E. Ballester, Christopher J. Burrows, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, John S. Gallagher III, Richard E. Griffiths, J. Jeff Hester, John G. Hoessel, Jon A. Holtzman, John E. Krist, Jeremy R. Mould, Paul A. Scowen, Karl R. Stapelfeldt, Alan M. Watson, & James A. Westphal.* 435, L3, 251-B5 (1994)

INSTRUMENTATION: PHOTOMETERS

A Bolometric Millimeter-Wave System for Observations of Anisotropy in the Cosmic Microwave Background Radiation on Medium Angular Scales. *M. L. Fischer, D. C. Alsop, E. S. Cheng, A. C. Clapp, D. A. Cottingham, J. O. Gundersen, T. C. Koch, E. Kreysa, P. R. Meinhold, A. E. Lange, P. M. Lubin, P. L. Richards, & G. F. Smoot.* 388, 242, 53-C11 (1992)

The Far-Infrared Photometer on the Infrared Telescope in Space. *A. E. Lange, M. M. Freund, S. Sato, T. Hirao, T. Matsumoto, & T. Watabe.* 428, 384, 133-A6 (1994)

INSTRUMENTATION: POLARIMETERS

Polarization in the Radio Galaxy 3C 109—An Obscured Quasar. *Robert W. Goodrich & Marshall H. Cohen.* 391, 623, 95-F12 (1992)

COBE DIRBE Near-Infrared Polarimetry of the Zodiacal Light: Initial Results. *G. B. Berriman, N. W. Boggess, M. G. Hauser, T. Kelsall, C. M. Lisse, S. H. Moseley, W. T. Reach, & R. F. Silverberg.* 431, L63, 183-C1 (1994)

INSTRUMENTATION: SPECTROGRAPHS

The Spectral Archive of Cosmic X-Ray Sources Observed by the *Einstein Observatory* Focal Plane Crystal Spectrometer. *Kenneth S. K. Lum, Claude R. Canizares, George W. Clark, Joan M. Coyne, Thomas H. Markert, Pablo J. Saez, Mark L. Schattenburg, & P. Frank Winkler.* 78, 423, 8-E11 (1992)

The Hopkins Ultraviolet Telescope: Performance and Calibration during the Astro-1 Mission. *Arthur F. Davidsen, Knox S. Long, Samuel T. Durrance, William P. Blair, Charles W. Bowers, Steven J. Conard, Paul D. Feldman, Henry C. Ferguson, Glen H. Fountain, Randy A. Kimble, Gerard A. Kriss, H. Warren Moos, & Kenneth A. Potocki.* 392, 264, 104-C1 (1992)

The Particle Background of the *ROSAT* PSPC. *S. L. Snowden, P. P. Plucinsky, U. Briel, G. Hasinger, & E. Pfeffermann.* 393, 819, 126-B1 (1992)

The Potential for Plasma Diagnostics from Stellar Extreme-Ultraviolet Observations. *U. Feldman, P. Mandelbaum, J. F. Seely, G. A. Doschek, & H. Gursky.* 81, 387, 40-D3 (1992)

Spatial Heterodyne Spectroscopy for the Exploration of Diffuse Interstellar Emission Lines at Far-Ultraviolet Wavelengths. *J. Harlander, R. J. Reynolds, & F. L. Roesler.* 396, 730, 166-D3 (1992)

Global O VI Line Emission from the Cygnus Loop Supernova Remnant and Direct Kinematic Measurement of the Associated Shock. *Andrew Rasmussen & Christopher Martin.* 396, L103, 167-E7 (1992)

The Scattered Solar X-Ray Background of the *ROSAT* PSPC. *S. L. Snowden & M. J. Freyberg.* 404, 403, 32-G3 (1993)

The Oriented Scintillation Spectrometer Experiment: Instrument Description. *W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, W. R. Purcell, D. A. Grabelsky, M. P. Ulmer, D. A. Hillis, G. V. Jung, & R. A. Cameron.* 86, 693, 23-D3 (1993)

IUE Short-Wavelength High-Dispersion Line List for the Symbiotic Nova RR Telescopii. *Jason P. Aufdenberg.* 87, 337, 31-D3 (1993)

Scattered Light in the Echelle Modes of the Goddard High Resolution Spectrograph aboard the *Hubble Space Telescope*. II. Analysis of In-Flight Spectroscopic Observations. *Jason A. Cardelli, Dennis C. Ebbets, & Blair D. Savage.* 413, 401, 161-C5 (1993)

An Updated Calibration of the *ROSAT* PSPC Particle Background for the Analysis of Diffuse and Extended Sources. *P. P. Plucinsky, S. L. Snowden, U. G. Briel, G. Hasinger, & E. Pfeffermann.* 418, 519, 237-D10 (1993)

The Extreme Ultraviolet Spectrograph: A Radial Groove Grating, Sounding Rocket–borne, Astronomical Instrument. *Erik Wilkinson, James C. Green, & Webster Cash.* 89, 211, 51-F5 (1993)

Calibration of the *COBE* FIRAS Instrument. *D. J. Fixsen, E. S. Cheng, D. A. Cottingham, R. E. Eplee, Jr., T. Hewagama, R. B. Isaacman, K. A. Jensen, J. C. Mather, D. L. Massa, S. S. Meyer, P. D. Noerdlinger, S. M. Read, L. P. Rosen, R. A. Shafer, A. R. Trenholme, R. Weiss, C. L. Bennett, N. W. Boggess, D. T. Wilkinson, & E. L. Wright.* 420, 457, 8-C11 (1994)

Near-Infrared Spectrometer on the Infrared Telescope in Space. *Manabu Noda, Toshio Matsumoto, Shuji Matsuura, Kunio Noguchi, Masahiro Tanaka, Mark A. Lim, & Hiroshi Murakami.* 428, 363, 132-F5 (1994)

The Mid-Infrared Spectrometer on the Infrared Telescope in Space (IRTS) Mission. *Thomas L. Roellig, Takashi Onaka, Thomas J. McMahon, & T. Tanabé.* 428, 370, 132-G1 (1994)

Far-Infrared Line Mapper (FILM) on the Infrared Telescope in Space. *Hiroshi Shibai, Masao Yui, Hideo Matsuhara, Norihisa Hiromoto, Takao Nakagawa, & Haruyuki Okuda.* 428, 377, 132-G11 (1994)

INTEGRAL: Overview and Mission Concept. *Christoph Winkler.* 92, 327, 36-B9 (1994)

HST FOS Spectroscopy of M87: Evidence for a Disk of Ionized Gas around a Massive Black Hole. *Richard J. Harms, Holland C. Ford, Zlatan I. Tsvetanov, George F. Hartig, Linda L. Dressel, Gerard A. Kriss, Ralph Bohlin, Arthur F. Davidsen, Bruce Margon, & Ajay K. Kochhar.* 435, L35, 252-A3 (1994)

Observations of Cosmic-Ray Electrons and Positrons Using an Imaging Calorimeter. *R. L. Golden, C. Grimani, B. L. Kimbell, S. A. Stephens, S. J. Stochaj, W. R. Webber, G. Basini, F. Bongiorno, F. Massimo Brancaccio, M. Ricci, J. F. Ormes, R. E. Streitmatter, P. Papini, P. Spillantini, M. T. Brunetti, A. Codino, M. Menichelli, I. Salvatori, M. P. De Pascale, A. Morselli, & P. Picozza.* 436, 769, 276-B2 (1994)

The Solar-Stellar Spectrograph: Project Description, Data Calibration, and Initial Results. *Jeffrey C. Hall & G. W. Lockwood.* 438, 404, 7-A12 (1995)

The Faint Limit of the *Hubble Space Telescope* Faint Object Spectrograph and Rejection of the Cosmic-Ray Background. *David Tytler & Christopher Davis.* 438, 420, 7-C5 (1995)

Effects of Prescattering Attenuation on Spectropolarimetric Line Profiles. *Kenneth Wood & J. E. Bjorkman.* 443, 348, 100-A3 (1995)

Performance and Preliminary Calibration of the Hopkins Ultraviolet Telescope on the Astro-2 Mission. *Jeffrey W. Kruk, Samuel T. Durrance, Gerard A. Kriss, Arthur F. Davidsen, William P. Blair, Brian R. Espey, & David S. Finley.* 454, L1, 307-C1 (1995)

The Ultraviolet Reflectivity of Jupiter at 3.5 Å Resolution from Astro-1 and Astro-2. *Patrick F. Morrissey, Paul D. Feldman, Melissa A. McGrath, Brian C. Wolven, & H. Warren Moos.* 454, L65, 308-E2 (1995)

INSTRUMENTS

An Optical Fiber System to Perform Bidimensional Spectroscopy. *S. Arribas, E. Mediavilla, & J. L. Rasilla.* 369, 260, 39-B9 (1991)

The Imaging Performance of the *Hubble Space Telescope*. *Christopher J. Burrows, Jon A. Holtzman, S. M. Faber, Pierre Y. Bely, Hashima Hasan, C. R. Lynds, & Daniel Schroeder.* 369, L21, 45-C1 (1991)

Spectral Observations of the Extreme Ultraviolet Background. *Simon E. Labov & Stuart Bowyer.* 371, 810, 71-F1 (1991)

The Case for a Liquid Mirror in a Lunar-based Telescope. *Ermanno F. Borra.* 373, 317, 89-G12 (1991)

Ca II H and K Measurements Made at Mount Wilson Observatory, 1966–1983. *Douglas K. Duncan, Arthur H. Vaughan, Olin C. Wilson, George W. Preston, James Frazer, Howard Lanning, Anthony Misch, Jean Mueller, David Soyumer, L. Woodard, Sallie L. Baliunas, Robert W. Noyes, Lee W. Hartmann, Alain Porter, Cornelis Zwaan, Frans Middelkoop, René G. M. Rutten, & Dimitri Mihalas.* 76, 383, 29-G9 (1991)

First Results from the Goddard High-Resolution Spectrograph: A Demonstration of Spectral Resolution and Experiments with Deconvolution. *Glenn M. Wahlgren, David S. Leckrone, Steven N. Shore, Don J. Lindler, Ronald L. Gilliland, & Dennis C. Ebbets.* 377, L41, 143-E6 (1991)

Locating Very High Energy Gamma-Ray Sources with Arcminute Accuracy. *C. W. Akerlof, M. F. Cawley, M. Chantell, D. J. Fegan, K. Harris, A. M. Hillas, D. G. Jennings, R. C. Lamb, M. A. Lawrence, M. J. Lang, D. A. Lewis, D. I. Meyer, G. Mohanty, K. S. O'Flaherty, M. Punch, P. T. Reynolds, M. S. Schubnell, T. C. Weekes, & T. Whitaker.* 377, L97, 150-E6 (1991)

The Intensity and Spectrum of the Diffuse X-Ray Background. *X. Wu, T. Hamilton, D. J. Helfand, & Q. Wang.* 379, 564, 171-F1 (1991)

INTERFEROMETRY

Anatomy of a Merger: CO in Arp 299 (IC 694–NGC 3690). *Anneila Sargent & Nick Scoville.* 366, L1, 6-A7 (1991)

VLA Radio Recombination Line Observations of Sagittarius A West. *D. A. Roberts, W. W. Goss, J. H. van Gorkom, & J. P. Leahy.* 366, L15, 6-B13 (1991)

Measurements of the Diameter of the Supernova SN 1987A. *M. Karovska, P. Nisenson, C. Standley, & S. R. Heathcote.* 367, L15, 17-C8 (1991)

Distribution of Dust about o Ceti and α Orionis Based on 11 Micron Spatial Interferometry. *M. Bester, W. C. Danchi, C. G. Degiacomi, C. H. Townes, & T. R. Geballe.* 367, L27, 17-E1 (1991)

Millimeter Interferometer Observations of Infrared Luminous Galaxies: NGC 828 and NGC 6240. *Z. Wang, N. Z. Scoville, & D. B. Sanders.* 368, 112, 24-D9 (1991)

Ultramassive ($\sim 10^{11}$ $M_{\odot}$) Dark Core in the Luminous Infrared Galaxy NGC 6240? *Jonathan Bland-Hawthorn, Andrew S. Wilson, & R. Brent Tully.* 371, L19, 66-C7 (1991)

Multifrequency VLA, VLBI, and Single-Dish Observations of the Quasar 4C 39.25. *Alan P. Marscher, Yun Fei Zhang, David B. Shaffer, Hugh D. Aller, & Margo F. Aller.* 371, 491, 67-E12 (1991)

VLBI Observations of Interstellar Ammonia Masers. *Preethi Pratap, Karl M. Menten, Mark J. Reid, James M. Moran, & C. Malcolm Walmsley.* 373, L13, 91-B12 (1991)

Asymmetries in the Atmosphere of Mira. *M. Karovska, P. Nisenson, C. Papaliolios, & R. P. Boyle.* 374, L51, 110-D1 (1991)

Imaging Spectrophotometry of Ionized Gas in NGC 1068. II. Global Ionization of the Inner Disk. *Jonathan Bland-Hawthorn, James Sokolowski, & Gerald Cecil.* 375, 78, 112-A1 (1991)

Imaging Spectrophotometry of Ionized Gas in NGC 1068. III. Anisotropic Excitation of the Large-Scale Disk by Scattering of Nuclear Continuum. *James Sokolowski, Jonathan Bland-Hawthorn, & Gerald Cecil.* 375, 583, 120-A1 (1991)

Compact Starbursts in Ultraluminous Infrared Galaxies. *J. J. Condon, Z.-P. Huang, Q. F. Yin, & T. X. Thuan.* 378, 65, 151-G5 (1991)

A Finger-like Extension of the 20 Kilometer per Second Cloud toward the Galactic Center. *Sachiko K. Okumura, Masato Ishiguro, Edward B. Fomalont, Tetsuo Hasegawa, Takashi Kasuga, Koh-Ichiro Morita, Ryohei Kawabe, & Hideyuki Kobayashi.* 378, 127, 152-E9 (1991)

First- and Second-Epoch VLBI Observations of the Gravitational Lens System 2016+112. *M. B. Heflin, M. V. Gorenstein, C. R. Lawrence, & B. F. Burke.* 378, 519, 158-G9 (1991)

R Aquarii: Hα Map of Subarcsecond Inner Structure. *E. K. Hege, C. K. Allen, & W. J. Cocke.* 381, 543, 197-D6 (1991)

Milliarcsecond Radio Structure of Weak-lined T Tauri Stars. *R. B. Phillips, C. J. Lonsdale, & E. D. Feigelson.* 382, 261, 203-D9 (1991)

The Radio "Lobes" of Scorpius X-1 Are Unrelated Background Sources. *E. B. Fomalont & B. J. Geldzahler.* 383, 289, 215-G1 (1991)

INTERGALACTIC MEDIUM

New Photoionization Models of Intergalactic Clouds. *Megan Donahue & J. Michael Shull.* 383, 511, 220-F1 (1991)

Lyman-Alpha Forest Correlations Using Neighbor Counts. *Avery Meiksin & François R. Bouchet.* 448, L85, 209-A8 (1995)

Gravitational Lensing in Clusters of Galaxies: New Clues Regarding the Dynamics of Intracluster Gas. *Jordi Miralda-Escudé & Arif Babul.* 449, 18, 210-D11 (1995)

INTERPLANETARY MEDIUM

Zodiacal Emission. II. Dust near the Ecliptic. *William T. Reach.* 369, 529, 44-C13 (1991)

Spatial Distribution of the Interplanetary Dust Deduced by Infrared Observations. *P. de Bernardis, F. Feminella, & G. Moreno.* 370, 396, 52-B10 (1991)

Solar Cycle Variation of the Interplanetary Magnetic Field Spiral. *Charles W. Smith & John W. Bieber.* 370, 435, 52-F4 (1991)

Ablation of Silicate Particles in High-Speed Continuum and Transition Flow with Application to the Collection of Interplanetary Dust Particles. *Aaron J. Rulison, Richard C. Flagan, Thomas J. Ahrens, & Wayne F. Miller.* 371, 432, 65-E5 (1991)

Cosmic-Ray Diurnal Anisotropy, 1936–1988: Implications for Drift and Modulation Theories. *John W. Bieber & Jiasheng Chen.* 372, 301, 77-F4 (1991)

Solar Particle Abundances at Energies Greater than 1 MeV per Nucleon and the Role of Interplanetary Shocks. *H. V. Cane, D. V. Reames, & T. T. von Rosenvinge.* 373, 675, 96-D1 (1991)

Radio Range Measurements of Coronal Electron Densities at 13 and 3.6 Centimeter Wavelengths during the 1988 Solar Conjunction of *Voyager 2*. *T. P. Krisher, J. D. Anderson, D. D. Morabito, S. W. Asmar, S. E. Borutzki, M. L. Delitsky, A. C. Densmore, P. M. Eshe, G. D. Lewis, M. J. Maurer, D. C. Roth, Y. H. Son, T. R. Spilker, D. N. Sweetnam, A. H. Taylor, G. L. Tyler, D. L. Gresh, & P. A. Rosen.* 375, L57, 124-C6 (1991)

Statistical Properties of Shock-accelerated Ions in the Outer Heliosphere. *L. J. Lanzerotti, R. E. Gold, D. J. Thomson, R. E. Decker, C. G. Maclennan, & S. M. Krimigis.* 380, L93, 188-F10 (1991)

On the Cosmological Significance of the Apparent Deficit of Small Interplanetary Scintillation Sources. *Chris A. Hajivassiliou.* 381, 3, 189-A13 (1991)

Interplanetary Transport of Decay Protons from Solar Flare Neutrons. *D. Ruffolo.* 382, 688, 210-B12 (1991)

The Simulated Features of Heliospheric Cosmic-Ray Modulation with a Time-dependent Drift Model. I. General Effects of the Changing Neutral Sheet over the Period 1985–1990. *M. S. Potgieter & J. A. Le Roux.* 386, 336, 28-D4 (1992)

Superevents: Their Origin and Propagation through the Heliosphere from 0.3 to 35 AU. *Wolfgang Dröge, Reinhold Müller-Mellin, & Edward W. Cliver.* 387, L97, 48-E10 (1992)

Variable Carbon and Oxygen Abundances in the Solar Wind as Observed in Earth's Magnetosheath by *AMPTE/CCE*. *R. von Steiger, S. P. Christon, G. Gloeckler, & F. M. Ipavich.* 389, 791, 71-B10 (1992)

The Influence of the Large-Scale Interplanetary Shock Structure on a Low-Energy Particle Event. *A. M. Heras, B. Sanahuja, Z. K. Smith, T. Detman, & M. Dryer.* 391, 359, 90-C13 (1992)

Rocket Observation of the Near-Infrared Spectrum of the Sky. *M. Noda, V. V. Christov, H. Matsuhara, T. Matsumoto, S. Matsuura, K. Noguchi, S. Sato, & H. Murakami.* 391, 456, 93-E9 (1992)

On the Form of the 1987 Hydrogen Spectrum in the Outer Heliosphere. *J. P. L. Reinecke & H. Moraal.* 392, 272, 104-D1 (1992)

Zodiacal Emission. III. Dust near the Asteroid Belt. *William T. Reach.* 392, 289, 104-E7 (1992)

The Simulated Features of Heliospheric Cosmic-Ray Modulation with a Time-dependent Drift Model. III. General Energy Dependence. *M. S. Potgieter & J. A. Le Roux.* 392, 300, 104-F5 (1992)

On Potential Field Models of the Solar Corona. *Y.-M. Wang & N. R. Sheeley, Jr.* 392, 310, 104-G1 (1992)

Probing the Heliosphere with Energetic Hydrogen Atoms. *K. C. Hsieh, K. L. Shih, J. R. Jokipii, & S. Grzedzielski.* 393, 756, 125-C1 (1992)

Detection of Fundamental and Harmonic Type III Radio Emission and the Associated Langmuir Waves at the Source Region. *M. J. Reiner, R. G. Stone, & J. Fainberg.* 394, 340, 132-B12 (1992)

Propagation Conditions of Relativistic Electrons in the Inner Heliosphere. *M.-B. Kallenrode, G. Wibberenz, & S. Hucke.* 394, 351, 132-C11 (1992)

Combined Infrared and Analytical Electron Microscope Studies of Interplanetary Dust Particles. *J. P. Bradley, H. J. Humecki, & M. S. Germani.* 394, 643, 137-D8 (1992)

Ion Injection and Fermi Acceleration at Earth's Bow Shock: The 1984 September 12 Event Revisited. *M. Scholer, K. J. Trattner, & H. Kucharek.* 395, 675, 151-F1 (1992)

Interplanetary Lyman-α Spectra as a Diagnostic of the Local Interstellar Plasma Density: The Baranov Two-Shocks Heliosphere Case. *R. Lallement, Y. G. Malama, E. Quemerais, J. L. Bertaux, & N. A. Zaitzev.* 396, 696, 166-A7 (1992)

The Simulated Features of Heliospheric Cosmic-Ray Modulation with a Time-dependent Drift Model. IV. The Role of Heliospheric Neutral Sheet Deformation. *J. A. Le Roux & M. S. Potgieter.* 397, 686, 179-E11 (1992)

Proton and Electron Mean Free Paths: The Palmer Consensus Revisited. *John W. Bieber, William H. Matthaeus, Charles W. Smith, Wolfgang Wanner, May-Britt Kallenrode, & Gerd Wibberenz.* 420, 294, 4-E5 (1994)

Drift Acceleration at Interplanetary Shocks. *G. Erdös & A. Balogh.* 90, 553, 10-F1 (1994)

Transport of Solar Energetic Particles. *Wolfgang Dröge.* 90, 567, 10-G3 (1994)

Modeling Composite and Fluffy Grains: The Effects of Porosity. *Michael J. Wolff, Geoffrey C. Clayton, P. G. Martin, & Regina E. Schulte-Ladbeck.* 423, 412, 51-C3 (1994)

Focused Interplanetary Transport of ∼ 1MeV Solar Energetic Protons through Self-generated Alfvén Waves. *C. K. Ng & D. V. Reames.* 424, 1032, 77-F7 (1994)

Light Scattering by Porous Dust Particles in the Discrete-Dipole Approximation. *K. Lumme & J. Rahola.* 425, 653, 89-F12 (1994)

The Coronal Electron Density Distribution Determined from Dual-Frequency Ranging Measurements during the 1991 Solar Conjunction of the *Ulysses* Spacecraft. *M. K. Bird, H. Volland, M. Pätzold, P. Edenhofer, S. W. Asmar, & J. P. Brenkle.* 426, 373, 100-G5 (1994)

Generation of Radiation in Solar Corona and Interplanetary Space by Energetic Electrons. *C. S. Wu, Peter H. Yoon, & G. C. Zhou.* 429, 406, 149-B8 (1994)

COBE DIRBE Near-Infrared Polarimetry of the Zodiacal Light: Initial Results. *G. B. Berriman, N. W. Boggess, M. G. Hauser, T. Kelsall, C. M. Lisse, S. H. Moseley, W. T. Reach, & R. F. Silverberg.* 431, L63, 183-C1 (1994)

Study of Cosmic-Ray H and He Isotopes at 23 AU. *E. S. Seo, F. B. McDonald, N. Lal, & W. R. Webber.* 432, 656, 204-B11 (1994)

The Cosmic-Ray Oxygen and Helium Spectra Measured at *Pioneer 10* over the Time of the 1987 Modulation Minimum, and Implications for the He/O Source Ratio. *W. R. Webber & F. B. McDonald.* 435, 464, 249-G2 (1994)

A Dynamical Model of Magnetic Clouds. *Tyan Yeh.* 438, 975, 17-E7 (1995)

The Propagation of Solar Energetic Protons: Comparative Studies in Two Cases with Markedly Different Scattering Conditions. *J. F. Valdés-Galicia, W. Wanner, M.-B. Kallenrode, & G. Wibberenz.* 439, 482, 27-F8 (1995)

Solar Coronal Dust Scattering in the Infrared. *R. M. MacQueen & Bradford W. Greeley.* 440, 361, 46-B8 (1995)

Near- and Far-Infrared Observations of Interplanetary Dust Bands from the *COBE* Diffuse Infrared Background Experiment. *William J. Spiesman, Michael G. Hauser, Thomas Kelsall, Carey M. Lisse, S. Harvey Moseley, Jr., William T. Reach, Robert F. Silverberg, Sally W. Stemwedel, & Janet L. Weiland.* 442, 662, 89-B8 (1995)

Charge State of Anomalous Cosmic-Ray Nitrogen, Oxygen, and Neon: *SAMPEX* Observations. *B. Klecker, M. C. McNab, J. B. Blake, D. C. Hamilton, D. Hovestadt, H. Kästle, M. D. Looper, G. M. Mason, J. E. Mazur, & M. Scholer.* 442, L69, 94-F9 (1995)

Three Low-Energy Particle Events: Modeling the Influence of the Parent Interplanetary Shock. *A. M. Heras, B. Sanahuja, D. Lario, Z. K. Smith, T. Detman, & M. Dryer.* 445, 497, 139-D4 (1995)

Observations of Anomalous Cosmic-Ray Hydrogen from the *Voyager* Spacecraft. *E. R. Christian, A. C. Cummings, & E. C. Stone.* 446, L105, 171-D9 (1995)

Solar Implications of *Ulysses* Interplanetary Field Measurements. *Y.-M. Wang & N. R. Sheeley, Jr.* 447, L143, 191-E9 (1995)

HST/GHRS Observations of the Interplanetary Medium Downwind and in the Inner Solar System. *John T. Clarke, Rosine Lallement, Jean-Loup Bertaux, & Eric Quemerais.* 448, 893, 207-C5 (1995)

A Reconciliation of the Discrepancy on the Cosmic-Ray Interplanetary Diffusion Mean Free Path. *L. Dennis Zhang.* 449, 386, 215-D6 (1995)

Fine-Scale Filamentary Structure in Coronal Streamers. *Richard Woo, John W. Armstrong, Michael K. Bird, & Martin Pätzold.* 449, L91, 217-E1 (1995)

Detectability of Electrostatic Decay Products in *Ulysses* and *Galileo* Observations of Type III Solar Radio Sources. *Iver H. Cairns.* 449, L95, 217-E8 (1995)

Pitch Angle Diffusion Coefficient in an Extended Quasi-linear Theory. *C. K. Ng & D. V. Reames.* 453, 890, 296-C3 (1995)

Heat Flux and Viscosity of Protons in the Collisionless Solar Wind. *L. L. Williams.* 453, 953, 297-B6 (1995)

Ion Acoustic Wave Frequencies and Onset Times during Type III Solar Radio Bursts. *Iver H. Cairns & P. A. Robinson.* 453, 959, 297-C1 (1995)

IRAS Measurements of Diffuse Solar System Radiation: Annual Sky Brightness Variation and Geometry of the Interplanetary Dust Cloud. *J. M. Vrtilek & M. G. Hauser.* 455, 677, 331-C6 (1995)

INTERSTELLAR: ABUNDANCES

The Physical Properties of Giant Molecular Cloud Complexes in the Outer Galaxy: Implications for the Ratio of H_2 Column Density to ^{12}CO Intensity. *T. J. Sodroski.* 366, 95, 2-C1 (1991)

The *In Situ* Formation of Large Molecules in Dense Interstellar Clouds. *Eric Herbst.* 366, 133, 2-F4 (1991)

Water Vapor in the Orion Molecular Cloud. *R. F. Knacke & H. P. Larson.* 367, 162, 14-A10 (1991)

Ultraviolet Interstellar Lines in the Spectrum of π Scorpii Recorded at 2 Kilometers per Second Resolution. *Charles L. Joseph & Edward B. Jenkins.* 368, 201, 25-E9 (1991)

Predicted Profiles of Ultraviolet Interstellar Absorption Lines. *D. E. Welty, L. M. Hobbs, & D. G. York.* 75, 425, 6-E5 (1991)

The Formation of Oxygen-containing Organic Molecules in the Orion Compact Ridge. *T. J. Millar, Eric Herbst, & S. B. Charnley.* 369, 147, 37-F11 (1991)

High-Density Gas in the Core of the Sagittarius B2 Molecular Cloud. *Dariusz C. Lis & Paul F. Goldsmith.* 369, 157, 37-G11 (1991)

Fossil DCN in Orion-KL. *Jeffrey G. Mangum, Richard L. Plambeck, & Alwyn Wootten.* 369, 169, 38-A11 (1991)

Laboratory Observation of the $^3P_1$–$^3P_0$ Transition of the Neutral Carbon Atom by Submillimeter-Wave Absorption Spectroscopy. *Satoshi Yamamoto & Shuji Saito.* 370, L103, 59-F7 (1991)

Ultraviolet Interstellar Absorption toward HD 156359, a Halo Star at 11 Kiloparsecs in the Direction $l = 329°$ and $b = -15°$. *Kenneth R. Sembach, Blair D. Savage, & Derck Massa.* 372, 81, 75-A11 (1991)

The Local Interstellar Medium toward the Center of Loop I. *Miriam Centurion & Giovanni Vladilo.* 372, 494, 82-A1 (1991)

The Gas-Phase Chemistry of Organic Molecules in Interstellar Clouds with Dynamical Mixing. *J.-P. Chièze, G. Pineau des Forêts, & Eric Herbst.* 373, 110, 87-D4 (1991)

Large-Scale [C II] 158 Micron Emission from the Galaxy. *Hiroshi Shibai, Haruyuki Okuda, Takao Nakagawa, Hideo Matsuhara, Toshinori Maihara, Kohei Mizutani, Yukiyasu Kobayashi, Norihisa Hiromoto, Tetsuo Nishimura, & Frank J. Low.* 374, 522, 105-F1 (1991)

Observations of [Si II] (35 Micron) and [S I] (25 Micron) in Orion: Evidence for a Wind Shock near IRc2. *Michael R. Haas, David Hollenbach, & Edwin F. Erickson.* 374, 555, 106-B1 (1991)

A Molecular Line Survey of Sagittarius B2 and Orion–KL from 70 to 115 GHz. II. Analysis of the Data. *B. E. Turner.* 76, 617, 33-D1 (1991)

Discovery of Interstellar Methane: Observations of Gaseous and Solid CH_4 Absorption toward Young Stars in Molecular Clouds. *J. H. Lacy, J. S. Carr, Neal J. Evans II, F. Baas, J. M. Achtermann, & J. F. Arens.* 376, 556, 133-C9 (1991)

Observations and Chemistry of Interstellar Refractory Elements. *B. E. Turner.* 376, 573, 133-E1 (1991)

Water in Dense Molecular Clouds. *P. G. Wannier, L. Pagani, T. B. H. Kuiper, M. A. Frerking, S. Gulkis, P. Encrenaz, H. M. Pickett, A. Lecacheux, & W. J. Wilson.* 377, 171, 140-B1 (1991)

First Results from the Goddard High-Resolution Spectrograph: Element Abundances as a Function of Velocity in the Neutral Gas toward ξ Persei. *Blair D. Savage, Jason A. Cardelli, Frederick C. Bruhweiler, Andrew M. Smith, Dennis C. Ebbets, & Kenneth R. Sembach.* 377, L53, 143-F6 (1991)

First Results from the Goddard High-Resolution Spectrograph: Elemental Abundances in the Diffuse Clouds toward ξ Persei. *Jason A. Cardelli, Blair D. Savage, Frederick C. Bruhweiler, Andrew M. Smith, Dennis C. Ebbets, Kenneth R. Sembach, & Ulysses J. Sofia.* 377, L57, 143-F11 (1991)

Interstellar $^{12}C/^{13}C$ Ratio Revisited. *Philippe Crane, Dennis J. Hegyi, & David L. Lambert.* 378, 181, 153-C1 (1991)

Molecular Gas in Elliptical Galaxies. *Joanna F. Lees, G. R. Knapp, Michael P. Rupen, & T. G. Phillips.* 379, 177, 165-B11 (1991)

The Interstellar $^{12}CN/^{13}CN$ Ratio toward ζ Persei. *Mary Elizabeth Kaiser, Isabel Hawkins, & Edward L. Wright.* 379, 267, 166-D1 (1991)

Detection of Interstellar H_3O^+: A Confirming Line. *Alwyn Wootten, J. G. Mangum, B. E. Turner, M. Bogey, F. Boulanger, F. Combes, P. J. Encrenaz, & M. Gerin.* 380, L79, 188-E6 (1991)

Molecular Line Survey of Sagittarius B2(M) from 330 to 355 GHz and Comparison with Sagittarius B2(N). *E. C. Sutton, P. A. Jaminet, W. C. Danchi, & Geoffrey A. Blake.* 77, 255, 47-F1 (1991)

Interstellar Environments Probed by Ca I Absorption and the Effects of Density-dependent Depletions. *Jason A. Cardelli, S. R. Federman, & V. V. Smith.* 381, L17, 194-C7 (1991)

Further High-Resolution Na I Observations of the Local Interstellar Medium. *B. Y. Welsh, P. W. Vedder, J. V. Vallerga, & N. Craig.* 381, 462, 196-D7 (1991)

Interstellar Gas Phase Abundance of Carbon, Oxygen, Nitrogen, Copper, Gallium, Germanium, and Krypton toward ζ Ophiuchi. *Jason A. Cardelli, Blair D. Savage, & Dennis C. Ebbets.* 383, L23, 219-D1 (1991)

Infrared Molecular Spectroscopy toward the Orion IRc2 and IRc7 Sources: A New Probe of Physical Conditions and Abundances in Molecular Clouds. *Neal J. Evans II, J. H. Lacy, & John S. Carr.* 383, 674, 222-E13 (1991)

INTERSTELLAR: GRAINS

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A Search for Circumstellar Dust around HR 10, a Proposed β Pictoris Star. *Kwang-Ping Cheng, C. A. Grady, & Frederick C. Bruhweiler.* 366, L87, 11-E7 (1991)

Extinction and Polarization of Transmitted Light by Partially Aligned Nonspherical Grains. *Mikhail I. Mishchenko.* 367, 561, 20-C8 (1991)

The Nature of the Dust around R Coronae Borealis Stars: Isolated Amorphous Carbon or Graphite Fractals? *J. H. Hecht.* 367, 635, 21-B9 (1991)

Search for H_2-He Alloy Formation at Low Pressures and Cosmic Snowballs. *M. Leventhal & A. P. Mills, Jr.* 368, 178, 25-C7 (1991)

Magnetic Flux Loss from Interstellar Clouds with Various Grain-Size Distributions. *Ryoichi Nishi, Takenori Nakano, & Toyoharu Umebayashi.* 368, 181, 25-C11 (1991)

Emission Features in the Spectrum of NGC 7027 near 3.3 Microns at Very High Resolution. *R. P. Lowe, J. M. Moorhead, W. H. Wehlau, & J.-P. Maillard.* 368, 195, 25-E1 (1991)

An Infrared Analysis of Puppis A. *Richard G. Arendt, Eli Dwek, & Robert Petre.* 368, 474, 31-A7 (1991)

Dust Properties around Evolved Stars from Far-Infrared Size Limits. *Paul M. Harvey, Daniel F. Lester, David Brock, & Marshall Joy.* 368, 558, 32-A8 (1991)

Dust and Molecular Properties of the Low-Opacity Cloud Lynds 1563. *Frank O. Clark, R. J. Laureijs, & Lauri L. Wardell.* 370, 237, 50-B7 (1991)

Polarimetric Mapping of Orion Using MILLIPOL: Magnetic Activity in BN/KL. *Robert W. Leach, Dan P. Clemens, Brian D. Kane, & Richard Barvainis.* 370, 257, 50-D1 (1991)

Emission from Dust in Visual Reflection Nebulae at Infrared and Submillimeter Wavelengths. *Sean C. Casey.* 371, 183, 62-D1 (1991)

The Temperature of Large Dust Grains in Molecular Clouds. *F. O. Clark, R. J. Laureijs, & T. Prusti.* 371, 602, 69-A7 (1991)

The Interstellar C-H Stretching Band near 3.4 Microns: Constraints on the Composition of Organic Material in the Diffuse Interstellar Medium. *S. A. Sandford, L. J. Allamandola, A. G. G. M. Tielens, K. Sellgren, M. Tapia, & Y. Pendleton.* 371, 607, 69-B1 (1991)

A New Method for Analyzing *IRAS* Data to Determine the Dust Temperature Distribution. *Taoling Xie, Paul F. Goldsmith, & Weimin Zhou.* 371, L81, 73-D12 (1991)

The Albedo and Scattering Phase Function of Interstellar Dust and the Diffuse Background at Far-Ultraviolet Wavelengths. *Mark Hurwitz, Stuart Bowyer, & Christopher Martin.* 372, 167, 76-A12 (1991)

IRAS Detection of Very Cold Dust in the Lynds 134 Cloud Complex. *R. J. Laureijs, F. O. Clark, & T. Prusti.* 372, 185, 76-C4 (1991)

Size and Density Distribution of Very Small Dust Grains in the Barnard 5 Cloud. *Dariusz C. Lis & Chun Ming Leung.* 372, L107, 85-F9 (1991)

The SiH Vibrational Stretch as an Indicator of the Chemical State of Interstellar Grains. *Marla H. Moore, Toshihiko Tanabé, & Joseph A. Nuth.* 373, L31, 91-D7 (1991)

The Dense, Inner Part of the Protostellar Disk: Protostar Candidates in GGD 27 IRS. *Takuya Yamashita, Yasuhiro Murata, Ryohei Kawabe, Norio Kaifu, & Motohide Tamura.* 373, 560, 95-A1 (1991)

^{26}Al and ^{16}O in the Early Solar System: Clues from Meteoritic Al_2O_3. *Edward Anders, Alois Virag, Ernst Zinner, & Roy S. Lewis.* 373, L77, 97-F6 (1991)

Spatial Studies of Planetary Nebulae with *IRAS*. *G. W. Hawkins & B. Zuckerman.* 374, 227, 100-G11 (1991)

Continuum Emission at 1 Millimeter from the Elliptical Galaxy NGC 205. *Michel Fich & Paul Hodge.* 374, L17, 103-D7 (1991)

Time Evolution of Interstellar Dust and Far-Infrared Luminosity of Disk Galaxies. *Boqi Wang.* 374, 456, 104-G1 (1991)

Diffuse Galactic Emission at Millimetric Wavelengths. *P. Andreani, G. Dall'Oglio, L. Martinis, L. Piccirillo, L. Pizzo, L. Rossi, & C. Venturino.* 375, 148, 112-G5 (1991)

Formaldehyde in Envelopes of Interstellar Dark Clouds. *S. R. Federman & M. Allen.* 375, 157, 113-A1 (1991)

Trapped H_2O in SiO Condensate: An Explanation for the 3 Micron Band Observed toward the Galactic Center. *S. Wada, A. Sakata, & A. T. Tokunaga.* 375, L17, 117-C1 (1991)

On the Long-Wavelength Absorption by Interstellar Dust. *Edward L. Wright.* 375, 608, 120-C5 (1991)

Molecular Hydrogen Polarization Images of OMC-1. *Michael G. Burton, N. R. Minchin, J. H. Hough, C. Aspin, D. J. Axon, & J. A. Bailey.* 375, 611, 120-C9 (1991)

Spectroscopic Study of Direct and Dust-scattered Line Emission in the HH 1–HH 2 System. *J. Solf & K.-H. Böhm.* 375, 618, 120-D3 (1991)

An Infrared/Optical Investigation of 100 Micron "Cirrus." *Elizabeth S. Paley, Frank J. Low, John T. McGraw, Roc M. Cutri, & Hans-Walter Rix.* 376, 335, 129-A13 (1991)

NGC 1333 IRAS 4: A Very Young, Low-Luminosity Binary System. *Göran Sandell, Colin Aspin, William D. Duncan, Adrian P. G. Russell, & E. Ian Robson.* 376, L17, 130-C1 (1991)

Infrared and Visible Photometry of the Gravitational Lens System 2237+030. *Daniel Nadeau, H. K. C. Yee, W. J. Forrest, J. D. Garnett, Z. Ninkov, & J. L. Pipher.* 376, 430, 131-G1 (1991)

X-Ray Halos as Diagnostics of Interstellar Grains. *John S. Mathis & C.-W. Lee.* 376, 490, 132-E1 (1991)

Very Small Grains and the Infrared Colors of Galaxies. *G. Helou, C. Ryter, & B. T. Soifer.* 376, 505, 132-F6 (1991)

The Spectrum of NGC 7027 from 3080 to 2630 Wavenumbers (3.25–3.80 Microns): Detection of New Atomic and Molecular Hydrogen Lines and New Constraints on the Chemical Sidegroups on Polycyclic Aromatic Hydrocarbons. *Scott A. Sandford.* 376, 599, 133-G1 (1991)

Testing Models of Low-Mass Star Formation: High-Resolution Far-Infrared Observations of L1551 IRS 5. *Harold M. Butner, Neal J. Evans II, Daniel F. Lester, Russell M. Levreault, & Stephen E. Strom.* 376, 636, 134-C6 (1991)

Theoretical Studies of the Absorption Spectra of Polycyclic Aromatic Hydrocarbons. *Sylvio Canuto, Michael C. Zerner, & Geerd H. F. Diercksen.* 377, 150, 139-G3 (1991)

Shape and Clustering Effects on the Optical Properties of Amorphous Carbon. *François Rouleau & P. G. Martin.* 377, 526, 146-C3 (1991)

Positron Annihilation in the Interstellar Medium. *Nidhal Guessoum, Reuven Ramaty, & Richard E. Lingenfelter.* 378, 170, 153-B4 (1991)

X-Ray Irradiation of Interstellar Grains in Active Galaxies: Evaporation and Infrared Spectra. *G. Mark Voit.* 379, 122, 164-E1 (1991)

A Grain-heated, Dusty Planetary Nebula in M22. *Kazimierz J. Borkowski & J. Patrick Harrington.* 379, 168, 165-B1 (1991)

Radiation Transport in Dust in Disk Geometry. I. Application to Externally Heated Interstellar Clouds. *George F. Spagna, Jr., Chun Ming Leung, & Michael P. Egan.* 379, 232, 166-A5 (1991)

Vacuum Ultraviolet Imagery of the Virgo Cluster Region. III. Diffuse Far-Ultraviolet Radiation at High Galactic Latitudes. *Takashi Onaka & Keiichi Kodaira.* 379, 532, 171-C5 (1991)

Sticking Probability of H and D Atoms on Amorphous Ice: A Computational Study. *V. Buch & Q. Zhang.* 379, 647, 172-F7 (1991)

Desorption of Large Molecules from Grains in Dense Interstellar Clouds. *R. E. Johnson, V. Pirronello, B. Sundqvist, & B. Donn.* 379, L75, 175-D12 (1991)

On the State of the Emitter of the 3.3 Micron Unidentified Infrared Band: Absorption Spectroscopy of Polycyclic Aromatic Hydrocarbon Species. *Gregory C. Flickinger, Thomas J. Wdowiak, & Percy L. Gómez.* 380, L43, 181-F1 (1991)

Millimeter Continuum Observations of Galactic Center Giant Molecular Cloud Cores. *D. C. Lis, J. E. Carlstrom, & Jocelyn Keene.* 380, 429, 183-E7 (1991)

High-Resolution Spectra of the 3.29 Micron Interstellar Emission Feature: A Summary. *A. T. Tokunaga, K. Sellgren, R. G. Smith, T. Nagata, A. Sakata, & Y. Nakada.* 380, 452, 183-G8 (1991)

Interstellar Photodissociation and Photoionization Rates. *W. G. Roberge, D. Jones, S. Lepp, & A. Dalgarno.* 77, 287, 48-B1 (1991)

Evolution of Dust Grains through a Hot Gaseous Halo. *A. Ferrara, F. Ferrini, J. Franco, & B. Barsella.* 381, 137, 190-F9 (1991)

Interstellar Solid CO: Polar and Nonpolar Interstellar Ices. *A. G. G. M. Tielens, A. T. Tokunaga, T. R. Geballe, & F. Baas.* 381, 181, 191-C5 (1991)

Preliminary Spectral Observations of the Galaxy with a 7° Beam by the *Cosmic Background Explorer* (*COBE*). *E. L. Wright, J. C. Mather, C. L. Bennett, E. S. Cheng, R. A. Shafer, D. J. Fixsen, R. E. Eplee, Jr., R. B. Isaacman, S. M. Read, N. W. Boggess, S. Gulkis, M. G. Hauser, M. Janssen, T. Kelsall, P. M. Lubin, S. S. Meyer, S. H. Moseley, Jr., T. L. Murdock, R. F. Silverberg, G. F. Smoot, R. Weiss, & D. T. Wilkinson.* 381, 200, 191-D12 (1991)

Interstellar Environments Probed by Ca I Absorption and the Effects of Density-dependent Depletions. *Jason A. Cardelli, S. R. Federman, & V. V. Smith.* 381, L17, 194-C7 (1991)

Radial Dust Density Profiles in Small Molecular Clouds. *João Lin Yun & Dan P. Clemens.* 381, 474, 196-E7 (1991)

Diffuse Band Profiles in the Spectrum of HD 29647: Evidence for a Molecular Origin? *Theodore P. Snow & C. G. Seab.* 382, 189, 202-E7 (1991)

10 Micron Spectra of Protostars and the Solid Methanol Abundance. *W. A. Schutte, A. G. G. M. Tielens, & S. A. Sandford.* 382, 523, 208-A11 (1991)

Hydrogenated Amorphous Carbon Grains and the 2175 Å Interstellar Hump. *Armando Blanco, Ezio Bussoletti, Luigi Colangeli, Sergio Fonti, & John R. Stephens.* 382, L97, 211-E8 (1991)

Constraints on the Optical Properties of Interstellar Dust in the Far-Ultraviolet: *Voyager* Observations of the Diffuse Sky Background. *Jayant Murthy, R. C. Henry, & J. B. Holberg.* 383, 198, 214-E1 (1991)

3.3 Micron Emission from Ultraviolet Excitation of Some Aromatic Molecules. *Jun Shan, Masako Suto, & L. C. Lee.* 383, 459, 218-A7 (1991)

Infrared Dust and Millimeter-Wave Carbon Monoxide Emission in the Orion Region. *John Bally, William D. Langer, & Weihong Liu.* 383, 645, 222-C6 (1991)

The Dusty Envelopes of FU Orionis Variables. *Scott J. Kenyon & Lee W. Hartmann.* 383, 664, 222-E1 (1991)

A Model for the Infrared Emission from an OB Star Cluster Environment. *D. Leisawitz.* 77, 451, 51-B1 (1991)

INTERSTELLAR: MAGNETIC FIELDS

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Magnetic Flux Loss from Interstellar Clouds with Various Grain-Size Distributions. *Ryoichi Nishi, Takenori Nakano, & Toyoharu Umebayashi.* 368, 181, 25-C11 (1991)

Polarimetric Mapping of Orion Using MILLIPOL: Magnetic Activity in BN/KL. *Robert W. Leach, Dan P. Clemens, Brian D. Kane, & Richard Barvainis.* 370, 257, 50-D1 (1991)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. I. The Issues, Formulation of the Problem, and Method of Solution. *Telemachos Ch. Mouschovias & Scott A. Morton.* 371, 296, 63-G1 (1991)

Thermal and Nonthermal Motions in Dense Cores. *P. C. Myers, E. F. Ladd, & G. A. Fuller.* 372, L95, 85-E9 (1991)

Magnetic Braking, Ambipolar Diffusion, Cloud Cores, and Star Formation: Natural Length Scales and Protostellar Masses. *Telemachos Ch. Mouschovias.* 373, 169, 88-B3 (1991)

On the Dispersion in Direction of Interstellar Polarization. *P. C. Myers & A. A. Goodman.* 373, 509, 94-C9 (1991)

Molecular Hydrogen Polarization Images of OMC-1. *Michael G. Burton, N. R. Minchin, J. H. Hough, C. Aspin, D. J. Axon, & J. A. Bailey.* 375, 611, 120-C9 (1991)

The Equilibria and Evolutions of Magnetized, Rotating, Isothermal Clouds. V. The Effect of the Toroidal Field. *Kohji Tomisaka.* 376, 190, 127-C11 (1991)

Positron Annihilation in the Interstellar Medium. *Nidhal Guessoum, Reuven Ramaty, & Richard E. Lingenfelter.* 378, 170, 153-B4 (1991)

Polarimetric Imaging of the Galactic Center at 12.4 Microns: The Detailed Magnetic Field Structure in the Northern Arm and East-West Bar. *David K. Aitken, Daniel Gezari, Craig H. Smith, Mark McCaughrean, & Patrick F. Roche.* 380, 419, 183-D10 (1991)

Polarized Radio Emission from the Edge-on Spiral Galaxies NGC 891 and NGC 4565. *S. Sukumar & R. J. Allen.* 382, 100, 201-D1 (1991)

INTERSTELLAR: MATTER

The Physical Properties of Giant Molecular Cloud Complexes in the Outer Galaxy: Implications for the Ratio of H_2 Column Density to ^{12}CO Intensity. *T. J. Sodroski.* 366, 95, 2-C1 (1991)

Refractive Interstellar Scintillation and Millisecond Pulsar Timing. *Wayne Hu, Roger W. Romani, & Daniel R. Stinebring.* 366, L33, 6-D9 (1991)

Stellar Lyman-Alpha Emission and the Local Interstellar Medium. *Wayne Landsman & Theodore Simon.* 366, L79, 11-D9 (1991)

Thermal Instabilities in Proto–Globular Clusters Resulting from Time-dependent Potentials. *Stephen D. Murray & Douglas N. C. Lin.* 367, 149, 13-G6 (1991)

Infrared Spectroscopy of T Tauri Stars. *C. Giovanardi, S. Gennari, A. Natta, & R. Stanga.* 367, 173, 14-B11 (1991)

Limits on the Density of Neutral Gas within 100 Parsecs from Observations of the Soft X-Ray Background. *M. Juda, J. J. Bloch, B. C. Edwards, D. McCammon, W. T. Sanders, S. L. Snowden, & J. Zhang.* 367, 182, 14-C8 (1991)

Ultraviolet Interstellar Lines in the Spectrum of π Scorpii Recorded at 2 Kilometers per Second Resolution. *Charles L. Joseph & Edward B. Jenkins.* 368, 201, 25-E9 (1991)

The Dynamic Instability of Adiabatic Blast Waves. *Dongsu Ryu & Ethan T. Vishniac.* 368, 411, 30-B12 (1991)

The Interstellar D_1 Line at High Resolution. *L. M. Hobbs & D. E. Welty.* 368, 426, 30-D1 (1991)

Predicted Profiles of Ultraviolet Interstellar Absorption Lines. *D. E. Welty, L. M. Hobbs, & D. G. York.* 75, 425, 6-E5 (1991)

Electron Densities and the Excitation of CN in Molecular Clouds. *John H. Black & Ewine F. van Dishoeck.* 369, L9, 40-B5 (1991)

Is Interstellar Detection of Higher Members of the Linear Radicals C_nCH and C_nN Feasible? *F. Pauzat, Y. Ellinger, & A. D. McLean.* 369, L13, 40-B11 (1991)

Radio Recombination Lines from Diffuse Interstellar Gas in the Galaxy. *J. C. Cersosimo & J. S. Onello.* 370, 225, 50-A5 (1991)

IRAS 23545+6508, a Dissociating Star: Prototype for a New Observational Class? *P. E. Dewdney, R. S. Roger, C. R. Purton, & W. H. McCutcheon.* 370, 243, 50-C1 (1991)

High-Resolution Imaging of Brackett-γ and H_2 1–0 $S(1)$ Emission in the Seyfert Galaxy NGC 1068. *V. Rotaciuc, A. Krabbe, M. Cameron, S. Drapatz, R. Genzel, A. Sternberg, & J. W. V. Storey.* 370, L23, 53-D6 (1991)

A 21 Centimeter Line Survey of a Region around Four Outer Galaxy Open Clusters. *D. Leisawitz & E. J. de Geus.* 75, 835, 13-A1 (1991)

On the Thermal Stability of Slabs, Cylinders, and Spheres. *Miguel H. Ibáñez S., & Florencio P. Plachco M.* 370, 743, 57-F1 (1991)

The Escape of Lyman-Alpha Radiation from a Multiphase Interstellar Medium. *David A. Neufeld.* 370, L85, 59-D13 (1991)

Spatial Structure of the Interstellar Gas toward the Globular Cluster M22. *B. Bates & M. G. Catney.* 371, L37, 66-E7 (1991)

Spectral Observations of the Extreme Ultraviolet Background. *Simon E. Labov & Stuart Bowyer.* 371, 810, 71-F1 (1991)

Detection of Local Interstellar CO Absorption toward BL Lacertae. *Alan P. Marscher, Thomas M. Bania, & Zhong Wang.* 371, L77, 73-D7 (1991)

Atomic Oxygen Fine-Structure Splittings with Tunable Far-Infrared Spectroscopy. *Lyndon R. Zink, Kenneth M. Evenson, Fusakazu Matsushima, Thomas Nelis, & Ruth L. Robinson.* 371, L85, 73-E3 (1991)

VLA Observations of 21 Centimeter H I Absorption toward Cassiopeia A. *John H. Bieging, W. Miller Goss, & Eric M. Wilcots.* 75, 999, 16-F5 (1991)

VLA and VLBI Angular Broadening Measurements: The Distribution of Interstellar Scattering at Low Galactic Latitudes. *A. L. Fey, S. R. Spangler, & J. M. Cordes.* 372, 132, 75-F1 (1991)

Line Integrals of n_e and n_e^2 at High Galactic Latitude. *R. J. Reynolds.* 372, L17, 79-C1 (1991)

The Local Interstellar Medium toward the Center of Loop I. *Miriam Centurion & Giovanni Vladilo.* 372, 494, 82-A1 (1991)

Thermal and Nonthermal Motions in Dense Cores. *P. C. Myers, E. F. Ladd, & G. A. Fuller.* 372, L95, 85-E9 (1991)

Parsec-Scale Penetration of Ultraviolet Photons into Molecular Clouds: [C II] 158 Micron Mapping of W3, NGC 1977, and NGC 2023. *J. E. Howe, D. T. Jaffe, R. Genzel, & G. J. Stacey.* 373, 158, 88-A5 (1991)

Magnetic Braking, Ambipolar Diffusion, Cloud Cores, and Star Formation: Natural Length Scales and Protostellar Masses. *Telemachos Ch. Mouschovias.* 373, 169, 88-B3 (1991)

Microstructure-determined Pulsar Dispersion Measures and the Problem of Profile Alignment. *Timothy H. Hankins, Vera A. Izvekova, Valerii M. Malofeev, Joanna M. Rankin, Yuri P. Shitov, & Daniel R. Stinebring.* 373, L17, 91-C1 (1991)

On the Dispersion in Direction of Interstellar Polarization. *P. C. Myers & A. A. Goodman.* 373, 509, 94-C9 (1991)

Supernova Remnant Evolution in an Interstellar Medium with Evaporating Clouds. *Richard L. White & Knox S. Long.* 373, 543, 94-F7 (1991)

The Interstellar Tunnel of Neutral-free Gas toward β Canis Majoris. *Barry Y. Welsh.* 373, 556, 94-G8 (1991)

The Expansion of the Crab Nebula. *M. F. Bietenholz, P. P. Kronberg, D. E. Hogg, & A. S. Wilson.* 373, L59, 97-D5 (1991)

Interstellar Grains within Interstellar Grains. *Thomas J. Bernatowicz, Sachiko Amari, Ernst K. Zinner, & Roy S. Lewis.* 373, L73, 97-E10 (1991)

New Observations of the Gas Cloud Associated with the Quasar-Galaxy Pair 3C 232/NGC 3067. *John T. Stocke, James Case, Megan Donahue, J. Michael Shull, & Theodore P. Snow.* 374, 72, 98-G7 (1991)

Continuum Emission at 1 Millimeter from the Elliptical Galaxy NGC 205. *Michel Fich & Paul Hodge.* 374, L17, 103-D7 (1991)

Large-Scale [C II] 158 Micron Emission from the Galaxy. *Hiroshi Shibai, Haruyuki Okuda, Takao Nakagawa, Hideo Matsuhara, Toshinori Maihara, Kohei Mizutani, Yukiyasu Kobayashi, Norihisa Hiromoto, Tetsuo Nishimura, & Frank J. Low.* 374, 522, 105-F1 (1991)

Observation of Neutral Hydrogen in the Globular Cluster NGC 2808. *D. J. Faulkner, Tania R. Scott, P. R. Wood, & Alan E. Wright.* 374, L45, 110-C6 (1991)

Observations That Link Infrared Cirrus and Ultraviolet Extinction. *John A. Hackwell, James H. Hecht, & Mauricio Tapia.* 375, 163, 113-A9 (1991)

Expansion of a Superbubble in a Uniform Magnetic Field. *Katia M. Ferrière, Mordecai-Mark Mac Low, & Ellen G. Zweibel.* 375, 239, 114-A4 (1991)

The Influence of the Interface between the Heliosphere and the Local Interstellar Medium on the Penetration of the H Atoms to the Solar System. *V. B. Baranov, M. G. Lebedev, & Yu. G. Malama.* 375, 347, 115-C1 (1991)

Interstellar Scattering Effects on the Detection of Narrow-Band Signals. *James M. Cordes & T. Joseph Lazio.* 376, 123, 126-D10 (1991)

The Dissipation of Magnetohydrodynamic Turbulence Responsible for Interstellar Scintillation and the Heating of the Interstellar Medium. *Steven R. Spangler.* 376, 540, 133-B5 (1991)

Isotopically Anomalous Ti in Presolar SiC from the Murchison Meteorite. *Trevor R. Ireland, Ernst K. Zinner, & Sachiko Amari.* 376, L53, 137-D7 (1991)

First Results from the Goddard High-Resolution Spectrograph: The Galactic Halo and the Lyα Forest at Low Redshift in 3C 273. *Simon L. Morris, Ray J. Weymann, Blair D. Savage, & Ronald L. Gilliland.* 377, L21, 143-C11 (1991)

First Results from the Goddard High-Resolution Spectrograph: Resolved Velocity and Density Structure in the β Pictoris Circumstellar Gas. *A. Boggess, Frederick C. Bruhweiler, C. A. Grady, Dennis C. Ebbets, Yoji Kondo, L. M. Trafton, John C. Brandt, & S. R. Heap.* 377, L49, 143-F1 (1991)

First Results from the Goddard High-Resolution Spectrograph: Element Abundances as a Function of Velocity in the Neutral Gas toward ξ Persei. *Blair D. Savage, Jason A. Cardelli, Frederick C. Bruhweiler, Andrew M. Smith, Dennis C. Ebbets, & Kenneth R. Sembach.* 377, L53, 143-F6 (1991)

First Results from the Goddard High-Resolution Spectrograph: Elemental Abundances in the Diffuse Clouds toward ξ Persei. *Jason A. Cardelli, Blair D. Savage, Frederick C. Bruhweiler, Andrew M. Smith, Dennis C. Ebbets, Kenneth R. Sembach, & Ulysses J. Sofia.* 377, L57, 143-F11 (1991)

First Results from the Goddard High-Resolution Spectrograph: C I, S I, and CO toward ξ Persei and the Physical Conditions in Diffuse Clouds. *Andrew M. Smith, Frederick C. Bruhweiler, David L. Lambert, Blair D. Savage, Jason A. Cardelli, Dennis C. Ebbets, Cheng-Hsuan Lyu, & Yaron Sheffer.* 377, L61, 143-G1 (1991)

Shape and Clustering Effects on the Optical Properties of Amorphous Carbon. *François Rouleau & P. G. Martin.* 377, 526, 146-C3 (1991)

The Metallicity of RR Lyrae Stars in Baade's Window. *Alistair R. Walker & Donald M. Terndrup.* 378, 119, 152-D13 (1991)

Galactic Structure from the *Spacelab* Infrared Telescope. II. Luminosity Models of the Milky Way. *S. M. Kent, T. M. Dame, & G. Fazio.* 378, 131, 152-F1 (1991)

Positron Annihilation in the Interstellar Medium. *Nidhal Guessoum, Reuven Ramaty, & Richard E. Lingenfelter.* 378, 170, 153-B4 (1991)

Variable Interstellar Absorption toward HD 72127A. II. 1981–1988. *L. M. Hobbs, R. Ferlet, D. E. Welty, & G. Wallerstein.* 378, 586, 159-F1 (1991)

The Analysis of Apparent Optical Depth Profiles for Interstellar Absorption Lines. *Blair D. Savage & Kenneth R. Sembach.* 379, 245, 166-B5 (1991)

Atomic Data for Resonance Absorption Lines. I. Wavelengths Longward of the Lyman Limit. *Donald C. Morton.* 77, 119, 45-B1 (1991)

Ionized Carbon in the Large Magellanic Cloud. *R. T. Boreiko & A. L. Betz.* 380, L27, 181-D9 (1991)

Interaction of Mass Lost in Globular Clusters with the Halo Medium. *D. J. Faulkner & Graeme H. Smith.* 380, 441, 183-F7 (1991)

Probing the Galactic Halo along the 3C 273 Sight Line Using *IUE*. *Geoffrey S. Burks, Donald G. York, J. Chris Blades, Ralph C. Bohlin, & Willem Wamsteker.* 381, 55, 189-F5 (1991)

Interstellar Solid CO: Polar and Nonpolar Interstellar Ices. *A. G. G. M. Tielens, A. T. Tokunaga, T. R. Geballe, & F. Baas.* 381, 181, 191-C5 (1991)

Preliminary Spectral Observations of the Galaxy with a 7° Beam by the *Cosmic Background Explorer* (*COBE*). *E. L. Wright, J. C. Mather, C. L. Bennett, E. S. Cheng, R. A. Shafer, D. J. Fixsen, R. E. Eplee, Jr., R. B. Isaacman, S. M. Read, N. W. Boggess, S. Gulkis, M. G. Hauser, M. Janssen, T. Kelsall, P. M. Lubin, S. S. Meyer, S. H. Moseley, Jr., T. L. Murdock, R. F. Silverberg, G. F. Smoot, R. Weiss, & D. T. Wilkinson.* 381, 200, 191-D12 (1991)

Interstellar Environments Probed by Ca I Absorption and the Effects of Density-dependent Depletions. *Jason A. Cardelli, S. R. Federman, & V. V. Smith.* 381, L17, 194-C7 (1991)

Further High-Resolution Na I Observations of the Local Interstellar Medium. *B. Y. Welsh, P. W. Vedder, J. V. Vallerga, & N. Craig.* 381, 462, 196-D7 (1991)

The Galactic Center Radio Source Shines below the Compton Limit. *C. R. Gwinn, R. M. Danen, J. Middleditch, L. M. Ozernoy, & T. Kh. Tran.* 381, L43, 199-B7 (1991)

H I Absorption Measurements toward 15 Pulsars and the Radial Distribution of Diffuse Ionized Gas in the Galaxy. *D. A. Frail, J. M. Cordes, T. H. Hankins, & J. M. Weisberg.* 382, 168, 202-C10 (1991)

Vertical Distribution and Support of Galactic H I. *Felix J. Lockman & Curtis S. Gehman.* 382, 182, 202-D12 (1991)

Diffuse Band Profiles in the Spectrum of HD 29647: Evidence for a Molecular Origin? *Theodore P. Snow & C. G. Seab.* 382, 189, 202-E7 (1991)

The Diffuse Interstellar Bands. VIII. New Features between 6000 and 8650 Å. *G. H. Herbig & K. D. Leka.* 382, 193, 202-E12 (1991)

A Survey of H I 21 Centimeter Emission Lines toward Supernova Remnants. *Bon-Chul Koo & Carl Heiles.* 382, 204, 202-F11 (1991)

Time Variability of Pulsar Dispersion Measures. *J. A. Phillips & A. Wolszczan.* 382, L27, 205-D1 (1991)

The Optical Depth of the 158 Micron [^{12}C II] Line: Detection of the $F = 1 \rightarrow 0$ [^{13}C II] Hyperfine-Structure Component. *G. J. Stacey, C. H. Townes, A. Poglitsch, S. C. Madden, J. M. Jackson, F. Herrmann, R. Genzel, & N. Geis.* 382, L37, 205-E1 (1991)

s-Process Ba, Nd, and Sm in Presolar SiC from the Murchison Meteorite. *Ernst Zinner, Sachiko Amari, & Roy S. Lewis.* 382, L47, 205-E11 (1991)

A Nearly Unipolar CO Outflow from the HH 46–47 System. *Lawrence M. Chernin & Colin R. Masson.* 382, L93, 211-E3 (1991)

A Complete CO Survey of M31. *E. Koper, T. M. Dame, F. P. Israel, & P. Thaddeus.* 383, L11, 219-B7 (1991)

Interstellar Gas Phase Abundance of Carbon, Oxygen, Nitrogen, Copper, Gallium, Germanium, and Krypton toward ζ Ophiuchi. *Jason A. Cardelli, Blair D. Savage, & Dennis C. Ebbets.* 383, L23, 219-D1 (1991)

Magnetized Supernova Remnants with Cosmic Rays. *Katia M. Ferrière & Ellen G. Zweibel.* 383, 602, 221-F11 (1991)

Observations of Ca II Absorption along the Nearly Parallel Lines of Sight toward 3C 273 and SN 1991T. *David M. Meyer & Katherine C. Roth.* 383, L41, 226-B11 (1991)

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The Physical Properties of Giant Molecular Cloud Complexes in the Outer Galaxy: Implications for the Ratio of H_2 Column Density to ^{12}CO Intensity. *T. J. Sodroski.* 366, 95, 2-C1 (1991)

The *In Situ* Formation of Large Molecules in Dense Interstellar Clouds. *Eric Herbst.* 366, 133, 2-F4 (1991)

CO $J = 3 \rightarrow 2$ Observations of Translucent and High-Latitude Molecular Clouds. *Ewine F. van Dishoeck, John H. Black, T. G. Phillips, & R. Gredel.* 366, 141, 2-G1 (1991)

Abundances of Hydrogen Sulfide in Star-forming Regions. *Y. C. Minh, L. M. Ziurys, W. M. Irvine, & D. McGonagle.* 366, 192, 3-D9 (1991)

Dust and Gas in the Core of Arp 220 (IC 4553). *N. Z. Scoville, A. I. Sargent, D. B. Sanders, & B. T. Soifer.* 366, L5, 6-A13 (1991)

Giant Molecular Clouds and the CO-to-H_2 Conversion Factor in IC 10. *Christine D. Wilson & I. Neill Reid.* 366, L11, 6-B7 (1991)

The Star-forming Disk and CO Bar in M101. *Jeffrey D. P. Kenney, Nick Z. Scoville, & Christine D. Wilson.* 366, 432, 8-C1 (1991)

Warm Neutral Halos around Molecular Clouds. III. Interpretation of H I and CO $J = 1$–0 Data. *B-G Andersson, Peter G. Wannier, & Mark Morris.* 366, 464, 8-F1 (1991)

A Spectroscopic Study of the DR 21 Outflow Source. II. The Vibrational H_2 Line Emission. *R. P. Garden, T. R. Geballe, I. Gatley, & D. Nadeau.* 366, 474, 8-G1 (1991)

Water Vapor in the Orion Molecular Cloud. *R. F. Knacke & H. P. Larson.* 367, 162, 14-A10 (1991)

A Search for Vibrationally Excited H_2O at 68 GHz. *S. J. Petuchowski & C. L. Bennett.* 367, 168, 14-B4 (1991)

Infrared Spectroscopy of T Tauri Stars. *C. Giovanardi, S. Gennari, A. Natta, & R. Stanga.* 367, 173, 14-B11 (1991)

OH Emission and the Nature of Minkowski's Footprint (M1-92). *E. R. Seaquist, René Plume, & L. E. Davis.* 367, 200, 14-E5 (1991)

Detection of ^{13}C Isotopomers of HC_5N ($J = 9–8$) in the Circumstellar Envelope of IRC +10216. *M. B. Bell & P. A. Feldman.* 367, L33, 17-E8 (1991)

Theoretical Determination of the Spectroscopic Constants of the MgC Molecule. *Marcos A. Castro, Sylvio Canuto, & Florian Müller-Plathe.* 367, L69, 22-D3 (1991)

A ^{12}CO Survey of the Small Magellanic Cloud. *M. Rubio, G. Garay, J. Montani, & P. Thaddeus.* 368, 173, 25-C1 (1991)

Excitation of Millimeter and Submillimeter Water Masers. *David A. Neufeld & Gary J. Melnick.* 368, 215, 25-F11 (1991)

CO Excitation and H_2 Masses of Infrared-luminous Galaxies. *Simon J. E. Radford, P. M. Solomon, & D. Downes.* 368, L15, 28-C7 (1991)

The Millimeter-Wave Spectrum of Highly Vibrationally Excited SiO. *R. Mollaaghababa, C. A. Gottlieb, J. M. Vrtilek, & P. Thaddeus.* 368, L19, 28-D1 (1991)

An Unbiased Survey for Dense Cores in the Lynds 1630 Molecular Cloud. *Elizabeth A. Lada, John Bally, & Antony A. Stark.* 368, 432, 30-D9 (1991)

The Structure and Kinematics of Bipolar Outflows: Observations and Models of the Monoceros R2 Outflow. *Barry A. Meyers-Rice & Charles J. Lada.* 368, 445, 30-E10 (1991)

Astronomical Detection of H_2CCC. *J. Cernicharo, C. A. Gottlieb, M. Guélin, T. C. Killian, G. Paubert, P. Thaddeus, & J. M. Vrtilek.* 368, L39, 35-C7 (1991)

Astronomical Detection of H_2CCCC. *J. Cernicharo, C. A. Gottlieb, M. Guélin, T. C. Killian, P. Thaddeus, & J. M. Vrtilek.* 368, L43, 35-C11 (1991)

The Formation of Oxygen-containing Organic Molecules in the Orion Compact Ridge. *T. J. Millar, Eric Herbst, & S. B. Charnley.* 369, 147, 37-F11 (1991)

High-Density Gas in the Core of the Sagittarius B2 Molecular Cloud. *Dariusz C. Lis & Paul F. Goldsmith.* 369, 157, 37-G11 (1991)

Fossil DCN in Orion-KL. *Jeffrey G. Mangum, Richard L. Plambeck, & Alwyn Wootten.* 369, 169, 38-A11 (1991)

Electron Densities and the Excitation of CN in Molecular Clouds. *John H. Black & Ewine F. van Dishoeck.* 369, L9, 40-B5 (1991)

Is Interstellar Detection of Higher Members of the Linear Radicals C_nCH and C_nN Feasible? *F. Pauzat, Y. Ellinger, & A. D. McLean.* 369, L13, 40-B11 (1991)

Observations of ^{12}CO and ^{13}CO $J = 9–8$ in Galactic Molecular Clouds. *R. T. Boreiko & A. L. Betz.* 369, 382, 42-E1 (1991)

Bow Shock Models of Ultracompact H II Regions. *Mordecai-Mark Mac Low, Dave Van Buren, Douglas O. S. Wood, & Ed Churchwell.* 369, 395, 42-F1 (1991)

High-Resolution CO Observations of Luminous Infrared Galaxies with Large L_{FI}/L_B Ratios: IRAS 10173+0828, Zw 049.057, IRAS 17208−0014. *P. Planesas, I. F. Mirabel, & D. B. Sanders.* 370, 172, 49-C5 (1991)

OB Star Formation and H I Production in Molecular Clouds in M33. *Christine D. Wilson & Nick Scoville.* 370, 184, 49-D11 (1991)

Molecular Hydrogen in the Vicinity of NGC 7538 IRS 1 and IRS 2: Temperature and Ortho-to-Para Ratio. *Susan Hoban, Dennis C. Reuter, Michael J. Mumma, & Alex D. Storrs.* 370, 228, 50-A10 (1991)

Dust and Molecular Properties of the Low-Opacity Cloud Lynds 1563. *Frank O. Clark, R. J. Laureijs, & Lauri L. Wardell.* 370, 237, 50-B7 (1991)

IRAS 23545+6508, a Dissociating Star: Prototype for a New Observational Class? *P. E. Dewdney, R. S. Roger, C. R. Purton, & W. H. McCutcheon.* 370, 243, 50-C1 (1991)

Fluctuations in Astronomical Masers. *Moshe Elitzur.* 370, L45, 53-F6 (1991)

Far-Infrared Fourier Transform Spectroscopy of $^{12}C^{18}O$. *P. De Natale, M. Inguscio, C. Rois Orza, & L. R. Zink.* 370, L53, 53-G5 (1991)

Bok Globules and Small Molecular Clouds: Deep *IRAS* Photometry and ^{12}CO Spectroscopy. *Dan P. Clemens, João Lin Yun, & Mark H. Heyer.* 75, 877, 13-E1 (1991)

Protostellar Condensations in the Core of NGC 2024. *D. C. Lis, J. E. Carlstrom, & T. G. Phillips.* 370, 583, 55-F5 (1991)

N_2H^+ in Orion: Chemical Clues to the Dynamics of the Quiescent Gas. *M. Womack, L. M. Ziurys, & S. Wyckoff.* 370, L99, 59-F1 (1991)

The Spectral Signatures of Collapse and Outflow around Young Stars. *E. R. Keto.* 371, 163, 62-B3 (1991)

A 2.2 Micron Survey in the L1630 Molecular Cloud. *Elizabeth A. Lada, D. L. DePoy, Neal J. Evans II, & Ian Gatley.* 371, 171, 62-C1 (1991)

An Extremely High Velocity CO Outflow from NGC 7538 IRS 9. *George F. Mitchell & Tatsuhiko I. Hasegawa.* 371, L33, 66-E1 (1991)

Laboratory Detection of HC_9N Using a Fourier Transform Microwave Spectrometer. *Minoru Iida, Yasuhiro Ohshima, & Yasuki Endo.* 371, L45, 66-F7 (1991)

Detection of CO Emission in the Elliptical Galaxies NGC 3265 and NGC 5666. *M. A. Gordon.* 371, 563, 68-E1 (1991)

The Temperature of Large Dust Grains in Molecular Clouds. *F. O. Clark, R. J. Laureijs, & T. Prusti.* 371, 602, 69-A7 (1991)

The Interstellar C-H Stretching Band near 3.4 Microns: Constraints on the Composition of Organic Material in the Diffuse Interstellar Medium. *S. A. Sandford, L. J. Allamandola, A. G. G. M. Tielens, K. Sellgren, M. Tapia, & Y. Pendleton.* 371, 607, 69-B1 (1991)

Detection of Local Interstellar CO Absorption toward BL Lacertae. *Alan P. Marscher, Thomas M. Bania, & Zhong Wang.* 371, L77, 73-D7 (1991)

Warm Neutral Halos around Molecular Clouds. II. H I and CO ($J = 1–0$) Observations. *Peter G. Wannier, B-G Andersson, Mark Morris, & Steven M. Lichten.* 75, 987, 16-B1 (1991)

The Molecular Interstellar Medium and the Near-Infrared Continuum of the Barred LINER NGC 6764. *A. Eckart, M. Cameron, J. M. Jackson, R. Genzel, A. I. Harris, W. Wild, & H. Zinnecker.* 372, 67, 74-G9 (1991)

Molecular Hydrogen Formation by Excited Atom Radiative Association. *William B. Latter & John H. Black.* 372, 161, 76-A4 (1991)

The Mid-Infrared Spectrum of the Carbon Star HD 38218 and Its Possible Relation to Polycyclic Aromatic Hydrocarbons. *Richard H. Buss, Jr., A. G. G. M. Tielens, & Theodore P. Snow.* 372, 281, 77-D8 (1991)

The H_2 Line Profiles in the Cygnus Loop: Evidence for J-Shocks with Magnetic Precursors. *James R. Graham, Gillian S. Wright, & T. R. Geballe.* 372, L21, 79-C7 (1991)

Detection of Low-J Pure-Rotational Emission from H_2 in the Orion Bar Region: Evidence for Small-Scale Clumpiness. *Parvinder S. Parmar, John H. Lacy, & Jeffrey M. Achtermann.* 372, L25, 79-D1 (1991)

Molecular Outflows in the L1641 Region of Orion. *James A. Morgan & John Bally.* 372, 505, 82-B1 (1991)

CS Multitransitional Studies of Density Distribution in Star-forming Regions. I. The NGC 2071 Region. *Shudong Zhou, Neal J. Evans II, Rolf Güsten, Lee G. Mundy, & Marc L. Kutner.* 372, 518, 82-C1 (1991)

The Extinction to the H_2 Line Emission in the DR 21 Outflow Source. *Daniel Nadeau, Martin Riopel, & T. R. Geballe.* 372, L103, 85-F5 (1991)

The Gas-Phase Chemistry of Organic Molecules in Interstellar Clouds with Dynamical Mixing. *J.-P. Chièze, G. Pineau des Forêts, & Eric Herbst.* 373, 110, 87-D4 (1991)

Dynamical Evolution and Molecular Abundances of Interstellar Clouds. *Sheo S. Prasad, Karen R. Heere, & Shankar P. Tarafdar.* 373, 123, 87-E5 (1991)

A Millimeter-Wave Line Study of L1287: A Case of Induced Star Formation by Stellar Wind Compression? *Ji Yang, Tomofumi Umemoto, Takahiro Iwata, & Yasuo Fukui.* 373, 137, 87-F7 (1991)

VLBI Observations of Interstellar Ammonia Masers. *Preethi Pratap, Karl M. Menten, Mark J. Reid, James M. Moran, & C. Malcolm Walmsley.* 373, L13, 91-B12 (1991)

A Second Outflow from L1551/IRS 5? *G. H. Moriarty-Schieven & P. G. Wannier.* 373, L23, 91-C8 (1991)

Collisional Pumping of H_2O Masers in Star-forming Regions. *Nikolaos D. Kylafis & Colin A. Norman.* 373, 525, 94-D13 (1991)

Nitric Oxide in Star-forming Regions: Further Evidence for Interstellar N-O Bonds. *L. M. Ziurys, D. McGonagle, Y. Minh, & W. M. Irvine.* 373, 535, 94-E11 (1991)

The Dense, Inner Part of the Protostellar Disk: Protostar Candidates in GGD 27 IRS. *Takuya Yamashita, Yasuhiro Murata, Ryohei Kawabe, Norio Kaifu, & Motohide Tamura.* 373, 560, 95-A1 (1991)

Variability of Interstellar Hydroxyl Masers. *Andrew W. Clegg & James M. Cordes.* 374, 150, 99-G11 (1991)

Probing the Core of Cepheus A: Millimeter and Submillimeter Observations. *G. H. Moriarty-Schieven, R. L. Snell, & V. A. Hughes.* 374, 169, 100-B3 (1991)

Observations of HCO^+ in B335. *Tatsuhiko I. Hasegawa, C. Rogers, & Saeko Suzuki Hayashi.* 374, 177, 100-C1 (1991)

Calculations Concerning the Reaction $C + H_3^+ \rightarrow CH^+ + H_2$. *D. Talbi, D. J. DeFrees, D. A. Egolf, & Eric Herbst.* 374, 390, 103-A1 (1991)

Infrared Fluorescence of H_2 in NGC 6240: A Starburst Origin for the H_2 Luminosity. *Masuo Tanaka, Tetsuo Hasegawa, & Ian Gatley.* 374, 516, 105-E9 (1991)

A Spectroscopic Study of the DR 21 Outflow Source. III. The CO Line Emission. *R. P. Garden, M. Hayashi, I. Gatley, T. Hasegawa, & N. Kaifu.* 374, 540, 105-G11 (1991)

A Molecular Line Survey of Sagittarius B2 and Orion–KL from 70 to 115 GHz. II. Analysis of the Data. *B. E. Turner.* 76, 617, 33-D1 (1991)

Formaldehyde in Envelopes of Interstellar Dark Clouds. *S. R. Federman & M. Allen.* 375, 157, 113-A1 (1991)

A Simulation of the Collapse and Fragmentation of Cooling Molecular Clouds. *Joe J. Monaghan & John C. Lattanzio.* 375, 177, 113-C1 (1991)

Molecular Hydrogen Polarization Images of OMC-1. *Michael G. Burton, N. R. Minchin, J. H. Hough, C. Aspin, D. J. Axon, & J. A. Bailey.* 375, 611, 120-C9 (1991)

The Smoothness of CO Line Profiles in Orion: Implications for Clumpiness. *Jan A. Tauber, Paul F. Goldsmith, & Robert L. Dickman.* 375, 635, 120-E7 (1991)

Probing Shock Models of CH^+ Formation. *Isabel Hawkins & Nahide Craig.* 375, 642, 120-F1 (1991)

Anatomy of the Barnard 5 Core. *G. A. Fuller, P. C. Myers, W. J. Welch, P. F. Goldsmith, W. D. Langer, B. G. Campbell, S. Guilloteau, & R. W. Wilson.* 376, 135, 126-E10 (1991)

Collisional Excitation of Formaldehyde in "Hot" Interstellar Molecular Regions. *Sheldon Green.* 76, 979, 38-E3 (1991)

CO (3→2) Mapping and Gas Excitation in the Core of M82. *R. P. J. Tilanus, L. J. Tacconi, E. C. Sutton, S. Zhou, D. B. Sanders, C. G. Wynn-Williams, K. Y. Lo, & S. A. Stephens.* 376, 500, 132-E13 (1991)

Can Phase Space Theory Reproduce Experimental Neutral Product Branching Ratios for Dissociative Recombination Reactions? *E. T. Galloway & Eric Herbst.* 376, 531, 133-A8 (1991)

Discovery of Interstellar Methane: Observations of Gaseous and Solid CH_4 Absorption toward Young Stars in Molecular Clouds. *J. H. Lacy, J. S. Carr, Neal J. Evans II, F. Baas, J. M. Achtermann, & J. F. Arens.* 376, 556, 133-C9 (1991)

Dense Cores in Dark Clouds. VI. Shapes. *P. C. Myers, G. A. Fuller, A. A. Goodman, & P. J. Benson.* 376, 561, 133-D1 (1991)

Observations and Chemistry of Interstellar Refractory Elements. *B. E. Turner.* 376, 573, 133-E1 (1991)

NGC 7538 IRS 1: Subarcsecond Resolution Recombination Line and $^{15}NH_3$ Maser Observations. *R. A. Gaume, K. J. Johnston, H. A. Nguyen, T. L. Wilson, H. R. Dickel, W. M. Goss, & M. C. H. Wright.* 376, 608, 133-G12 (1991)

Discovery of Interstellar NH. *David M. Meyer & Katherine C. Roth.* 376, L49, 137-D1 (1991)

Theoretical Studies of the Absorption Spectra of Polycyclic Aromatic Hydrocarbons. *Sylvio Canuto, Michael C. Zerner, & Geerd H. F. Diercksen.* 377, 150, 139-G3 (1991)

Energy Deposition by X-Ray Photoelectrons into Interstellar Molecular Clouds. *G. Mark Voit.* 377, 158, 140-A1 (1991)

Water in Dense Molecular Clouds. *P. G. Wannier, L. Pagani, T. B. H. Kuiper, M. A. Frerking, S. Gulkis, P. Encrenaz, H. M. Pickett, A. Lecacheux, & W. J. Wilson.* 377, 171, 140-B1 (1991)

Large Molecule Production by Mass-losing Carbon Stars: The Primary Source of Interstellar Polycyclic Aromatic Hydrocarbons? *William B. Latter.* 377, 187, 140-C5 (1991)

Low-Density Photodissociation Regions. *David J. Hollenbach, Takamasa Takahashi, & A. G. G. M. Tielens.* 377, 192, 140-C11 (1991)

First Results from the Goddard High-Resolution Spectrograph: C I, S I, and CO toward ξ Persei and the Physical Conditions in Diffuse Clouds. *Andrew M. Smith, Frederick C. Bruhweiler, David L. Lambert, Blair D. Savage, Jason A. Cardelli, Dennis C. Ebbets, Cheng-Hsuan Lyu, & Yaron Sheffer.* 377, L61, 143-G1 (1991)

Molecular Observations of the L723 Region: Interaction between the Clumpy Outflow and the Gaseous Core? *Saeko S. Hayashi, Tetsuo Hasegawa, & Norio Kaifu.* 377, 492, 145-G5 (1991)

On Molecular Cloud Scaling Laws and Star Formation. *R. N. Henriksen.* 377, 500, 146-A1 (1991)

U-shaped Outflow in the Lynds 1221 Dark Cloud: An Example of Interaction of Outflows with Ambient Molecular Clouds. *Tomofumi Umemoto, Naomi Hirano, Osamu Kameya, Yasuo Fukui, Nario Kuno, & Keiya Takakubo.* 377, 510, 146-A13 (1991)

The Dense Molecular Envelope around the Compact H II Region G5.89−0.39 (W28 A2). *Yolanda Gómez, Luis F. Rodríguez, Guido Garay, & James M. Moran.* 377, 519, 146-B9 (1991)

Polycyclic Aromatic Hydrocarbon Optical Properties and Contribution to the Acceleration of Stellar Outflows. *Isabelle Cherchneff, John R. Barker, & Alexander G. G. M. Tielens.* 377, 541, 146-D6 (1991)

Kinematical Models of Maser Shells Formed by Aspherical Stellar Outflows (U Orionis; OH 231.8+4.2; Orion-IRc2). *P. F. Bowers.* 76, 1099, 40-G9 (1991)

A Finger-like Extension of the 20 Kilometer per Second Cloud toward the Galactic Center. *Sachiko K. Okumura, Masato Ishiguro, Edward B. Fomalont, Tetsuo Hasegawa, Takashi Kasuga, Koh-Ichiro Morita, Ryohei Kawabe, & Hideyuki Kobayashi.* 378, 127, 152-E9 (1991)

Cloud Formation by Combined Instabilities in Galactic Gas Layers: Evidence for a Q Threshold in the Fragmentation of Shearing Wavelets. *Bruce G. Elmegreen.* 378, 139, 152-F11 (1991)

Interstellar $^{12}C/^{13}C$ Ratio Revisited. *Philippe Crane, Dennis J. Hegyi, & David L. Lambert.* 378, 181, 153-C1 (1991)

The Edges of Molecular Clouds: Fractal Boundaries and Density Structure. *E. Falgarone, T. G. Phillips, & C. K. Walker.* 378, 186, 153-C8 (1991)

Partially Dissociative Jump Shocks in Molecular Hydrogen. *C. A. Chang & P. G. Martin.* 378, 202, 153-E1 (1991)

The Velocity Dispersion of Giant Molecular Clouds. II. Mathematical and Numerical Refinements. *Charles F. Gammie, Jeremiah P. Ostriker, & Chanda J. Jog.* 378, 565, 159-D5 (1991)

Synthesis Imaging of the DR 21(OH) Cluster. I. Dust Continuum and $C^{18}O$ Emission. *Jeffrey G. Mangum, Alwyn Wootten, & Lee G. Mundy.* 378, 576, 159-E3 (1991)

Molecular Gas in Elliptical Galaxies. *Joanna F. Lees, G. R. Knapp, Michael P. Rupen, & T. G. Phillips.* 379, 177, 165-B11 (1991)

SiS in Outflow Regions: More High-Temperature Silicon Chemistry. *L. M. Ziurys.* 379, 260, 166-C7 (1991)

The Interstellar $^{12}CN/^{13}CN$ Ratio toward ζ Persei. *Mary Elizabeth Kaiser, Isabel Hawkins, & Edward L. Wright.* 379, 267, 166-D1 (1991)

Millimeter- and Submillimeter-Wave Spectrum of Highly Excited States of Water. *J. C. Pearson, Todd Anderson, Eric Herbst, Frank C. De Lucia, & Paul Helminger.* 379, L41, 169-D12 (1991)

Star Counts and Carbon Monoxide Observations of Maddalena's Cloud. *Youngung Lee, Ronald L. Snell, & Robert L. Dickman.* 379, 639, 172-E11 (1991)

Location of the Thermal Continuum Source Sagittarius D. *Dariusz C. Lis.* 379, L53, 175-B10 (1991)

Desorption of Large Molecules from Grains in Dense Interstellar Clouds. *R. E. Johnson, V. Pirronello, B. Sundqvist, & B. Donn.* 379, L75, 175-D12 (1991)

Ionized Carbon in the Large Magellanic Cloud. *R. T. Boreiko & A. L. Betz.* 380, L27, 181-D9 (1991)

Detection of a New Carbon-Chain Molecule, CCO. *Masatoshi Ohishi, Hiroko Suzuki, Shin-ichi Ishikawa, Chikashi Yamada, Hideto Kanamori, William M. Irvine, Ronald D. Brown, Peter D. Godfrey, & Norio Kaifu.* 380, L39, 181-E11 (1991)

On the State of the Emitter of the 3.3 Micron Unidentified Infrared Band: Absorption Spectroscopy of Polycyclic Aromatic Hydrocarbon Species. *Gregory C. Flickinger, Thomas J. Wdowiak, & Percy L. Gómez.* 380, L43, 181-F1 (1991)

Molecular Gas Excitation in NGC 253. *W. F. Wall, D. T. Jaffe, F. P. Israel, & F. N. Bash.* 380, 384, 183-A11 (1991)

Star Formation and the Molecular Content of IC 342. *Leslie J. Sage & P. M. Solomon.* 380, 392, 183-B7 (1991)

Millimeter Continuum Observations of Galactic Center Giant Molecular Cloud Cores. *D. C. Lis, J. E. Carlstrom, & Jocelyn Keene.* 380, 429, 183-E7 (1991)

CO J = 3–2 and J = 2–1 Observations of NGC 7027. *P. A. Jaminet, W. C. Danchi, E. C. Sutton, A. P. G. Russell, Göran Sandell, J. H. Bieging, & D. Wilner.* 380, 461, 184-A4 (1991)

The Discovery of a New, Very Strong, and Widespread Interstellar Methanol Maser Line. *Karl M. Menten.* 380, L75, 188-E1 (1991)

Molecular Line Survey of Sagittarius B2(M) from 330 to 355 GHz and Comparison with Sagittarius B2(N). *E. C. Sutton, P. A. Jaminet, W. C. Danchi, & Geoffrey A. Blake.* 77, 255, 47-F1 (1991)

Interstellar Photodissociation and Photoionization Rates. *W. G. Roberge, D. Jones, S. Lepp, & A. Dalgarno.* 77, 287, 48-B1 (1991)

Possible Deflection of a Jet by Molecular Clouds in NGC 4258. *R. L. Plante, K. Y. Lo, Jean-René Roy, Pierre Martin, & Louis Noreau.* 381, 110, 190-D4 (1991)

Orbit Crowding of Molecular Gas at a Bar-Spiral Arm Transition Zone in M83. *Jeffrey D. P. Kenney & Steven D. Lord.* 381, 118, 190-D13 (1991)

A Molecular Gas Ridge Offset from the Dust Lane in a Spiral Arm of M83. *Steven D. Lord & Jeffrey D. P. Kenney.* 381, 130, 190-E13 (1991)

H_2CO in IC 443G: Unusual Excitation and a Diagnostic of Shock Astrochemistry. *B. E. Turner & D. A. Lubowich.* 381, 173, 191-B9 (1991)

Preliminary Spectral Observations of the Galaxy with a 7° Beam by the *Cosmic Background Explorer* (*COBE*). *E. L. Wright, J. C. Mather, C. L. Bennett, E. S. Cheng, R. A. Shafer, D. J. Fixsen, R. E. Eplee, Jr., R. B. Isaacman, S. M. Read, N. W. Boggess, S. Gulkis, M. G. Hauser, M. Janssen, T. Kelsall, P. M. Lubin, S. S. Meyer, S. H. Moseley, Jr., T. L. Murdock, R. F. Silverberg, G. F. Smoot, R. Weiss, & D. T. Wilkinson.* 381, 200, 191-D12 (1991)

Infrared Spectroscopy of Cygnus A: Implications for the Obscured Active Nucleus. *Martin J. Ward, Philip R. Blanco, Andrew S. Wilson, & Minoru Nishida.* 382, 115, 201-E11 (1991)

The Relationship between the Carbon Monoxide Intensity and the Radio Continuum Emission in Spiral Galaxies. *David S. Adler, Ronald J. Allen, & K. Y. Lo.* 382, 475, 207-D12 (1991)

10 Micron Spectra of Protostars and the Solid Methanol Abundance. *W. A. Schutte, A. G. G. M. Tielens, & S. A. Sandford.* 382, 523, 208-A11 (1991)

Molecular Line Emission Models of Herbig-Haro Objects. I. H_2 Emission. *Mark G. Wolfire & Arieh Königl.* 383, 205, 214-E9 (1991)

3.3 Micron Emission from Ultraviolet Excitation of Some Aromatic Molecules. *Jun Shan, Masako Suto, & L. C. Lee.* 383, 459, 218-A7 (1991)

A Complete CO Survey of M31. *E. Koper, T. M. Dame, F. P. Israel, & P. Thaddeus.* 383, L11, 219-B7 (1991)

Gravitational Fragmentation: A Comparison with W49A. *Eric R. Keto, John C. Lattanzio, & Joe J. Monaghan.* 383, 639, 222-B12 (1991)

Infrared Dust and Millimeter-Wave Carbon Monoxide Emission in the Orion Region. *John Bally, William D. Langer, & Weihong Liu.* 383, 645, 222-C6 (1991)

Infrared Molecular Spectroscopy toward the Orion IRc2 and IRc7 Sources: A New Probe of Physical Conditions and Abundances in Molecular Clouds. *Neal J. Evans II, J. H. Lacy, & John S. Carr.* 383, 674, 222-E13 (1991)

X Marks the Spot: Distribution and Excitation of Unidentified Molecules in the Red Rectangle. *Gary D. Schmidt & Adolf N. Witt.* 383, 698, 222-G12 (1991)

Two New Molecular Outflows in L1551? *Marc W. Pound & John Bally.* 383, 705, 223-A7 (1991)

Aperture Synthesis CS(2–1) Observations of a Young Stellar Object GL 490: Accretion Flow in Gas Disk. *Akiko Nakamura, Ryohei Kawabe, Yoshimi Kitamura, Masato Ishiguro, Yasuhiro Murata, & Nagayoshi Ohashi.* 383, L81, 226-F5 (1991)

A Study of ^{13}CO Cloud Cores in Ophiuchus. *S. Nozawa, A. Mizuno, Y. Teshima, H. Ogawa, & Y. Fukui.* 77, 647, 53-E6 (1991)

H_2-rich Interstellar Grain Mantles: An Equilibrium Description. *Richard W. Dissly, Mark Allen, & Vincent G. Anicich.* 435, 685, 255-E1 (1994)

ISM: ABUNDANCES

Abundances of the Heavy Elements in the Magellanic Clouds. III. Interpretation of Results. *Stephen C. Russell & Michael A. Dopita.* 384, 508, 8-D9 (1992)

The Millimeter-Wave Spectrum of the CaOH Radical ($X\ ^2\Sigma^+$). *L. M. Ziurys, W. L. Barclay, Jr., & M. A. Anderson.* 384, L63, 11-E1 (1992)

The Molecular Core in G34.3+0.2: Millimeter Interferometric Observations of HCO^+, $H^{13}CN$, $HC^{15}N$, and SO. *Patricia Carral & William J. Welch.* 385, 244, 15-A4 (1992)

Production of Li, Be, and B in the Early Galaxy. *Gary Steigman & Terry P. Walker.* 385, L13, 17-B11 (1992)

The Oscillator Strength of the Si II $3s^23p\ ^2P–3s3p^2\ ^2D$ Multiplet and the Interstellar Abundance of Silicon. *P. L. Dufton, F. P. Keenan, A. Hibbert, P. C. Ojha, & R. P. Stafford.* 387, 414, 42-B1 (1992)

A Survey of N_2H^+ in Dense Clouds: Implications for Interstellar Nitrogen and Ion-Molecule Chemistry. *M. Womack, L. M. Ziurys, & S. Wyckoff.* 387, 417, 42-B6 (1992)

Detection of SiN in IRC +10216. *B. E. Turner.* 388, L35, 52-D1 (1992)

Faint Emission Lines in the Spectrum of the Orion Nebula and the Abundances of Some of the Rarer Elements. *Donald E. Osterbrock, Hien D. Tran, & Sylvain Veilleux.* 389, 305, 63-F11 (1992)

Small Galactic H II Regions. III. Images and Spectrophotometry of the Ionized Gas. *Deidre A. Hunter.* 79, 469, 20-C13 (1992)

The Interstellar Deuterium-to-Hydrogen Ratio: A Reevaluation of Lyman Absorption-Line Measurements. *Peter R. McCullough.* 390, 213, 76-E10 (1992)

On the Chemodynamics of Wolf-Rayet Ring Nebulae: NGC 6888. *César Esteban & José M. Vílchez.* 390, 536, 82-A7 (1992)

The Isotopic Composition of Iron-Group Cosmic Rays. *Richard A. Leske, Barrett Milliken, & Mark E. Wiedenbeck.* 390, L99, 85-C7 (1992)

SO in Starburst Galaxies. *S. J. Petuchowski & C. L. Bennett.* 391, 137, 87-F5 (1992)

The Age and Chemical Evolution of High-Redshift QSOs. *Fred Hamann & Gary Ferland.* 391, L53, 99-C7 (1992)

A Source Model for the L134N Molecular Cloud. *Daryl A. Swade & F. Peter Schloerb.* 392, 543, 109-A9 (1992)

A Survey of CCS, HC_3N, HC_5N, and NH_3 toward Dark Cloud Cores and Their Production Chemistry. *Hiroko Suzuki, Satoshi Yamamoto, Masatoshi Ohishi, Norio Kaifu, Shin-ichi Ishikawa, Yasuhiro Hirahara, & Shuro Takano.* 392, 551, 109-B4 (1992)

The Diffuse Interstellar Cloud toward HD 179406 (20 Aquilae). *Margaret Murray Hanson, Theodore P. Snow, & John H. Black.* 392, 571, 109-C12 (1992)

Detection of SiO Emission in the L1157 Dark Cloud. *Hitomi Mikami, Tomofumi Umemoto, Satoshi Yamamoto, & Shuji Saito.* 392, L87, 113-E11 (1992)

Estimates of N_2 Abundances in Dense Molecular Clouds. *M. Womack, L. M. Ziurys, & S. Wyckoff.* 393, 188, 116-D6 (1992)

Anomalously High Apparent Abundances of Singly Ionized Helium in the Galactic H II Region W3A. *P. R. Roelfsema, W. M. Goss, & D. C. V. Mallik.* 394, 188, 130-C13 (1992)

Ultraviolet and Radio Observations of Milky Way Halo Gas. *Laura Danly, Felix J. Lockman, Marilyn R. Meade, & Blair D. Savage.* 81, 125, 36-F9 (1992)

Mapping Observations of Sulfur-containing Carbon-Chain Molecules in Taurus Molecular Cloud 1 (TMC-1). *Yasuhiro Hirahara, Hiroko Suzuki, Satoshi Yamamoto, Kentarou Kawaguchi, Norio Kaifu, Masatoshi Ohishi, Shuro Takano, Shin-ichi Ishikawa, & Akimasa Masuda.* 394, 539, 136-B1 (1992)

Observation of Fine Structure in the Cold Phase of the Local Interstellar Medium Using K I Absorption. *Joaquín Trapero, John E. Beckman, Ricardo Génova, & Conal D. McKeith.* 394, 552, 136-C1 (1992)

Interstellar SiC with Unusual Isotopic Compositions: Grains from a Supernova? *Sachiko Amari, Peter Hoppe, Ernst Zinner, & Roy S. Lewis.* 394, L43, 139-C1 (1992)

Determination of the He^+/H^+ Ratio from α, β, and γ Radio Recombination Lines. *M. Peimbert, L. F. Rodríguez, T. M. Bania, R. T. Rood, & T. L. Wilson.* 395, 484, 148-E9 (1992)

CNO Abundances and Temperature Fluctuations in the Orion Nebula. *Donald K. Walter, Reginald J. Dufour, & J. Jeff Hester.* 397, 196, 170-D7 (1992)

Fractionation of CO in the Diffuse Clouds toward ζ Ophiuchi. *Yaron Sheffer, S. R. Federman, David L. Lambert, & Jason A. Cardelli.* 397, 482, 176-G3 (1992)

Detection of the Quadrupole Hyperfine Structure in $HCNH^+$. *L. M. Ziurys, A. J. Apponi, & J. T. Yoder.* 397, L123, 181-F6 (1992)

High-Resolution Imaging of the Galactic Cloud Monoceros R2. *Constantine P. Gonatas, Patrick Palmer, & G. Novak.* 398, 118, 183-D7 (1992)

On the Molecular Complexity of the Hot Cores in Orion A: Grain Surface Chemistry as "The Last Refuge of the Scoundrel." *S. B. Charnley, A. G. G. M. Tielens, & T. J. Millar.* 399, L71, 201-A8 (1992)

Methanol Ice in the Protostar GL 2136. *C. J. Skinner, A. G. G. M. Tielens, M. J. Barlow, & K. Justtanont.* 399, L79, 201-B7 (1992)

Observations of Highly Ionized Gas in the Galactic Halo. *Kenneth R. Sembach & Blair D. Savage.* 83, 147, 58-G11 (1992)

On Determining the Primordial Helium Abundance from the Spectra of H II Galaxies. *Alison Campbell.* 401, 157, 223-A1 (1992)

Accurate Oscillator Strengths for Ultraviolet Lines of Ar I: Implications for Interstellar Material. *S. R. Federman, D. J. Beideck, R. M. Schectman, & D. G. York.* 401, 367, 225-E9 (1992)

Ultraviolet Observations of the Gas Phase Abundances in the Diffuse Clouds toward ζ Ophiuchi at 3.5 Kilometers per Second Resolution. *Blair D. Savage, Jason A. Cardelli, & Ulysses J. Sofia.* 401, 706, 231-C9 (1992)

Interstellar Absorption along the Line of Sight to Theta Carinae Using *Copernicus* Observations. *M. M. Allen, E. B. Jenkins, & T. P. Snow.* 83, 261, 61-D1 (1992)

Abundance of Interstellar Carbon toward ζ Ophiuchi. *Jason A. Cardelli, John S. Mathis, Dennis C. Ebbets, & Blair D. Savage.* 402, L17, 6-D1 (1993)

Goddard High-Resolution Spectrograph Observations of the Local Interstellar Medium and the Deuterium/Hydrogen Ratio along the Line of Sight toward Capella. *Jeffrey L. Linsky, Alexander Brown, Ken Gayley, Athanassios Diplas, Blair D. Savage, Thomas R. Ayres, Wayne Landsman, Steven N. Shore, & Sara R. Heap.* 402, 694, 11-C1 (1993)

New 3 Millimeter Observations of Interstellar HNO: Reinstating a Discredited Identification. *Lewis E. Snyder, Yi-Jehng Kuan, L. M. Ziurys, & J. M. Hollis.* 403, L17, 20-C1 (1993)

Elemental Abundances in the Local Cosmic Rays at High Energies. *Simon P. Swordy, Jacques L'Heureux, Peter Meyer, & Dietrich Müller.* 403, 658, 23-G3 (1993)

Oxygen, Sulfur, Argon, and the Chemical Evolution of the Galactic Disk. *J. A. de Freitas Pacheco.* 403, 673, 24-A10 (1993)

Observations of the Gaseous Galactic Halo toward 3C 273 with the Goddard High Resolution Spectrograph. *Blair D. Savage, Limin Lu, Ray J. Weymann, Simon L. Morris, & Ronald L. Gilliland.* 404, 124, 29-E5 (1993)

Evidence for Protostellar Collapse in B335. *Shudong Zhou, Neal J. Evans II, Carsten Kömpe, & C. M. Walmsley.* 404, 232, 30-F11 (1993)

Extreme Ultraviolet Observations of G191-B2B and the Local Interstellar Medium with the Hopkins Ultraviolet Telescope. *Randy A. Kimble, Arthur F. Davidsen, William P. Blair, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Henry C. Ferguson, Richard C. Henry, Gerard A. Kriss, Jeffrey W. Kruk, Knox S. Long, H. Warren Moos, & Olaf Vancura.* 404, 663, 37-B13 (1993)

The $^{12}C/^{13}C$ Abundance Ratio in NGC 2264. *George F. Mitchell & Jean-Pierre Maillard.* 404, L79, 40-F8 (1993)

The Elemental and Isotopic Composition of Galactic Cosmic-Ray Nuclei from Scandium through Nickel. *Richard A. Leske.* 405, 567, 50-B1 (1993)

Structure and Chemistry of Orion S. *Joseph P. McMullin, Lee G. Mundy, & Geoffrey A. Blake.* 405, 599, 50-E5 (1993)

The Ionized Gas in the Center and in the Bar of the Spiral Galaxy NGC 6946. *Jean-René Roy & Julien Belley.* 406, 60, 55-G1 (1993)

Interstellar Deuterium in Cold Dense Clouds. *Michael Opendak.* 406, 548, 64-E12 (1993)

The Diffuse Interstellar Bands. IX. Constraints on the Identification. *G. H. Herbig.* 407, 142, 70-G5 (1993)

Determination of $^{12}C/^{13}C$ in the Interstellar Medium toward ζ Ophiuchi and ξ Persei. *Isabel Hawkins, Nahide Craig, & David M. Meyer.* 407, 185, 71-D1 (1993)

The Dispersal of Iron through the Interstellar Medium. *Nicholas P. T. Bateman & Richard B. Larson.* 407, 634, 78-D12 (1993)

Radiative Lifetimes, Branching Ratios, and Absolute Transition Probabilities in Cr II and Zn II. *S. D. Bergeson & J. E. Lawler.* 408, 382, 88-A3 (1993)

Extreme Ultraviolet Observations of HZ 43 and the Local H/He Ratio with the Hopkins Ultraviolet Telescope. *Randy A. Kimble, Arthur F. Davidsen, Knox S. Long, & Paul D. Feldman.* 408, L41, 89-C1 (1993)

$^{12}C/^{13}C$ Isotope Ratio in the Local Interstellar Medium from Observations of $^{13}C^{18}O$ in Molecular Clouds. *William D. Langer & Arno A. Penzias.* 408, 539, 92-A1 (1993)

Chemical Differentiation between Star-forming Regions: The Orion Hot Core and Compact Ridge. *P. Caselli, T. I. Hasegawa, & Eric Herbst.* 408, 548, 92-A11 (1993)

Composition of Interstellar Clouds in the Disk and Halo. I. HD 93521. *Lyman Spitzer, Jr., & Edward L. Fitzpatrick.* 409, 299, 100-G3 (1993)

Neutrino Decay and the Heat Budget of the Warm Interstellar Medium. *D. W. Sciama.* 409, L25, 104-D9 (1993)

The Interstellar $^7Li/^6Li$ Isotope Ratio toward ζ Ophiuchi and ζ Persei. *David M. Meyer, Isabel Hawkins, & Edward L. Wright.* 409, L61, 111-E8 (1993)

The Nature of the Molecular Cores in High-Latitude Cirrus Clouds. IV. The Electron Distribution and the Abundance and Chemistry of H_2CO. *B. E. Turner.* 410, 140, 113-G8 (1993)

The First Detection of Ionized Helium in the Local ISM: *EUVE* and *IUE* Spectroscopy of the Hot DA Dwarf GD 246. *Stéphane Vennes, Jean Dupois, Todd Rumph, Jeremy Drake, Stuart Bowyer, Pierre Chayer, & Gilles Fontaine.* 410, L119, 126-D7 (1993)

Hunt for Variations in Molecular Gas and Cloud Properties across the Inner, Northern Galactic Disk. *Harvey S. Liszt.* 411, 720, 138-F1 (1993)

High-Resolution Ca II Observations of the Local Interstellar Medium. *J. V. Vallerga, P. W. Vedder, N. Craig, & B. Y. Welsh.* 411, 729, 138-F13 (1993)

The Interstellar Abundances of Tin and Four Other Heavy Elements. *L. M. Hobbs, D. E. Welty, D. C. Morton, L. Spitzer, & D. G. York.* 411, 750, 139-A13 (1993)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. III. First Observational Results on Milky Way Gas. *Blair D. Savage, Limin Lu, John N. Bahcall, Jacqueline Bergeron, Alec Boksenberg, George F. Hartig, Buell T. Jannuzi, Sofia Kirhakos, Felix J. Lockman, W. L. W. Sargent, Donald P. Schneider, David Turnshek, Ray J. Weymann, & Arthur M. Wolfe.* 413, 116, 157-E6 (1993)

Silicon and Carbon Abundances in the Orion Nebula. *Robert H. Rubin, Reginald J. Dufour, & Donald K. Walter.* 413, 242, 159-C6 (1993)

High-Resolution Ultraviolet Observations of the Interstellar Diffuse Clouds toward μ Columbae. *Ulysses J. Sofia, Blair D. Savage, & Jason A. Cardelli.* 413, 251, 159-D3 (1993)

Detection of Boron, Cobalt, and Other Weak Interstellar Lines toward ζ Ophiuchi. *S. R. Federman, Y. Sheffer, D. L. Lambert, & R. L. Gilliland.* 413, L51, 162-G7 (1993)

Emission of HeH^+ in Nebulae. *C. Cecchi-Pestellini & A. Dalgarno.* 413, 611, 164-B5 (1993)

The Significance of the Interstellar $^7Li/^6Li$ Ratio. *Gary Steigman.* 413, L73, 168-C12 (1993)

Density, Temperature, and Isotopic Abundance in Molecular Gas around ζ Ophiuchi. *Harvey S. Liszt.* 414, 242, 173-A10 (1993)

Comparison of Distributed Reacceleration and Leaky-Box Models of Cosmic-Ray Abundances ($3 \leq Z \leq 28$). *John R. Letaw, Rein Silberberg, & C. H. Tsao.* 414, 601, 178-F6 (1993)

The O^{++}/H^+ Abundance Ratio in Gaseous Nebulae Derived from Recombination Lines. *M. Peimbert, P. J. Storey, & S. Torres-Peimbert.* 414, 626, 179-A7 (1993)

Detection of Interstellar $^{12}C^{15}N$. *A. H. Saleck, R. Simon, N. Schneider, & G. Winnewisser.* 414, L133, 186-D3 (1993)

Oscillator Strengths of the Si II 181 Nanometer Resonance Multiplet. *S. D. Bergeson & J. E. Lawler.* 414, L137, 186-D9 (1993)

Bright Planetary Nebulae as Probes of Chemical Evolution. *Michael G. Richer.* 415, 240, 188-A6 (1993)

On ^{26}Al and Other Short-lived Interstellar Radioactivity. *Donald D. Clayton, Dieter H. Hartmann, & Mark D. Leising.* 415, L25, 192-A1 (1993)

A High-Resolution Optical and Radio Study of Milky Way Halo Gas. *C. E. Albert, J. C. Blades, D. C. Morton, Felix J. Lockman, M. Proulx, & L. Ferrarese.* 88, 81, 41-C7 (1993)

Forbidden Velocity Gas Detected in Ultraviolet Interstellar Absorption toward Four Distant Inner Galaxy Stars. *Todd M. Tripp, Kenneth R. Sembach, & Blair D. Savage.* 415, 652, 196-A1 (1993)

The Detection of [C I] in Molecular Outflows Associated with Young Stellar Objects. *Christopher K. Walker, Gopal Narayanan, Thomas H. Büttgenbach, John E. Carlstrom, Jocelyn Keene, & T. G. Phillips.* 415, 672, 196-B10 (1993)

Faint Object Spectrograph Spectra of the Broad Fe II Absorption Lines in the Remnant of SN 1006. *Chi-Chao Wu, D. Michael Crenshaw, Robert A. Fesen, Andrew J. S. Hamilton, & Craig L. Sarazin.* 416, 247, 204-B7 (1993)

Ultraviolet Transitions of Low Condensation Temperature Heavy Elements and New Data for Interstellar Arsenic, Selenium, Tellurium, and Lead. *Jason A. Cardelli, S. R. Federman, David L. Lambert, & C. E. Theodosiou.* 416, L41, 207-F5 (1993)

Detection of the Interstellar NH_2 Radical. *Ewine F. van Dishoeck, David J. Jansen, Peter Schilke, & T. G. Phillips.* 416, L83, 216-E10 (1993)

Bistability in Dark Cloud Chemistry. *J. Le Bourlot, G. Pineau des Forêts, E. Roueff, & P. Schilke.* 416, L87, 216-F1 (1993)

Photometric and Spectroscopic Analysis of High Galactic Latitude Molecular Clouds. II. High-Resolution Spectroscopic Observations of Na I, Ca II, Ca I, CH, and CH^+. *B. E. Penprase.* 88, 433, 46-B13 (1993)

Initial White Dwarf Results from the *Extreme Ultraviolet Explorer*. *David S. Finley, Patrick Jelinsky, Jean Dupuis, & Detlev Koester.* 417, 259, 220-F3 (1993)

C_3S and C_5S in IRC +10216. *M. B. Bell, L. W. Avery, & P. A. Feldman.* 417, L37, 223-C1 (1993)

Observations of Nearby Interstellar Gas and Dust in the Direction toward the Globular Cluster ω Centauri. *K. D. Wood & B. Bates.* 417, 572, 226-D10 (1993)

Deuterated Ammonia in Sagittarius B2. *Y. Peng, S. N. Vogel, & J. E. Carlstrom.* 418, 255, 234-C1 (1993)

Chemical Composition of M8 Based on *IUE* and Visual Observations. *M. Peimbert, S. Torres-Peimbert, & R. J. Dufour.* 418, 760, 242-A8 (1993)

Observations of [S IV] and the O/S Abundance Ratio in Two Halo Population Planetary Nebulae. *Donald R. Garnett & John H. Lacy.* 419, L93, 259-F8 (1993)

Radio Observations of D I and Fractionation. *Carl Heiles, Peter R. McCullough, & Alfred E. Glassgold.* 89, 271, 53-C11 (1993)

Highly Ionized Gas Absorption in the Disk and Halo toward HD 167756 at 3.5 Kilometers per Second Resolution. *Blair D. Savage, Kenneth R. Sembach, & Jason A. Cardelli.* 420, 183, 3-C1 (1994)

Interstellar Detection of the Intersystem Line Si II] λ2335 toward ζ Ophiuchi. *Jason A. Cardelli, Ulysses J. Sofia, Blair D. Savage, Francis P. Keenan, & Philip L. Dufton.* 420, L29, 7-D13 (1994)

Interstellar Gas and Dust in the Young Cluster IC 348. *Theodore P. Snow, Margaret Murray Hanson, C. Gregory Seab, & Jon M. Saken.* 420, 632, 10-E6 (1994)

Interstellar Carbon Monoxide toward ζ Ophiuchi. *David L. Lambert, Yaron Sheffer, Ronald L. Gilliland, & S. R. Federman.* 420, 756, 12-C10 (1994)

Nebular Properties from Far-Infrared Spectroscopy. *Robert H. Rubin, Janet P. Simpson, Steven D. Lord, Sean W. J. Colgan, Edwin F. Erickson, & Michael R. Haas.* 420, 772, 12-E1 (1994)

Detection of a New Molecular Ion HC_3NH^+ in TMC-1. *Kentarou Kawaguchi, Yasuko Kasai, Shin-ichi Ishikawa, Masatoshi Ohishi, Norio Kaifu, & Takayoshi Amano.* 420, L95, 15-F12 (1994)

Low Density of Neutral Hydrogen and Helium in the Local Interstellar Medium: *Extreme Ultraviolet Explorer* Photometry of the Lyman Continuum of the Hot White Dwarfs MCT 0501−2858, MCT 0455−2812, HZ 43, and GD 153. *Stéphane Vennes, Jean Dupuis, Stuart Bowyer, Gilles Fontaine, Alexandria Wiercigroch, Patrick Jelinsky, François Wesemael, & Roger Malina.* 421, L35, 21-G12 (1994)

Density Contrast Shell Models for the Planetary Nebula IC 2165. *S. Hyung.* 90, 119, 2-E4 (1994)

Al III, Si IV, and C IV Absorption toward ζ Ophiuchi: Evidence for Photoionized and Collisionally Ionized Gas. *Kenneth R. Sembach, Blair D. Savage, & Edward B. Jenkins.* 421, 585, 25-D12 (1994)

Elemental Abundances of the Supernova Remnant G292.0+1.8: Evidence for a Massive Progenitor. *John P. Hughes & K. P. Singh.* 422, 126, 31-F1 (1994)

High-Resolution 6450–24500 Å Spectra of η Carinae. *Fred Hamann, D. L. DePoy, Sveneric Johansson, & Jay Elias.* 422, 626, 39-F1 (1994)

Extreme Ultraviolet Spectroscopy of PKS 2155−304. *Antonella Fruscione, Stuart Bowyer, Arieh Königl, & Steven M. Kahn.* 422, L55, 44-G6 (1994)

Gamma-Ray Limits on Galactic ^{60}Fe and ^{44}Ti Nucleosynthesis. *Mark D. Leising & Gerald H. Share.* 424, 200, 64-D7 (1994)

Asymptotic Giant Branch Stars as a Source of Short-lived Radioactive Nuclei in the Solar Nebula. *G. J. Wasserburg, M. Busso, R. Gallino, & C. M. Raiteri.* 424, 412, 67-A6 (1994)

The Depletion of Calcium in the Interstellar Medium. *Greg Crinklaw, S. R. Federman, & Charles L. Joseph.* 424, 748, 74-B3 (1994)

CH^+ in the Interstellar Medium. *M. Marsha Allen.* 424, 754, 74-B11 (1994)

Observations of Large-Scale [C I] Emission from S140. *René Plume, D. T. Jaffe, & Jocelyn Keene.* 425, L49, 85-G3 (1994)

Hot Gas and the Origin of the Nebular Continuum in Novae. *Pedro Saizar & Gary J. Ferland.* 425, 755, 91-B10 (1994)

Evolutionary Models for High-Metallicity Giant Extragalactic H II Regions. *Maria Luisa García Vargas & Angeles I. Díaz.* 91, 553, 27-A4 (1994)

A Very Metal poor H II Region in the Outer Disk of M101. *Donald R. Garnett & Robert C. Kennicutt, Jr.* 426, 123, 97-F1 (1994)

Oxygen Abundances in Low Surface Brightness Disk Galaxies. *Stacy S. McGaugh.* 426, 135, 97-G3 (1994)

A Statistical Equilibrium Analysis of Interstellar CO toward ζ Ophiuchi as Recorded by the Goddard High Resolution Spectrograph. *Cheng-Hsuan Lyu, Andrew M. Smith, & Frederick C. Bruhweiler.* 426, 254, 99-C7 (1994)

Cosmic-Ray Isotopic Composition of C, N, O, Ne, Mg, Si Nuclei in the Energy Range 50–200 MeV per Nucleon Measured by the *Voyager* Spacecraft during the Solar Minimum Period. *A. Lukasiak, P. Ferrando, F. B. McDonald, & W. R. Webber.* 426, 366, 100-F10 (1994)

Probing the Galactic Disk and Halo. I. The NGC 3783 Sight Line. *Limin Lu, Blair D. Savage, & Kenneth R. Sembach.* 426, 563, 105-D7 (1994)

0.95–1.3 Micron Spectrophotometry of Two Bright Filaments of the Crab Nebula. *Richard J. Rudy, George S. Rossano, & R. C. Puetter.* 426, 646, 106-D10 (1994)

Spectrum of IC 2149 and Its Central Star. *Walter A. Feibelman, Siek Hyung, & Lawrence H. Aller.* 426, 653, 106-E6 (1994)

Detection of Sodium Cyanide (NaCN) in IRC 10216. *B. E. Turner, T. C. Steimle, & Leo Meerts.* 426, L97, 109-F13 (1994)

Composition of Interstellar Clouds in the Disk and Halo. II. γ^2 Velorum. *Edward L. Fitzpatrick & Lyman Spitzer, Jr.* 427, 232, 112-G8 (1994)

Optical and H I Observations of High-Velocity Gas toward HD 203664. *J. E. Little, P. L. Dufton, F. P. Keenan, E. S. Conlon, & R. D. Davies.* 427, 267, 113-C8 (1994)

An *IUE* Survey of Interstellar H I Lyman-Alpha Absorption. II. Interpretations. *Athanassios Diplas & Blair D. Savage.* 427, 274, 113-D1 (1994)

Highly Ionized Gas in the Galactic Halo. *J. Michael Shull & Jonathan D. Slavin.* 427, 784, 122-D6 (1994)

The Highly Ionized Regions of NGC 6302 and NGC 6537. *N. Rowlands, J. R. Houck, & T. Herter.* 427, 867, 123-D8 (1994)

Multiple Outflows in the Bipolar Planetary Nebula M1-16: A Molecular Line Study. *Raghvendra Sahai, Alwyn Wootten, Hugo E. Schwarz, & W. Wild.* 428, 237, 131-B5 (1994)

Molecular Abundances and Low-Mass Star Formation. I. Si- and S-bearing Species toward IRAS 16293−2422. *Geoffrey A. Blake, Ewine F. van Dishoeck, David J. Jansen, T. D. Groesbeck, & Lee G. Mundy.* 428, 680, 138-F13 (1994)

Detection of Absorption by H_2 in Molecular Clouds: A Direct Measurement of the H_2:CO Ratio. *J. H. Lacy, R. Knacke, T. R. Geballe, & A. T. Tokunaga.* 428, L69, 142-G1 (1994)

Dust Extinction and Molecular Gas in the Dark Cloud IC 5146. *Charles J. Lada, Elizabeth A. Lada, Dan P. Clemens, & John Bally.* 429, 694, 154-C11 (1994)

Voyager Measurements of the Isotopic Composition of Cosmic-Ray Aluminum and Implications for the Propagation of Cosmic Rays. *A. Lukasiak, F. B. McDonald, & W. R. Webber.* 430, L69, 166-B8 (1994)

An *IUE* Survey of Interstellar H I Lyα Absorption. I. Column Densities. *Athanassios Diplas & Blair D. Savage.* 93, 211, 44-F1 (1994)

The Abundant Elements in Interstellar Dust. *Ulysses J. Sofia, Jason A. Cardelli, & Blair D. Savage.* 430, 650, 170-A2 (1994)

The Cosmic Abundance of ^{3}He. III. Improved Line Parameters for Selected Sources. *Dana S. Balser, T. M. Bania, Charles J. Brockway, Robert T. Rood, & T. L. Wilson.* 430, 667, 170-B8 (1994)

High Rydberg State Carbon Recombination Lines toward Cassiopeia A: 332 MHz VLA Observations and Comparison with H I and Molecular Lines. *K. R. Anantharamaiah, W. C. Erickson, H. E. Payne, & Nimisha G. Kantharia.* 430, 682, 170-C11 (1994)

High Rydberg State Carbon Recombination Lines toward Cassiopeia A: Physical Conditions and a New Class of Models. *H. E. Payne, K. R. Anantharamaiah, & W. C. Erickson.* 430, 690, 170-D7 (1994)

A Study of X-Ray and Infrared Emissions from Dusty Nonradiative Shock Waves. *Olaf Vancura, John C. Raymond, Eli Dwek, William P. Blair, Knox S. Long, & Scott Foster.* 431, 188, 178-D13 (1994)

Gas Kinematics and Ionization along the Extended Sight Line to HD 116852. *Kenneth R. Sembach & Blair D. Savage.* 431, 201, 178-F1 (1994)

Atomic Carbon in the High-Latitude Molecular Cloud MBM 12. *James G. Ingalls, T. M. Bania, & James M. Jackson.* 431, L139, 192-D4 (1994)

The Spectrum of the Variable Planetary Nebula IC 4997. *Siek Hyung, Lawrence H. Aller, & Walter A. Feibelman.* 93, 465, 49-B5 (1994)

Diffuse Molecular Clouds and the Molecular Interstellar Medium from ^{13}CO Observations of M33. *Christine D. Wilson & Constance E. Walker.* 432, 148, 195-A13 (1994)

Abundances, Planetary Nebulae, and Stellar Evolution. *Lawrence H. Aller.* 432, 427, 201-C1 (1994)

Study of Cosmic-Ray H and He Isotopes at 23 AU. *E. S. Seo, F. B. McDonald, N. Lal, & W. R. Webber.* 432, 656, 204-B11 (1994)

[Fe II] Emission from High-Density Regions in the Orion Nebula. *Manuel A. Bautista, Anil K. Pradhan, & Donald E. Osterbrock.* 432, L135, 207-C13 (1994)

Intersystem Transitions of Interstellar Carbon Monoxide toward ζ Ophiuchi. *S. R. Federman, Jason A. Cardelli, Yaron Sheffer, David L. Lambert, & D. C. Morton.* 432, L139, 207-D5 (1994)

The Distribution of Neutral Hydrogen in the Interstellar Medium. I. The Data. *Antonella Fruscione, Isabel Hawkins, Patrick Jelinsky, & Alexandria Wiercigroch.* 94, 127, 53-E3 (1994)

Properties of the Highly Ionized Disk and Halo Gas toward Two Distant High-Latitude Stars. *Blair D. Savage & Kenneth R. Sembach.* 434, 145, 227-B6 (1994)

Highly Ionized Gas in the Galactic Disk: The $l = 295°$, $b = 0°$ Interarm Direction. *Kenneth R. Sembach.* 434, 244, 228-G3 (1994)

Anomalous Balmer Continuum Temperatures in the Orion Nebula. *Donald K. Walter & Reginald J. Dufour.* 434, L29, 232-E5 (1994)

Spectroscopy of the Supernova Remnant CTB 1. *Charles J. Hailey & William W. Craig.* 434, 635, 236-E6 (1994)

Three Millimeter Molecular Line Observations in Sagittarius B2. I. Full Synthesis Mapping Study of HNO, CCS, and $HC^{13}CCN$. *Yi-Jehng Kuan & Lewis E. Snyder.* 94, 651, 61-A8 (1994)

The Cosmic-Ray Oxygen and Helium Spectra Measured at *Pioneer 10* over the Time of the 1987 Modulation Minimum, and Implications for the He/O Source Ratio. *W. R. Webber & F. B. McDonald.* 435, 464, 249-G2 (1994)

The Soft X-Ray Properties of a Complete Sample of Optically Selected Quasars. I. First Results. *Ari Laor, Fabrizio Fiore, Martin Elvis, Belinda J. Wilkes, & Jonathan C. McDowell.* 435, 611, 254-E3 (1994)

The Dust in the Hydrogen-poor Ejecta of Abell 30. *Kazimierz J. Borkowski, J. Patrick Harrington, William P. Blair, & Jesse D. Bregman.* 435, 722, 256-A6 (1994)

Oscillator Strengths for Fe II Transitions at 224.918 and 226.008 Nanometers. *S. D. Bergeson, K. L. Mullman, & J. E. Lawler.* 435, L157, 260-E11 (1994)

Probing the Interstellar Medium with Pulsars on AU Scales. *Dale A. Frail, Joel M. Weisberg, James M. Cordes, & Corey Mathers.* 436, 144, 263-C1 (1994)

A High-Resolution Survey of Interstellar Na I D_1 Lines. *Daniel E. Welty, L. M. Hobbs, & Varsha P. Kulkarni.* 436, 152, 263-C12 (1994)

Interstellar CN Rotational Spectra: $^{12}C^{15}N$. *A. H. Saleck, R. Simon, & G. Winnewisser.* 436, 176, 263-E11 (1994)

Detection of Interstellar N_2O: A New Molecule Containing an N−O Bond. *L. M. Ziurys, A. J. Apponi, J. M. Hollis, & L. E. Snyder.* 436, L181, 282-B7 (1994)

Evidence for an Extended Neutral Galactic Halo. *C. E. Albert, B. Y. Welsh, & L. Danly.* 437, 204, 286-A7 (1994)

Violent Star Formation in NGC 2363. *Rosa M. González-Delgado, Enrique Pérez, Guillermo Tenorio-Tagle, José M. Vílchez, Elena Terlevich, Roberto Terlevich, Eduardo Telles, José M. Rodríguez-Espinosa, Miguel Mas-Hesse, María Luisa García-Vargas, Ángeles I. Díaz, Jordi Cepa, & Hector Castañeda.* 437, 239, 286-D10 (1994)

The Abundance of Interstellar Oxygen toward Orion: Evidence for Recent Infall? *David M. Meyer, M. Jura, Isabel Hawkins, & Jason A. Cardelli.* 437, L59, 292-C1 (1994)

The Local Distribution of Na I Interstellar Gas. *B. Y. Welsh, N. Craig, P. W. Vedder, & J. V. Vallerga.* 437, 638, 294-E4 (1994)

The Physics and Chemistry of Small Molecular Clouds in the Galactic Plane. II. H_2CO. *B. E. Turner.* 437, 658, 294-G12 (1994)

An Accurate Galactic N_H Map of the North Ecliptic Pole. *Martin Elvis, Felix J. Lockman, & C. Fassnacht.* 95, 413, 70-A6 (1994)

Detection of C_3N in the Spiral Arm Gas Clouds in the Direction of Cassiopeia A. *M. B. Bell & H. E. Matthews.* 438, 223, 4-D10 (1995)

Neutral Gas Contributions to [S II] Emission. *S. J. Petuchowski & C. L. Bennett.* 438, 735, 14-D3 (1995)

Hubble Space Telescope Observations of C_2 Molecules in Diffuse Interstellar Clouds. *David L. Lambert, Yaron Sheffer, & S. R. Federman.* 438, 740, 14-D11 (1995)

^{26}Al and Circumstellar Envelopes. *A. E. Glassgold.* 438, L111, 20-C9 (1995)

Probing the Galactic Disk and Halo. II. Hot Interstellar Gas toward the Inner Galaxy Star HD 156359. *Kenneth R. Sembach, Blair D. Savage, & Limin Lu.* 439, 672, 33-F12 (1995)

Grains in Ionized Nebulae: Spectral Line Diagnostics. *J. Kingdon, G. J. Ferland, & W. A. Feibelman.* 439, 793, 35-E3 (1995)

Gas Phase Abundances and Conditions along the Sight Line to the Low-Halo, Inner Galaxy Star HD 167756. *Jason A. Cardelli, Kenneth R. Sembach, & Blair D. Savage.* 440, 241, 44-E2 (1995)

Turbulent Diffusion and Its Effects on the Chemistry of Molecular Clouds. *Taoling Xie, Mark Allen, & William D. Langer.* 440, 674, 52-E1 (1995)

Injection of Freshly Synthesized ^{41}Ca in the Early Solar Nebula by an Asymptotic Giant Branch Star. *G. J. Wasserburg, R. Gallino, M. Busso, J. N. Goswami, & C. M. Raiteri.* 440, L101, 58-D1 (1995)

Hydrogen Chloride in OMC-1. *Peter Schilke, T. G. Phillips, & Ning Wang.* 441, 334, 64-A1 (1995)

A Molecular Line Study of NGC 1333/IRAS 4. *Geoffrey A. Blake, Göran Sandell, Ewine F. van Dishoeck, T. D. Groesbeck, Lee G. Mundy, & Colin Aspin.* 441, 689, 71-D13 (1995)

Large HCO^+ and HCN Abundances in the Translucent Cloud toward PKS 0528+134. *Michiel R. Hogerheijde, Eugène J. de Geus, Marco Spaans, Huib Jan van Langevelde, & Ewine F. van Dishoeck.* 441, L93, 76-D4 (1995)

Widespread Molecular Emission in the Galactic Plane from Species Other Than ^{12}CO. *Harvey S. Liszt.* 442, 163, 79-D8 (1995)

High-Density CN Filaments in NGC 2023. *A. Fuente, J. Martín-Pintado, & R. Gaume.* 442, L33, 85-A11 (1995)

Interstellar Titanium in the Galactic Halo. *Keith Lipman & Max Pettini.* 442, 628, 88-E8 (1995)

First Spectral Observations of the Diffuse Background with the *Extreme Ultraviolet Explorer*. *P. Jelinsky, J. V. Vallerga, & J. Edelstein.* 442, 653, 89-A8 (1995)

H I, CO, and *IRAS* Observations of NGC 7023. *C. Rogers, Mark H. Heyer, & P. E. Dewdney.* 442, 694, 89-F10 (1995)

Iron to Oxygen Abundance Ratio in the Orion Nebula. *Manuel A. Bautista & Anil K. Pradhan.* 442, L65, 94-F1 (1995)

Charge State of Anomalous Cosmic-Ray Nitrogen, Oxygen, and Neon: *SAMPEX* Observations. *B. Klecker, M. C. McNab, J. B. Blake, D. C. Hamilton, D. Hovestadt, H. Kästle, M. D. Looper, G. M. Mason, J. E. Mazur, & M. Scholer.* 442, L69, 94-F9 (1995)

CO and OH Absorption toward the Low-Latitude Radio Source 2023+336. *Henry A. Kobulnicky, John M. Dickey, & Rachel L. Akeson.* 443, L45, 103-A9 (1995)

The Distribution of Molecules in the Core of OMC-1. *E. C. Sutton, R. Peng, W. C. Danchi, P. A. Jaminet, G. Sandell, & A. P. G. Russell.* 97, 455, 18-E12 (1995)

Probing the Interstellar Medium along the Lines of Sight to SN 1994D and SN 1994I. *Luis C. Ho & Alexei V. Filippenko.* 444, 165, 115-E13 (1995)

The Local Metallicity–Surface Brightness Relationship in Galactic Disks. *Stuart D. Ryder.* 444, 610, 124-F12 (1995)

Optical and H I Observations of the Low-Velocity and Intermediate-Velocity Gas toward the Globular Cluster M13. *B. Bates, C. R. Shaw, S. N. Kemp, F. P. Keenan, & R. D. Davies.* 444, 672, 125-E7 (1995)

What Is the Problem with ^3He? *Keith A. Olive, Robert T. Rood, David N. Schramm, James Truran, & Elisabeth Vangioni-Flam.* 444, 680, 125-F6 (1995)

Far-Infrared Lines from H II Regions: Abundance Variations in the Galaxy. *Janet P. Simpson, Sean W. J. Colgan, Robert H. Rubin, Edwin F. Erickson, & Michael R. Haas.* 444, 721, 126-C6 (1995)

Composition of Interstellar Clouds in the Disk and Halo. III. HD 149881. *Lyman Spitzer, Jr., & Edward L. Fitzpatrick.* 445, 196, 135-C3 (1995)

A Cold Massive Interstellar Cloud within 120 Parsecs of the Sun: K I Optical and H I Radio Observations. *Joaquín Trapero, John E. Beckman, Miquel Serra-Ricart, Rodney D. Davies, Robert A. Watson, & Ramón J. García López.* 445, 231, 135-F9 (1995)

Properties of the +70 Kilometers per Second Cloud toward HD 203664. *Kenneth R. Sembach.* 445, 314, 136-G3 (1995)

A Critical Analysis of Interstellar Zn and Cr as Galactic Abundance Benchmarks for Quasar Absorbers. *Kenneth R. Sembach, Charles C. Steidel, Robert J. Macke, & David M. Meyer.* 445, L27, 140-E10 (1995)

Detection of MgCN in IRC +10216: A New Metal-bearing Free Radical. *L. M. Ziurys, A. J. Apponi, M. Guélin, & J. Cernicharo.* 445, L47, 141-A5 (1995)

Complex Molecules in Sagittarius B2(N): The Importance of Grain Chemistry. *Yanti Miao, David M. Mehringer, Yi-Jehng Kuan, & Lewis E. Snyder.* 445, L59, 141-B13 (1995)

On the Value of GEMS (Glass with Embedded Metal and Sulphides). *P. G. Martin.* 445, L63, 141-C8 (1995)

An *HST* Archival Study of Galactic Interstellar Zinc and Chromium. *Katherine C. Roth & J. Chris Blades.* 445, L95, 150-F11 (1995)

Molecular Oxygen: A New Astrophysical Maser? *P. Bergman.* 445, L167, 152-D1 (1995)

The Detection and Mapping Observations of C_2H_5OH in Orion Kleinmann-Low. *Masatoshi Ohishi, Shin-ichi Ishikawa, Satoshi Yamamoto, Shuji Saito, & Takayoshi Amano.* 446, L43, 160-G7 (1995)

The 685–692 GHz Spectrum of the Orion Core. *A. I. Harris, L. W. Avery, K.-F. Schuster, L. J. Tacconi, & R. Genzel.* 446, L85, 171-A9 (1995)

Observations of Anomalous Cosmic-Ray Hydrogen from the *Voyager* Spacecraft. *E. R. Christian, A. C. Cummings, & E. C. Stone.* 446, L105, 171-D9 (1995)

Neutral Hydrogen Absorption Measurements of Four Distant Pulsars and the Electron Density in the Inner Galaxy. *J. M. Weisberg, M. H. Siegel, D. A. Frail, & S. Johnston.* 447, 204, 175-A10 (1995)

Toward Extragalactic Chemistry: Detections of N_2H^+ and SiO in Nearby Galaxies. *Leslie J. Sage & L. M. Ziurys.* 447, 625, 184-F9 (1995)

HCl Absorption toward Sagittarius B2. *J. Zmuidzinas, G. A. Blake, J. Carlstrom, J. Keene, & D. Miller.* 447, L125, 191-C2 (1995)

Limits on Galactic Gamma-Ray Lines at 4.44 MeV and 6.13 MeV from Nuclear De-Excitation. *Michael J. Harris, Gerald H. Share, & Daniel C. Messina.* 448, 157, 194-C8 (1995)

Interstellar Alcohols. *S. B. Charnley, M. E. Kress, A. G. G. M. Tielens, & T. J. Millar.* 448, 232, 195-D1 (1995)

The Distribution of Metal-absorbing High-Velocity Clouds in the Galaxy. *David V. Bowen, J. Chris Blades, & Max Pettini.* 448, 662, 203-G10 (1995)

Probing the Galactic Disk and Halo. III. The Galactic and Intergalactic Sight Line to H1821+643. *Blair D. Savage, Kenneth R. Sembach, & Limin Lu.* 449, 145, 212-B11 (1995)

Si/O Abundance Ratios in Extragalactic H II Regions from Hubble Space Telescope UV Spectroscopy. *D. R. Garnett, R. J. Peimbert, S. Torres-Peimbert, G. A. Shields, E. D. Skillman, E. Terlevich, & R. J. Terlevich.* 449, L77, 217-C8 (1995)

A Search for *r*-Process Elements in the Vela Supernova Remnant. *George Wallerstein, Andrew D. Vanture, Edward B. Jenkins, & George M. Fuller.* 449, 688, 222-C10 (1995)

Interstellar Lead. *D. E. Welty, L. M. Hobbs, J. T. Lauroesch, D. C. Morton, & D. G. York.* 449, L135, 227-C8 (1995)

Coronal Gas in the Galactic Halo: ORFEUS Observations of NGC 346 No. 1 and PKS 2155−304. *M. Hurwitz, S. Bowyer, R.-P. Kudritzki, & D. J. Lennon.* 450, 149, 230-B2 (1995)

The Oscillator Strengths of the C_2 Phillips System. *P. Erman & A. Iwamae.* 450, L31, 236-A3 (1995)

Observation of Infrared and Radio Lines of Molecules toward GL 2591 and Comparison to Physical and Chemical Models. *John S. Carr, Neal J. Evans II, J. H. Lacy, & Shudong Zhou.* 450, 667, 240-A7 (1995)

Temperature Fluctuations in Photoionized Nebulae. *J. B. Kingdon & G. J. Ferland.* 450, 691, 240-C6 (1995)

Balmer Discontinuity Temperatures in the Orion Nebula. *X.-W. Liu, M. J. Barlow, I. J. Danziger, & P. J. Storey.* 450, L59, 244-F8 (1995)

H II Regions in Four Galaxies in and near the Local Group. *Paul Hodge & Bryan W. Miller.* 451, 176, 248-D9 (1995)

Deuterium and the Local Interstellar Medium Properties for the Procyon and Capella Lines of Sight. *Jeffrey L. Linsky, Athanassios Diplas, Brian E. Wood, Alexander Brown, Thomas R. Ayres, & Blair D. Savage.* 451, 335, 250-E2 (1995)

Cosmic-Ray H and He Isotopes in the Outer Heliosphere in 1994. *E. S. Seo & F. B. McDonald.* 451, L33, 252-E12 (1995)

Discovery of Highly Ionized High-Velocity Clouds toward Markarian 509. *Kenneth R. Sembach, Blair D. Savage, Limin Lu, & Edward M. Murphy.* 451, 616, 255-F12 (1995)

The Ratio of H_2 Column Density to ^{12}CO Intensity in the Vicinity of the Galactic Center. *T. J. Sodroski, N. Odegard, E. Dwek, M. G. Hauser, B. A. Franz, I. Freedman, T. Kelsall, W. F. Wall, G. B. Berriman, S. F. Odenwald, C. Bennett, W. T. Reach, & J. L. Weiland.* 452, 262, 265-F10 (1995)

Atomic Physics with the Goddard High-Resolution Spectrograph on the *Hubble Space Telescope*. I. Oscillator Strengths for Neutral Sulfur. *S. R. Federman & Jason A. Cardelli.* 452, 269, 265-G6 (1995)

Atomic Physics with the Goddard High-Resolution Spectrograph on the *Hubble Space Telescope*. II. Oscillator Strengths for Singly Ionized Iron. *Jason A. Cardelli & Blair D. Savage.* 452, 275, 266-A1 (1995)

The Continuum Structure of 11 Galactic H II Regions. *Dana S. Balser, T. M. Bania, Robert T. Rood, & T. L. Wilson.* 100, 371, 51-C6 (1995)

The *EUVE* and *IUE* Spectra of the Hot DA White Dwarf GD 659. *J. B. Holberg, M. A. Barstow, F. C. Bruhweiler, & E. M. Sion.* 453, 313, 285-D12 (1995)

Consequences of Dust in Metal-rich H II Regions. *Joseph C. Shields & Robert C. Kennicutt, Jr.* 454, 807, 313-A1 (1995)

Can Gas-Phase Radical/Neutral Reactions Account for Observed Abundances of Propynal within Dense Interstellar Clouds? *Simon Petrie.* 454, L165, 317-A9 (1995)

A Gamma-Ray Monte Carlo Study of the Clumpy Debris of SN 1987A. *Adam Burrows & Kenneth A. Van Riper.* 455, 215, 321-B3 (1995)

Silicon Monoxide in Sagittarius B2. *Y. Peng, Stuart N. Vogel, & J. E. Carlstrom.* 455, 223, 321-B14 (1995)

Confirmation of Interstellar HOC^+: Reevaluating the $[HCO^+]/[HOC^+]$ Abundance Ratio. *L. M. Ziurys & A. J. Apponi.* 455, L73, 325-F7 (1995)

The Physics and Chemistry of Small Translucent Molecular Clouds. V. SO and SO_2. *B. E. Turner.* 455, 556, 329-E10 (1995)

Hot White Dwarfs in the Local Interstellar Medium: Hydrogen and Helium Interstellar Column Densities and Stellar Effective Temperatures from *Extreme-Ultraviolet Explorer* Spectroscopy. *Jean Dupuis, Stéphane Vennes, Stuart Bowyer, Anil K. Pradhan, & Peter Thejll.* 455, 574, 329-G3 (1995)

Interstellar Lines in HD 72127A and B: A Binary Star behind the Vela Supernova Remnant. *George Wallerstein, Andrew Vanture, & Edward B. Jenkins.* 455, 590, 330-A9 (1995)

Big Bang Nucleosynthesis and a New Approach to Galactic Chemical Evolution. *Craig J. Copi, David N. Schramm, & Michael S. Turner.* 455, L95, 333-C1 (1995)

ISM: ATOMS

Highly Ionized Atoms toward HD 93521. *Lyman Spitzer, Jr., & Edward L. Fitzpatrick.* 391, L41, 92-C11 (1992)

The Optical Emission-Line Background and Accompanying Emissions at Ultraviolet, Infrared, and Millimeter Wavelengths. *R. J. Reynolds.* 392, L35, 106-E1 (1992)

Observation of Fine Structure in the Cold Phase of the Local Interstellar Medium Using K I Absorption. *Joaquín Trapero, John E. Beckman, Ricardo Génova, & Conal D. McKeith.* 394, 552, 136-C1 (1992)

Ultraviolet Observations of the Gas Phase Abundances in the Diffuse Clouds toward ζ Ophiuchi at 3.5 Kilometers per Second Resolution. *Blair D. Savage, Jason A. Cardelli, & Ulysses J. Sofia.* 401, 706, 231-C9 (1992)

Abundance of Interstellar Carbon toward ζ Ophiuchi. *Jason A. Cardelli, John S. Mathis, Dennis C. Ebbets, & Blair D. Savage.* 402, L17, 6-D1 (1993)

Accurate Oscillator Strengths for Interstellar Ultraviolet Lines of Cl I. *R. M. Schectman, S. R. Federman, D. J. Beideck, & D. G. Ellis.* 406, 735, 67-B6 (1993)

Can Galactic H I Be Radiatively Supported? *A. Ferrara.* 407, 157, 71-A7 (1993)

Highly Blueshifted H I Gas toward the Galactic Center. *Farhad Yusef-Zadeh, Anthony Lasenby, & Jennifer Marshall.* 410, L27, 118-G12 (1993)

The Interstellar Abundances of Tin and Four Other Heavy Elements. *L. M. Hobbs, D. E. Welty, D. C. Morton, L. Spitzer, & D. G. York.* 411, 750, 139-A13 (1993)

Detection of Boron, Cobalt, and Other Weak Interstellar Lines toward ζ Ophiuchi. *S. R. Federman, Y. Sheffer, D. L. Lambert, & R. L. Gilliland.* 413, L51, 162-G7 (1993)

Oscillator Strengths of the Si II 181 Nanometer Resonance Multiplet. *S. D. Bergeson & J. E. Lawler.* 414, L137, 186-D9 (1993)

Ultraviolet Transitions of Low Condensation Temperature Heavy Elements and New Data for Interstellar Arsenic, Selenium, Tellurium, and Lead. *Jason A. Cardelli, S. R. Federman, David L. Lambert, & C. E. Theodosiou.* 416, L41, 207-F5 (1993)

Interstellar Detection of the Intersystem Line Si II] λ2335 toward ζ Ophiuchi. *Jason A. Cardelli, Ulysses J. Sofia, Blair D. Savage, Francis P. Keenan, & Philip L. Dufton.* 420, L29, 7-D13 (1994)

The Annihilation of Positrons in the Cold Phase of the Interstellar Medium Revisited. *P. Wallyn, Ph. Durouchoux, C. Chapuis, & M. Leventhal.* 422, 610, 39-D7 (1994)

A Measurement of the $J = 2 \leftarrow 1$ Fine-Structure Interval for ^{28}Si and ^{29}Si in the Ground ^3P State. *John M. Brown, Lyndon R. Zink, & K. M. Evenson.* 423, L151, 61-D13 (1994)

The Distribution and Kinematics of Atomic Carbon near the Galactic Center. *E. Serabyn, Jocelyn Keene, D. C. Lis, & T. G. Phillips.* 424, L95, 79-A9 (1994)

Observations of Large-Scale [C I] Emission from S140. *René Plume, D. T. Jaffe, & Jocelyn Keene.* 425, L49, 85-G3 (1994)

The Fine-Structure Intervals of $^{14}N^{+}$ by Far-Infrared Laser Magnetic Resonance. *John M. Brown, Thomas D. Varberg, Kenneth M. Evenson, & Andrew L. Cooksy.* 428, L37, 134-E13 (1994)

Atomic Carbon in the High-Latitude Molecular Cloud MBM 12. *James G. Ingalls, T. M. Bania, & James M. Jackson.* 431, L139, 192-D4 (1994)

Atomic Sulfur: Frequency Measurement of the $J = 0 \leftarrow 1$ Fine-Structure Transition at 56.3 Microns by Laser Magnetic Resonance. *John M. Brown, Kenneth M. Evenson, & Lyndon R. Zink.* 431, L147, 192-E2 (1994)

Morphology of the Interstellar Cooling Lines Detected by *COBE*. *C. L. Bennett, D. J. Fixsen, G. Hinshaw, J. C. Mather, S. H. Moseley, E. L. Wright, R. E. Eplee, Jr., J. Gales, T. Hewagama, R. B. Isaacman, R. A. Shafer, & K. Turpie.* 434, 587, 235-G13 (1994)

Observation of [C I] toward the GL 2591 and W28 A2 Molecular Outflows. *Minho Choi, Neal J. Evans II, Daniel T. Jaffe, & Christopher K. Walker.* 435, 734, 256-B10 (1994)

Oscillator Strengths for Fe II Transitions at 224.918 and 226.008 Nanometers. *S. D. Bergeson, K. L. Mullman, & J. E. Lawler.* 435, L157, 260-E11 (1994)

A High-Resolution Survey of Interstellar Na I D_1 Lines. *Daniel E. Welty, L. M. Hobbs, & Varsha P. Kulkarni.* 436, 152, 263-C12 (1994)

The Abundance of Interstellar Oxygen toward Orion: Evidence for Recent Infall? *David M. Meyer, M. Jura, Isabel Hawkins, & Jason A. Cardelli.* 437, L59, 292-C1 (1994)

The Origin of N III λ990 and C III λ977 Emission in AGN Narrow-Line Region Gas. *J. W. Ferguson, G. J. Ferland, & A. K. Pradhan.* 438, L55, 19-B11 (1995)

Atomic Iron in Its ^5D Ground State: A Direct Measurement of the $J = 0 \leftarrow 1$ and $J = 1 \leftarrow 2$ Fine-Structure Intervals. *John M. Brown & Kenneth M. Evenson.* 441, L97, 76-D11 (1995)

A Cold Massive Interstellar Cloud within 120 Parsecs of the Sun: K I Optical and H I Radio Observations. *Joaquín Trapero, John E. Beckman, Miquel Serra-Ricart, Rodney D. Davies, Robert A. Watson, & Ramón J. García López.* 445, 231, 135-F9 (1995)

A Localized Excess of Diffuse Gamma Radiation. *A. Chen, J. Dwyer, & P. Kaaret.* 445, L109, 151-A9 (1995)

Interstellar Lead. *D. E. Welty, L. M. Hobbs, J. T. Lauroesch, D. C. Morton, & D. G. York.* 449, L135, 227-C8 (1995)

ISM: BUBBLES

Dynamics of Wind Bubbles and Superbubbles. I. Slow Winds and Fast Winds. *Bon-Chul Koo & Christopher F. McKee.* 388, 93, 50-C1 (1992)

Dynamics of Wind Bubbles and Superbubbles. II. Analytic Theory. *Bon-Chul Koo & Christopher F. McKee.* 388, 103, 50-C12 (1992)

Galactic Worms. I. Catalog of Worm Candidates. *Bon-Chul Koo, Carl Heiles, & William T. Reach.* 390, 108, 75-D6 (1992)

Effect of the Explosion of Supernovae and Superbubbles on the Galactic Dynamo. *Katia Ferrière.* 391, 188, 88-C13 (1992)

Completing the Evolution of Supernova Remnants and Their Bubbles. *Jonathan D. Slavin & Donald P. Cox.* 392, 131, 102-E9 (1992)

Astro-1 Ultraviolet Imaging of the 30 Doradus and SN 1987A Fields with the Ultraviolet Imaging Telescope. *Kwang-Ping Cheng, Andrew G. Michalitsianos, Paul Hintzen, Ralph C. Bohlin, Robert W. O'Connell, Robert H. Cornett, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L29, 145-A1 (1992)

Pulsar Nebulae in Supernovae. *Roger A. Chevalier & Claes Fransson.* 395, 540, 149-E3 (1992)

Evidence for Large-Scale Expanding Motions within the Orion A Molecular Cloud. *M. H. Heyer, J. Morgan, F. P. Schloerb, R. L. Snell, & P. F. Goldsmith.* 395, L99, 154-B1 (1992)

Warm Ionized Gas in the Edge-on Galaxies NGC 4565 and NGC 4631. *Richard J. Rand, Shrinivas R. Kulkarni, & J. Jeff Hester.* 396, 97, 156-C6 (1992)

An Axisymmetric Magnetohydrodynamic Model for the Crab Pulsar Wind Bubble. *Mitchell C. Begelman & Zhi-yun Li.* 397, 187, 170-C11 (1992)

The Galactic Center Wind. *Roger A. Chevalier.* 397, L39, 173-E12 (1992)

An Off-Center Point Explosion in a Radially Stratified Medium: Kompaneets Approximation. *D. G. Korycansky.* 398, 184, 184-B9 (1992)

Formation of the Dark Bays in the Crab Optical Synchrotron Nebula: Is the Crab Pulsar Wind Bubble Interacting with Its Progenitor's Wind? *Zhi-Yun Li & Mitchell C. Begelman.* 400, 186, 211-C1 (1992)

Two-Temperature Models of Old Supernova Remnants with Ion and Electron Thermal Conduction. *Wei Cui & Donald P. Cox.* 401, 206, 223-F1 (1992)

The Full Alpha-Tensor Due to Supernova Explosions and Superbubbles in the Galactic Disk. *Katia Ferrière.* 404, 162, 30-A7 (1993)

The Impact of Supernova Fragments on the Evolution of Multisupernova Remnants. *J. Franco, A. Ferrara, M. Różyczka, G. Tenorio-Tagle, & D. P. Cox.* 407, 100, 70-C11 (1993)

Magnetic Diffusion Due to Supernova Explosions and Superbubbles in the Galactic Disk. *Katia Ferrière.* 409, 248, 100-C1 (1993)

Large-Scale Explosions and Superbubbles in the Galactic Disk and Halo. I. Magnetohydrodynamic Simulations. *Shin Mineshige, Kazunari Shibata, & Paul R. Shapiro.* 409, 663, 107-C1 (1993)

Hot Bubbles in a Magnetic Interstellar Medium: Another Look at the Soft X-Ray Background. *Richard J. Edgar & Donald P. Cox.* 413, 190, 158-D10 (1993)

Evolution of Supernova Remnant Bubbles in a Warm Diffuse Medium: Survey of Results from One-dimensional Models and Their Impact on Estimates of Interstellar Porosity. *Jonathan D. Slavin & Donald P. Cox.* 417, 187, 219-F12 (1993)

Excitation of the [Fe III] Bubble Surrounding the Galactic Center "Mini-Cavity." *D. Lutz, A. Krabbe, & R. Genzel.* 418, 244, 234-B1 (1993)

Interstellar Magnetic Bubbles. *J. P. Vallée.* 419, 670, 256-A12 (1993)

Voyager Observations of Diffuse Far-Ultraviolet Continuum and Line Emission in Eridanus. *Jayant Murthy, M. Im, R. C. Henry, & J. B. Holberg.* 419, 739, 256-G7 (1993)

Magnetic Shaping of Planetary Nebulae and Other Stellar Wind Bubbles. *Roger A. Chevalier & Ding Luo.* 421, 225, 18-G1 (1994)

The Formation of Stellar Systems by Gravitational Instability in the Cygnus Superbubble. *F. Comerón & J. Torra.* 423, 652, 56-F1 (1994)

O Star Giant Bubbles in M33. *M. S. Oey & Philip Massey.* 425, 635, 89-E1 (1994)

Narrowband *HST* Imagery of the Young Planetary Nebula Henize 1357. *M. Bobrowsky.* 426, L47, 103-F5 (1994)

The Nuclear Superbubble of NGC 3079. *S. Veilleux, G. Cecil, J. Bland-Hawthorn, R. B. Tully, A. V. Filippenko, & W. L. W. Sargent.* 433, 48, 208-G2 (1994)

Filaments of Neutral Hydrogen toward the Galactic Anticenter. *Christopher M. Tamanaha.* 433, 648, 219-B3 (1994)

Morphology of the Interstellar Cooling Lines Detected by *COBE*. *C. L. Bennett, D. J. Fixsen, G. Hinshaw, J. C. Mather, S. H. Moseley, E. L. Wright, R. E. Eplee, Jr., J. Gales, T. Hewagama, R. B. Isaacman, R. A. Shafer, & K. Turpie.* 434, 587, 235-G13 (1994)

Hot Gas in the Interstellar Medium: A Reanalysis of O VI Absorption Data. *R. L. Shelton & D. P. Cox.* 434, 599, 236-B2 (1994)

Two New Light Echo Structures from SN 1987A at Large Distances. *Jun Xu, Arlin P. S. Crotts, & William E. Kunkel.* 435, 274, 247-B1 (1994)

The Local Distribution of Na I Interstellar Gas. *B. Y. Welsh, N. Craig, P. W. Vedder, & J. V. Vallerga.* 437, 638, 294-E4 (1994)

Observations of the Impact of Starbursts on the Interstellar Medium in Dwarf Galaxies. *Amanda T. Marlowe, Timothy M. Heckman, Rosemary F. G. Wyse, & Robert Schommer.* 438, 563, 12-A3 (1995)

The Hot Gas Filling Factor in the Vicinity of the Sun. *K. M. Ferrière.* 441, 281, 63-B12 (1995)

First Spectral Observations of the Diffuse Background with the *Extreme Ultraviolet Explorer*. *P. Jelinsky, J. V. Vallerga, & J. Edelstein.* 442, 653, 89-A8 (1995)

Noncoeval Star Formation, Starbursts, and the Growth of Supershells in OB Associations. *J. Michael Shull & Jon M. Saken.* 444, 663, 125-D9 (1995)

Socket Stars: *UBVRIJK* Radial Profiles. *Bradley E. Schaefer.* 444, 739, 126-D13 (1995)

A Supergiant Supernova-blown Bubble in the Spiral Galaxy NGC 1620. *J. Patricia Vader & Brian Chaboyer.* 445, 691, 144-F1 (1995)

The Optical Counterpart to the Extremely Luminous X-Ray Source near Holmberg IX: A Possible Supershell in a Tidal Tail. *Bryan W. Miller.* 446, L75, 170-G4 (1995)

X-Rays from Superbubbles in the Large Magellanic Cloud. III. X-Ray–dim Superbubbles. *You-Hua Chu, Hsiao-wei Chang, Yu-ling Su, & Mordecai-Mark Mac Low.* 450, 157, 230-B13 (1995)

Triggered Star Formation and the Dynamics of a Superbubble in the LMC: The OB Association LH 47/48 in DEM 152. *M. S. Oey & Philip Massey.* 452, 210, 264-G11 (1995)

Hubble Space Telescope Observations of the SN 1987A Triple Ring Nebula. *Christopher J. Burrows, John Krist, J. Jeff Hester, Raghvendra Sahai, John T. Trauger, Karl R. Stapelfeldt, John S. Gallagher III, Gilda E. Ballester, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, Richard E. Griffiths, John G. Hoessel, Jon A. Holtzman, Jeremy R. Mould, Paul A. Scowen, Alan M. Watson, & James A. Westphal.* 452, 680, 274-A11 (1995)

On the Hot Gas Fraction in Supernova Remnants. *Uffe Hellsten & Jesper Sommer-Larsen.* 453, 264, 284-F10 (1995)

Wolf-Rayet Bubbles. I. Analytic Solutions. *Guillermo García-Segura & Mordecai-Mark Mac Low.* 455, 145, 320-B13 (1995)

Wolf-Rayet Bubbles. II. Gasdynamical Situations. *Guillermo García-Segura & Mordecai-Mark Mac Low.* 455, 160, 320-D3 (1995)

ISM: CLOUDS

Numerical Models for the Collapse and Fragmentation of Centrally Condensed Molecular Cloud Cores. *Elizabeth A. Myhill & William M. Kaula.* 386, 578, 32-E4 (1992)

Self-similar Solutions and the Stability of Collapsing Isothermal Filaments. *Shu-ichiro Inutsuka & Shoken M. Miyama.* 388, 392, 55-C1 (1992)

Primordial Giant Molecular Cloud Clumps Can Be Probed—Optically. *David L. Block, J. E. Dyson, & Claus Madsen.* 390, L13, 78-C1 (1992)

On the Nature of the Molecular Cores in High-Latitude Cirrus Clouds. II. Structure, Stability, and Physical Conditions from $C^{18}O$ Observations. *B. E. Turner, Lanping Xu, & L. J Rickard.* 391, 158, 88-A7 (1992)

Ambipolar Diffusion and Star Formation: Formation and Contraction of Axisymmetric Cloud Cores. I. Formulation of the Problem and Method of Solution. *Robert A. Fiedler & Telemachos Ch. Mouschovias.* 391, 199, 88-D12 (1992)

A Source Model for the L134N Molecular Cloud. *Daryl A. Swade & F. Peter Schloerb.* 392, 543, 109-A9 (1992)

The Diffuse Interstellar Cloud toward HD 179406 (20 Aquilae). *Margaret Murray Hanson, Theodore P. Snow, & John H. Black.* 392, 571, 109-C12 (1992)

Estimates of N_2 Abundances in Dense Molecular Clouds. *M. Womack, L. M. Ziurys, & S. Wyckoff.* 393, 188, 116-D6 (1992)

Ultraviolet, Optical, and Infrared Observations of the High-Latitude Molecular Cloud toward HD 210121. *Daniel E. Welty & James R. Fowler.* 393, 193, 116-D13 (1992)

Surveys of Dense Cores for High-Velocity Gas. *Yuefang Wu, Shudong Zhou, & Neal J. Evans II.* 394, 196, 130-D9 (1992)

In Search of Evidence for Protostellar Collapse: A Systematic Study of Line Formation in Low-Mass Dense Cores. *Shudong Zhou.* 394, 204, 130-E4 (1992)

Star Formation in Protogalactic Clouds. *Douglas N. C. Lin & Stephen D. Murray.* 394, 523, 135-G8 (1992)

Evidence for Large-Scale Expanding Motions within the Orion A Molecular Cloud. *M. H. Heyer, J. Morgan, F. P. Schloerb, R. L. Snell, & P. F. Goldsmith.* 395, L99, 154-B1 (1992)

Density Structure and Star Formation in Dense Cores with Thermal and Nonthermal Motions. *P. C. Myers & G. A. Fuller.* 396, 631, 165-C1 (1992)

A High-Resolution 21 Centimeter Line Study of Infrared Cirrus. *G. Joncas, F. Boulanger, & P. E. Dewdney.* 397, 165, 170-A10 (1992)

The Unusual Cometary Star-forming Region G110−13. *Sten Odenwald, Jacqueline Fischer, Felix J. Lockman, & Sally Stemwedel.* 397, 174, 170-B9 (1992)

Models of Gas-Grain Chemistry in Dense Interstellar Clouds with Complex Organic Molecules. *Tatsuhiko I. Hasegawa, Eric Herbst, & Chun Ming Leung.* 82, 167, 51-D13 (1992)

IRAS Observations of Young Stellar Objects in the Corona Australis Dark Cloud. *Bruce A. Wilking, Thomas P. Greene, Charles J. Lada, Michael R. Meyer, & Erick T. Young.* 397, 520, 177-C9 (1992)

The Structure of Magnetic Fields in Dark Clouds: Infrared Polarimetry in B216–217. *Alyssa A. Goodman, Terry J. Jones, Elizabeth A. Lada, & Philip C. Myers.* 399, 108, 196-E3 (1992)

On the Molecular Complexity of the Hot Cores in Orion A: Grain Surface Chemistry as "The Last Refuge of the Scoundrel." *S. B. Charnley, A. G. G. M. Tielens, & T. J. Millar.* 399, L71, 201-A8 (1992)

On the Virial Theorem for Turbulent Molecular Clouds. *Christopher F. McKee & Ellen G. Zweibel.* 399, 551, 204-F7 (1992)

Fragmentation of Elongated Cylindrical Clouds. IV. Clouds with Solid-Body Rotation about an Arbitrary Axis. *Ian Bonnell, Jean-Pierre Arcoragi, Hugo Martel, & Pierre Bastien.* 400, 579, 217-E8 (1992)

Interstellar Cloud Shapes: A Minimum-Hypothesis Account Involving a Purely Gravitational Effect. *Robert C. Fleck, Jr.* 401, 146, 222-G3 (1992)

The Dynamics of Molecular Cloud Envelopes in a Varying Ultraviolet Radiation Field. *C. Bréart de Boisanger, J.-P. Chièze, & B. Meltz.* 401, 182, 223-D1 (1992)

Photometric and Spectroscopic Analysis of High Galactic Latitude Molecular Clouds. I. Distances and Extinctions of Stars toward 25 Selected Regions. *B. E. Penprase.* 83, 273, 61-E7 (1992)

CO ($J = 1$–0) Line Emission from Giant Molecular Clouds. *Mark G. Wolfire, David Hollenbach, & A. G. G. M. Tielens.* 402, 195, 3-E1 (1993)

Dust Temperature Distributions in Star-forming Condensations. *Taoling Xie, Paul F. Goldsmith, Ronald L. Snell, & Weimin Zhou.* 402, 216, 3-F11 (1993)

The Observation of Correlated Velocity Structures in a Translucent Molecular Cloud and Implications for Turbulence. *L. Magnani, T. N. LaRosa, & S. N. Shore.* 402, 226, 3-G10 (1993)

Warm Neutral Halos around Molecular Clouds. VI. Physical and Chemical Modeling. *B-G Andersson & P. G. Wannier.* 402, 585, 9-G9 (1993)

Gravitational Formation Times and Stellar Mass Distributions for Stars of Mass 0.3–30 $M_\odot$. *P. C. Myers & G. A. Fuller.* 402, 635, 10-E1 (1993)

Nonlinear Waves and Solitons in Molecular Clouds. *Fred C. Adams & Marco Fatuzzo.* 403, 142, 15-F13 (1993)

New 3 Millimeter Observations of Interstellar HNO: Reinstating a Discredited Identification. *Lewis E. Snyder, Yi-Jehng Kuan, L. M. Ziurys, & J. M. Hollis.* 403, L17, 20-C1 (1993)

158 Micron [C II] Mapping of the Orion Molecular Cloud. *G. J. Stacey, D. T. Jaffe, N. Geis, R. Genzel, A. I. Harris, A. Poglitsch, J. Stutzki, & C. H. Townes.* 404, 219, 30-E11 (1993)

A Flux-limited Treatment for the Conductive Evaporation of Spherical Interstellar Gas Clouds. *William W. Dalton & Steven A. Balbus.* 404, 625, 36-F11 (1993)

Molecular Cloud Cores in the Orion A Cloud. I. Nobeyama CS (1–0) Survey. *Ken'ichi Tatematsu, Tomofumi Umemoto, Osamu Kameya, Naomi Hirano, Tetsuo Hasegawa, Masahiko Hayashi, Takahiro Iwata, Norio Kaifu, Hitomi Mikami, Yasuhiro Murata, Makoto Nakano, Takenori Nakano, Nagayoshi Ohashi, Kazuyoshi Sunada, Hiroshi Takaba, & Satoshi Yamamoto.* 404, 643, 37-A5 (1993)

On the Nature of the Molecular Cores in High-Latitude Cirrus Clouds. III. ^{13}CO Observations and Tests of CO Chemistry Models. *B. E. Turner.* 405, 229, 44-A3 (1993)

The Internal Mass Distribution of a Giant Molecular Cloud without Star Formation. *Jonathan P. Williams & Leo Blitz.* 405, L75, 54-E1 (1993)

N_2H^+ in the Orion Ambient Ridge: Cloud Clumping versus Rotation. *Maria Womack, L. M. Ziurys, & L. J. Sage.* 406, L29, 61-A1 (1993)

Shock Propagation in a Turbulent Cloud. *Toshiya Kimura & Makoto Tosa.* 406, 512, 64-B10 (1993)

Switch Shocks in Molecular Clouds. II. Implications. *Michael D. Smith.* 406, 520, 64-C7 (1993)

Dense Cores in Dark Clouds. VIII. Velocity Gradients. *A. A. Goodman, P. J. Benson, G. A. Fuller, & P. C. Myers.* 406, 528, 64-D3 (1993)

Interstellar Deuterium in Cold Dense Clouds. *Michael Opendak.* 406, 548, 64-E12 (1993)

Warm Neutral Halos around Molecular Clouds. V. OH (1665 and 1667 MHz) Observations. *Peter G. Wannier, B-G Andersson, S. R. Federman, B. M. Lewis, Y. P. Viala, & E. Shaya.* 407, 163, 71-B1 (1993)

OH Zeeman Observations of Dark Clouds. *R. M. Crutcher, T. H. Troland, A. A. Goodman, C. Heiles, I. Kazès, & P. C. Myers.* 407, 175, 71-C1 (1993)

$^{12}C/^{13}C$ Isotope Ratio in the Local Interstellar Medium from Observations of $^{13}C^{18}O$ in Molecular Clouds. *William D. Langer & Arno A. Penzias.* 408, 539, 92-A1 (1993)

CH as a Tracer of a Translucent Cloud Boundary. *Loris Magnani & Joseph S. Onello.* 408, 559, 92-B9 (1993)

Interstellar Extinction in the Infrared: The Molecular Cloud toward HD 62542. *D. C. B. Whittet, P. G. Martin, E. L. Fitzpatrick, & D. Massa.* 408, 573, 92-C11 (1993)

A Supershell Model for the High- and Intermediate-Velocity Neutral Hydrogen Clouds. *Gerrit L. Verschuur.* 409, 205, 99-D13 (1993)

The X-Ray Shadow of the High-Latitude Molecular Cloud MBM 12. *S. L. Snowden, D. McCammon, & F. Verter.* 409, L21, 104-D1 (1993)
Modeling the Structure of H I in the Galactic Disk. *Joel N. Bregman, Daniel D. Kelson, & Gregory A. Ashe.* 409, 682, 107-D9 (1993)
The Nature of the Molecular Cores in High-Latitude Cirrus Clouds. IV. The Electron Distribution and the Abundance and Chemistry of H_2CO. *B. E. Turner.* 410, 140, 113-G8 (1993)
Collapse and Fragmentation of Molecular Cloud Cores. I. Moderately Centrally Condensed Cores. *Alan P. Boss.* 410, 157, 114-B1 (1993)
An Infrared Survey for Embedded Young Stars in the Perseus Molecular Cloud Complex. *E. F. Ladd, E. A. Lada, & P. C. Myers.* 410, 168, 114-C1 (1993)
Observation of [C II] 158 Micron Emission from the Diffuse Interstellar Medium at High Galactic Latitude. *J. Bock, V. V. Hristov, M. Kawada, H. Matsuhara, T. Matsumoto, S. Matsuura, P. D. Mauskopf, P. L. Richards, M. Tanaka, & A. E. Lange.* 410, L115, 126-D1 (1993)
On the Nature of the Molecular Cores in High-Latitude Cirrus Clouds. V. NH_3 and Its Chemistry. *B. E. Turner.* 411, 219, 129-G13 (1993)
The Formation of Protostellar Disks. I. 1 $M_\odot$. *Harold W. Yorke, Peter Bodenheimer, & Gregory Laughlin.* 411, 274, 130-E13 (1993)
Magnetic Fields in Massive Cloud Cores: Comparison of MILLIPOL and *IRAS* Results. *Brian D. Kane, Dan P. Clemens, Richard Barvainis, & Robert W. Leach.* 411, 708, 138-E1 (1993)
High-Resolution Ca II Observations of the Local Interstellar Medium. *J. V. Vallerga, P. W. Vedder, N. Craig, & B. Y. Welsh.* 411, 729, 138-F13 (1993)
The Interstellar Abundances of Tin and Four Other Heavy Elements. *L. M. Hobbs, D. E. Welty, D. C. Morton, L. Spitzer, & D. G. York.* 411, 750, 139-A13 (1993)
An Interaction Model for the Formation of Dwarf Galaxies and 10^8 $M_\odot$ Clouds in Spiral Disks. *B. G. Elmegreen, M. Kaufman, & M. Thomasson.* 412, 90, 143-B10 (1993)
Magnetohydrodynamic Wave Propagation in One-dimensional Nonhomogeneous, Self-gravitating Clouds. *Marco Fatuzzo & Fred C. Adams.* 412, 146, 143-G10 (1993)
High-Resolution Ultraviolet Observations of the Interstellar Diffuse Clouds toward μ Columbae. *Ulysses J. Sofia, Blair D. Savage, & Jason A. Cardelli.* 413, 251, 159-D3 (1993)
Cometary Globules in the Southeast Quadrant of the Rosette Nebula. *Nimesh A. Patel, Taoling Xie, & Paul F. Goldsmith.* 413, 593, 163-G7 (1993)
Can Isolated Stellar-Mass Black Holes Explain the Hard X-Ray Sources in the Galactic Center Region? *Sergio Campana & Sandro Mereghetti.* 413, L89, 168-E10 (1993)
An H II Region beyond the Optical Disk of the Galaxy. *E. J. de Geus, S. N. Vogel, S. W. Digel, & R. A. Gruendl.* 413, L97, 168-F7 (1993)
A High-Resolution H I Survey of the Rosette Nebula. *Thomas A. Kuchar & T. M. Bania.* 414, 664, 179-D12 (1993)
The Embedded Young Stars in the Taurus-Auriga Molecular Cloud. I. Models for Spectral Energy Distributions. *Scott J. Kenyon, Núria Calvet, & Lee Hartmann.* 414, 676, 179-F1 (1993)
Ambipolar Diffusion and Star Formation: Formation and Contraction of Axisymmetric Cloud Cores. II. Results. *Robert A. Fiedler & Telemachos Ch. Mouschovias.* 415, 680, 196-C7 (1993)
^{13}CO and $C^{18}O$ Maps of N-Body Magnetohydrodynamic Simulations of Dark Clouds. *Lars G. Stenholm & Ralph E. Pudritz.* 416, 218, 203-F13 (1993)
A Determination of the Distance to the High-Velocity Cloud Complex M. *Laura Danly, C. E. Albert, & K. D. Kuntz.* 416, L29, 207-D13 (1993)
Collapse of Magnetized Molecular Cloud Cores. I. Semianalytical Solution. *Daniele Galli & Frank H. Shu.* 417, 220, 220-C1 (1993)
Collapse of Magnetized Molecular Cloud Cores. II. Numerical Results. *Daniele Galli & Frank H. Shu.* 417, 243, 220-D13 (1993)
Dynamics of Conductive/Cooling Fronts: Cloud Implosion and Thermal Solitons. *A. Ferrara & Yu. Shchekinov.* 417, 595, 226-F13 (1993)
CO Emission from Molecular Clouds in the Central Region of M31. *Yoshiaki Sofue & Shigeomi Yoshida.* 417, L63, 230-B12 (1993)
Thermal Material in Dense Cores: A New Narrow-Line Probe and Technique of Temperature Determination. *G. A. Fuller & P. C. Myers.* 418, 273, 234-D9 (1993)
The Langevin Equation and Its Application to Grain Alignment in Molecular Clouds. *W. G. Roberge, T. A. DeGraff, & J. E. Flaherty.* 418, 287, 234-E11 (1993)
Proto–Brown Dwarfs. I. Methods and Results for High-Latitude Clouds. *Marc W. Pound & Leo Blitz.* 418, 328, 235-B9 (1993)
Formaldehyde as a Probe of Physical Conditions in Dense Molecular Clouds. *Jeffrey G. Mangum & Alwyn Wootten.* 89, 123, 50-E5 (1993)
A [C II] 158 Micron Line Map of the ρ Ophiuchi Cloud. *Yukari Yamashita Yui, Takao Nakagawa, Yasuo Doi, Haruyuki Okuda, Hiroshi Shibai, Tetsuo Nishimura, & Frank J. Low.* 419, L37, 252-F3 (1993)
Molecular Cloud Core and CS Outflow Associated with Haro 4-255 FIR. *Ken'ichi Tatematsu, Tomofumi Umemoto, Yasuhiro Murata, Hua Chen, Naomi Hirano, & Hiroshi Takaba.* 419, 746, 257-A1 (1993)
Detection of AU-Scale Structure in Molecular Clouds. *Alan P. Marscher, E. M. Moore, & Thomas M. Bania.* 419, L101, 259-G5 (1993)
On the Hydrodynamic Interaction of Shock Waves with Interstellar Clouds. I. Nonradiative Shocks in Small Clouds. *Richard I. Klein, Christopher F. McKee, & Philip Colella.* 420, 213, 3-E5 (1994)
The Stability of Thick, Self-gravitating Disks in Protostellar Systems. *John W. Woodward, Joel E. Tohline, & Izumi Hachisu.* 420, 247, 4-A7 (1994)
The Production of Condensed Phase CO in Quiescent Molecular Clouds. *P. Caselli, T. I. Hasegawa, & Eric Herbst.* 421, 206, 18-E5 (1994)
An Observational Estimate of the Probability of Encounters between Mass-losing Evolved Stars and Molecular Clouds. *Joel H. Kastner & P. C. Myers.* 421, 605, 25-G3 (1994)
Molecular Clouds in the Extreme Outer Galaxy. *S. Digel, E. de Geus, & P. Thaddeus.* 422, 92, 31-B13 (1994)
Nitrogen Sulfide in Quiescent Dark Clouds. *Douglas McGonagle, William M. Irvine, & Masatoshi Ohishi.* 422, 621, 39-E8 (1994)
The HH 83 Molecular Cloud: Gone with the Wind. *John Bally, Alain Castets, & Gilles Duvert.* 423, 310, 50-A3 (1994)
Comparative Analysis of the Far-Infrared and ^{13}CO (J = 0–1) Emissions of the Taurus Complex. *Alain Abergel, François Boulanger, Akira Mizuno, & Yasuo Fukui.* 423, L59, 54-A3 (1994)
On the Distance Determination and Ionization of the High-Velocity Clouds. *A. Ferrara & G. B. Field.* 423, 665, 56-G5 (1994)
Hierarchical Structure in Nearly Pressureless Flows as a Consequence of Self-similar Statistics. *Enrique Vázquez-Semadeni.* 423, 681, 57-A12 (1994)
Submillimeter Continuum Survey of the Galactic Center. *D. C. Lis & J. E. Carlstrom.* 424, 189, 64-C8 (1994)
Structure and Chemistry in the Northwestern Condensation of the Serpens Molecular Cloud Core. *Joseph P. McMullin, Lee G. Mundy, Bruce A. Wilking, T. Hezel, & Geoff A. Blake.* 424, 222, 64-F1 (1994)
On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. III. Molecular Gas. *Miguel H. Ibáñez S., & Antonio Parravano.* 424, 763, 74-C8 (1994)
Chemical Transitions for Interstellar C_2 and CN in Cloud Envelopes. *S. R. Federman, C. J. Strom, D. L. Lambert, Jason A. Cardelli, V. V. Smith, & C. L. Joseph.* 424, 772, 74-D7 (1994)
A Large Area CO(J = 2–1) Mapping of the Giant Molecular Clouds in Orion. *Seiichi Sakamoto, Masahiko Hayashi, Tetsuo Hasegawa, Toshihiro Handa, & Tomoharu Oka.* 425, 641, 89-E10 (1994)
A Rocket-borne Observation of the Far-Infrared Sky at High Galactic Latitude. *M. Kawada, J. J. Bock, V. V. Hristov, A. E. Lange, H. Matsuhara, T. Matsumoto, S. Matsuura, P. D. Mauskopf, P. L. Richards, & M. Tanaka.* 425, L89, 94-E11 (1994)
A $C^{18}O$ (J = 1–0) Survey of Protostellar Candidates Embedded in the Taurus Molecular Cloud. *Masahiko Hayashi, Tetsuo Hasegawa, Nagayoshi Ohashi, & Kazuyoshi Sunada.* 426, 234, 99-A8 (1994)
Molecular Lines in Bok Globules and around Herbig Ae/Be Stars. *F. Scappini, G. G. C. Palumbo, G. Bruni, & P. Bergman.* 427, 259, 113-B12 (1994)
Structure and Evolution of Magnetically Supported Molecular Clouds: Evidence for Ambipolar Diffusion in the Barnard 1 Cloud. *R. M. Crutcher, Telemachos Ch. Mouschovias, T. H. Troland, & Glenn E. Ciolek.* 427, 839, 123-A13 (1994)
Discovery of $^{14}NH_3(3, 3)$ Maser Emission in the Interstellar Medium. *Jeffrey G. Mangum & Alwyn Wootten.* 428, L33, 134-E8 (1994)
The Ionization of the Diffuse Ionized Gas. *H. Domgörgen & John S. Mathis.* 428, 647, 138-D1 (1994)
Determining Structure in Molecular Clouds. *Jonathan P. Williams, Eugène J. de Geus, & Leo Blitz.* 428, 693, 139-A1 (1994)
Soft Gamma-Ray Repeaters: Black Holes in Giant Molecular Clouds? *Jonathan E. Grindlay.* 92, 465, 38-A8 (1994)
Supergiant Molecular Clouds and the Formation of Globular Cluster Systems. *William E. Harris & Ralph E. Pudritz.* 429, 177, 146-C9 (1994)
A Multiwavelength Study of IRAS 19550+3248: A Protostar Possibly Formed by a Cloud-Cloud Collision. *Bon-Chul Koo, Youngung Lee, G. A. Fuller,*

Myung Gyoon Lee, Suk-Minn Kwon, & Jae-Hoon Jung. 429, 233, 147-A7 (1994)

Statistical Analysis of Turbulence in Molecular Clouds. *Mark S. Miesch & John Bally.* 429, 645, 153-F13 (1994)

Atomic and Molecular Gas in Interstellar Cirrus Clouds. *William T. Reach, Bon-Chul Koo, & Carl Heiles.* 429, 672, 154-B1 (1994)

A Large-Scale Cloud Collision in the Galactic Center Molecular Cloud Near Sagittarius B2. *Tetsuo Hasegawa, Fumio Sato, John B. Whiteoak, & Ryosuke Miyawaki.* 429, L77, 158-C1 (1994)

A Survey of the Large Magellanic Cloud in the [C II] 158 Micron Line. *Kenji Mochizuki, Takao Nakagawa, Yasuo Doi, Yukari Y. Yui, Haruyuki Okuda, Hiroshi Shibai, Masao Yui, Tetsuo Nishimura, & Frank J. Low.* 430, L37, 165-E13 (1994)

Coagulation of Grains in Static and Collapsing Protostellar Clouds. *S. J. Weidenschilling & T. V. Ruzmaikina.* 430, 713, 170-F6 (1994)

Infrared Absorption Due to Hydrogenated Amorphous Carbon in the Diffuse Interstellar Medium. *W. W. Duley.* 430, L133, 175-B5 (1994)

A Comparison of CO ($J = 1 \rightarrow 0$) and CO ($J = 2 \rightarrow 1$) Emission in the Milky Way Molecular Ring. *Jean E. Chiar, Marc L. Kutner, Frances Verter, & James Leous.* 431, 658, 186-F13 (1994)

Supercloud Formation by Gravitational Collapse of Magnetic Gas in the Crest of a Spiral Density Wave. *B. G. Elmegreen.* 433, 39, 208-F5 (1994)

Dense Cores in Dark Clouds. IX. Observations of ^{13}CO and $C^{18}O$ in Vela, Chamaeleon, Musca, and the Coalsack. *J. W. S. Vilas-Boas, P. C. Myers, & G. A. Fuller.* 433, 96, 209-D11 (1994)

A Search for Dense Gas in Quiescent Bok Globules. *Brian D. Kane, Dan P. Clemens, & Philip C. Myers.* 433, L49, 215-C9 (1994)

Simulation of Variations of Absorption-Line Profiles in Clumpy Molecular Clouds. *Alan P. Marscher & Alan L. Stone.* 433, 705, 219-G2 (1994)

The Association of High-Latitude Molecular Clouds with H I Gas. *Be-Young Gir, Leo Blitz, & Loris Magnani.* 434, 162, 227-C13 (1994)

A Massive Young Embedded Object Associated with the UC H II Region G31.41+0.31. *R. Cesaroni, L. Olmi, C. M. Walmsley, E. Churchwell, & P. Hofner.* 435, L137, 260-C3 (1994)

Gamma-Ray Observations of Ophiuchus with EGRET: The Diffuse Emission and Point Sources. *S. D. Hunter, S. W. Digel, E. J. de Geus, & G. Kanbach.* 436, 216, 264-B12 (1994)

Synthesized Spectra of Turbulent Clouds. *E. Falgarone, D. C. Lis, T. G. Phillips, A. Pouquet, D. H. Porter, & P. R. Woodward.* 436, 728, 275-E1 (1994)

H_2 Emission as a Tracer of Molecular Hydrogen: Large-Scale Observations of Orion. *M. L. Luhman, D. T. Jaffe, L. D. Keller, & Soojong Pak.* 436, L185, 282-C1 (1994)

High Altitude Molecular Clouds. *Sangeeta Malhotra.* 437, 194, 285-G8 (1994)

Modeling Radiative Transfer in Molecular Clouds. I. HCO^+ in the Star-forming Region W49A North. *Hélène R. Dickel & Lawrence H. Auer.* 437, 222, 286-C4 (1994)

The Physics and Chemistry of Small Molecular Clouds in the Galactic Plane. II. H_2CO. *B. E. Turner.* 437, 658, 294-G12 (1994)

Molecular Clouds in Cygnus. I. A Large-Scale ^{13}CO Survey. *Kazuhito Dobashi, Jean-Phillipe Bernard, Yoshinori Yonekura, & Yasuo Fukui.* 95, 419, 70-B2 (1994)

A Theory for the Initial Mass Function. *Joseph Silk.* 438, L41, 10-C13 (1995)

Hubble Space Telescope Observations of C_2 Molecules in Diffuse Interstellar Clouds. *David L. Lambert, Yaron Sheffer, & S. R. Federman.* 438, 740, 14-D11 (1995)

Multiple Star Formation in Bok Globule CB 34. *João F. Alves & João L. Yun.* 438, L107, 20-C1 (1995)

Collapse and Fragmentation of Molecular Cloud Cores. II. Collapse Induced by Stellar Shock Waves. *Alan P. Boss.* 439, 224, 24-C7 (1995)

Interstellar Clouds in High-Speed, Supersonic Flows: Two-dimensional Simulations. *A. V. R. Schiano, Wayne A. Christiansen, & Jeffrey M. Knerr.* 439, 237, 24-D9 (1995)

A Search for T Tauri Stars in High-Latitude Molecular Clouds. II. The *IRAS* Faint Source Survey Catalog. *Loris Magnani, Jean-Pierre Caillault, Ari Buchalter, & C. A. Beichman.* 96, 159, 3-F3 (1995)

Equipartition of Energy for Turbulent Astrophysical Fluids: Accounting for the Unseen Energy in Molecular Clouds. *Ellen G. Zweibel & Christopher F. McKee.* 439, 779, 35-C13 (1995)

Turbulent Diffusion and Its Effects on the Chemistry of Molecular Clouds. *Taoling Xie, Mark Allen, & William D. Langer.* 440, 674, 52-E1 (1995)

Cyanogen Excitation in Diffuse Interstellar Clouds. *Katherine C. Roth & David M. Meyer.* 441, 129, 61-B7 (1995)

Dense Gas in High-Latitude Molecular Clouds. *William T. Reach, Marc W. Pound, David J. Wilner, & Youngung Lee.* 441, 244, 62-F5 (1995)

EGRET Observations of Gamma-Ray Emission from the Interstellar Gas in Orion. *S. W. Digel, S. D. Hunter, & R. Mukherjee.* 441, 270, 63-A11 (1995)

A Turbulent Model for the Interstellar Medium. I. Threshold Star Formation and Self-Gravity. *Enrique Vázquez-Semadeni, Thierry Passot, & Annick Pouquet.* 441, 702, 71-F1 (1995)

Observations of Magnetic Fields in Diffuse Clouds. *P. C. Myers, A. A. Goodman, R. Güsten, & C. Heiles.* 442, 177, 79-E11 (1995)

On Magnetic Turbulence in Interstellar Clouds. *P. C. Myers & V. K. Khersonsky.* 442, 186, 79-F9 (1995)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. X. Galactic H I 21 Centimeter Emission toward 143 Quasars and Active Galactic Nuclei. *Felix J. Lockman & Blair D. Savage.* 97, 1, 11-B1 (1995)

First Spectral Observations of the Diffuse Background with the *Extreme Ultraviolet Explorer*. *P. Jelinsky, J. V. Vallerga, & J. Edelstein.* 442, 653, 89-A8 (1995)

A New Method for Determining the CO to H_2 Conversion Factor for Translucent Clouds. *Loris Magnani & Joseph S. Onello.* 443, 169, 97-D9 (1995)

The Formation of Protostellar Disks. II. Disks around Intermediate-Mass Stars. *Harold W. Yorke, Peter Bodenheimer, & Gregory Laughlin.* 443, 199, 97-G7 (1995)

Discovery and Imaging of a Galactic Cirrus Cloud with the Far Ultraviolet Space Telescope. *Lauri K. Haikala, Kalevi Mattila, Stuart Bowyer, Timothy P. Sasseen, Michael Lampton, & Jens Knude.* 443, L33, 102-F8 (1995)

CO and OH Absorption toward the Low-Latitude Radio Source 2023+336. *Henry A. Kobulnicky, John M. Dickey, & Rachel L. Akeson.* 443, L45, 103-A9 (1995)

The Importance of Classes of Neutral-Neutral Reactions in the Production of Complex Interstellar Molecules. *R. P. A. Bettens, H.-H. Lee, & Eric Herbst.* 443, 664, 107-A12 (1995)

Diffuse Band Profiles in the ρ Ophiuchi Cloud. *C. Gregory Seab & Theodore P. Snow, Jr.* 443, 698, 107-E1 (1995)

6 Centimeter Formaldehyde Absorption toward the Sagittarius B Star-forming Complex. *David M. Mehringer, Patrick Palmer, & W. M. Goss.* 97, 497, 19-B1 (1995)

Physical Properties of Molecular Clouds in the Inner Disk of M31. *R. J. Allen, J. Le Bourlot, J. Lequeux, G. Pineau des Forêts, & E. Roueff.* 444, 157, 115-E1 (1995)

Proto–Brown Dwarfs. II. Results in the Ophiuchus and Taurus Molecular Clouds. *Marc W. Pound & Leo Blitz.* 444, 270, 117-B10 (1995)

The Implications of Gamma-Ray Lines Observed from the Orion Complex. *Ramanath Cowsik & Michael W. Friedlander.* 444, L29, 121-E8 (1995)

Optical and H I Observations of the Low-Velocity and Intermediate-Velocity Gas toward the Globular Cluster M13. *B. Bates, C. R. Shaw, S. N. Kemp, F. P. Keenan, & R. D. Davies.* 444, 672, 125-E7 (1995)

Capture Calculations for the Rates of Important Neutral-Neutral Reactions in Dense Interstellar Clouds: $C + C_2H_2$ and $CN + C_2H_2$. *Qing Liao & Eric Herbst.* 444, 694, 125-G12 (1995)

ϵ Canis Majoris and the Ionization of the Local Cloud. *J. V. Vallerga & B. Y. Welsh.* 444, 702, 126-A9 (1995)

The Physics and Chemistry of Small Molecular Clouds in the Galactic Plane. III. NH_3. *B. E. Turner.* 444, 708, 126-B4 (1995)

Fragmentation of Filamentary Molecular Clouds with Longitudinal Magnetic Fields: Formation of Disks and Their Collapse. *Fumitaka Nakamura, Tomoyuki Hanawa, & Takenori Nakano.* 444, 770, 127-B2 (1995)

Hydromagnetic Waves and the Linewidth-Size Relation in Interstellar Molecular Clouds. *Telemachos Ch. Mouschovias & Dimitrios Psaltis.* 444, L105, 131-A8 (1995)

A Cold Massive Interstellar Cloud within 120 Parsecs of the Sun: K I Optical and H I Radio Observations. *Joaquín Trapero, John E. Beckman, Miquel Serra-Ricart, Rodney D. Davies, Robert A. Watson, & Ramón J. García López.* 445, 231, 135-F9 (1995)

Diamond, Aromatic, and Aliphatic Components of Interstellar Dust Grains: Random Covalent Networks in Carbonaceous Grains. *W. W. Duley.* 445, 240, 135-G7 (1995)

Anatomy of the Gemini OB1 Molecular Cloud Complex. *John M. Carpenter, Ronald L. Snell, & F. Peter Schloerb.* 445, 246, 136-A4 (1995)

Properties of the +70 Kilometers per Second Cloud toward HD 203664. *Kenneth R. Sembach.* 445, 314, 136-G3 (1995)

Complex Molecules in Sagittarius B2(N): The Importance of Grain Chemistry. *Yanti Miao, David M. Mehringer, Yi-Jehng Kuan, & Lewis E. Snyder.* 445, L59, 141-B13 (1995)

Locations of Starbursts in M82. *Jianjun Shen & K. Y. Lo.* 445, L99, 150-G5 (1995)

Overall Distribution of Dense Molecular Gas and Star Formation in the Taurus Cloud Complex. *A. Mizuno, T. Onishi, Y. Yonekura, T. Nagahama, H. Ogawa, & Y. Fukui.* 445, L161, 152-B7 (1995)

The Line Width–Size Relation in Massive Cloud Cores. *P. Caselli & P. C. Myers.* 446, 665, 165-C7 (1995)

A Sensitive Search for Galactic High-Velocity H I Clouds. *Edward M. Murphy, Felix J. Lockman, & Blair D. Savage.* 447, 642, 185-A4 (1995)

Turbulence in Molecular Clouds. *John Dubinski, Ramesh Narayan, & T. G. Phillips.* 448, 226, 195-C6 (1995)

Interstellar Alcohols. *S. B. Charnley, M. E. Kress, A. G. G. M. Tielens, & T. J. Millar.* 448, 232, 195-D1 (1995)

A Very High Resolution Survey of Interstellar CH and CH^+. *Philippe Crane, David L. Lambert, & Yaron Sheffer.* 99, 107, 35-E7 (1995)

The Distribution of Metal-absorbing High-Velocity Clouds in the Galaxy. *David V. Bowen, J. Chris Blades, & Max Pettini.* 448, 662, 203-G10 (1995)

A Comparison of Diffuse Ionized and Neutral Hydrogen Away from the Galactic Plane: Hα-emitting H I Clouds. *R. J. Reynolds, S. L. Tufte, D. T. Kung, P. R. McCullough, & C. Heiles.* 448, 715, 204-E12 (1995)

Does Near-Infrared Polarimetry Reveal the Magnetic Field in Cold Dark Clouds? *Alyssa A. Goodman, Terry J. Jones, Elizabeth A. Lada, & Philip C. Myers.* 448, 748, 205-B4 (1995)

Infrared Diagnostics of the Formation of H_2 on Interstellar Dust. *J. Le Bourlot, G. Pineau des Forêts, E. Roueff, A. Dalgarno, & R. Gredel.* 449, 178, 212-E11 (1995)

The Physics and Chemistry of Translucent Molecular Clouds. IV. HCO^+ and N_2H^+. *B. E. Turner.* 449, 635, 221-D12 (1995)

The Distribution of Warm Dust in the Star-forming Region Cepheus A: Infrared Constraints. *Cecilia Colomé & Paul M. Harvey.* 449, 656, 221-F8 (1995)

Solid Carbonyl Sulphide (OCS) in W33A. *M. E. Palumbo, A. G. G. M. Tielens, & A. T. Tokunaga.* 449, 674, 222-A10 (1995)

Interstellar Lead. *D. E. Welty, L. M. Hobbs, J. T. Lauroesch, D. C. Morton, & D. G. York.* 449, L135, 227-C8 (1995)

VLA OH Observations of High Negative Velocity Gas toward Sagittarius A West: A High-Velocity Cloud Interacting with the Galactic Center. *Jun-Hui Zhao, W. M. Goss, & Paul T. P. Ho.* 450, 122, 229-F9 (1995)

Detection of Hot Gas in the Interstellar Medium. *Jia-Sheng Huang, Antoinette Songaila, Lennox L. Cowie, & Edward B. Jenkins.* 450, 163, 230-C8 (1995)

The Formation of Condensates on Dust in Interstellar Clouds. *W. W. Duley & R. G. Smith.* 450, 179, 230-D13 (1995)

The Mass of a Star Formed in a Cloud Core: Theory and Its Application to the Orion A Cloud. *Takenori Nakano, Tetsuo Hasegawa, & Colin Norman.* 450, 183, 230-E7 (1995)

Exponential Tails in the Centroid Velocity Distributions of Star-forming Regions. *Mark S. Miesch & John M. Scalo.* 450, L27, 235-G9 (1995)

Photoevaporation of Dusty Clouds near Active Galactic Nuclei. *Edward A. Pier & G. Mark Voit.* 450, 628, 239-D13 (1995)

The Collision Origin of Cohen's Stream. *Christopher M. Tamanaha.* 450, 638, 239-E12 (1995)

Ammonia Maser in a Molecular Outflow toward W51. *Q. Zhang & Paul T. P. Ho.* 450, L63, 244-G1 (1995)

Internal Heating of Molecular Clouds by Tidal Fields. *Mousumi Das & Chanda J. Jog.* 451, 167, 248-C11 (1995)

The Disruption of Molecular Cloud Cores by Photoionization. *J. A. Rodríguez-Gaspar, G. Tenorio-Tagle, & J. Franco.* 451, 210, 248-G10 (1995)

Collapse and Fragmentation of Molecular Cloud Cores. III. Initial Differential Rotation. *Alan P. Boss & Elizabeth A. Myhill.* 451, 218, 249-A6 (1995)

The Density Structure in the Rosette Molecular Cloud: Signposts of Evolution. *Jonathan P. Williams, Leo Blitz, & Anthony A. Stark.* 451, 252, 249-D9 (1995)

The Sagittarius B2 Star-forming Region. II. High-Resolution H66α Observations of Sagittarius B2 North. *C. G. De Pree, R. A. Gaume, W. M. Goss, & M. J. Claussen.* 451, 284, 249-G6 (1995)

Thermal Balance in Dense Molecular Clouds: Radiative Cooling Rates and Emission-Line Luminosities. *David A. Neufeld, Stephen Lepp, & Gary J. Melnick.* 100, 132, 47-F2 (1995)

Are Galaxies Optically Thin to Their Own Lyman-Continuum Radiation? I. M33. *Kanan Patel & Christine D. Wilson.* 451, 607, 255-E11 (1995)

Discovery of Highly Ionized High-Velocity Clouds toward Markarian 509. *Kenneth R. Sembach, Blair D. Savage, Limin Lu, & Edward M. Murphy.* 451, 616, 255-F12 (1995)

Mechanical Alignment of Suprathermally Rotating Grains. *A. Lazarian.* 451, 660, 256-C11 (1995)

Sequential Star Formation in OB Associations: The Role of Molecular Cloud Turbulence. *Bruce G. Elmegreen, Toshiya Kimura, & Makoto Tosa.* 451, 675, 256-E1 (1995)

Gamma Rays, Cosmic Rays, and Extinct Radioactivity in Molecular Clouds. *Donald D. Clayton & Liping Jin.* 451, 681, 256-E10 (1995)

Si Emission in a Jetlike Molecular Outflow toward L1157. *Q. Zhang, Paul T. P. Ho, M. C. H. Wright, & D. J. Wilner.* 451, L71, 260-G1 (1995)

Observational Probes of the Small-Scale Structure of Molecular Clouds. *E. M. Moore & Alan P. Marscher.* 452, 671, 273-G13 (1995)

Grain Alignment by Ambipolar Diffusion in Molecular Clouds. *W. G. Roberge, S. Hanany, & D. W. Messinger.* 453, 238, 284-D3 (1995)

X-Ray Morphology, Kinematics, and Geometry of the Eridanus Soft X-Ray Enhancement. *Z. Guo, D. N. Burrows, W. T. Sanders, S. L. Snowden, & B. E. Penprase.* 453, 256, 284-E7 (1995)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. III. Effect of the Initial Mass-to-Flux Ratio. *Shantanu Basu & Telemachos Ch. Mouschovias.* 453, 271, 284-G9 (1995)

Study of Structure and Small-Scale Fragmentation in TMC-1. *W. D. Langer, T. Velusamy, T. B. H. Kuiper, S. Levin, E. Olsen, & V. Migenes.* 453, 293, 285-B9 (1995)

The Multiphase Structure of the Galactic Halo: High-Velocity Clouds in a Hot Corona. *Mark G. Wolfire, Christopher F. McKee, David Hollenbach, & A. G. G. M. Tielens.* 453, 673, 293-B3 (1995)

The Hydrodynamics of Shock-Cloud Interactions in Three Dimensions. *Jianjun Xu & James M. Stone.* 454, 172, 301-E12 (1995)

A Multiwavelength Study of 30 Doradus: The Interstellar Medium in a Low-Metallicity Galaxy. *A. Poglitsch, A. Krabbe, S. C. Madden, T. Nikola, N. Geis, L. E. B. Johansson, G. J. Stacey, & A. Sternberg.* 454, 293, 303-C8 (1995)

Ionized Carbon in NGC 6334. *R. T. Boreiko & A. L. Betz.* 454, 307, 303-E3 (1995)

Moderate-Density Regions in the Lynds 134 Cloud Complex. *R. J. Laureijs, Y. Fukui, G. Helou, A. Mizuno, K. Imaoka, & F. O. Clark.* 101, 87, 54-A10 (1995)

Pre–Main-Sequence Evolution in the Taurus-Auriga Molecular Cloud. *Scott J. Kenyon & Lee Hartmann.* 101, 117, 54-D3 (1995)

Can Gas-Phase Radical/Neutral Reactions Account for Observed Abundances of Propynal within Dense Interstellar Clouds? *Simon Petrie.* 454, L165, 317-A9 (1995)

Time-dependent Photodissociation Regions. *David Hollenbach & Antonella Natta.* 455, 133, 320-A12 (1995)

A Gamma-Ray Monte Carlo Study of the Clumpy Debris of SN 1987A. *Adam Burrows & Kenneth A. Van Riper.* 455, 215, 321-B3 (1995)

High-Resolution Studies of Solid CO in the Taurus Dark Cloud: Characterizing the Ices in Quiescent Clouds. *J. E. Chiar, A. J. Adamson, T. H. Kerr, & D. C. B. Whittet.* 455, 234, 321-C14 (1995)

A Turbulent Model for the Interstellar Medium. II. Magnetic Fields and Rotation. *Thierry Passot, Enrique Vázquez-Semadeni, & Annick Pouquet.* 455, 536, 329-D1 (1995)

The Physics and Chemistry of Small Translucent Molecular Clouds. V. SO and SO_2. *B. E. Turner.* 455, 556, 329-E10 (1995)

ISM: COSMIC RAYS

Acoustic Instability in Cosmic-Ray Mediated Shocks. *Hyesung Kang, T. W. Jones, & Dongsu Ryu.* 385, 193, 14-D1 (1992)

The Simulated Features of Heliospheric Cosmic-Ray Modulation with a Time-dependent Drift Model. I. General Effects of the Changing Neutral Sheet over the Period 1985–1990. *M. S. Potgieter & J. A. Le Roux.* 386, 336, 28-D4 (1992)

Gamma-Ray Bursts and Cosmic Rays from Accretion-induced Collapse. *Arnon Dar, Ben Zion Kozlowski, Shmuel Nussinov, & Reuven Ramaty.* 388, 164, 51-A11 (1992)

Propagation of Cosmic-Ray Nuclei in a Diffusing Galaxy with Convective Halo and Thin Matter Disk. *W. R. Webber, M. A. Lee, & M. Gupta.* 390, 96, 75-C3 (1992)

Cosmic Rays from the Galactic Center: Path Length Distributions and Galactic Gradient in a Modified Model. *T. Wibig.* 390, 105, 75-D1 (1992)

The Simulated Features of Heliospheric Cosmic-Ray Modulation with a Time-dependent Drift Model. II. On the Energy Dependence of the Onset of New Modulation in 1987. *J. A. Le Roux & M. S. Potgieter.* 390, 661, 83-E1 (1992)

The Isotopic Composition of Iron-Group Cosmic Rays. *Richard A. Leske, Barrett Milliken, & Mark E. Wiedenbeck.* 390, L99, 85-C7 (1992)

Evidence for Neutral Emission above 10^{17} eV from LMC X-4. *R. Meyhandan, B. R. Dawson, R. W. Clay, L. Horton, J. Ulrichs, & M. M. Winn.* 391, 236, 88-G11 (1992)

The Isotopic Composition of Cosmic-Ray B, C, N, and O: Evidence for an Overabundance of ^{18}O. *P. S. Gibner, R. A. Mewaldt, S. M. Schindler, E. C. Stone, & W. R. Webber.* 391, L89, 99-G5 (1992)

On the Form of the 1987 Hydrogen Spectrum in the Outer Heliosphere. *J. P. L. Reinecke & H. Moraal.* 392, 272, 104-D1 (1992)

The Simulated Features of Heliospheric Cosmic-Ray Modulation with a Time-dependent Drift Model. III. General Energy Dependence. *M. S. Potgieter & J. A. Le Roux.* 392, 300, 104-F5 (1992)

Studies of the Low-Energy Galactic Cosmic-Ray Composition near 28 AU at Sunspot Minimum: The Primary-to-Primary Ratios. *W. R. Webber, P. Ferrando, A. Lukasiak, & F. B. McDonald.* 392, L91, 113-F1 (1992)

The Diffuse Gamma-Ray Background, Light Element Abundances, and Signatures of Early Massive Star Formation. *Joseph Silk & David N. Schramm.* 393, L9, 120-B7 (1992)

Probing the Heliosphere with Energetic Hydrogen Atoms. *K. C. Hsieh, K. L. Shih, J. R. Jokipii, & S. Grzedzielski.* 393, 756, 125-C1 (1992)

Cosmic-Ray Secondary Antiprotons: A Closer Look. *Thomas K. Gaisser & Robert K. Schaefer.* 394, 174, 130-B10 (1992)

Viscous and Inertial Effects at Cosmic-Ray Shocks. *J. R. Jokipii & L. L. Williams.* 394, 184, 130-C8 (1992)

Wave Diffraction in Weak Cosmic-Ray–modified Shocks. *G. M. Webb & G. P. Zank.* 396, 549, 164-C9 (1992)

Cosmic-Ray–modified Supernova Remnant Shocks. *T. W. Jones & Hyesung Kang.* 396, 575, 164-E9 (1992)

Search for 100 TeV γ-Ray Emission from the Galactic Disk. *M. Aglietta, B. Alessandro, F. Arneodo, L. Bergamasco, A. Campos Fauth, C. Castagnoli, A. Castellina, C. Cattadori, A. Chiavassa, G. Cini, B. D'Ettorre Piazzoli, W. Fulgione, P. Galeotti, P. L. Ghia, G. Mannocchi, C. Morello, G. Navarra, L. Riccati, O. Saavedra, G. C. Trinchero, P. Vallania, & S. Vernetto.* 397, 148, 169-G4 (1992)

An Estimate of the Local Interstellar Antiproton Spectrum Using Solar Modulation Techniques on the Data. *J. S. Perko.* 397, 153, 169-G10 (1992)

The Simulated Features of Heliospheric Cosmic-Ray Modulation with a Time-dependent Drift Model. IV. The Role of Heliospheric Neutral Sheet Deformation. *J. A. Le Roux & M. S. Potgieter.* 397, 686, 179-E11 (1992)

On "High Flyers" in Fermi Acceleration. *Lewis Ball, D. B. Melrose, & C. A. Norman.* 398, L65, 188-B7 (1992)

Cosmic Rays from the Galactic Center: Electron and Positron Fluxes in a Modified Model. *Tadeusz Wibig.* 398, 507, 190-D9 (1992)

A Comparison of Models for Supernova Remnants Including Cosmic Rays. *Hyesung Kang & L. O'C. Drury.* 399, 182, 197-D11 (1992)

Discovery of a Synchrotron-emitting Halo around NGC 253. *C. L. Carilli, M. A. Holdaway, P. T. P. Ho, & C. G. De Pree.* 399, L59, 200-F8 (1992)

Electron Acceleration in Tycho's and Kepler's Supernova Remnants: Spectral Evidence of Fermi Shock Acceleration. *Stephen P. Reynolds & Donald C. Ellison.* 399, L75, 201-B1 (1992)

Reaction Rate and Energy-Loss Rate for Photopair Production by Relativistic Nuclei. *Michał J. Chodorowski, Andrzej A. Zdziarski, & Marek Sikora.* 400, 181, 211-B9 (1992)

Magnetohydrodynamic Wave Damping by Cosmic-Ray Viscosity. *Ahmed Boulares & Gregor Morfill.* 400, 622, 218-B6 (1992)

Observations of the Large Magellanic Cloud in High-Energy Gamma Rays. *P. Sreekumar, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, K. Pinkau, E. J. Schneid, & D. J. Thompson.* 400, L67, 220-E1 (1992)

Fast Dynamos, Cosmic Rays, and the Galactic Magnetic Field. *E. N. Parker.* 401, 137, 222-F7 (1992)

Monte Carlo Calculations of Cosmic Rays in the Galaxy: Effect of the Source Distribution on the Age and Matter Distributions. *W. R. Webber.* 402, 185, 3-D1 (1993)

The Cosmic-Ray Path Length (Age) Distribution in the Galaxy: Experimental Limits on the Deviation from an Exponential. *W. R. Webber.* 402, 188, 3-D6 (1993)

Cosmic-Ray Acceleration during the Impact of Shocks on Dense Clouds. *T. W. Jones & Hyesung Kang.* 402, 560, 9-E1 (1993)

The Telegraph Equation in Charged Particle Transport. *T. I. Gombosi, J. R. Jokipii, J. Kota, K. Lorencz, & L. L. Williams.* 403, 377, 18-E1 (1993)

Production and Evolution of LiBeB Isotopes in the Galaxy. *N. Prantzos, M. Casse, & E. Vangioni-Flam.* 403, 630, 23-D12 (1993)

Dependence of the Interstellar Propagation of Ultraheavy Cosmic-Ray Nuclei on Various Parameters. *Robert R. Clinton & C. Jake Waddington.* 403, 644, 23-F1 (1993)

Elemental Abundances in the Local Cosmic Rays at High Energies. *Simon P. Swordy, Jacques L'Heureux, Peter Meyer, & Dietrich Müller.* 403, 658, 23-G3 (1993)

The Role of Merged Interaction Regions and Drifts in the Heliospheric Modulation of Cosmic Rays beyond 20 AU: A Computer Simulation. *M. S. Potgieter, J. A. Le Roux, L. F. Burlaga, & F. B. McDonald.* 403, 760, 25-C1 (1993)

Far-Infrared Investigations of a Methanol Clathrate Hydrate: Implications for Astronomical Observations. *Reggie L. Hudson & Marla H. Moore.* 404, L29, 33-G1 (1993)

The Stability of Cosmic-Ray–dominated Shocks: A Secondary Instability. *Dongsu Ryu, Hyesung Kang, & T. W. Jones.* 405, 199, 43-E7 (1993)

Cosmic-Ray Anisotropies and Gradients in Three Dimensions. *Jiasheng Chen & John W. Bieber.* 405, 375, 45-G3 (1993)

Beryllium and Boron Constraints on an Early Galactic Bright Phase. *Brian D. Fields, David N. Schramm, & James W. Truran.* 405, 559, 50-A7 (1993)

The Elemental and Isotopic Composition of Galactic Cosmic-Ray Nuclei from Scandium through Nickel. *Richard A. Leske.* 405, 567, 50-B1 (1993)

The Gradient of Galactic Cosmic Rays at the Solar-Wind Termination Shock. *J. R. Jokipii, J. Kóta, & E. Merényi.* 405, 782, 52-G1 (1993)

A Unified Transport Equation for Both Cosmic Rays and Thermal Particles. *L. L. Williams, N. Schwadron, J. R. Jokipii, & T. I. Gombosi.* 405, L79, 54-E7 (1993)

Cosmic-Ray Modulation, Merged Interaction Regions, and Multifractals. *L. F. Burlaga, J. Perko, & J. Pirraglia.* 407, 347, 73-D3 (1993)

Quasi-linear Theory and the Phenomenology of Interplanetary Solar Particle Transport. *Wolfgang Dröge, Ulrich Achatz, Wolfgang Wanner, Reinhard Schlickeiser, & Gerd Wibberenz.* 407, L95, 82-G1 (1993)

η Carinae: A New Model. *J. M. Borgwald & M. W. Friedlander.* 408, 230, 86-A3 (1993)

Magnetic Field Power Density Spectra during "Scatter-free" Solar Particle Events. *L. C. Tan & G. M. Mason.* 409, L29, 104-E1 (1993)

Cross Section Parameterizations for Cosmic-Ray Nuclei. I. Single Nucleon Removal. *John W. Norbury & Lawrence W. Townsend.* 86, 307, 18-A11 (1993)

Solar Neutron and Proton Production during the 1990 May 24 Cosmic-Ray Flare Increases. *H. Debrunner, J. A. Lockwood, & J. M. Ryan.* 409, 822, 109-D1 (1993)

Ionization States of Low-Energy Cosmic Rays: Results from Spacelab 3 Cosmic-Ray Experiment. *A. Dutta, J. N. Goswami, S. Biswas, N. Durgaprasad, B. Mitra, & R. K. Singh.* 411, 418, 132-F1 (1993)

Spatial and Temporal Distributed Acceleration of Cosmic Rays by Supernova Remnants: Three-dimensional Simulations. *G. A. Medina Tanco & R. Opher.* 411, 690, 138-C8 (1993)

The Cosmic-Ray ^{3}He/^{4}He Ratio from 100 to 1600 MeV amu^{-1}. *J. J. Beatty, D. J. Ficenec, S. Tobias, J. W. Mitchell, S. McKee, S. Nutter, G. Tarlé, A. Tomasch, J. Clem, T. G. Guzik, M. Lijowski, J. P. Wefel, C. R. Bower, R. M. Heinz, S. L. Mufson, J. Musser, J. J. Pitts, G. M. Spiczak, S. P. Ahlen, & B. Zhou.* 413, 268, 159-E8 (1993)

Cosmic-Ray–dominated Dense Molecular Gas in Normal and Starburst Galaxies. *Anatoly Suchkov, Ronald J. Allen, & Timothy M. Heckman.* 413, 542, 163-C1 (1993)

Alfvén Wave Transport Effects in the Time Evolution of Parallel Cosmic-Ray–modified Shocks. *T. W. Jones.* 413, 619, 164-C1 (1993)

Comparison of Distributed Reacceleration and Leaky-Box Models of Cosmic-Ray Abundances ($3 \leq Z \leq 28$). *John R. Letaw, Rein Silberberg, & C. H. Tsao.* 414, 601, 178-F6 (1993)

Direct Evidence of the Interplanetary Magnetic Field Effect on the Cosmic-Ray Shadow by the Sun. *M. Amenomori, Z. Cao, L. K. Ding, Z. Y. Feng, K. Hibino, N. Hotta, Q. Huang, A. X. Huo, H. G. Jia, G. Z. Jiang, S. Q. Jiao, F. Kajino, K. Kasahara, Labaciren, D. M. Mei, L. Meng, X. R. Meng, Mimaciren, K. Mizutani, J. Mu, H. Nanjo, M. Nishizawa, Nusang, A. Oguro, M. Ohnishi, I. Ohta, T. Ouchi, J. R. Ren, T. Saito, M. Sakata, Z. Z. Shi, M. Shibata, T. Shirai, H. Sugimoto, X. X. Sun, K. Taira, Y. H. Tan, N. Tateyama, S. Torii, H. Wang, C. Z. Wen, Y. Yamamoto, X. Y. Yao, G. C. Yu, P. Yuan, T. Yuda, J. G. Zeng, C. S. Zhang, H. M. Zhang, L. Zhang, Zhasang, Zhaxiciren, & W. D. Zhou (The Tibet ASγ Collaboration).* 415, L147, 200-G1 (1993)

The Crab Nebula's Cosmic-Ray Acceleration Zone Revealed. *P. P. Kronberg, H. Lesch, P. F. Ortiz, & M. F. Bietenholz.* 416, 251, 204-B13 (1993)

Diffuse Gamma-Ray Emission in the Galactic Plane from Cosmic-Ray, Matter, and Photon Interactions. *D. L. Bertsch, T. M. Dame, C. E. Fichtel, S. D. Hunter, P. Sreekumar, J. G. Stacy, & P. Thaddeus.* 416, 587, 210-F6 (1993)

A Single-Fluid, Self-consistent Formulation of Fluid Dynamics and Particle Transport. *L. L. Williams & J. R. Jokipii.* 417, 725, 228-D5 (1993)

High-Resolution Spectroscopy of Balmer-dominated Shocks in the Large Magellanic Cloud. *R. Chris Smith, John C. Raymond, & J. Martin Laming.* 420, 286, 4-D7 (1994)

Proton and Electron Mean Free Paths: The Palmer Consensus Revisited. *John W. Bieber, William H. Matthaeus, Charles W. Smith, Wolfgang Wanner, May-Britt Kallenrode, & Gerd Wibberenz.* 420, 294, 4-E5 (1994)

Enhanced Cosmic-Ray Acceleration Rates in Highly Inclined Astrophysical Shocks. *R. Lieu, J. J. Quenby, B. Drolias, & K. Naidu.* 421, 211, 18-E11 (1994)

Cross Section Parameterizations for Cosmic-Ray Nuclei. II. Double Nucleon Removal. *John W. Norbury & Cindy M. Mueller.* 90, 115, 2-D11 (1994)

Monte Carlo Simulations of Particle Acceleration at Oblique Shocks. *Matthew G. Baring, Donald C. Ellison, & Frank C. Jones.* 90, 547, 10-E6 (1994)

Transport of Solar Energetic Particles. *Wolfgang Dröge.* 90, 567, 10-G3 (1994)

On the Asymmetry of the Distribution of the Anomalous Cosmic-Ray Component in the Heliosphere. *Horst Fichtner, S. Ranga Sreenivasan, Hans-Jörg Fahr, Daniel Rucinski, & Stanislaw Grzedzielski.* 90, 595, 11-B9 (1994)

Evolution of Supernova Remnants with Cosmic Rays and Radiative Cooling. *E. A. Dorfi.* 90, 841, 14-B14 (1994)

Cosmic-Ray Transport and Acceleration. *Reinhard Schlickeiser.* 90, 929, 15-D1 (1994)

The Origins of High-Energy Cosmic Rays. *W. I. Axford.* 90, 937, 15-D11 (1994)

Time-dependent Simulation of Cosmic-Ray Shocks, Including Alfvén Transport. *T. W. Jones.* 90, 969, 15-G10 (1994)

Oblique Magnetohydrodynamic Cosmic-Ray–modified Shocks: Two-Fluid Numerical Simulations. *Adam Frank, T. W. Jones, & Dongsu Ryu.* 90, 975, 16-A4 (1994)

Bohm Diffusion and Cosmic-Ray–Modified Shocks. *Peter Duffy.* 90, 981, 16-A12 (1994)

The Isotopic Composition of Cosmic-Ray Beryllium and Its Implication for the Cosmic Ray's Age. *A. Lukasiak, P. Ferrando, F. B. McDonald, & W. R. Webber.* 423, 426, 51-D5 (1994)

The Long-Term Heliospheric Modulation of Galactic Cosmic Rays according to a Time-dependent Drift Model with Merged Interaction Regions. *M. S. Potgieter & J. A. Le Roux.* 423, 817, 58-G6 (1994)

Green's Formula and Variational Principles for Cosmic-Ray Transport with Application to Rotating and Shearing Flows. *G. M. Webb, J. R. Jokipii, & G. E. Morfill.* 424, 158, 64-A1 (1994)

Time-dependent Evolution of Cosmic-Ray–modified Shock Structure: Transition to Steady State. *D. J. Donohue, G. P. Zank, & G. M. Webb.* 424, 263, 65-B9 (1994)

The Cosmic-Ray Energy Spectrum Observed by the Fly's Eye. *D. J. Bird, S. C. Corbató, H. Y. Dai, B. R. Dawson, J. W. Elbert, B. L. Emerson, K. D. Green, M. A. Huang, D. B. Kieda, M. Luo, S. Ko, C. G. Larsen, E. C. Loh, M. H. Salamon, J. D. Smith, P. Sokolsky, P. Sommers, J. K. K. Tang, & S. B. Thomas.* 424, 491, 67-G13 (1994)

Neutrino Process Nucleosynthesis and the $^{11}B/^{10}B$ Ratio. *Keith A. Olive, Nikos Prantzos, Sean Scully, & Elisabeth Vangioni-Flam.* 424, 666, 73-B7 (1994)

Heavy-Ion Isotopic Anomalies in ^{3}He-rich Solar Particle Events. *G. M. Mason, J. E. Mazur, & D. C. Hamilton.* 425, 843, 92-C5 (1994)

A Study of M31, M87, NGC 253, and M82 in High-Energy Gamma Rays. *P. Sreekumar, D. L. Bertsch, B. L. Dingus, J. A. Esposito, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. J. Schneid, & D. J. Thompson.* 426, 105, 97-D1 (1994)

Cosmic-Ray Isotopic Composition of C, N, O, Ne, Mg, Si Nuclei in the Energy Range 50–200 MeV per Nucleon Measured by the *Voyager* Spacecraft during the Solar Minimum Period. *A. Lukasiak, P. Ferrando, F. B. McDonald, & W. R. Webber.* 426, 366, 100-F10 (1994)

Are Cosmic Rays Effective for Ionization of Protoplanetary Disks? *Arkady Z. Dolginov & Tomasz F. Stepinski.* 427, 377, 114-E3 (1994)

Coherent Pulses in the Diffusive Transport of Charged Particles. *J. Kóta.* 427, 1035, 125-D13 (1994)

A Search for Astrophysical Sources of Low-Energy Neutrinos Using the IMB Detector. *R. S. Miller, R. Becker-Szendy, C. B. Bratton, J. Breault, D. Casper, S. T. Dye, W. Gajewski, M. Goldhaber, T. J. Haines, P. G. Halverson, D. Kielczewska, W. R. Kropp, J. G. Learned, J. LoSecco, S. Matsuno, J. Matthews, G. McGrath, C. McGrew, L. Price, F. Reines, J. Schultz, D. Sinclair, H. W. Sobel, J. L. Stone, L. R. Sulak, R. Svoboda, & J. C. van der Velde.* 428, 629, 138-B1 (1994)

INTEGRAL, SNOBs, and Baryonic Dark Matter. *Gerard Gilmore.* 92, 539, 39-A8 (1994)

Cosmic Rays and Gamma Rays in Early Galaxian Phases and the Cosmic Gamma-Ray Background. *N. Prantzos & M. Casse.* 92, 575, 39-D12 (1994)

Energy Transport by Relativistic Neutrons from the Core of Active Galactic Nuclei. *W. Tkaczyk.* 92, 611, 40-A7 (1994)

Diffusive Shock Acceleration in the Presence of Current Sheets. *J. Kóta & J. R. Jokipii.* 429, 385, 148-G8 (1994)

Search for 10 TeV Gamma-Ray Emission from Active Galactic Nuclei with the Tibet Air Shower Array. *M. Amenomori, Z. Cao, B. Z. Dai, L. K. Ding, Y. X. Feng, Z. Y. Feng, K. Hibino, N. Hotta, Q. Huang, A. X. Huo, H. Y. Jia, G. Z. Jiang, S. Q. Jiao, F. Kajino, K. Kasahara, Labaciren, S. M. Liu, D. M. Mei, L. Meng, X. R. Meng, Mimaciren, K. Mizutani, J. Mu, H. Nanjo, M. Nishizawa, A. Oguro, M. Ohnishi, I. Ohta, T. Ouchi, J. R. Ren, To. Saito, M. Sakata, Z. Z. Shi, M. Shibata, T. Shirai, H. Sugimoto, X. X. Sun, K. Taira, Y. H. Tan, N. Tateyama, S. Torii, H. Wang, C. Z. Wen, Y. Yamamoto, G. C. Yu, P. Yuan, T. Yuda, C. S. Zhang, H. M. Zhang, L. Zhang, Zhasang, Zhaxiciren, & W. D. Zhou (The Tibet ASγ Collaboration).* 429, 634, 153-E11 (1994)

A New Measurement of the Flux of the Light Cosmic-Ray Nuclei at High Energies. *J. Buckley, J. Dwyer, D. Müller, S. Swordy, & K. K. Tang.* 429, 736, 154-G3 (1994)

The Evolution of Cosmic-Ray–mediated Magnetohydrodynamic Shocks: A Two-Fluid Approach. *Byung-Il Jun, David A. Clarke, & Michael L. Norman.* 429, 748, 155-A3 (1994)

New Measurements of Charge-changing Cross Sections in Carbon and Hydrogen Targets above 2 GeV per Nucleon: Evidence for an Energy Dependence That May Strongly Affect Estimates of the Energy Dependence of Cosmic-Ray Diffusion in the Galaxy. *W. R. Webber, W. R. Binns, D. Crary, & M. Westphall.* 429, 764, 155-B9 (1994)

Gamma Rays from Grazing Incidence Cosmic Rays in the Earth's Atmosphere. *Andrew Ulmer.* 429, L95, 158-E3 (1994)

Voyager Measurements of the Isotopic Composition of Cosmic-Ray Aluminum and Implications for the Propagation of Cosmic Rays. *A. Lukasiak, F. B. McDonald, & W. R. Webber.* 430, L69, 166-B8 (1994)

Charged-Particle Motion in Multidimensional Magnetic Field Turbulence. *J. Giacalone & J. R. Jokipii.* 430, L137, 175-B10 (1994)

Acoustic Instability Driven by Cosmic-Ray Streaming. *Mitchell C. Begelman & Ellen G. Zweibel.* 431, 689, 187-B6 (1994)

Stochastic Reacceleration of Cosmic Rays in the Interstellar Medium. *E. S. Seo & V. S. Ptuskin.* 431, 705, 187-C10 (1994)

Cosmic Bullets as Particle Accelerators and Radio Sources. *T. W. Jones, Hyesung Kang, & I. L. Tregillis.* 432, 194, 195-E11 (1994)

Study of Cosmic-Ray H and He Isotopes at 23 AU. *E. S. Seo, F. B. McDonald, N. Lal, & W. R. Webber.* 432, 656, 204-B11 (1994)

Cosmic-Ray Models for Early Galactic Lithium, Beryllium, and Boron Production. *Brian D. Fields, Keith A. Olive, & David N. Schramm.* 435, 185, 245-G9 (1994)

The Cosmic-Ray Oxygen and Helium Spectra Measured at *Pioneer 10* over the Time of the 1987 Modulation Minimum, and Implications for the He/O Source Ratio. *W. R. Webber & F. B. McDonald.* 435, 464, 249-G2 (1994)

Gamma-Ray Observations of Ophiuchus with EGRET: The Diffuse Emission and Point Sources. *S. D. Hunter, S. W. Digel, E. J. de Geus, & G. Kanbach.* 436, 216, 264-B12 (1994)

Observations of Cosmic-Ray Electrons and Positrons Using an Imaging Calorimeter. *R. L. Golden, C. Grimani, B. L. Kimbell, S. A. Stephens, S. J. Stochaj, W. R. Webber, G. Basini, F. Bongiorno, F. Massimo Brancaccio, M. Ricci, J. F. Ormes, R. E. Streitmatter, P. Papini, P. Spillantini, M. T. Brunetti, A. Codino, M. Menichelli, I. Salvatori, M. P. De Pascale, A. Morselli, & P. Picozza.* 436, 769, 276-B2 (1994)

Galactic Cosmic-Ray Mediation of a Spherical Solar Wind Flow. I. The Steady State Cold Gas Hydrodynamical Approximation. *J. A. le Roux & V. S. Ptuskin.* 438, 427, 7-D2 (1995)

On Purported Observations of Partially Ionized Galactic Cosmic Rays. *A. J. Tylka, P. R. Boberg, J. H. Adams, Jr., T. Kleis, & R. Beaujean.* 438, L83, 19-G1 (1995)

Implications of a High Population II B/Be Ratio. *Brian D. Fields, Keith A. Olive, & David N. Schramm.* 439, 854, 36-D7 (1995)

Detection of a Cosmic Ray with Measured Energy Well beyond the Expected Spectral Cutoff due to Cosmic Microwave Radiation. *D. J. Bird, S. C. Corbató, H. Y. Dai, J. W. Elbert, K. D. Green, M. A. Huang, D. B. Kieda, S. Ko, C. G. Larsen, E. C. Loh, M. Z. Luo, M. H. Salamon, J. D. Smith, P. Sokolsky, P. Sommers, J. K. K. Tang, & S. B. Thomas.* 441, 144, 61-C12 (1995)

In Search of a Source for the 320 EeV Fly's Eye Cosmic Ray. *Jerome W. Elbert & Paul Sommers.* 441, 151, 61-D9 (1995)

Propagation of Galactic Cosmic Rays under Diffusive Reacceleration. *U. Heinbach & M. Simon.* 441, 209, 62-C4 (1995)

Time-dependent Simulation of Oblique MHD Cosmic-Ray Shocks Using the Two-Fluid Model. *Adam Frank, T. W. Jones, & Dongsu Ryu.* 441, 629, 70-F11 (1995)

Contact and Pressure Balance Structures in Two-Fluid Cosmic-Ray Hydrodynamics. *G. M. Webb, M. Brio, G. P. Zank, & T. Story.* 442, 822, 91-E2 (1995)

The Simulation of Complete 11 and 22 Year Modulation Cycles for Cosmic Rays in the Heliosphere Using a Drift Model with Global Merged Interaction Regions. *J. A. le Roux & M. S. Potgieter.* 442, 847, 91-G3 (1995)

An Estimate of the Location of the Modulation Boundary for $E > 70$ MeV Galactic Cosmic Rays Using *Voyager* and *Pioneer* Spacecraft Data. *J. A. Lockwood & W. R. Webber.* 442, 852, 91-G12 (1995)

Effect of Adiabatic Deceleration on the Focused Transport of Solar Cosmic Rays. *D. Ruffolo.* 442, 861, 92-A12 (1995)

Charge State of Anomalous Cosmic-Ray Nitrogen, Oxygen, and Neon: *SAMPEX* Observations. *B. Klecker, M. C. McNab, J. B. Blake, D. C. Hamilton, D. Hovestadt, H. Kästle, M. D. Looper, G. M. Mason, J. E. Mazur, & M. Scholer.* 442, L69, 94-F9 (1995)

Parameterization of Spectral Distributions for Pion and Kaon Production in Proton-Proton Collisions. *John P. Schneider, John W. Norbury, & Frank A. Cucinotta.* 97, 571, 20-A1 (1995)

On the Value of GEMS (Glass with Embedded Metal and Sulphides). *P. G. Martin.* 445, L63, 141-C8 (1995)

A Localized Excess of Diffuse Gamma Radiation. *A. Chen, J. Dwyer, & P. Kaaret.* 445, L109, 151-A9 (1995)

Pioneer 10 and *Voyager 1* Observations of Anomalous Cosmic-Ray Hydrogen in the Outer Heliosphere. *Frank B. McDonald, Andrew Lukasiak, & William R. Webber.* 446, L101, 171-D1 (1995)

Observations of Anomalous Cosmic-Ray Hydrogen from the *Voyager* Spacecraft. *E. R. Christian, A. C. Cummings, & E. C. Stone.* 446, L105, 171-D9 (1995)

Limits on Galactic Gamma-Ray Lines at 4.44 MeV and 6.13 MeV from Nuclear De-Excitation. *Michael J. Harris, Gerald H. Share, & Daniel C. Messina.* 448, 157, 194-C8 (1995)

Possible Association of Ultra–High-Energy Cosmic-Ray Events with Strong Gamma-Ray Bursts. *Mordehai Milgrom & Vladimir Usov.* 449, L37, 216-E10 (1995)

Cosmic-Ray H and He Isotopes in the Outer Heliosphere in 1994. *E. S. Seo & F. B. McDonald.* 451, L33, 252-E12 (1995)

Gamma Rays, Cosmic Rays, and Extinct Radioactivity in Molecular Clouds. *Donald D. Clayton & Liping Jin.* 451, 681, 256-E10 (1995)

Galactic Cosmic-Ray Mediation of a Spherical Solar Wind Flow. II. The Steady State Hydromagnetic Approximation. *J. A. le Roux & V. S. Ptuskin.* 452, 423, 267-G11 (1995)

Cosmological Origin for Cosmic Rays above 10^{19} eV. *Eli Waxman.* 452, L1, 269-C1 (1995)

Charge State Measurements of Solar Energetic Particles Observed with *SAMPEX*. *G. M. Mason, J. E. Mazur, M. D. Looper, & R. A. Mewaldt.* 452, 901, 277-B7 (1995)

Acceleration Rates and Injection Efficiencies in Oblique Shocks. *Donald C. Ellison, Matthew G. Baring, & Frank C. Jones.* 453, 873, 296-A7 (1995)

The Acceleration of Ultra–High-Energy Cosmic Rays in Gamma-Ray Bursts. *Mario Vietri.* 453, 883, 296-B6 (1995)

The Origin of Cosmic Rays above $10^{18.5}$ eV. *Colin A. Norman, Donald B. Melrose, & Abraham Achterberg.* 454, 60, 300-A12 (1995)

Comparison of Three Numerical Treatments of Charged Particle Transport. *J. A. Earl, D. Ruffolo, H. L. Pauls, & J. W. Bieber.* 454, 749, 312-A13 (1995)

Extragalactic Magnetic Field and the Highest Energy Cosmic Rays. *Sangjin Lee, Angela V. Olinto, & Günter Sigl.* 455, L21, 324-E8 (1995)

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An Infrared Study of Three Wolf-Rayet Ring Nebulae. *J. S. Mathis, J. P. Cassinelli, K. A. van der Hucht, T. Prusti, P. R. Wesselius, & P. M. Williams.* 384, 197, 3-D5 (1992)

Dust and Extinction in the Planetary Nebula NGC 7027. *Charles E. Woodward, Judith L. Pipher, W. J. Forrest, Andrea Moneti, & Mark A. Shure.* 385, 567, 20-B12 (1992)

Temperature Dependence of Infrared Bands Produced by Polycyclic Aromatic Hydrocarbons. *L. Colangeli, V. Mennella, & E. Bussoletti.* 385, 577, 20-C10 (1992)

Infrared Observations and Thermal Models of the β Pictoris Disk. *D. E. Backman, F. C. Gillett, & F. C. Witteborn.* 385, 670, 21-D8 (1992)

The First Spectropolarimetric Study of the Wavelength Dependence of Interstellar Polarization in the Ultraviolet. *Geoffrey C. Clayton, Christopher M. Anderson, Antonio Mario Magalhães, Arthur D. Code, Kenneth H. Nordsieck, Marilyn R. Meade, Michael J. Wolff, Brian Babler, Karen S. Bjorkman, Regina E. Schulte-Ladbeck, MaryJane Taylor, & Barbara A. Whitney.* 385, L53, 23-D7 (1992)

Physical Properties of Neutral Gas in M31 and the Galaxy. *Robert Braun & René A. M. Walterbos.* 386, 120, 25-E10 (1992)

Systematic Variations in the Wavelength Dependence of Interstellar Linear Polarization. *D. C. B. Whittet, P. G. Martin, J. H. Hough, M. F. Rouse, J. A. Bailey, & D. J. Axon.* 386, 562, 32-C14 (1992)

Extended Red Emission from Dust in Planetary Nebulae. *D. G. Furton & A. N. Witt.* 386, 587, 32-F1 (1992)

On Graphite and the Variations in the Ultraviolet Extinction Curve. *Per A. Aannestad.* 386, 627, 33-B5 (1992)

Interstellar Matter in Early-Type Galaxies. II. The Relationship between Gaseous Components and Galaxy Types. *Joel N. Bregman, David E. Hogg, & Morton S. Roberts.* 387, 484, 44-F9 (1992)

Dust within Globular Clusters: A Large Bubble in NGC 6624? *Juan C. Forte, Sergio A. Cellone, Mariano Méndez, & E. Irene Vega.* 388, 383, 55-B4 (1992)

Mass Loss from OH/IR Stars: Models for the Infrared Emission of Circumstellar Dust Shells. *K. Justtanont & A. G. G. M. Tielens.* 389, 400, 64-G10 (1992)

Quasar Absorption Lines with a Nonzero Cosmological Constant. *Edwin L. Turner & Satoru Ikeuchi.* 389, 478, 67-D7 (1992)

Thermal Dust Imaging: The Onset of Asymmetry in the Ultracompact H II Region G5.89−0.39. *Roger Ball, John F. Arens, J. Garrett Jernigan, Eric Keto, & Margaret M. Meixner.* 389, 616, 69-B1 (1992)

Extinction in Low-Ionization Broad Absorption Line Quasi-stellar Objects. *David Sprayberry & Craig B. Foltz.* 390, 39, 74-E6 (1992)

The Separation between Gas and Dust Filaments at the Edge of the Expanding Shell in Eridanus. *G. L. Verschuur, L. J Rickard, F. Verter, M. W. Pound, & D. Leisawitz.* 390, 514, 81-F7 (1992)

An Upper Limit on the Cosmic Ultraviolet Background. *Edward L. Wright.* 391, 34, 86-D11 (1992)

Thermal Emission Spectra from Polycyclic Aromatic Hydrocarbon Molecules of Astrophysical Interest. *V. Mennella, L. Colangeli, & E. Bussoletti.* 391, L45, 92-D1 (1992)

Walls and Windows in the Molecular Milky Way. *William H. Waller & Lowell E. Tacconi-Garman.* 80, 305, 26-D3 (1992)

Lyα Emission from Cooling Flows and Measures of the Dust Content of Rich Clusters of Galaxies. *Esther M. Hu.* 391, 608, 95-E7 (1992)

The Internal Extinction in Spiral Galaxies. *Mingsheng Han.* 391, 617, 95-F4 (1992)

Polarization in the Radio Galaxy 3C 109—An Obscured Quasar. *Robert W. Goodrich & Marshall H. Cohen.* 391, 623, 95-F12 (1992)

Electron Energy Loss Spectra of Polycyclic Aromatic Hydrocarbons. *John W. Keller, M. A. Coplan, & R. Goruganthu.* 391, 872, 98-G1 (1992)

Vacuum Ultraviolet Extinction Measurements on Cosmic Dust Analog Carbon Grains. *L. Colangeli, A. Blanco, S. Fonti, & E. Bussoletti.* 392, 284, 104-E1 (1992)

Zodiacal Emission. III. Dust near the Asteroid Belt. *William T. Reach.* 392, 289, 104-E7 (1992)

Interstellar Polarization from 3 to 5 Microns in Reddened Stars. *P. G. Martin, A. J. Adamson, D. C. B. Whittet, J. H. Hough, J. A. Bailey, S.-H. Kim, S. Sato, M. Tamura, & T. Yamashita.* 392, 691, 110-G3 (1992)

8–14 Micron Spectroscopy of Carbon Stars Associated with Silicate Dust. *Paul D. LeVan, G. C. Sloan, Irene R. Little-Marenin, & G. L. Grasdalen.* 392, 702, 111-A1 (1992)

The Nature of Dust around the Post–Asymptotic Giant Branch Objects HD 161796 and HD 179821. *K. Justtanont, M. J. Barlow, C. J. Skinner, & A. G. G. M. Tielens.* 392, L75, 113-D8 (1992)

SiC Particles from Asymptotic Giant Branch Stars: Mg Burning and the *s*-Process. *Lawrence E. Brown & Donald D. Clayton.* 392, L79, 113-E1 (1992)

The Relation of Dust and Atomic Gas Properties of Galaxies. *John G. Spitzak & Stephen E. Schneider.* 393, 126, 115-F1 (1992)

Ultraviolet, Optical, and Infrared Observations of the High-Latitude Molecular Cloud toward HD 210121. *Daniel E. Welty & James R. Fowler.* 393, 193, 116-D13 (1992)

High-Resolution Images of Dust Emission from Orion-KL. *Melvyn Wright, Goeran Sandell, David J. Wilner, & Richard L. Plambeck.* 393, 225, 117-A1 (1992)

Dust and the Transfer of Stellar Radiation within Galaxies. *Adolf N. Witt, Harley A. Thronson, Jr., & John M. Capuano, Jr.* 393, 611, 123-D7 (1992)

Contribution of Polycyclic Aromatic Hydrocarbon Molecules to the Interstellar Extinction Curve. *C. Joblin, A. Léger, & P. Martin.* 393, L79, 127-F1 (1992)

Quenched Carbonaceous Composite: Fluorescence Spectrum Compared to the Extended Red Emission Observed in Reflection Nebulae. *Akira Sakata, Setsuko Wada, Takatoshi Narisawa, Yoichi Asano, Yutaka Iijima, Takashi Onaka, & Alan T. Tokunaga.* 393, L83, 127-F7 (1992)

The Structure of NGC 4565 at 100, 160, and 200 Microns: Continuum Dust Emission in a Quiescent Sb Galaxy. *G. Engargiola & D. A. Harper.* 394, 104, 129-C13 (1992)

Redshift Asymmetry and Color-Velocity Correlation in Nearby Galaxy Groups: Evidence of Dust? *M. Girardi, M. Mezzetti, G. Giuricin, & F. Mardirossian.* 394, 442, 134-G9 (1992)

General Theory of the Purcell-Pennypacker Scattering Approach and Its Extension to Bianisotropic Scatterers. *Akhlesh Lakhtakia.* 394, 494, 135-E1 (1992)

Combined Infrared and Analytical Electron Microscope Studies of Interplanetary Dust Particles. *J. P. Bradley, H. J. Humecki, & M. S. Germani.* 394, 643, 137-D8 (1992)

Interstellar SiC with Unusual Isotopic Compositions: Grains from a Supernova? *Sachiko Amari, Peter Hoppe, Ernst Zinner, & Roy S. Lewis.* 394, L43, 139-C1 (1992)

Interstellar Dust from the Milky Way to the Magellanic Clouds. *Yichuan C. Pei.* 395, 130, 141-G1 (1992)

The Anomalous Extinction Curve in the Direction of ρ Ophiuchi from 950 to 1180 Å. *James C. Green, Theodore P. Snow, Timothy A. Cook, Webster C. Cash, & Orion Poplawski.* 395, 289, 143-E9 (1992)

Observations of the Light Echoes from SN 1987A Using the *Astro-1* Ultraviolet Imaging Telescope. *Arlin P. S. Crotts, Wayne B. Landsman, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L25, 144-G7 (1992)

Astro-1 Ultraviolet Imaging of the 30 Doradus and SN 1987A Fields with the Ultraviolet Imaging Telescope. *Kwang-Ping Cheng, Andrew G. Michalitsianos, Paul Hintzen, Ralph C. Bohlin, Robert W. O'Connell, Robert H. Cornett, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L29, 145-A1 (1992)

Near-Infrared Broad-Line Profiles in Low-Redshift QSOs. *Keith L. Thompson.* 395, 403, 147-C13 (1992)

An *IRAS* Survey of Galactic Supernova Remnants. *Jon M. Saken, Robert A. Fesen, & J. Michael Shull.* 81, 715, 45-F9 (1992)

Raman and Infrared Spectra of Polycyclic Aromatic Hydrocarbon Molecules of Possible Astrophysical Interest. *L. Colangeli, V. Mennella, G. A. Baratta, E. Bussoletti, & G. Strazzulla.* 396, 369, 159-F5 (1992)

Models of Gas-Grain Chemistry in Dense Interstellar Clouds with Complex Organic Molecules. *Tatsuhiko I. Hasegawa, Eric Herbst, & Chun Ming Leung.* 82, 167, 51-D13 (1992)

An Infrared Supershell Surrounding the Cygnus OB1 Association. *Jon M. Saken, J. Michael Shull, Catharine D. Garmany, Joy Nichols-Bohlin, & Robert A. Fesen.* 397, 537, 177-E10 (1992)

On the Interaction between Dust and Gas in Late-Type Stellar Atmospheres and Winds. *K. B. MacGregor & R. E. Stencel.* 397, 644, 179-A13 (1992)

Observations of R Coronae Borealis Stars in Decline: Empirical Arguments for Dust Formation near the Stellar Surface. *Geoffrey C. Clayton, Barbara A. Whitney, S. Adam Stanford, & John S. Drilling.* 397, 652, 179-B10 (1992)

The Determination of Dust Mass in Galaxies. *John Kwan & Shuding Xie.* 398, 105, 183-C7 (1992)

Infrared Emission from Dust Structures Surrounding Herbig Ae/Be Stars. *F. Berrilli, G. Corciulo, G. Ingrosso, D. Lorenzetti, B. Nisini, & F. Strafella.* 398, 254, 185-A1 (1992)

Submillimeter Spectrum and Dust Mass of the Primeval Galaxy IRAS 10214+4724. *D. Downes, S. J. E. Radford, A. Greve, C. Thum, P. M. Solomon, & J. E. Wink.* 398, L25, 187-D7 (1992)

Spectropolarimetry of the 5797 Å Diffuse Interstellar Band. *A. J. Adamson & D. C. B. Whittet.* 398, L69, 188-C1 (1992)

Deviations of Interstellar Extinctions from the Mean *R*-dependent Extinction Law. *John S. Mathis & Jason A. Cardelli.* 398, 610, 191-F7 (1992)

A Near-Infrared Study of a Homogeneous Sample of Optically Selected Active Galactic Nuclei. II. Analysis of the Results and Interpretation. *L. Danese, V. Zitelli, G. L. Granato, R. Wade, G. De Zotti, & N. Mandolesi.* 399, 38, 195-E8 (1992)

Polarization in the Narrow [O III] Lines in Seyfert 2 Galaxies. *Robert W. Goodrich.* 399, 50, 195-F8 (1992)

The Structure of Magnetic Fields in Dark Clouds: Infrared Polarimetry in B216–217. *Alyssa A. Goodman, Terry J. Jones, Elizabeth A. Lada, & Philip C. Myers.* 399, 108, 196-E3 (1992)

An Efficient Method for the Calculation of Mean Extinction. I. The Analyticity of the Complex Extinction Efficiency of Homogeneous Spheres. *Zhang-fan Xing & J. Mayo Greenberg.* 399, 164, 197-C3 (1992)

Polarization of the Far-Infrared Emission from the Thermal Filaments of the Galactic Center Arc. *M. Morris, J. A. Davidson, M. Werner, J. Dotson, D. F. Figer, R. Hildebrand, G. Novak, & S. Platt.* 399, L63, 200-G6 (1992)

Methanol Ice in the Protostar GL 2136. *C. J. Skinner, A. G. G. M. Tielens, M. J. Barlow, & K. Justtanont.* 399, L79, 201-B7 (1992)

Scattering of Infrared Radiation by Dust in NGC 7023 and NGC 2023. *K. Sellgren, M. W. Werner, & H. L. Dinerstein.* 400, 238, 211-G9 (1992)

Hubble Space Telescope Spectroscopy of OB Stars in M31. *J. B. Hutchings, L. Bianchi, H. J. G. L. M. Lamers, P. Massey, & S. C. Morris.* 400, L35, 214-E1 (1992)

Nonequilibrium Iron Oxide Formation in Some Low-Mass Post–Asymptotic Giant Branch Stars. *Frans J. M. Rietmeijer.* 400, L39, 214-E6 (1992)

Dust Reverberation: A Model for the Infrared Variations of Fairall 9. *Richard Barvainis.* 400, 502, 216-E5 (1992)

Infrared Emission from X-Ray and Optically Emitting Regions in the Cygnus Loop Supernova Remnant. *Richard G. Arendt, Eli Dwek, & David Leisawitz.* 400, 562, 217-D1 (1992)

The Peculiar Infrared Temporal Development of Nova Vulpeculae 1987 (QV Vulpeculae). *R. D. Gehrz, T. J. Jones, C. E. Woodward, M. A. Greenhouse, R. M. Wagner, T. E. Harrison, T. L. Hayward, & J. Benson.* 400, 671, 218-G1 (1992)

Infrared Spectra of Obscuring Dust Tori around Active Galactic Nuclei. I. Calculational Method and Basic Trends. *Edward A. Pier & Julian H. Krolik.* 401, 99, 222-C5 (1992)

Far-Infrared Spectral Studies of Phase Changes in Water Ice Induced by Proton Irradiation. *Mala H. Moore & Reggie L. Hudson.* 401, 353, 225-D5 (1992)

The Low Filling Factor of Dust in the Galaxy. *Jayant Murthy, H. J. Walker, & R. C. Henry.* 401, 574, 229-F8 (1992)

Dust Temperature Distributions in Star-forming Condensations. *Taoling Xie, Paul F. Goldsmith, Ronald L. Snell, & Weimin Zhou.* 402, 216, 3-F11 (1993)

Spectroscopic Constraints on the Properties of Dust in Active Galactic Nuclei. *Ari Laor & Bruce T. Draine.* 402, 441, 8-B5 (1993)

Obscuration of Quasars by Dust in Damped Lyman-Alpha Systems. *S. Michael Fall & Yichuan C. Pei.* 402, 479, 8-E5 (1993)

Model Scattering Envelopes of Young Stellar Objects. II. Infalling Envelopes. *Barbara A. Whitney & Lee Hartmann.* 402, 605, 10-B5 (1993)

Continuous Absorption of He I λ10830 in Planetary Nebulae. *J. Kingdon & G. J. Ferland.* 403, 211, 16-E7 (1993)

Ultraviolet Interstellar Linear Polarization. I. Applicability of Current Dust Grain Models. *Michael J. Wolff, Geoffrey C. Clayton, & Marilyn R. Meade.* 403, 722, 24-F7 (1993)

Scattering and Luminescence in the Bubble Nebula. *Jean-Pierre Sivan & Jean-Marie Perrin.* 404, 258, 31-B1 (1993)

Spatially Resolved Spectra of Silicate Dust around α Orionis. *G. C. Sloan, G. L. Grasdalen, & Paul D. LeVan.* 404, 328, 32-A3 (1993)

Beyond Clausius-Mossotti: Wave Propagation on a Polarizable Point Lattice and the Discrete Dipole Approximation. *B. T. Draine & Jeremy Goodman.* 405, 685, 51-E11 (1993)

Magnetic Confinement of the Optical Jets in Young Stellar Objects. *S.-U. Choe & T. W. Jones.* 405, 698, 51-F11 (1993)

The Excitation Mechanism of [Fe II] 1.644 Micron Emission in Seyfert and Starburst Galaxies Revisited. *Hideaki Mouri, Kimiaki Kawara, & Yoshiaki Taniguchi.* 406, 52, 55-F5 (1993)

On the 2175 Å Absorption Band of Hollow, Onion-like Carbon Particles. *L. Henrard, A. A. Lucas, & Ph. Lambin.* 406, 92, 56-C1 (1993)

Bright Near-Infrared Sources within 1deg of the Galactic Center. I. Survey and 1–20 Micron Photometry. *Tetsuya Nagata, A. R. Hyland, S. M. Straw, Shuji Sato, & Kimiaki Kawara.* 406, 501, 64-A10 (1993)

The Ultraviolet Spectrum of Annealed Hydrogenated Amorphous Carbon Grains. *A. Blanco, E. Bussoletti, L. Colangeli, S. Fonti, V. Mennella, & J. R. Stephens.* 406, 739, 67-B12 (1993)

The Diffuse Interstellar Bands. IX. Constraints on the Identification. *G. H. Herbig.* 407, 142, 70-G5 (1993)

Nova Dust Nucleation: Kinetics and Photodissociation. *D. J. Johnson, M. W. Friedlander, & J. I. Katz.* 407, 714, 79-D4 (1993)

Dust Coagulation. *Arati Chokshi, A. G. G. M. Tielens, & D. Hollenbach.* 407, 806, 80-E1 (1993)

The 8–13 Micron Spectrum of Arp 299C. *C. C. Dudley & C. G. Wynn-Williams.* 407, L65, 82-D1 (1993)

The Spectral Energy Distribution of Star-forming Regions. *Ralf Siebenmorgen.* 408, 218, 85-G3 (1993)

Theoretical Infrared Spectra of Some Model Polycyclic Aromatic Hydrocarbons: Effect of Ionization. *D. J. De Frees, M. D. Miller, D. Talbi, F. Pauzat, & Y. Ellinger.* 408, 530, 91-G5 (1993)

Interstellar Extinction in the Infrared: The Molecular Cloud toward HD 62542. *D. C. B. Whittet, P. G. Martin, E. L. Fitzpatrick, & D. Massa.* 408, 573, 92-C11 (1993)

Hopkins Ultraviolet Telescope Observations of Far-Ultraviolet Scattering in NGC 7023: The Dust Albedo. *Jayant Murthy, Andrew Dring, Richard C. Henry, Jeffrey W. Kruk, William P. Blair, Randy A. Kimble, & Samuel T. Durrance.* 408, L97, 95-E3 (1993)

Multifrequency Observations of the Optically Active Radio-quiet Quasar GQ Comae. II. Ultraviolet, Optical, and Infrared Continuum Variability. *Michael L. Sitko, Annamaria K. Sitko, Aneta Siemiginowska, & R. Szczerba.* 409, 139, 98-F5 (1993)

Ice Grains in the Corona Australis Molecular Cloud. *W. P. Chen & J. A. Graham.* 409, 319, 101-A11 (1993)

An Infrared Study of the Remarkable Dusty M Star HR 3126. *J. E. Chiar, D. C. B. Whittet, D. K. Aitken, P. F. Roche, C. H. Smith, H. J. Walker, P. A. Whitelock, & C. Wright.* 409, 404, 102-A8 (1993)

The Nature of the Molecular Cores in High-Latitude Cirrus Clouds. IV. The Electron Distribution and the Abundance and Chemistry of H_2CO. *B. E. Turner.* 410, 140, 113-G8 (1993)

Submillimeter Continuum Emission from the Galactic Center Region. *W. R. F. Dent, H. E. Matthews, R. Wade, & W. D. Duncan.* 410, 650, 121-F11 (1993)

The Dynamics of Stellar Outflows Dominated by Interaction of Dust and Radiation. *Nathan Netzer & Moshe Elitzur.* 410, 701, 122-D11 (1993)

Voyager 2 Observations of NGC 7023: Dust Scattering Shortward of 1600 Å. *A. N. Witt, J. K. Petersohn, J. B. Holberg, J. Murthy, A. Dring, & R. C. Henry.* 410, 714, 122-E13 (1993)

Laboratory Spectra of Polycyclic Aromatic Hydrocarbon Ions and the Interstellar Extinction Curve. *Wei Lee & Thomas J. Wdowiak.* 410, L127, 126-E5 (1993)

M82: The Saga Continues. *K. K. McLeod, G. H. Rieke, M. J. Rieke, & D. M. Kelly.* 412, 111, 143-D10 (1993)

The Nature of Unidentified Far-Infrared Point Sources. *William T. Reach, Carl Heiles, & Bon-Chul Koo.* 412, 127, 143-F1 (1993)

Near- and Mid-Infrared Imaging of the Planetary Nebulae BD +30°3639 and IC 418. *Joseph L. Hora, Lynne K. Deutsch, William F. Hoffmann, Giovanni G. Fazio, & Kandiah Shivanandan.* 413, 304, 160-A10 (1993)

30 Doradus: Ultraviolet and Optical Stellar Photometry. *Jesse K. Hill, Ralph C. Bohlin, Kwang-Ping Cheng, Michael N. Fanelli, Paul Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 413, 604, 164-A5 (1993)

Calcium Depletion in Cooling-Flow Nebulae and the Origin of the Line-emitting Gas. *Megan Donahue & G. Mark Voit.* 414, L17, 175-D11 (1993)

What Is New about the New Comet Yanaka (1988r)? *J. Mayo Greenberg, P. D. Singh, & A. A. de Almeida.* 414, L45, 175-G7 (1993)

Hubble Space Telescope Ultraviolet Spectroscopy of the Highly Polarized but Quiescent Quasar OI 287. *Robert Antonucci, Anne L. Kinney, & Todd Hurt.* 414, 506, 177-E1 (1993)

Effects of Internal Dust on the Narrow-Line Region Lyman and Balmer Decrements. *Luc Binette, John Wang, Montserrat Villar-Martin, Peter G. Martin, & Gladis Magris C.* 414, 535, 177-G9 (1993)

On Graphite and the 2175 Å Extinction Profile. *B. T. Draine & Sangeeta Malhotra.* 414, 632, 179-B1 (1993)

Submillimeter Studies of Main-Sequence Stars. *B. Zuckerman & E. E. Becklin.* 414, 793, 181-B4 (1993)

A New Method to Calculate the Extinction Properties of Irregularly Shaped Particles. *François Rouleau & P. G. Martin.* 414, 803, 181-C2 (1993)

Millimeter and Submillimeter Continuum Emission from Early-Type Galaxies. *Michel Fich & Paul Hodge.* 415, 75, 186-A1 (1993)

Infrared Spectra of Transition Objects and the Composition and Evolution of Carbon Dust. *R. H. Buss, Jr., A. G. G. M. Tielens, M. Cohen, M. W. Werner, J. D. Bregman, & F. C. Witteborn.* 415, 250, 188-B3 (1993)

Activation of Extended Red Emission Photoluminescence in Carbon Solids by Exposure to Atomic Hydrogen and UV Radiation. *Douglas G. Furton & Adolf N. Witt.* 415, L51, 192-D1 (1993)

The Dust Content of Evolved Circumstellar Envelopes and the Optical Properties of Dust at Submillimeter to Radio Wavelengths. *G. R. Knapp, G. Sandell, & E. I. Robson.* 88, 173, 42-E7 (1993)

Evidence for Hydrated Silicates toward SN 1987A. *Ralf Timmermann & Harold P. Larson.* 415, 820, 198-A13 (1993)

Proximity Effects in Clusters of Particles. *François Rouleau & P. G. Martin.* 416, 707, 212-B10 (1993)

Circumstellar Properties of S Stars. I. Dust Features. *P. S. Chen & Sun Kwok.* 416, 769, 213-A1 (1993)

Airborne Spectrophotometry of SN 1987A from 1.7 to 12.6 Microns: Time History of the Dust Continuum and Line Emission. *Diane H. Wooden, David M. Rank, Jesse D. Bregman, Fred C. Witteborn, A. G. G. M. Tielens, Martin Cohen, Philip A. Pinto, & Timothy S. Axelrod.* 88, 477, 46-F9 (1993)

Condensation and Vaporization Studies of CH_3OH and NH_3 Ices: Major Implications for Astrochemistry. *Scott A. Sandford & Louis J. Allamandola.* 417, 815, 229-E7 (1993)

CO Emission from Molecular Clouds in the Central Region of M31. *Yoshiaki Sofue & Shigeomi Yoshida.* 417, L63, 230-B12 (1993)

Tracing the Stellar Mass in M51. *Hans-Walter Rix & Marcia J. Rieke.* 418, 123, 232-E10 (1993)

The Langevin Equation and Its Application to Grain Alignment in Molecular Clouds. *W. G. Roberge, T. A. DeGraff, & J. E. Flaherty.* 418, 287, 234-E11 (1993)

Extreme-Ultraviolet Extinction Measurements on Hydrogenated and Dehydrogenated Amorphous Carbon Grains. *L. Colangeli, V. Mennella, A. Blanco, S. Fonti, E. Bussoletti, H. E. Gumlich, H. C. Mertins, & Ch. Jung.* 418, 435, 236-D7 (1993)

The Silicates in the Disk of β Pictoris. *R. F. Knacke, S. B. Fajardo-Acosta, C. M. Telesco, J. A. Hackwell, D. K. Lynch, & R. W. Russell.* 418, 440, 236-D13 (1993)

Ultraviolet Background Radiation. *Richard C. Henry & Jayant Murthy.* 418, L17, 238-C1 (1993)

Infrared Spectra of Obscuring Dust Tori around Active Galactic Nuclei. II. Comparison with Observations. *Edward A. Pier & Julian H. Krolik.* 418, 673, 240-G10 (1993)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. I. Basic Physics and Formulation of the Problem. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 418, 774, 242-B13 (1993)

Subarcsecond Mid-Infrared Imaging of Warm Dust in the Narrow-Line Region of NGC 1068. *Murray Cameron, John W. V. Storey, Valentin Rotaciuc, Reinhard Genzel, Laurent Verstraete, Siegfried Drapatz, Ralf Siebenmorgen, & Terry J. Lee.* 419, 136, 247-G5 (1993)

Evolution in Dust Lane Ellipticals: Detection of Accreted Molecular Gas. *Leslie J. Sage & Giuseppe Galletta.* 419, 544, 254-E5 (1993)

Near-Infrared Images of MG 1131+0456 with the W. M. Keck Telescope: Another Dusty Gravitational Lens? *J. E. Larkin, K. Matthews, C. R. Lawrence, J. R. Graham, W. Harrison, G. Jernigan, S. Lin, J. Nelson, G. Neugebauer, G. Smith, B. T. Soifer, & C. Ziomkowski.* 420, L9, 7-B10 (1994)

Interstellar Gas and Dust in the Young Cluster IC 348. *Theodore P. Snow, Margaret Murray Hanson, C. Gregory Seab, & Jon M. Saken.* 420, 632, 10-E6 (1994)

The Structure and Nature of NGC 2071 IRS 1: High-Resolution Radio Continuum Maps. *Howard A. Smith & Sara C. Beck.* 420, 643, 10-F7 (1994)

From T Tauri Stars to Protostars: Circumstellar Material and Young Stellar Objects in the ρ Ophiuchi Cloud. *Philippe André & Thierry Montmerle.* 420, 837, 13-C12 (1994)

The Production of Condensed Phase CO in Quiescent Molecular Clouds. *P. Caselli, T. I. Hasegawa, & Eric Herbst.* 421, 206, 18-E5 (1994)

Thermal Behavior of Rocky Material in Contact with Ice. *Norbert I. Kömle, Gerhard Steiner, & Eberhard Grün.* 421, 350, 20-C9 (1994)

Composition and Radiative Properties of Grains in Molecular Clouds and Accretion Disks. *James B. Pollack, David Hollenbach, Steven Beckwith, Damon P. Simonelli, Ted Roush, & Wesley Fong.* 421, 615, 26-A1 (1994)

Models for the Evolution of the Spectral Energy Distribution of Elliptical Galaxies for Ultraviolet to Far-Infrared Wavelengths. *P. Mazzei, G. De Zotti, & C. Xu.* 422, 81, 31-A13 (1994)

The Dust Temperature Gradient in the Rosette Nebula. *R. F. Shipman & F. O. Clark.* 422, 153, 32-A5 (1994)

R_v-dependent Optical and Near-Ultraviolet Extinction. *James E. O'Donnell.* 422, 158, 32-A12 (1994)

The Size Distribution of Interstellar Dust Particles as Determined from Extinction. *Sang-Hee Kim, P. G. Martin, & Paul D. Hendry.* 422, 164, 32-B7 (1994)

The Origin of Variations in the 2175 Å Extinction Bump. *John S. Mathis.* 422, 176, 32-C8 (1994)

Properties of a B0 I Stellar Wind and Interstellar Grains Derived from *Ginga* Observations of the Binary X-Ray Pulsar 4U 1538−52. *George W. Clark, Jonathan W. Woo, & Fumiaki Nagase.* 422, 336, 34-C3 (1994)

Magnetogravitational Instability of Self-gravitating Dusty Plasma. *R. K. Chhajlani & A. K. Parihar.* 422, 746, 41-B6 (1994)

Spectral Imaging of the Orion Bar at 3.3, 8.4, and 11.3 Microns: Comparison with a Fluorescent Polycyclic Aromatic Hydrocarbon Model. *Jesse Bregman, Kristen Larson, David Rank, & Pasquale Temi.* 423, 326, 50-B10 (1994)

Modeling Composite and Fluffy Grains: The Effects of Porosity. *Michael J. Wolff, Geoffrey C. Clayton, P. G. Martin, & Regina E. Schulte-Ladbeck.* 423, 412, 51-C3 (1994)

X-Ray Halos as Tracers of the Distance of the Gamma-Ray Bursters. *S. Klose.* 423, L23, 53-D5 (1994)

A Laboratory Approach to the Interstellar Sulfide Dust Problem. *B. Begemann, J. Dorschner, T. Henning, H. Mutschke, & E. Thamm.* 423, L71, 54-C1 (1994)

Near-Infrared Observations of the 1E 1740.7−2942 Field at the Galactic Center. *Joseph W. Haller & Fulvio Melia.* 423, L109, 60-F5 (1994)

Spectropolarimetry of Five Objects toward the Galactic Center from 1.4 to 4.2 Microns. *Tetsuya Nagata, Naoto Kobayashi, & Shuji Sato.* 423, L113, 60-F11 (1994)

A Critical Evaluation of Semianalytic Methods in the Study of Centrally Heated, Unresolved, Infrared Sources. *Steven D. Doty & Chun Ming Leung.* 424, 729, 73-G10 (1994)

The Depletion of Calcium in the Interstellar Medium. *Greg Crinklaw, S. R. Federman, & Charles L. Joseph.* 424, 748, 74-B3 (1994)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. III. Typical Axisymmetric Solutions. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 425, 142, 82-A6 (1994)

The 8–13 Micron Spectra of Comets and the Composition of Silicate Grains. *Martha S. Hanner, David K. Lynch, & Ray W. Russell.* 425, 274, 83-F3 (1994)

Light Scattering by Porous Dust Particles in the Discrete-Dipole Approximation. *K. Lumme & J. Rahola.* 425, 653, 89-F12 (1994)

High-Resolution Far-Infrared Observations of the Ring Nebula. *C. Y. Zhang, P. M. Harvey, Beverly J. Smith, C. Colomé, & J. DiFrancesco.* 425, 687, 90-B13 (1994)

The Massive Molecular Outflow from CRL 2136 IRS 1. *Joel H. Kastner, David A. Weintraub, Ronald L. Snell, G. Sandell, C. Aspin, D. H. Hughes, & F. Baas.* 425, 695, 90-C9 (1994)

A Near-Infrared Study of the Monoceros R2 Star Formation Region. *Eric M. Howard, Judith L. Pipher, & William J. Forrest.* 425, 707, 90-D12 (1994)

COBE Diffuse Infrared Background Experiment Observations of Galactic Reddening and Stellar Populations. *R. G. Arendt, G. B. Berriman, N. Boggess, E. Dwek, M. G. Hauser, T. Kelsall, S. H. Moseley, T. L. Murdock, N. Odegard, R. F. Silverberg, T. J. Sodroski, & J. L. Weiland.* 425, L85, 94-E1 (1994)

A Rocket-borne Observation of the Far-Infrared Sky at High Galactic Latitude. *M. Kawada, J. J. Bock, V. V. Hristov, A. E. Lange, H. Matsuhara, T. Matsumoto, S. Matsuura, P. D. Mauskopf, P. L. Richards, & M. Tanaka.* 425, L89, 94-E11 (1994)

Extreme ^{26}Mg and ^{17}O Enrichments in an Orgueil Corundum: Identification of a Presolar Oxide Grain. *I. D. Hutcheon, G. R. Huss, A. J. Fahey, & G. J. Wasserburg.* 425, L97, 94-F7 (1994)

IRAS Colors within M31: Evidence for Deficiency of Very Small Grains? *Cong Xu & George Helou.* 426, 109, 97-D7 (1994)

Solid Carbon Monoxide in the Serpens Dark Cloud. *J. E. Chiar, A. J. Adamson, T. H. Kerr, & D. C. B. Whittet.* 426, 240, 99-B2 (1994)

Extinction, Ejecta Masses, and Radial Velocities of Novae. *Robert E. Williams.* 426, 279, 99-E8 (1994)

Radio-emitting Dust in the Free Electron Layer of Spiral Galaxies: Testing the Disk/Halo Interface. *A. Ferrara & R.-J. Dettmar.* 427, 155, 111-G7 (1994)

K'-Band Observations of the Evil Eye Galaxy: Are the Optical and Near-Infrared Dust Albedos Identical? *Adolf N. Witt, Rebecca S. Lindell, David L. Block, & Rhodri Evans.* 427, 227, 112-G1 (1994)

An *IUE* Survey of Interstellar H I Lyman-Alpha Absorption. II. Interpretations. *Athanassios Diplas & Blair D. Savage.* 427, 274, 113-D1 (1994)

Polarization Profiles of Scattered Emission Lines. I. General Formalism for Optically Thin Rayleigh Scattering. *W. J. Henney.* 427, 288, 113-E1 (1994)

Polarization Profiles of Scattered Emission Lines. II. Upstream Dust Scattering in the HH 1 Jet. *W. J. Henney, A. C. Raga, & D. J. Axon.* 427, 305, 113-F6 (1994)

Ultraviolet Interstellar Polarization Observed with the *Hubble Space Telescope*. *W. B. Somerville, R. G. Allen, D. J. Carnochan, Lida He, D. McNally, P. G. Martin, D. H. Morgan, K. Nandy, J. R. Walsh, D. C. B. Whittet, R. Wilson, & M. J. Wolff.* 427, L47, 117-F13 (1994)

The Photoelectric Heating Mechanism for Very Small Graphitic Grains and Polycyclic Aromatic Hydrocarbons. *E. L. O. Bakes & A. G. G. M. Tielens.* 427, 822, 122-G8 (1994)

Day 640 Infrared Line and Continuum Measurements: Dust Formation in SN 1987A. *Sean W. J. Colgan, Michael R. Haas, Edwin F. Erickson, Steven D. Lord, & David J. Hollenbach.* 427, 874, 123-E3 (1994)

Circumstellar Dust Emission Models. *Mark G. Wolfire & Ed Churchwell.* 427, 889, 123-F6 (1994)

A Diagnosis of Dust in Active Galactic Nuclei through Analysis of the Infrared Bump. *S. M. Viegas & M. Contini.* 428, 113, 129-E9 (1994)

Voyager Observations of Dust Scattering near the Coalsack Nebula. *Jayant Murthy, R. C. Henry, & J. B. Holberg.* 428, 233, 131-A13 (1994)

Large-Scale Characteristics of Interstellar Dust from *COBE* DIRBE Observations. *T. J. Sodroski, C. Bennett, N. Boggess, E. Dwek, B. A. Franz, M. G. Hauser, T. Kelsall, S. H. Moseley, N. Odegard, R. F. Silverberg, & J. L. Weiland.* 428, 638, 138-C1 (1994)

Infrared Spectra of Crystalline Phase Ices Condensed on Silicate Smokes at $T < 20$ K. *Marla H. Moore, Robert F. Ferrante, Reggie L. Hudson, Joseph A. Nuth III, & Bertram Donn.* 428, L81, 143-A7 (1994)

The Far-Infrared Properties of the CfA Galaxy Sample. II. Gas, Dust, and Star Formation along the Hubble Sequence. *Marc Sauvage & Trinh X. Thuan.* 429, 153, 146-A9 (1994)

The Reddening Law outside the Local Group Galaxies: The Case of NGC 7552 and NGC 5236. *Anne L. Kinney, Daniela Calzetti, Eduardo Bica, & Thaisa Storchi-Bergmann.* 429, 172, 146-C2 (1994)

The Initial Mass Function for Massive Stars in the Magellanic Clouds. II. Interstellar Reddening toward 14 OB Associations. *Robert J. Hill, Barry F. Madore, & Wendy L. Freedman.* 429, 192, 146-D12 (1994)

High-Resolution Images of the Dust and Ionized Gas Distribution in the Carina Nebula. *Jonathan B. Z. Whiteoak.* 429, 225, 146-G7 (1994)

Induced Nucleation of Carbon Dust in Red Giant Stars. *Brian J. Cadwell, Hai Wang, Eric D. Feigelson, & Michael Frenklach.* 429, 285, 147-E10 (1994)

Dust Extinction of the Stellar Continua in Starburst Galaxies: The Ultraviolet and Optical Extinction Law. *Daniela Calzetti, Anne L. Kinney, & Thaisa Storchi-Bergmann.* 429, 582, 153-A1 (1994)

Atomic and Molecular Gas in Interstellar Cirrus Clouds. *William T. Reach, Bon-Chul Koo, & Carl Heiles.* 429, 672, 154-B1 (1994)

Dust Extinction and Molecular Gas in the Dark Cloud IC 5146. *Charles J. Lada, Elizabeth A. Lada, Dan P. Clemens, & John Bally.* 429, 694, 154-C11 (1994)

Spectral Imaging of the Ney-Allen Nebula at 10 and 20 Microns. *T. L. Hayward.* 429, 726, 154-F5 (1994)

Color Excesses for Classical Cepheids from *BV* Photometry. *J. D. Fernie.* 429, 844, 156-B9 (1994)

Ultraviolet Spectra of Quenched Carbonaceous Composite Derivatives: Comparison to the "217 Nanometer" Interstellar Absorption Feature. *Akira Sakata, Setsuko Wada, Alan T. Tokunaga, Takatoshi Narisawa, Hidehiro Nakagawa, & Hiroshi Ono.* 430, 311, 163-A7 (1994)

A 7 Micron Dust Emission Feature in Oxygen-rich Circumstellar Shells. *J. H. Goebel, J. D. Bregman, & F. C. Witteborn.* 430, 317, 163-B3 (1994)

Predictions of Oxygen Isotope Ratios in Stars and of Oxygen-rich Interstellar Grains in Meteorites. *Arnold I. Boothroyd, I.-Juliana Sackmann, & G. J. Wasserburg.* 430, L77, 166-C7 (1994)

Oxygen Isotopes in Circumstellar Al_2O_3 Grains from Meteorites and Stellar Nucleosynthesis. *Gary R. Huss, Albert J. Fahey, Roberto Gallino, & G. J. Wasserburg.* 430, L81, 166-C13 (1994)

Evolution of Macromolecular Dust: Far-Ultraviolet Spectral Dust Extinction and Gas Absorption of Stellar Light as Measured with the Hopkins Ultraviolet Telescope. *Richard H. Buss, Jr., Marsha Allen, Stephan McCandliss, Jeffrey Kruk, Ji-Cheng Liu, & Tom Brown.* 430, 630, 169-F5 (1994)

The Abundant Elements in Interstellar Dust. *Ulysses J. Sofia, Jason A. Cardelli, & Blair D. Savage.* 430, 650, 170-A2 (1994)

Coagulation of Grains in Static and Collapsing Protostellar Clouds. *S. J. Weidenschilling & T. V. Ruzmaikina.* 430, 713, 170-F6 (1994)

The Puzzle of Silicon, Titanium, and Magnesium Anomalies in Meteoritic Silicon Carbide Grains. *Roberto Gallino, Claudia M. Raiteri, Maurizio Busso, & Francesca Matteucci.* 430, 858, 172-E13 (1994)

UIT: Ultraviolet Observations of the Small Magellanic Cloud. *Robert H. Cornett, J. K. Hill, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 430, L117, 174-G9 (1994)

Infrared Absorption Due to Hydrogenated Amorphous Carbon in the Diffuse Interstellar Medium. *W. W. Duley.* 430, L133, 175-B5 (1994)

A Study of X-Ray and Infrared Emissions from Dusty Nonradiative Shock Waves. *Olaf Vancura, John C. Raymond, Eli Dwek, William P. Blair, Knox S. Long, & Scott Foster.* 431, 188, 178-D13 (1994)

The Physics of Grain-Grain Collisions and Gas-Grain Sputtering in Interstellar Shocks. *A. G. G. M. Tielens, C. F. McKee, C. G. Seab, & D. J. Hollenbach.* 431, 321, 180-B3 (1994)

Spectroscopic Signatures of Infall in Young Protostellar Systems. *Christopher K. Walker, Gopal Narayanan, & Alan P. Boss.* 431, 767, 188-B5 (1994)

The Size Distribution of Interstellar Dust Particles as Determined from Polarization: Infinite Cylinders. *Sang-Hee Kim & P. G. Martin.* 431, 783, 188-D1 (1994)

Diagnostics of Dust Content in Spiral Galaxies: Numerical Simulations of Radiative Transfer. *Y. I. Byun, K. C. Freeman, & N. D. Kylafis.* 432, 114, 194-F1 (1994)

Lyα Emission and Absorption Features in the Spectra of Galaxies. *W. L. Chen & David A. Neufeld.* 432, 567, 203-A10 (1994)

The Far-Ultraviolet Dust Albedo in the Upper Scorpius Subgroup of the Scorpius OB2 Association. *Karl D. Gordon, Adolf N. Witt, George R. Carruthers, Susan A. Christensen, & Brian C. Dohne.* 432, 641, 204-A3 (1994)

Variable Extinction in HD 45677 and the Evolution of Dust Grains in Pre–Main-Sequence Disks. *Michael L. Sitko, Elaine M. Halbedel, Geoffrey F. Lawrence, J. Allyn Smith, & Ken Yanow.* 432, 753, 205-D3 (1994)

Near-Infrared Observations of W51. *Jeffrey D. Goldader & C. G. Wynn-Williams.* 433, 164, 210-D1 (1994)

The 3.2–3.6 Micron Spectra of Monoceros R2/IRS-3 and Elias 16. *K. Sellgren, R. G. Smith, & T. Y. Brooke.* 433, 179, 210-E5 (1994)

G5.89−0.39: A Compact H II Region with a Very Dense Circumstellar Dust Torus. *Paul M. Harvey, Daniel F. Lester, Cecilia Colomé, Beverly Smith, Jean-Louis Monin, & Isabelle Vauglin.* 433, 187, 210-F1 (1994)

Spectral Energy Distributions of the Brightest Palomar-Green Quasars at Intermediate Redshifts. *Todd M. Tripp, Jill Bechtold, & Richard F. Green.* 433, 533, 217-E12 (1994)

The Peculiar Dust Distribution of M82. *T. Ichikawa, W. van Driel, T. Aoki, T. Soyano, K. Tarusawa, & S. Yoshida.* 433, 645, 219-A11 (1994)

Grain Destruction in Shocks in the Interstellar Medium. *A. P. Jones, A. G. G. M. Tielens, D. J. Hollenbach, & C. F. McKee.* 433, 797, 221-A12 (1994)

The Particle-Size Distribution in the Dust Ejected from IRC +10216. *M. Jura.* 434, 713, 237-E12 (1994)

Broken Symmetry: The Structure of the Dust Envelope of IRC +10216. *Joel H. Kastner & David A. Weintraub.* 434, 719, 237-F7 (1994)

The Dust in the Hydrogen-poor Ejecta of Abell 30. *Kazimierz J. Borkowski, J. Patrick Harrington, William P. Blair, & Jesse D. Bregman.* 435, 722, 256-A6 (1994)

Millimetric Observations of Diffuse Galactic Emission: Further Ideas on the Interstellar Dust. *P. Merluzzi, E. Bussoletti, G. Dall'Oglio, & L. Piccirillo.* 436, 286, 265-C1 (1994)

ASCA Measurements of the Grain-scattered X-Ray Halos of Eclipsing Massive X-Ray Binaries: Vela X-1 and Centaurus X-3. *Jonathan W. Woo, George W. Clark, Charles S. R. Day, Fumiaki Nagase, & Toshiaki Takeshima.* 436, L5, 268-C9 (1994)

On the Determination of the Cosmic Infrared Background Radiation from the High-Energy Spectrum of Extragalactic Gamma-Ray Sources. *Eli Dwek & Jonathan Slavin.* 436, 696, 275-B1 (1994)

Ultraviolet Spectra of Amorphous Carbon Grains: Comparison with the Circumstellar Extinction around C-rich Objects. *A. M. Muci, A. Blanco, S. Fonti, & V. Orofino.* 436, 831, 277-B3 (1994)

The Effect of Grain Mantles and Grain Shape upon the 9.7 and 18 Micron Silicate Features. *James E. O'Donnell.* 437, 262, 286-F10 (1994)

Photon-dominated Regions around Cool Stars: The Effects of the Color Temperature of the Radiation Field. *Marco Spaans, A. G. G. M. Tielens, Ewine F. van Dishoeck, & E. L. O. Bakes.* 437, 270, 286-G7 (1994)

Near-Infrared Absorption Spectroscopy of Interstellar Hydrocarbon Grains. *Y. J. Pendleton, S. A. Sandford, L. J. Allamandola, A. G. G. M. Tielens, & K. Sellgren.* 437, 683, 295-B9 (1994)

Infrared Photometry and Spectrophotometry of Nova Herculis 1991 (= V838 Herculis): Observations of the Formation of Dust in the Ejecta of a Very Fast Nova. *Thomas E. Harrison & Guy S. Stringfellow.* 437, 827, 297-A3 (1994)

IRAS Images of Nearby Dark Clouds. *Douglas O. S. Wood, Philip C. Myers, & Debra A. Daugherty.* 95, 457, 70-E3 (1994)

Ultraviolet Imaging Telescope and Optical Emission-Line Observations of H II Regions in M81. *Jesse K. Hill, K. P. Cheng, Ralph C. Bohlin, Robert H. Cornett, P. M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 438, 181, 3-G2 (1995)

On the Injection of Fine Dust from the Jovian Magnetosphere. *D. Maravilla, K. R. Flammer, & D. A. Mendis.* 438, 968, 17-D11 (1995)

Evidence for Chemical Processing of Precometary Icy Grains in Circumstellar Environments of Pre–Main-Sequence Stars. *Stephen C. Tegler, David A. Weintraub, Terrence W. Rettig, Yvonne J. Pendleton, Douglas C. B. Whittet, & Craig A. Kulesa.* 439, 279, 25-A9 (1995)

Polarization of Thermal Emission from Aspherical Dust Grains in an Anisotropic Radiation Field. *Takashi Onaka.* 439, L21, 30-A10 (1995)

Grains in Ionized Nebulae: Spectral Line Diagnostics. *J. Kingdon, G. J. Ferland, & W. A. Feibelman.* 439, 793, 35-E3 (1995)

A Search for an X-Ray Scattering Halo around Scorpius X-1. *Dennis Gallagher, Webster Cash, & James Green.* 439, 976, 38-B2 (1995)

Dust in the Broad-Line Regions of Seyfert Galaxies. *Robert W. Goodrich.* 440, 141, 43-B7 (1995)

Solar Coronal Dust Scattering in the Infrared. *R. M. MacQueen & Bradford W. Greeley.* 440, 361, 46-B8 (1995)

Millimeter Observations of a Complete Sample of *IRAS* Galaxies: Dust Emission and Absorption in Spirals. *Alberto Franceschini & Paola Andreani.* 440, L5, 48-B8 (1995)

Discovery of a $z = 2.76$ Dusty Radio Galaxy? *Arjun Dey, Hyron Spinrad, & Mark Dickinson.* 440, 515, 50-D5 (1995)

A Near-Infrared Reflection Nebula Associated with NGC 2024 FIR 4. *T. J. T. Moore & T. Yamashita.* 440, 722, 53-B6 (1995)

The Growth of Solids, Destruction of Molecules, and Shielding of Radiation in the Young Stellar Disk of HD 45677. *Thomas M. Brown, Richard Buss, Jr., Carol Grady, & Karen Bjorkman.* 440, 865, 55-A11 (1995)

Gas-Phase Chemistry in Dense Interstellar Clouds Including Grain Surface Molecular Depletion and Desorption. *E. A. Bergin, W. D. Langer, & P. F. Goldsmith.* 441, 222, 62-D7 (1995)

Dust Particle Settling in Passive Disks around T Tauri Stars: Models and *IRAS* Observations. *Kotaro Miyake & Yoshitsugu Nakagawa.* 441, 361, 64-C13 (1995)

Cosmic Dust Synthesis by Accretion and Coagulation. *G. Praburam & J. Goree.* 441, 830, 73-D4 (1995)

Influence of Galactic Dust on the Accuracy of Cosmic Microwave Anisotropy Measurements. *Gianfranco Guarini, Bianca Melchiorri, & Francesco Melchiorri.* 442, 23, 77-E1 (1995)

Can We Improve upon Astronomical Silicate? *Sang-Hee Kim & P. G. Martin.* 442, 172, 79-E6 (1995)

Hot Bottom Burning in Asymptotic Giant Branch Stars and Its Effect on Oxygen Isotopic Abundances. *Arnold I. Boothroyd, I.-Juliana Sackmann, & G. J. Wasserburg.* 442, L21, 84-G4 (1995)

The Distribution of Far-Infrared Light in the "Dusty Hand" Galaxy NGC 2146. *Beverly J. Smith, P. M. Harvey, & D. F. Lester.* 442, 610, 88-C10 (1995)

H I, CO, and *IRAS* Observations of NGC 7023. *C. Rogers, Mark H. Heyer, & P. E. Dewdney.* 442, 694, 89-F10 (1995)

The Heating of Dust in Starburst Galaxies: The Contribution of the Nonionizing Radiation. *Daniela Calzetti, Ralph C. Bohlin, Anne L. Kinney, Thaisa Storchi-Bergmann, & Timothy M. Heckman.* 443, 136, 97-A12 (1995)

The Neutral Atomic Phases of the Interstellar Medium. *Mark G. Wolfire, David Hollenbach, Christopher F. McKee, A. G. G. M. Tielens, & E. L. O. Bakes.* 443, 152, 97-C3 (1995)

Ammonia Formation from the Reactions of H Atoms with N Atoms Trapped in a Solid N_2 Matrix at 10–30 K. *Kenzo Hiraoka, Akihiro Yamashita, Yasunori Yachi, Kazuo Aruga, Tetsuya Sato, & Hachizo Muto.* 443, 363, 100-B7 (1995)

Discovery and Imaging of a Galactic Cirrus Cloud with the Far Ultraviolet Space Telescope. *Lauri K. Haikala, Kalevi Mattila, Stuart Bowyer, Timothy P. Sasseen, Michael Lampton, & Jens Knude.* 443, L33, 102-F8 (1995)

On the Charge Distribution Function of Dust Grains in a Hot Gas. *C. Cervetto, B. Barsella, & A. Ferrara.* 443, 648, 106-G12 (1995)

Ultraviolet Extinction to 10.8 Inverse Microns. *Per A. Aannestad.* 443, 653, 106-G11 (1995)

Diffuse Band Profiles in the ρ Ophiuchi Cloud. *C. Gregory Seab & Theodore P. Snow, Jr.* 443, 698, 107-E1 (1995)

A New Desorption Mechanism for Condensed Phase Interstellar CO. *Fedor Dzegilenko & Eric Herbst.* 443, L81, 112-A11 (1995)

Interstellar Graphitic Particles Generated by Annealing of Nanodiamonds and Their Relation to the 2175 Å Peak Carrier. *Daniel Ugarte.* 443, L85, 112-B4 (1995)

Measurements of the Millimeter-Wave Spectrum of Interstellar Dust Emission. *M. L. Fischer, A. Clapp, M. Devlin, J. O. Gundersen, A. E. Lange, P. M. Lubin, P. R. Meinhold, P. L. Richards, & G. F. Smoot.* 444, 226, 116-E7 (1995)

Grain Formation around Carbon Stars. I. Stationary Outflow Models. *Michael P. Egan & Chun Ming Leung.* 444, 251, 117-A1 (1995)

A Dehydrogenation Study of Cosmic Carbon Analogue Grains. *V. Mennella, L. Colangeli, A. Blanco, E. Bussoletti, S. Fonti, P. Palumbo, & H. C. Mertins.* 444, 288, 117-D4 (1995)

The Size Distribution of Interstellar Dust Particles as Determined from Polarization: Spheroids. *Sang-Hee Kim & P. G. Martin.* 444, 293, 117-D13 (1995)

The Structure of the Dust Shells around IRC +10216. *G. C. Sloan & M. P. Egan.* 444, 452, 119-G1 (1995)

The Dust Disk around the Vega-Excess Star SAO 26804. *C. J. Skinner, R. J. Sylvester, J. R. Graham, M. J. Barlow, M. Meixner, E. Keto, J. F. Arens, & J. G. Jernigan.* 444, 861, 128-C13 (1995)

Diamond, Aromatic, and Aliphatic Components of Interstellar Dust Grains: Random Covalent Networks in Carbonaceous Grains. *W. W. Duley.* 445, 240, 135-G7 (1995)

Magnetic Fields around Bok Globules: CCD Polarimetry of CB 4. *Brian D. Kane, Dan P. Clemens, Robert W. Leach, & Richard Barvainis.* 445, 269, 136-C2 (1995)

Infrared Emission and Dynamics of Outflows in Late-Type Stars. *Željko Ivezić & Moshe Elitzur.* 445, 415, 138-C6 (1995)

A General Physicochemical Model of the Inner Coma of Active Comets. I. Implications of Spatially Distributed Gas and Dust Production. *J. F. Crifo.* 445, 470, 139-A12 (1995)

On the Value of GEMS (Glass with Embedded Metal and Sulphides). *P. G. Martin.* 445, L63, 141-C8 (1995)

Ultraviolet Interstellar Linear Polarization. II. The Wavelength Dependence. *Geoffrey C. Clayton, Michael J. Wolff, R. G. Allen, & O. L. Lupie.* 445, 947, 148-C11 (1995)

An *HST* Archival Study of Galactic Interstellar Zinc and Chromium. *Katherine C. Roth & J. Chris Blades.* 445, L95, 150-F11 (1995)

Soft X-Ray Flashes of Gamma-Ray Bursts as Tracers of the Distance of the Bursters. *S. Klose.* 446, 261, 156-G3 (1995)

Neural Network Classification of the Near-Infrared Spectra of A-Type Stars. *Wm. Bruce Weaver & Ana V. Torres-Dodgen.* 446, 300, 157-D1 (1995)

UIT and Optical Imagery of Large Magellanic Cloud Associations LH 52 and LH 53: Ages and Initial Mass Function Slopes. *Robert S. Hill, K.-P. Cheng, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 446, 622, 164-F10 (1995)

Correlation between the Spectral Index and the Degree of Crystallization of Carbon and Graphite Grains. *C. Koike, S. Kimura, C. Kaito, H. Suto, H. Shibai, T. Nagata, T. Tanabe, & Y. Saito.* 446, 902, 168-F1 (1995)

Scattering Properties of the Dust in the Reflection Nebula IC 435. *Daniela Calzetti, Ralph C. Bohlin, Karl D. Gordon, Adolf N. Witt, & Luciana Bianchi.* 446, L97, 171-C7 (1995)

High-Resolution Far-Infrared Observations of DR 21. *Cecilia Colomé, Paul M. Harvey, Daniel F. Lester, Murray F. Campbell, & Harold M. Butner.* 447, 236, 175-E5 (1995)

Dust Evaporation in Protostellar Cores. *Paolo Lenzuni, Hans-Peter Gail, & Thomas Henning.* 447, 848, 187-E10 (1995)

Carbon and Nitrogen Isotopes in Type II Supernova Diamonds. *Donald D. Clayton, Bradley S. Meyer, Chris I. Sanderson, Sara S. Russell, & C. T. Pillinger.* 447, 894, 188-C2 (1995)

EXAFS and XANES: New Astrophysical Tools to Study the Solid State Structure of Interstellar Grains. *Jonathan W. Woo.* 447, L129, 191-C8 (1995)

Large ^{18}O Excesses in Circumstellar Graphite Grains from the Murchison Meteorite: Indication of a Massive-Star Origin. *Sachiko Amari, Ernst Zinner, & Roy S. Lewis.* 447, L147, 191-F4 (1995)

Interstellar Grains in Elliptical Galaxies: Grain Evolution. *John C. Tsai & William G. Mathews.* 448, 84, 193-C12 (1995)

A Model for the Amorphous Carbon Grains around C-rich Objects. *A. Blanco, S. Fonti, & V. Orofino.* 448, 339, 196-G6 (1995)

1 Millimeter Polarimetry of Young Stellar Objects: Low-Mass Protostars and T Tauri Stars. *Motohide Tamura, J. H. Hough, & Saeko S. Hayashi.* 448, 346, 197-A2 (1995)

A Search for Polarization in Diffuse Interstellar Bands toward HD 197770. *A. J. Adamson & D. C. B. Whittet.* 448, L49, 200-B3 (1995)

Does Near-Infrared Polarimetry Reveal the Magnetic Field in Cold Dark Clouds? *Alyssa A. Goodman, Terry J. Jones, Elizabeth A. Lada, & Philip C. Myers.* 448, 748, 205-B4 (1995)

IRAS 08159−3543: Optical Detection of the Dusty, Neutral Bipolar Wind of a Luminous Young Stellar Object. *Th. Neckel & H. J. Staude.* 448, 832, 206-D1 (1995)

A Model of the Diffuse Ultraviolet Radiation Field. *Jayant Murthy & R. C. Henry.* 448, 848, 206-E7 (1995)

The Infrared Spectrum of the Optically Thin Dust Shell of V705 Cassiopeiae (Nova Cassiopeiae 1993). *R. D. Gehrz, M. A. Greenhouse, T. L. Hayward, J. R. Houck, C. G. Mason, & C. E. Woodward.* 448, L119, 209-E9 (1995)

Infrared Diagnostics of the Formation of H_2 on Interstellar Dust. *J. Le Bourlot, G. Pineau des Forêts, E. Roueff, A. Dalgarno, & R. Gredel.* 449, 178, 212-E11 (1995)

The X-Ray Halo of Nova V1974 Cygni (Nova Cygni 1992) and the Nature of Interstellar Dust. *John S. Mathis, David Cohen, John P. Finley, & J. Krautter.* 449, 320, 214-E1 (1995)

A New 3.25 Micron Absorption Feature Toward Monoceros R2/IRS 3. *K. Sellgren, T. Y. Brooke, R. G. Smith, & T. R. Geballe.* 449, L69, 217-B8 (1995)

Dust and Molecular Gas in the Barred Spiral Galaxy NGC 1530. *Michael W. Regan, Stuart N. Vogel, & Peter J. Teuben.* 449, 576, 220-F10 (1995)

The Distribution of Warm Dust in the Star-forming Region Cepheus A: Infrared Constraints. *Cecilia Colomé & Paul M. Harvey.* 449, 656, 221-F8 (1995)

Interstellar Lead. *D. E. Welty, L. M. Hobbs, J. T. Lauroesch, D. C. Morton, & D. G. York.* 449, L135, 227-C8 (1995)

The Formation of Condensates on Dust in Interstellar Clouds. *W. W. Duley & R. G. Smith.* 450, 179, 230-D13 (1995)

Photoevaporation of Dusty Clouds near Active Galactic Nuclei. *Edward A. Pier & G. Mark Voit.* 450, 628, 239-D13 (1995)

The Shapes and Alignment Properties of Interstellar Dust Grains. *Roger H. Hildebrand & Mark Dragovan.* 450, 663, 239-G13 (1995)

Dust Emission from L1641N: An Optically Thick Circumstellar Disk? *H. Chen, J.-H. Zhao, & N. Ohashi.* 450, L71, 245-A1 (1995)

Far-Infrared Spectral Observations of the Galaxy by *COBE*. *W. T. Reach, E. Dwek, D. J. Fixsen, T. Hewagama, J. C. Mather, R. A. Shafer, A. J. Banday, C. L. Bennett, E. S. Cheng, R. E. Eplee, Jr., D. Leisawitz, P. M. Lubin, S. M. Read, L. P. Rosen, F. G. D. Shuman, G. F. Smoot, T. J. Sodroski, & E. L. Wright.* 451, 188, 248-E10 (1995)

On the Electronic Structure of Small Carbon Grains of Astrophysical Interest. *V. Mennella, L. Colangeli, E. Bussoletti, G. Monaco, P. Palumbo, & A. Rotundi.* 100, 149, 47-G9 (1995)

R_V-dependent Interstellar Photodestruction Rates. *Cesare Cecchi-Pestellini, Santi Aiello, & Bruno Barsella.* 100, 187, 48-E2 (1995)

Stellar Contrails in Quasi-stellar Objects: The Origin of Broad Absorption Lines. *Nick Scoville & Colin Norman.* 451, 510, 254-C10 (1995)

Mechanical Alignment of Suprathermally Rotating Grains. *A. Lazarian.* 451, 660, 256-C11 (1995)

Problems with Cold Clouds and Cooling Flows. *G. Mark Voit & Megan Donahue.* 452, 164, 264-C9 (1995)

ARGO 1993 Observations of Interstellar Dust Emission. *S. Masi, E. Aquilini, A. Boscaleri, P. de Bernardis, M. De Petris, M. Gervasi, L. Martinis, V. Natale, P. Palumbo, & F. Scaramuzzi.* 452, 253, 265-E9 (1995)

The Nebular Extinction in the Orion Nebula. *Manuel A. Bautista, Richard W. Pogge, & D. L. DePoy.* 452, 685, 274-B7 (1995)

The Massive Post–Red Supergiants IRC +10420 and HD 179821. *Joel H. Kastner & David A. Weintraub.* 452, 833, 276-B7 (1995)

Can Dust Formation in Evolved Stars Be Suppressed near Active Galactic Nuclei? *T. W. Hartquist, R. H. Durisen, J. E. Dyson, J. M. C. Rawlings, D. A. Williams, & R. J. R. Williams.* 453, 77, 282-C3 (1995)

Davis-Greenstein Alignment of Nonspherical Grains. *A. Lazarian.* 453, 229, 284-C5 (1995)

Grain Alignment by Ambipolar Diffusion in Molecular Clouds. *W. G. Roberge, S. Hanany, & D. W. Messinger.* 453, 238, 284-D3 (1995)

Silicon Nitride from Supernovae. *Larry R. Nittler, Peter Hoppe, Conel M. O'D. Alexander, Sachiko Amari, Peter Eberhardt, Xia Gao, Roy S. Lewis, Roger Strebel, Robert M. Walker, & Ernst Zinner.* 453, L25, 289-E9 (1995)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. IV. Effect of Ultraviolet Ionization and Magnetically Controlled Infall Rate. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 454, 194, 302-A10 (1995)

The Fragmentation and Vaporization of Dust in Grain-Grain Collisions. *Kazimierz J. Borkowski & Eli Dwek.* 454, 254, 302-G1 (1995)

A Multiwavelength Study of 30 Doradus: The Interstellar Medium in a Low-Metallicity Galaxy. *A. Poglitsch, A. Krabbe, S. C. Madden, T. Nikola, N. Geis, L. E. B. Johansson, G. J. Stacey, & A. Sternberg.* 454, 293, 303-C8 (1995)

Organic Compounds Produced by Photolysis of Realistic Interstellar and Cometary Ice Analogs Containing Methanol. *Max P. Bernstein, Scott A. Sandford, Louis J. Allamandola, Sherwood Chang, & Maureen A. Scharberg.* 454, 327, 303-G1 (1995)

Consequences of Dust in Metal-rich H II Regions. *Joseph C. Shields & Robert C. Kennicutt, Jr.* 454, 807, 313-A1 (1995)

The 30 Micron Emission Band in Carbon-rich Pre–Planetary Nebulae. *A. Omont, S. H. Moseley, P. Cox, W. Glaccum, S. Casey, T. Forveille, Kin-Wing Chan, R. Szczerba, R. F. Loewenstein, P. M. Harvey, & S. Kwok.* 454, 819, 313-B2 (1995)

High-Resolution Far-Infrared Observations and Radiative-Transfer Models of W3 IRS 4 and IRS 5. *M. F. Campbell, H. M. Butner, P. M. Harvey, N. J. Evans II, M. B. Campbell, & C. N. Sabbey.* 454, 831, 313-C6 (1995)

Facts and Artifacts in Interstellar Diamond Spectra. *H. Mutschke, J. Dorschner, Th. Henning, C. Jäger, & U. Ott.* 454, L157, 316-G8 (1995)

Silicon Monoxide in Sagittarius B2. *Y. Peng, Stuart N. Vogel, & J. E. Carlstrom.* 455, 223, 321-B14 (1995)

High-Resolution Studies of Solid CO in the Taurus Dark Cloud: Characterizing the Ices in Quiescent Clouds. *J. E. Chiar, A. J. Adamson, T. H. Kerr, & D. C. B. Whittet.* 455, 234, 321-C14 (1995)

High-Density Amorphous Ice, the Frost on Interstellar Grains. *P. Jenniskens, D. F. Blake, M. A. Wilson, & A. Pohorille.* 455, 389, 323-D10 (1995)

Deficit of Far-Infrared [C II] Line Emission toward the Galactic Center. *Takao Nakagawa, Yasuo Doi, Yukari Yamashita Yui, Haruyuki Okuda, Kenji Mochizuki, Hiroshi Shibai, Tetsuo Nishimura, & Frank J. Low.* 455, L35, 324-G3 (1995)

Limits on Dust in Rich Clusters of Galaxies from the Color of Background Quasars. *Dan Maoz.* 455, L115, 333-E4 (1995)

Grain Alignment in the Taurus Dark Cloud. *P. A. Gerakines, D. C. B. Whittet, & A. Lazarian.* 455, L171, 334-E7 (1995)

Approaching the Interstellar Grain Organic Refractory Component. *J. Mayo Greenberg, Aigen Li, Celia X. Mendoza-Gómez, Willem A. Schutte, Perry A. Gerakines, & Menno de Groot.* 455, L177, 334-F1 (1995)

A Point in Favor of the Superparamagnetic Grain Hypothesis. *A. A. Goodman & D. C. B. Whittet.* 455, L181, 334-F8 (1995)

Interstellar Extinction from 0.35 to 2.2 Microns: A Study Based on Luminous Southern Stars. *Lida He, D. C. B. Whittet, D. Kilkenny, & J. H. Spencer Jones.* 101, 335, 58-D12 (1995)

ISM: GENERAL

Precision Measurements of Pulsar Dispersion. *J. A. Phillips & A. Wolszczan.* 385, 273, 15-C8 (1992)

The Development of H I Dissociation Zones around New H II Regions. *R. S. Roger & P. E. Dewdney.* 385, 536, 19-G5 (1992)

Physical Properties of Neutral Gas in M31 and the Galaxy. *Robert Braun & René A. M. Walterbos.* 386, 120, 25-E10 (1992)

Systematic Variations in the Wavelength Dependence of Interstellar Linear Polarization. *D. C. B. Whittet, P. G. Martin, J. H. Hough, M. F. Rouse, J. A. Bailey, & D. J. Axon.* 386, 562, 32-C14 (1992)

Inhibition of Electron Thermal Conduction by Electromagnetic Instabilities. *Amir Levinson & David Eichler.* 387, 212, 39-E5 (1992)

Interstellar Matter in Early-Type Galaxies. II. The Relationship between Gaseous Components and Galaxy Types. *Joel N. Bregman, David E. Hogg, & Morton S. Roberts.* 387, 484, 44-F9 (1992)

The Semicircular Shell of CTB 109. *Zhenru Wang, Quinyue Qu, Ding Luo, Richard McCray, & Mordecai-Mark Mac Low.* 388, 127, 50-E10 (1992)

Velocity Streaming of *IRAS* Main-Sequence Disk Stars and the Episodic Enhancement of Particulate Disks by Interstellar Clouds. *Daniel P. Whitmire, John J. Matese, & Patrick G. Whitman.* 388, 190, 51-D1 (1992)

The Bell Laboratories H I Survey. *Antony A. Stark, Charles F. Gammie, Robert W. Wilson, John Bally, Richard A. Linke, Carl Heiles, & Mark Hurwitz.* 79, 77, 13-D1 (1992)

Infrared Polarimetry and the Galactic Magnetic Field. II. Improved Models. *Terry Jay Jones, Dimitri Klebe, & John M. Dickey.* 389, 602, 69-A1 (1992)

Detection of a Local High-Velocity Absorption-Line System toward HD 93721. *B. E. Penprase & J. C. Blades.* 391, 276, 89-D1 (1992)

Incorporation of Density Fluctuations into Photoionization Calculations. *Robert E. Williams.* 392, 99, 102-C1 (1992)

Dynamics of Fronts in Thermally Bistable Fluids. *Christian Elphick, Oded Regev, & Nir Shaviv.* 392, 106, 102-C9 (1992)

Long-Term Pulsar Flux Monitoring and Refractive Interstellar Scintillation. *Victoria M. Kaspi & Daniel R. Stinebring.* 392, 530, 108-G8 (1992)

Highly Ionized Gas in the Gum Nebula and Elsewhere: A Comparison of *IUE* and *Copernicus* Satellite Results. *Richard J. Edgar & Blair D. Savage.* 396, 124, 156-F4 (1992)

Submillimeter Detection of Extragalactic C I Emission: IC 342. *Thomas H. Büttgenbach, Jocelyn Keene, T. G. Phillips, & Christopher K. Walker.* 397, L15, 173-C1 (1992)

Resolving the Forbidden-Line Emission Regions of Young Stellar Objects: DD Tauri. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 397, L107, 181-D7 (1992)

CN Rotational Excitation. *E. Palazzi, N. Mandolesi, & Philippe Crane.* 398, 53, 182-F5 (1992)

Normal O Stars in Dense Media Generate LINERs. *Joseph C. Shields.* 399, L27, 200-C1 (1992)

Heating the Warm Ionized Medium. *R. J. Reynolds & D. P. Cox.* 400, L33, 214-D10 (1992)

The Low Filling Factor of Dust in the Galaxy. *Jayant Murthy, H. J. Walker, & R. C. Henry.* 401, 574, 229-F8 (1992)

A Possible Connection between Enhanced CH^+ and Intense Far-Ultraviolet Radiation Fields. *Theodore P. Snow.* 402, L73, 13-A7 (1993)

Refractive Interstellar Scintillation of Pulsar Intensities at 74 MHz. *Y. Gupta, B. J. Rickett, & W. A. Coles.* 403, 183, 16-C3 (1993)

Formation of Globular Clusters from Gas in Large-Scale Unorganized Motion in Galaxies. *Yasuki Kumai, Baidyanath Basu, & Mitsuaki Fujimoto.* 404, 144, 29-G1 (1993)

Temporal Variations of Pulsar Dispersion Measures. *D. C. Backer, S. Hama, S. Van Hook, & R. S. Foster.* 404, 636, 36-G10 (1993)

Galactic Fine-Structure Lines: Morphologies of the Warm Ionized Interstellar Medium. *S. J. Petuchowski & C. L. Bennett.* 405, 591, 50-D9 (1993)

A New Survey of Nebulae around Galactic Wolf-Rayet Stars in the Northern Sky. *Grant J. Miller & You-Hua Chu.* 85, 137, 7-G9 (1993)

Dust Coagulation. *Arati Chokshi, A. G. G. M. Tielens, & D. Hollenbach.* 407, 806, 80-E1 (1993)

The X-Ray Shadow of the High-Latitude Molecular Cloud MBM 12. *S. L. Snowden, D. McCammon, & F. Verter.* 409, L21, 104-D1 (1993)

Discontinuities in the Dynamic Spectrum of the Pulsar 0823+26. *Andrew W. Clegg, Ralph L. Fiedler, & James M. Cordes.* 409, 691, 107-E13 (1993)

On the Origin of the Soft X-Ray Background. *Q. Daniel Wang & Richard McCray.* 409, L37, 111-B8 (1993)

A VLA Survey of Optically Visible Galactic H II Regions. *Michel Fich.* 86, 475, 20-F7 (1993)

Pulsar Distances and the Galactic Distribution of Free Electrons. *J. H. Taylor & J. M. Cordes.* 411, 674, 138-B3 (1993)

On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. II. Application to the Interstellar Medium. *Antonio Parravano, Miguel H. Ibáñez S., & César A. Mendoza B.* 412, 625, 151-E6 (1993)

Hydrodynamical Simulations of Star-Gas Interactions in the Interstellar Medium with an External Gravitational Potential. *Alexander Rosen, Joel N. Bregman, & Michael L. Norman.* 413, 137, 157-G5 (1993)

OSSE Observations of Galactic 511 keV Positron Annihilation Radiation: Initial Phase I Results. *W. R. Purcell, D. A. Grabelsky, M. P. Ulmer, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, & G. V. Jung.* 413, L85, 168-E4 (1993)

On Graphite and the 2175 Å Extinction Profile. *B. T. Draine & Sangeeta Malhotra.* 414, 632, 179-B1 (1993)

Excitation Rate Coefficients and Line Ratios for the Optical and Ultraviolet Transitions in S II. *Wei Cai & Anil K. Pradhan.* 88, 329, 44-C7 (1993)

Arecibo Observation of B2 0902+343 in the 21 Centimeter Line at Redshift 3.4. *F. H. Briggs, E. Sorar, & A. Taramopoulos.* 415, L99, 200-A2 (1993)

Proximity Effects in Clusters of Particles. *François Rouleau & P. G. Martin.* 416, 707, 212-B10 (1993)

Evolution of Supernova Remnant Bubbles in a Warm Diffuse Medium: Survey of Results from One-dimensional Models and Their Impact on Estimates of Interstellar Porosity. *Jonathan D. Slavin & Donald P. Cox.* 417, 187, 219-F12 (1993)

Interaction between the Supernova Remnant CTB 80 and the Ambient Interstellar Medium: H I and CO Observations. *Bon-Chul Koo, Min-Su Yun, Paul T. P. Ho, & Youngung Lee.* 417, 196, 219-G10 (1993)

Radio Dispersion as a Diagnostic of Gamma-Ray Burst Distances. *David M. Palmer.* 417, L25, 223-A9 (1993)

EUVE First Light Observation of the Diffuse Sky Background. *Richard Lieu, Stuart Bowyer, Michael Lampton, Patrick Jelinsky, & Jerry Edelstein.* 417, L41, 223-C8 (1993)

Dynamics of Conductive/Cooling Fronts: Cloud Implosion and Thermal Solitons. *A. Ferrara & Yu. Shchekinov.* 417, 595, 226-F13 (1993)

A Well-shaped Bipolar Outflow Sheil in Monoceros R2. *Taoling Xie, Paul F. Goldsmith, & Nimesh Patel.* 419, L33, 252-E7 (1993)

Emission from Circumstellar Interaction in Normal Type II Supernovae. *Roger A. Chevalier & Claes Fransson.* 420, 268, 4-C1 (1994)

Al III, Si IV, and C IV Absorption toward ζ Ophiuchi: Evidence for Photoionized and Collisionally Ionized Gas. *Kenneth R. Sembach, Blair D. Savage, & Edward B. Jenkins.* 421, 585, 25-D12 (1994)

A Critical Evaluation of Semianalytic Methods in the Study of Centrally Heated, Unresolved, Infrared Sources. *Steven D. Doty & Chun Ming Leung.* 424, 729, 73-G10 (1994)

A Rocket-borne Observation of the Far-Infrared Sky at High Galactic Latitude. *M. Kawada, J. J. Bock, V. V. Hristov, A. E. Lange, H. Matsuhara, T. Matsumoto, S. Matsuura, P. D. Mauskopf, P. L. Richards, & M. Tanaka.* 425, L89, 94-E11 (1994)

Pattern Evolution in Thermally Bistable Media. *Vered Aharonson, Oded Regev, & Nir Shaviv.* 426, 621, 106-B9 (1994)

The [N II] 205 Micron Line in M82: The Warm Ionized Medium. *S. J. Petuchowski, C. L. Bennett, Michael R. Haas, Edwin F. Erickson, Steven D. Lord, Robert H. Rubin, Sean W. J. Colgan, & D. J. Hollenbach.* 427, L17, 117-C8 (1994)

Highly Ionized Gas in the Galactic Halo. *J. Michael Shull & Jonathan D. Slavin.* 427, 784, 122-D6 (1994)

The Photoelectric Heating Mechanism for Very Small Graphitic Grains and Polycyclic Aromatic Hydrocarbons. *E. L. O. Bakes & A. G. G. M. Tielens.* 427, 822, 122-G8 (1994)

The Ionization of the Diffuse Ionized Gas. *H. Domgörgen & John S. Mathis.* 428, 647, 138-D1 (1994)

High-Precision Timing of Millisecond Pulsars. III. Long-Term Monitoring of PSRs B1855+09 and B1937+21. *V. M. Kaspi, J. H. Taylor, & M. F. Ryba.* 428, 713, 139-B9 (1994)

Photoionization of the Diffuse Interstellar Medium and Galactic Halo by OB Associations. *James B. Dove & J. Michael Shull.* 430, 222, 161-G7 (1994)

A Survey of Nebulae around Galactic Wolf-Rayet Stars in the Southern Sky. I. *A. P. Marston, Y.-H. Chu, & G. Garcia-Segura.* 93, 229, 44-G7 (1994)

The Molecular Content of the Rosette's Teardrops. *E. González-Alfonso & J. Cernicharo.* 430, L125, 175-A7 (1994)

Ionization Nebulae Surrounding Supersoft X-Ray Sources. *S. Rappaport, E. Chiang, T. Kallman, & R. Malina.* 431, 237, 179-B1 (1994)

Results of a Five-Year Program of Multifrequency Monitoring of Low-Frequency Variable Radio Sources. *K. J. Mitchell, Brian Dennison, J. J. Condon, Daniel R. Altschuler, H. E. Payne, S. L. O'Dell, & J. J. Broderick.* 93, 441, 48-F6 (1994)

On the Thermochemical Stability of the Pregalactic Gas. I. The Equilibrium States. *Patricia Rosenzweig, Antonio Parravano, Miguel H. Ibáñez S., & Yu. I. Izotov.* 432, 485, 202-A7 (1994)

Toward a Theory of Interstellar Turbulence. I. Weak Alfvénic Turbulence. *S. Sridhar & P. Goldreich.* 432, 612, 203-E11 (1994)

Morphology of the Interstellar Cooling Lines Detected by *COBE*. *C. L. Bennett, D. J. Fixsen, G. Hinshaw, J. C. Mather, S. H. Moseley, E. L. Wright, R. E. Eplee, Jr., J. Gales, T. Hewagama, R. B. Isaacman, R. A. Shafer, & K. Turpie.* 434, 587, 235-G13 (1994)

Hot Gas in the Interstellar Medium: A Reanalysis of O VI Absorption Data. *R. L. Shelton & D. P. Cox.* 434, 599, 236-B2 (1994)

Kinematic Distances of Galactic H II Regions from H I Absorption Studies. *Thomas A. Kuchar & T. M. Bania.* 436, 117, 262-G9 (1994)

On the Origin of the Diffuse C^+ 158 Micron Line Emission. *Carl Heiles.* 436, 720, 275-D3 (1994)

Collapse and Fragmentation of Magnetized Cylindrical Clouds. *Kohji Tomisaka.* 438, 226, 4-E3 (1995)

Toward a Theory of Interstellar Turbulence. II. Strong Alfvénic Turbulence. *P. Goldreich & S. Sridhar.* 438, 763, 14-F12 (1995)

EUVE Spectroscopy of ε Canis Majoris (B2 II) from 70 to 730 Å. *J. P. Cassinelli, D. H. Cohen, J. J. MacFarlane, J. E. Drew, A. E. Lynas-Gray, M. G. Hoare, J. V. Vallerga, B. Y. Welsh, P. W. Vedder, I. Hubeny, & T. Lanz.* 438, 932, 17-A8 (1995)

A Search for the He I λ5876 Recombination Line from the Diffuse Interstellar Medium. *R. J. Reynolds & S. L. Tufte.* 439, L17, 30-A1 (1995)

The Hot Gas Filling Factor in the Vicinity of the Sun. *K. M. Ferrière.* 441, 281, 63-B12 (1995)

A Turbulent Model for the Interstellar Medium. I. Threshold Star Formation and Self-Gravity. *Enrique Vázquez-Semadeni, Thierry Passot, & Annick Pouquet.* 441, 702, 71-F1 (1995)

Widespread Molecular Emission in the Galactic Plane from Species Other Than ^{12}CO. *Harvey S. Liszt.* 442, 163, 79-D8 (1995)

Can We Improve upon Astronomical Silicate? *Sang-Hee Kim & P. G. Martin.* 442, 172, 79-E6 (1995)

Images of HCO^+ (1–0) Emission in a Molecular Cloud near 1E 1740.7−2942. *J. A. Phillips & T. Joseph W. Lazio.* 442, L37, 85-B7 (1995)

The Neutral Atomic Phases of the Interstellar Medium. *Mark G. Wolfire, David Hollenbach, Christopher F. McKee, A. G. G. M. Tielens, & E. L. O. Bakes.* 443, 152, 97-C3 (1995)

On the Charge Distribution Function of Dust Grains in a Hot Gas. *C. Cervetto, B. Barsella, & A. Ferrara.* 443, 648, 106-G12 (1995)

Measurements of the Millimeter-Wave Spectrum of Interstellar Dust Emission. *M. L. Fischer, A. Clapp, M. Devlin, J. O. Gundersen, A. E. Lange, P. M. Lubin, P. R. Meinhold, P. L. Richards, & G. F. Smoot.* 444, 226, 116-E7 (1995)

Timing Parameters of 29 Pulsars. *F. Camilo & D. J. Nice.* 445, 756, 145-E11 (1995)

ORFEUS Observations of G191-B2B: Neutral and Ionized Gas in the Local Interstellar Medium. *M. Hurwitz & S. Bowyer.* 446, 812, 167-C4 (1995)

Neutral Hydrogen Absorption Measurements of Four Distant Pulsars and the Electron Density in the Inner Galaxy. *J. M. Weisberg, M. H. Siegel, D. A. Frail, & S. Johnston.* 447, 204, 175-A10 (1995)

Observations of the Galactic and Extragalactic Background with the Far-Ultraviolet Space Telescope (FAUST). *T. P. Sasseen, M. Lampton, S. Bowyer, & X. Wu.* 447, 630, 184-G3 (1995)

Anisotropic Modal Energy Transfer in Interstellar Turbulence. *David Montgomery & William H. Matthaeus.* 447, 706, 185-F10 (1995)

Instabilities in Photoionized Interstellar Gas. *Edvige Corbelli & Andrea Ferrara.* 447, 708, 185-G1 (1995)

A Comparison of Diffuse Ionized and Neutral Hydrogen Away from the Galactic Plane: Hα-emitting H I Clouds. *R. J. Reynolds, S. L. Tufte, D. T. Kung, P. R. McCullough, & C. Heiles.* 448, 715, 204-E12 (1995)

Detection of Hot Gas in the Interstellar Medium. *Jia-Sheng Huang, Antoinette Songaila, Lennox L. Cowie, & Edward B. Jenkins.* 450, 163, 230-C8 (1995)

ISM: GLOBULES

The Molecular Content of the Rosette's Teardrops. *E. González-Alfonso & J. Cernicharo.* 430, L125, 175-A7 (1994)

Modeling Line Profiles of Protostellar Collapse in B335 with the Monte Carlo Method. *Minho Choi, Neal J. Evans II, Erik M. Gregersen, & Yangsheng Wang.* 448, 742, 204-A9 (1995)

Collapse Candidates among the Bok Globules. *Yangsheng Wang, Neal J. Evans II, Shudong Zhou, & Dan P. Clemens.* 454, 217, 302-C9 (1995)

Discovery of Herbig-Haro Objects and Molecular Hydrogen Jets near Bok Globule CB 34. *Miguel C. Moreira & João L. Yun.* 454, 850, 313-E1 (1995)

ISM: H II REGIONS

The Molecular Core in G34.3+0.2: Millimeter Interferometric Observations of HCO^+, $H^{13}CN$, $HC^{15}N$, and SO. *Patricia Carral & William J. Welch.* 385, 244, 15-A4 (1992)

Line-of-Sight Results from H II Region Models. *R. B. Gruenwald & S. M. Viegas.* 78, 153, 3-E7 (1992)

The Molecular Interstellar Medium in Two Giant H II Regions in M33: NGC 604 and NGC 595. *Christine D. Wilson & Nick Scoville.* 385, 512, 19-E5 (1992)

The Development of H I Dissociation Zones around New H II Regions. *R. S. Roger & P. E. Dewdney.* 385, 536, 19-G5 (1992)

The Origin of Broad Emission Lines in the Extragalactic Giant H II Region NGC 2363. *Jean-René Roy, Martin Aubé, Marshall L. McCall, & R. J. Dufour.* 386, 498, 31-E7 (1992)

A CO Study of Sharpless 171: Evidence for Interaction between the H II Region and Its Neighboring Molecular Cloud. *Ji Yang & Yasuo Fukui.* 386, 618, 33-A8 (1992)

Motion at the Ionization Front in the Orion Nebula: A Kinematic Study of the [O I] Line. *C. R. O'Dell & Zheng Wen.* 387, 229, 39-F10 (1992)

Are the NGC 7538 Formaldehyde Masers Really Unusual? *Preethi Pratap, Lewis E. Snyder, & Wolfgang Batrla.* 387, 241, 40-A1 (1992)

The Sharpless 187 Gas Complex: A Multifrequency Study. *G. Joncas, D. Durand, & R. S. Roger.* 387, 591, 46-A9 (1992)

High Spatial Resolution 1.3 Centimeter Imaging of the NGC 2024 Star-forming Region. *R. A. Gaume, K. J. Johnston, & T. L. Wilson.* 388, 489, 56-D1 (1992)

Dense Clumps of Ionized Gas near π Scorpii, as Revealed by the Fine-Structure Excitation of N II. *Frank Bertoldi & Edward B. Jenkins.* 388, 495, 56-D9 (1992)

Spectroscopy of Emission-Line Nebulae in Powerful Radio Galaxies: Interpretation. *S. A. Baum, T. M. Heckman, & W. van Breugel.* 389, 208, 62-E7 (1992)

Thermal Dust Imaging: The Onset of Asymmetry in the Ultracompact H II Region G5.89−0.39. *Roger Ball, John F. Arens, J. Garrett Jernigan, Eric Keto, & Margaret M. Meixner.* 389, 616, 69-B1 (1992)

Small Galactic H II Regions. III. Images and Spectrophotometry of the Ionized Gas. *Deidre A. Hunter.* 79, 469, 20-C13 (1992)

Galactic Worms. I. Catalog of Worm Candidates. *Bon-Chul Koo, Carl Heiles, & William T. Reach.* 390, 108, 75-D6 (1992)

Far-Infrared Observations of M17SW: The Clumpy Structure of the Photodissociation Region. *Margaret Meixner, Michael R. Haas, A. G. G. M. Tielens, E. F. Erickson, & M. Werner.* 390, 499, 81-E3 (1992)

The Radial Distribution of Oxygen in Disk Galaxies. *Dennis Zaritsky.* 390, L73, 84-G7 (1992)

CO Emission from the Dwarf Irregular Galaxy NGC 6822. *Christine D. Wilson.* 391, 144, 87-G1 (1992)

Compact Radio Sources near the Galactic Plane. *D. J. Helfand, S. Zoonematkermani, R. H. Becker, & R. L. White.* 80, 211, 25-B1 (1992)

Emission-Line Objects near Quasi-stellar Object Absorbers. III. Clustering and Colors of Moderate-Redshift H II Regions. *Brian Yanny & Donald G. York.* 391, 569, 95-A8 (1992)

The Powering Sources of the Molecular Outflows in the AFGL 437, AFGL 5142, and AFGL 5157 Regions. *José M. Torrelles, José F. Gómez, Guillem Anglada, Robert Estalella, Rainer Mauersberger, & Carlos Eiroa.* 392, 616, 109-G9 (1992)

The 0623+71 Bow Shock Nebula. *J. M. Hollis, R. J. Oliversen, R. M. Wagner, & W. A. Feibelman.* 393, 217, 116-G3 (1992)

Anomalously High Apparent Abundances of Singly Ionized Helium in the Galactic H II Region W3A. *P. R. Roelfsema, W. M. Goss, & D. C. V. Mallik.* 394, 188, 130-C13 (1992)

Bow Shock Models for the Velocity Structure of Ultracompact H II Regions. *Dave Van Buren & Mordecai-Mark Mac Low.* 394, 534, 136-A7 (1992)

The Compression of the M-0.02-0.07 Molecular Cloud by the Sagittarius A East Shell Source. *E. Serabyn, J. H. Lacy, & J. M. Achtermann.* 395, 166, 142-C1 (1992)

Astro-1 Ultraviolet Imaging of the 30 Doradus and SN 1987A Fields with the Ultraviolet Imaging Telescope. *Kwang-Ping Cheng, Andrew G. Michalitsianos, Paul Hintzen, Ralph C. Bohlin, Robert W. O'Connell, Robert H. Cornett, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L29, 145-A1 (1992)

Ultraviolet Imaging Telescope Ultraviolet Images: Large-Scale Structure, H II Regions, and Extinction in M81. *Jesse K. Hill, Ralph C. Bohlin, Kwang-Ping Cheng, Paul M. N. Hintzen, Wayne B. Landsman, Susan G. Neff, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L37, 145-B9 (1992)

Ultraviolet Imaging Telescope Observations of the Scd Galaxy NGC 628 (M74). *Peter C. Chen, Robert H. Cornett, Morton S. Roberts, Ralph C. Bohlin, Susan G. Neff, Robert W. O'Connell, Ronald A. Parise, Andrew M. Smith, & Theodore P. Stecher.* 395, L41, 145-C5 (1992)

Determination of the He^+/H^+ Ratio from α, β, and γ Radio Recombination Lines. *M. Peimbert, L. F. Rodríguez, T. M. Bania, R. T. Rood, & T. L. Wilson.* 395, 484, 148-E9 (1992)

CNO Abundances and Temperature Fluctuations in the Orion Nebula. *Donald K. Walter, Reginald J. Dufour, & J. Jeff Hester.* 397, 196, 170-D7 (1992)

The Oxygen Abundance Gradient in the Barred Spiral Galaxy NGC 4303. *Pierre Martin & Jean-René Roy.* 397, 463, 176-D13 (1992)

On the Nature of the Bipolar Molecular Outflow in AFGL 437. *J. F. Gómez, J. M. Torrelles, R. Estalella, G. Anglada, L. Verdes-Montenegro, & P. T. P. Ho.* 397, 492, 177-A1 (1992)

IRAS Observations and the Stellar Content of H II Regions in the Large Magellanic Cloud. *Kathleen DeGioia-Eastwood.* 397, 542, 177-F7 (1992)

O-Star Photoionization Models of Liners with Weak [O I] λ6300 Emission. *Alexei V. Filippenko & Roberto Terlevich.* 397, L79, 181-A1 (1992)

High-Resolution Imaging of the Galactic Cloud Monoceros R2. *Constantine P. Gonatas, Patrick Palmer, & G. Novak.* 398, 118, 183-D7 (1992)

Detection of [Fe II] Emission in the Galactic Center. *D. L. DePoy.* 398, 512, 190-E1 (1992)

Tests of Shock Chemistry in IC 443G. *B. E. Turner, Kin-Wing Chan, S. Green, & D. A. Lubowich.* 399, 114, 196-E12 (1992)

Infrared Spectroscopy of Dense Clouds in the C−H Stretch Region: Methanol and "Diamonds." *L. J. Allamandola, S. A. Sandford, A. G. G. M. Tielens, & T. M. Herbst.* 399, 134, 196-G7 (1992)

Imaging Spectrophotometry of the Orion Nebula Core. I. Emission-Line Mapping and Physical Conditions. *Richard W. Pogge, J. Michael Owen, & Bruce Atwood.* 399, 147, 197-A9 (1992)

Normal O Stars in Dense Media Generate LINERs. *Joseph C. Shields.* 399, L27, 200-C1 (1992)

Extinction and Scattering in the Orion Nebula: Comparison of Optical and VLA 21 Centimeter Studies. *C. R. O'Dell, Donald K. Walter, & Reginald J. Dufour.* 399, L67, 200-G12 (1992)

Two-Stage Starbursts in the Large Magellanic Cloud: N11 as a Once and Future 30 Doradus. *Nolan R. Walborn & Joel Wm. Parker.* 399, L87, 201-C5 (1992)

Heating the Warm Ionized Medium. *R. J. Reynolds & D. P. Cox.* 400, L33, 214-D10 (1992)

On Determining the Primordial Helium Abundance from the Spectra of H II Galaxies. *Alison Campbell.* 401, 157, 223-A1 (1992)

Radio Continuum and Radio Recombination Line Observations of Sagittarius B1 and G0.6−0.0. *David M. Mehringer, F. Yusef-Zadeh, Patrick Palmer, & W. M. Goss.* 401, 168, 223-B1 (1992)

VLBI Observations of the 6.7 GHz Methanol Masers toward W3(OH). *K. M. Menten, M. J. Reid, P. Pratap, J. M. Moran, & T. L. Wilson.* 401, L39, 227-F1 (1992)

The Environments of Young Stars: Mid-Infrared and Molecular Line Imaging. *Eric Keto, Deanne Proctor, Roger Ball, John Arens, & Garrett Jernigan.* 401, L113, 233-E11 (1992)

Dense Cores in L1204/S140: Star Formation and Velocity Shifts. *M. Tafalla, R. Bachiller, & J. Martín-Pintado.* 403, 175, 16-B8 (1993)

New 3 Millimeter Observations of Interstellar HNO: Reinstating a Discredited Identification. *Lewis E. Snyder, Yi-Jehng Kuan, L. M. Ziurys, & J. M. Hollis.* 403, L17, 20-C1 (1993)

Identification of Velocity Systems in the Inner Orion Nebula. *C. R. O'Dell, Jacobus H. Valk, Zheng Wen, & David M. Meyer.* 403, 678, 24-B4 (1993)

158 Micron [C II] Mapping of the Orion Molecular Cloud. *G. J. Stacey, D. T. Jaffe, N. Geis, R. Genzel, A. I. Harris, A. Poglitsch, J. Stutzki, & C. H. Townes.* 404, 219, 30-E11 (1993)

PIG (Partially Ionized Globule) Anatomy: Density and Temperature Structure of the Bright-rimmed Globule IC 1396E. *E. Serabyn, R. Güsten, & L. Mundy.* 404, 247, 31-A1 (1993)

A Circumstellar Molecular Gas Structure Associated with the Massive Young Star Cepheus A–HW 2. *José M. Torrelles, Luis F. Rodríguez, Jorge Cantó, & Paul T. P. Ho.* 404, L75, 40-F1 (1993)

Galactic Fine-Structure Lines: Morphologies of the Warm Ionized Interstellar Medium. *S. J. Petuchowski & C. L. Bennett.* 405, 591, 50-D9 (1993)

The Ionized Gas in the Center and in the Bar of the Spiral Galaxy NGC 6946. *Jean-René Roy & Julien Belley.* 406, 60, 55-G1 (1993)

Microarcsecond Proper Motions of Extragalactic Water Vapor Masers in M33. *L. J. Greenhill, J. M. Moran, M. J. Reid, K. M. Menten, & H. Hirabayashi.* 406, 482, 63-F13 (1993)

Diagonalization of the Velocity Variance/Covariance Matrix as a Diagnostic of Maser Proper Motions. *E. E. Bloemhof.* 406, L75, 68-E9 (1993)

Optical Emission-Line Properties of M33 Supernova Remnants. *R. Chris Smith, Robert P. Kirshner, William P. Blair, Knox S. Long, & P. Frank Winkler.* 407, 564, 77-E9 (1993)

Motion in the Orion Nebula: A Kinematic Study of [S III]. *Zheng Wen & C. R. O'Dell.* 409, 262, 100-D1 (1993)

Further Studies on the Champagne Phase of GM 24 (IRAS 17136−3617). *J. F. Gómez, J. M. Torrelles, M. Tapia, Y. Gómez, L. F. Rodríguez, M. Roth, & P. T. P. Ho.* 409, 269, 100-D10 (1993)

From Bipolar to Quadrupolar: The Collimation Processes of the Cepheus A Outflow. *José M. Torrelles, Lourdes Verdes-Montenegro, Paul T. P. Ho, Luis F. Rodríguez, & Jorge Cantó.* 410, 202, 114-F1 (1993)

New 325 MHz Observations of H II Galaxies: The Mechanisms That Shape the Unusual Radio Spectra. *Hans-Jörg Deeg, Elias Brinks, Neb Duric, Uli Klein, & Evan Skillman.* 410, 626, 121-D13 (1993)

Discovery of New Objects in the Orion Nebula on *HST* Images: Shocks, Compact Sources, and Protoplanetary Disks. *C. R. O'Dell, Zheng Wen, & Xihai Hu.* 410, 696, 122-C11 (1993)

A VLA Survey of Optically Visible Galactic H II Regions. *Michel Fich.* 86, 475, 20-F7 (1993)

Abundances of H II Regions in Early-Type Spiral Galaxies. *M. S. Oey & R. C. Kennicutt, Jr.* 411, 137, 128-G3 (1993)

High-Resolution H I Observations of H II Regions. III. Photodissociation Regions and the Magnetic Field near Orion B. *Paul P. van der Werf, W. M. Goss, Carl Heiles, R. M. Crutcher, & T. H. Troland.* 411, 247, 130-C8 (1993)

Spatially Resolved Optical and Near-Infrared Spectroscopy of I Zw 18. *Evan D. Skillman & Robert C. Kennicutt, Jr.* 411, 655, 137-G8 (1993)

Magnetic Fields in Massive Cloud Cores: Comparison of MILLIPOL and *IRAS* Results. *Brian D. Kane, Dan P. Clemens, Richard Barvainis, & Robert W. Leach.* 411, 708, 138-E1 (1993)

Radio Continuum and Radio Recombination Line Observations of Sagittarius B2. *David M. Mehringer, Patrick Palmer, W. M. Goss, & F. Yusef-Zadeh.* 412, 684, 152-C11 (1993)

Detection of the [N II] 122 and 205 Micron Lines: Densities in G333.6−0.2. *Sean W. J. Colgan, Michael R. Haas, Edwin F. Erickson, Robert H. Rubin, Janet P. Simpson, & R. W. Russell.* 413, 237, 159-B13 (1993)

Compact Ammonia Sources toward the G10.5+0.0 H II Region Complex. *Guido Garay, James M. Moran, & Luis F. Rodríguez.* 413, 582, 163-F8 (1993)

Cometary Globules in the Southeast Quadrant of the Rosette Nebula. *Nimesh A. Patel, Taoling Xie, & Paul F. Goldsmith.* 413, 593, 163-G7 (1993)

An H II Region beyond the Optical Disk of the Galaxy. *E. J. de Geus, S. N. Vogel, S. W. Digel, & R. A. Gruendl.* 413, L97, 168-F7 (1993)

Hidden Supernova Remnants in the Large Magellanic Cloud H II Complex N44. *You-Hua Chu, Mordecai-Mark Mac Low, Guillermo Garcia-Segura, Bart Wakker, & Robert C. Kennicutt, Jr.* 414, 213, 172-F2 (1993)

Continuum Hydrodynamical Equations for Multiphase Astrophysical Flows. *S. Pistinner & G. Shaviv.* 414, 612, 178-G5 (1993)

The O^{++}/H^{+} Abundance Ratio in Gaseous Nebulae Derived from Recombination Lines. *M. Peimbert, P. J. Storey, & S. Torres-Peimbert.* 414, 626, 179-A7 (1993)

Bright Planetary Nebulae as Probes of Chemical Evolution. *Michael G. Richer.* 415, 240, 188-A6 (1993)

Excitation Rate Coefficients and Line Ratios for the Optical and Ultraviolet Transitions in S II. *Wei Cai & Anil K. Pradhan.* 88, 329, 44-C7 (1993)

A Cold H II Region in the Molecular Globule G70.7+1.2. *J. A. Phillips, J. S. Onello, & S. R. Kulkarni.* 415, L143, 200-F8 (1993)

An Hα Atlas of Nearby Southern Spiral Galaxies. *Stuart D. Ryder & Michael A. Dopita.* 88, 415, 45-F7 (1993)

The Diffuse Ionized Interstellar Medium: Structures Resulting from Ionization by O Stars. *Walter Warren Miller III & Donald P. Cox.* 417, 579, 226-E7 (1993)

High-Resolution Centimeter Radio Continuum and Ammonia Maser Observations of the W51 Region of Star Formation. *R. A. Gaume, K. J. Johnston, & T. L. Wilson.* 417, 645, 227-D1 (1993)

VLA Radio Recombination Line Observations of Ionized Gas in the -30 Kilometers per Second Molecular Cloud (G0.04+0.03) near the Galactic Center. I. The Discrete Radio Sources. *Jun-Hui Zhao, K. Desai, W. M. Goss, & F. Yusef-Zadeh.* 418, 235, 234-A1 (1993)

VLA Observations of Strong *IRAS* Point Sources Associated with Compact H II Regions. *Guido Garay, Luis F. Rodríguez, James M. Moran, & Ed Churchwell.* 418, 368, 235-E11 (1993)

Formaldehyde as a Probe of Physical Conditions in Dense Molecular Clouds. *Jeffrey G. Mangum & Alwyn Wootten.* 89, 123, 50-E5 (1993)

The Discovery of a Supernova Remnant Embedded in a Giant H II Region of M33. *Shawn M. Gordon, Robert P. Kirshner, Nebojsa Duric, & Knox S. Long.* 418, 743, 241-F10 (1993)

Chemical Composition of M8 Based on *IUE* and Visual Observations. *M. Peimbert, S. Torres-Peimbert, & R. J. Dufour.* 418, 760, 242-A8 (1993)

On the Formation of Spheroidal Stellar Systems and the Nature of Supersonic Turbulence in Star-forming Regions. *Guillermo Tenorio-Tagle, Casiana Muñoz-Tuñon, & Donald P. Cox.* 418, 767, 242-B3 (1993)

Simulated Ratio Recombination Line Emission at 1.3 Centimeters toward MWC 349. *J. Martín-Pintado, R. Gaume, R. Bachiller, K. Johnston, & P. Planesas.* 418, L79, 245-E2 (1993)

The He I 2.06 Micron to Brackett γ Ratio as a Nebular Diagnostic. *Joseph C. Shields.* 419, 181, 248-D4 (1993)

Luminous Radio-quiet Sources in W3(Main). *E. F. Ladd, J. R. Deane, D. B. Sanders, & C. G. Wynn-Williams.* 419, 186, 248-D11 (1993)

Structure of Dense Cores in M17 SW. I. A Multitransition CS and $C^{34}S$ Study. *Yangsheng Wang, Daniel T. Jaffe, Neal J. Evans II, Masahiko Hayashi, Ken'ichi Tatematsu, & Shudong Zhou.* 419, 707, 256-D12 (1993)

The 150 AU Structure of the Radio Continuum and the Ammonia Bipolar Outflow in CRL 618. *Jesús Martín-Pintado, Ralph Gaume, Rafael Bachiller, & Ken Johnson.* 419, 725, 256-F4 (1993)

H II Regions and the Abundance Properties of Spiral Galaxies. *Dennis Zaritsky, Robert C. Kennicutt, Jr., & John P. Huchra.* 420, 87, 2-B1 (1994)

Element Abundances in H II Galaxies. *Josefa Masegosa, Mariano Moles, & Ana Campos-Aguilar.* 420, 576, 9-G3 (1994)

Nebular Properties from Far-Infrared Spectroscopy. *Robert H. Rubin, Janet P. Simpson, Steven D. Lord, Sean W. J. Colgan, Edwin F. Erickson, & Michael R. Haas.* 420, 772, 12-E1 (1994)

On the Determination of the Number of O Stars in H II Regions and Starburst Galaxies. *William D. Vacca.* 421, 140, 17-F13 (1994)

Constraining the Influence of Star Formation on the Lowest ^{12}CO Line Ratios in M33. *Michele D. Thornley & Christine D. Wilson.* 421, 458, 23-G9 (1994)

Al III, Si IV, and C IV Absorption toward ζ Ophiuchi: Evidence for Photoionized and Collisionally Ionized Gas. *Kenneth R. Sembach, Blair D. Savage, & Edward B. Jenkins.* 421, 585, 25-D12 (1994)

Anatomy of a Photodissociation Region: High Angular Resolution Images of Molecular Emission in the Orion Bar. *Jan A. Tauber, A. G. G. M. Tielens, Margaret Meixner, & Paul F. Goldsmith.* 422, 136, 31-F13 (1994)

The Dust Temperature Gradient in the Rosette Nebula. *R. F. Shipman & F. O. Clark.* 422, 153, 32-A5 (1994)

The W3 IRS 5 Cluster: Radio Continuum and Water Maser Observations. *M. J. Claussen, R. A. Gaume, K. J. Johnston, & T. L. Wilson.* 424, L41, 69-E13 (1994)

A 5 GHz VLA Survey of the Galactic Plane. *Robert H. Becker, Richard L. White, David J. Helfand, & S. Zoonematkermani.* 91, 347, 23-C1 (1994)

The Influence of Bars on the Chemical Composition of Spiral Galaxies. *Pierre Martin & Jean-René Roy.* 424, 599, 72-B10 (1994)

On the Size and Formation Mechanism of the Largest Star-forming Complexes in Spiral and Irregular Galaxies. *Debra Meloy Elmegreen, Bruce G. Elmegreen, Cornelia Lang, & Carnella Stephens.* 425, 57, 80-G11 (1994)

A Near-Infrared Study of the Monoceros R2 Star Formation Region. *Eric M. Howard, Judith L. Pipher, & William J. Forrest.* 425, 707, 90-D12 (1994)

Kinematic Structure of the 30 Doradus Giant H II Region. *You-Hua Chu & Robert C. Kennicutt, Jr.* 425, 720, 90-F1 (1994)

Evolutionary Models for High-Metallicity Giant Extragalactic H II Regions. *Maria Luisa García Vargas & Angeles I. Díaz.* 91, 553, 27-A4 (1994)

Ultracompact H II Regions. II. New High-Resolution Radio Images. *S. Kurtz, E. Churchwell, & D. O. S. Wood.* 91, 659, 28-D1 (1994)

Radio Continuum and Radio Recombination Line Observations of W51. *David M. Mehringer.* 91, 713, 29-A2 (1994)

A Very Metal poor H II Region in the Outer Disk of M101. *Donald R. Garnett & Robert C. Kennicutt, Jr.* 426, 123, 97-F1 (1994)

Oxygen Abundances in Low Surface Brightness Disk Galaxies. *Stacy S. McGaugh.* 426, 135, 97-G3 (1994)

Aperture Synthesis Imaging of Partially Ionized Gas in W48. *Joseph S. Onello, J. A. Phillips, P. Benaglia, W. M. Goss, & Yervant Terzian.* 426, 249, 99-B13 (1994)

A Fabry-Perot Imager for Near-Infrared Astrophysics at the Communications Research Laboratory 1.5 Meter Telescope, and Imaging of Hydrogen Recombination Lines in the Orion Nebula. *Hajime Sugai, Tomonori Usuda, Hirokazu Kataza, Masuo Tanaka, Hironobu Kawabata, Motoko Y. Inoue, Hideki Takami, Tetsuo Aoki, & Norihisa Hiromoto.* 427, 511, 116-C10 (1994)

The H II Regions of NGC 6822. III. A Photometric Atlas. *John Collier & Paul Hodge.* 92, 119, 32-G10 (1994)

A Catalog of Bright-rimmed Clouds with *IRAS* Point Sources: Candidates for Star Formation by Radiation-driven Implosion. II. The Southern Hemisphere. *Koji Sugitani & Katsuo Ogura.* 92, 163, 33-D11 (1994)

Radio Continuum, Ammonia, and Water Maser Observations of Bright, Unassociated *IRAS* Point Sources. *Mari Paz Miralles, Luis F. Rodríguez, & Eugenio Scalise.* 92, 173, 33-F3 (1994)

H II Regions in M81 Group Dwarf Galaxies. *Bryan W. Miller & Paul Hodge.* 427, 656, 120-G11 (1994)

An Analysis of *IRAS*-identified H II Regions and Their Radio Properties. *V. A. Hughes & G. C. MacLeod.* 427, 857, 123-C11 (1994)

Carbon Recombination Lines as a Diagnostic of Photodissociation Regions. *A. Natta, C. M. Walmsley, & A. G. G. M. Tielens.* 428, 209, 130-F12 (1994)

CS Multitransitional Study of Density Distribution in Star-forming Regions. II. The S140 Region. *Shudong Zhou, Harold M. Butner, Neal J. Evans II, Rolf Güsten, Marc L. Kutner, & Lee G. Mundy.* 428, 219, 130-G10 (1994)

Photoevaporation of Disks around Massive Stars and Application to Ultracompact H II Regions. *David Hollenbach, Doug Johnstone, Susana Lizano, & Frank Shu.* 428, 654, 138-D10 (1994)

A Bipolar Outflow of Ionized Gas in K3-50A: H76α Radio Recombination Line and Continuum Observations of K3-50. *C. G. De Pree, W. M. Goss, Patrick Palmer, & Robert H. Rubin.* 428, 670, 138-F1 (1994)

High-Resolution Images of the Dust and Ionized Gas Distribution in the Carina Nebula. *Jonathan B. Z. Whiteoak.* 429, 225, 146-G7 (1994)

The Velocity Structure of the Cometary H II Regions G13.87+0.28, G32.80+0.19B, and G61.48+0.09B1. *Guido Garay, Susana Lizano, & Yolanda Gómez.* 429, 268, 147-D6 (1994)

High-Resolution Observations of a New Ammonia Maser Line in G9.62+0.19. *P. Hofner, S. Kurtz, E. Churchwell, C. M. Walmsley, & R. Cesaroni.* 429, L85, 158-D1 (1994)

Photoionization of the Diffuse Interstellar Medium and Galactic Halo by OB Associations. *James B. Dove & J. Michael Shull.* 430, 222, 161-G7 (1994)

Nebular Properties and the Ionizing Radiation Field in the Galactic Center. *Joseph C. Shields & Gary J. Ferland.* 430, 236, 162-A9 (1994)

The Giant Molecular Cloud Monoceros R2. I. Shell Structure. *Taoling Xie & Paul F. Goldsmith.* 430, 252, 162-B13 (1994)

Cepheus A HW2: A Powerful Thermal Radio Jet. *Luis F. Rodríguez, Guido Garay, Salvador Curiel, Solange Ramírez, José M. Torrelles, Yolanda Gómez, & Arturo Velázquez.* 430, L65, 166-B2 (1994)

The Cosmic Abundance of ^3He. III. Improved Line Parameters for Selected Sources. *Dana S. Balser, T. M. Bania, Charles J. Brockway, Robert T. Rood, & T. L. Wilson.* 430, 667, 170-B8 (1994)

The Molecular Content of the Rosette's Teardrops. *E. González-Alfonso & J. Cernicharo.* 430, L125, 175-A7 (1994)

Detection of Formaldehyde Maser Emission near the Ultracompact H II Region G29.96−0.02. *Preethi Pratap, Karl M. Menten, & Lewis E. Snyder.* 430, L129, 175-A13 (1994)

Diffuse Ionized Gas in the Spiral Galaxy M31. *René A. M. Walterbos & Robert Braun.* 431, 156, 178-B3 (1994)

Spatially Resolved Optical and Near-Infrared Spectroscopy of the Low-Metallicity Galaxy UGC 4483. *Evan D. Skillman, Roberto J. Terlevich, Robert C. Kennicutt, Jr., Donald R. Garnett, & Elena Terlevich.* 431, 172, 178-C9 (1994)

Ionization Nebulae Surrounding Supersoft X-Ray Sources. *S. Rappaport, E. Chiang, T. Kallman, & R. Malina.* 431, 237, 179-B1 (1994)

Ionization Nebulae Surrounding Supersoft X-Ray Sources. *S. Rappaport, E. Chiang, T. Kallman, & R. Malina.* 431, 237, 179-B1 (1994)

Testing for Interaction between the Galaxies NGC 450 and UGC 807. *Mariano Moles, Isabel Márquez, Josefa Masegosa, Ascensión del Olmo, Jaime Perea, & Halton Arp.* 432, 135, 194-G12 (1994)

The Distribution and Nature of Star Formation Regions in NGC 1792. *Michael Dahlem, Dominik J. Bomans, & Jean-Marie Will.* 432, 590, 203-C10 (1994)

VLA Recombination Line Observations of the Cometary H II Region G34.3+0.2: Dynamics and Physical Properties. *Ralph A. Gaume, Alan L. Fey, & Mark J. Claussen.* 432, 648, 204-B1 (1994)

Thermal Infrared Imaging of Subarcsecond Structure in the Trapezium Nebula. *T. L. Hayward, J. R. Houck, & J. W. Miles.* 433, 157, 210-C1 (1994)

Near-Infrared Observations of W51. *Jeffrey D. Goldader & C. G. Wynn-Williams.* 433, 164, 210-D1 (1994)

G5.89−0.39: A Compact H II Region with a Very Dense Circumstellar Dust Torus. *Paul M. Harvey, Daniel F. Lester, Cecilia Colomé, Beverly Smith, Jean-Louis Monin, & Isabelle Vauglin.* 433, 187, 210-F1 (1994)

Two Micron Spectrophotometry of the Orion Nebula and the Detection of Significant [Fe III] Emission. *D. L. DePoy & Richard W. Pogge.* 433, 725, 220-B1 (1994)

Anomalous Balmer Continuum Temperatures in the Orion Nebula. *Donald K. Walter & Reginald J. Dufour.* 434, L29, 232-E5 (1994)

Relative Emission-Line Strengths for the 146 and 63 Micron Transitions in O I and a Comparison with Far-Infrared Observations of Photodissociation Regions. *F. P. Keenan, E. S. Conlon, & R. H. Rubin.* 434, 811, 239-B3 (1994)

The Primordial Helium Abundance from a New Sample of Metal-deficient Blue Compact Galaxies. *Yuri I. Izotov, Trinh X. Thuan, & Valentin A. Lipovetsky.* 435, 647, 255-A5 (1994)

VLA Spectral Line Observations of the H II Complex G34.3+0.2. *Alan L. Fey, Ralph A. Gaume, Gerald E. Nedoluha, & Mark J. Claussen.* 435, 738, 256-C3 (1994)

Kinematic Distances of Galactic H II Regions from H I Absorption Studies. *Thomas A. Kuchar & T. M. Bania.* 436, 117, 262-G9 (1994)

NGC 3603 and Its Wolf-Rayet Stars: Galactic Clone of R136 at the Core of 30 Doradus, but without the Massive Surrounding Cluster Halo. *Anthony F. J. Moffat, Laurent Drissen, & Michael M. Shara.* 436, 183, 263-F7 (1994)

Postrefurbishment Mission *Hubble Space Telescope* Images of the Core of the Orion Nebula: Proplyds, Herbig-Haro Objects, and Measurements of a Circumstellar Disk. *C. R. O'Dell & Zheng Wen.* 436, 194, 263-G8 (1994)

Ultraviolet-illuminated Molecular Cloud Boundaries: Extended [C II] 158 Micron Emission toward L1630. *D. T. Jaffe, S. Zhou, J. E. Howe, F. Herrmann, S. C. Madden, A. Poglitsch, P. P. van der Werf, & G. J. Stacey.* 436, 203, 264-A10 (1994)

A Survey of Nebulae around Galactic Wolf-Rayet Stars in the Southern Sky. II. *A. P. Marston, D. R. Yocum, G. Garcia-Segura, & Y.-H. Chu.* 95, 151, 66-A11 (1994)

Modeling Radiative Transfer in Molecular Clouds. I. HCO^+ in the Star-forming Region W49A North. *Hélène R. Dickel & Lawrence H. Auer.* 437, 222, 286-C4 (1994)

Violent Star Formation in NGC 2363. *Rosa M. González-Delgado, Enrique Pérez, Guillermo Tenorio-Tagle, José M. Vílchez, Elena Terlevich, Roberto Terlevich, Eduardo Telles, José M. Rodríguez-Espinosa, Miguel Mas-Hesse, María Luisa García-Vargas, Ángeles I. Díaz, Jordi Cepa, & Hector Castañeda.* 437, 239, 286-D10 (1994)

A Multiline, Multiresolution VLA Study of the Ultracompact H II Region G29.96−0.02. *A. Afflerbach, E. Churchwell, P. Hofner, & S. Kurtz.* 437, 697, 295-C12 (1994)

The Form of Abundance Gradients in Three Nearby Spiral Galaxies: M33, M81, and M101. *R. B. C. Henry & J. W. Howard.* 438, 170, 3-F1 (1995)

Ultraviolet Imaging Telescope and Optical Emission-Line Observations of H II Regions in M81. *Jesse K. Hill, K. P. Cheng, Ralph C. Bohlin, Robert H. Cornett, P. M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 438, 181, 3-G2 (1995)

Interstellar Scattering toward Cygnus X-3: Measurements of Anisotrophy and of the Inner Scale. *L. A. Molnar, R. L. Mutel, M. J. Reid, & K. J. Johnston.* 438, 708, 14-A2 (1995)

The NGC 7538 IRS 1 Region of Star Formation: Observations of the H66α Recombination Line with a Spatial Resolution of 300 AU. *R. A. Gaume, W. M. Goss, H. R. Dickel, T. L. Wilson, & K. J. Johnston.* 438, 776, 15-A1 (1995)

A Three-dimensional Model of the Orion Nebula. *Zheng Wen & C. R. O'Dell.* 438, 784, 15-A13 (1995)

Nova Persei 1901: Detection of the Site of Its Brightest Light Echo. *R. W. Tweedy.* 438, 917, 16-F13 (1995)

X-Ray Emission from Giant H II Regions in M101. *Rosa Murphy Williams & You-Hua Chu.* 439, 132, 23-A9 (1995)

A Search for the He I λ5876 Recombination Line from the Diffuse Interstellar Medium. *R. J. Reynolds & S. L. Tufte.* 439, L17, 30-A1 (1995)

Radio and *IRAS* Observations of Two Nebulae around WO Stars: G2.4+1.4 in the Galaxy and Sandage H II Region 3 in IC 1613. *W. M. Goss & Tatiana A. Lozinskaya.* 439, 637, 33-B8 (1995)

The Proper Motion and Wind Nebula of the Nearby Millisecond Pulsar J0437−4715. *J. F. Bell, M. Bailes, R. N. Manchester, J. M. Weisberg, & A. G. Lyne.* 440, L81, 58-A10 (1995)

High-Resolution X-Ray Imaging of M33. *Eric Schulman & Joel N. Bregman.* 441, 568, 69-G6 (1995)

A Turbulent Model for the Interstellar Medium. I. Threshold Star Formation and Self-Gravity. *Enrique Vázquez-Semadeni, Thierry Passot, & Annick Pouquet.* 441, 702, 71-F1 (1995)

Intense Radio Outburst from the Supermassive Star η Carinae. *R. A. Duncan, S. M. White, J. Lim, G. J. Nelson, S. A. Drake, & M. R. Kundu.* 441, L73, 76-A6 (1995)

The Distribution of Molecular and Neutral Gas and Magnetic Fields near the Bipolar H II Region S106. *D. A. Roberts, R. M. Crutcher, & T. H. Troland.* 442, 208, 80-A9 (1995)

Very Hot Ionized Material in Sagittarius B2 F. *David M. Mehringer, C. G. De Pree, Ralph A. Gaume, W. M. Goss, & Mark J. Claussen.* 442, L29, 85-A5 (1995)

Detection of a Series of Methanol Maser Lines at 1.9 Millimeter Wavelength. *V. I. Slysh, S. V. Kalenskii, & I. E. Val'tts.* 442, 668, 89-C7 (1995)

The Evolution of C/O in Dwarf Galaxies from *Hubble Space Telescope* FOS Observations. *Donald R. Garnett, Evan D. Skillman, Reginald J. Dufour, Manuel Peimbert, Silvia Torres-Peimbert, Roberto Terlevich, Elena Terlevich, & Gregory A. Shields.* 443, 64, 96-B6 (1995)

6 Centimeter Formaldehyde Absorption toward the Sagittarius B Star-forming Complex. *David M. Mehringer, Patrick Palmer, & W. M. Goss.* 97, 497, 19-B1 (1995)

On the Supersonic Turbulence of NGC 604. *Nanci S. P. Sabalisck, Guillermo Tenorio-Tagle, Héctor O. Castañeda, & Casiana Muñoz-Tuñón.* 444, 200, 116-B8 (1995)

A New Estimate of the Uncertainties in the Primordial Helium Abundance: New Bounds on Ω Baryons. *Dimitar Sasselov & Dalia Goldwirth.* 444, L5, 121-B8 (1995)

The Local Metallicity–Surface Brightness Relationship in Galactic Disks. *Stuart D. Ryder.* 444, 610, 124-F12 (1995)

Consequences of H II Region Models for Absorption Systems in the Quasar Spectra. *R. Srianand & Pushpa Khare.* 444, 643, 125-B10 (1995)

The Stellar Content of 30 Doradus Derived from Spatially Integrated Ultraviolet Spectra: A Test of Spectral Synthesis Models. *William D. Vacca, Carmelle Robert, Claus Leitherer, & Peter S. Conti.* 444, 647, 125-C3 (1995)

Far-Infrared Lines from H II Regions: Abundance Variations in the Galaxy. *Janet P. Simpson, Sean W. J. Colgan, Robert H. Rubin, Edwin F. Erickson, & Michael R. Haas.* 444, 721, 126-C6 (1995)

Socket Stars: *UBVRIJK* Radial Profiles. *Bradley E. Schaefer.* 444, 739, 126-D13 (1995)

Line Broadening in the W3(OH) Champagne Flow. *E. R. Keto, W. J. Welch, M. J. Reid, & P. T. P. Ho.* 444, 765, 127-A8 (1995)

Heavy Element Abundances in a New Sample of Low-Metallicity Blue Compact Galaxies. *Trinh X. Thuan, Yuri I. Izotov, & Valentin A. Lipovetsky.* 445, 108, 133-G5 (1995)

The Oxygen Distribution in NGC 3359 or a Disk Galaxy in the Early Phase of Bar Formation. *Pierre Martin & Jean-René Roy.* 445, 161, 134-F3 (1995)

Anatomy of the Gemini OB1 Molecular Cloud Complex. *John M. Carpenter, Ronald L. Snell, & F. Peter Schloerb.* 445, 246, 136-A4 (1995)

Optical Spectroscopy of Luminous Infrared Galaxies. II. Analysis of the Nuclear and Long-Slit Data. *S. Veilleux, D.-C. Kim, D. B. Sanders, J. M. Mazzarella, & B. T. Soifer.* 98, 171, 23-A8 (1995)

Radio Images of Sagittarius. II. Sagittarius C and Its Neighbors. *Harvey S. Liszt & Robert W. Spiker.* 98, 259, 25-D12 (1995)

A Supergiant Supernova-blown Bubble in the Spiral Galaxy NGC 1620. *J. Patricia Vader & Brian Chaboyer.* 445, 691, 144-F1 (1995)

Rotation and Outflow in Compact H II Regions: VLA Observations of the Molecular and Ionized Gas in NGC 6334A and NGC 6334F. *C. G. De Pree, L. F. Rodríguez, H. R. Dickel, & W. M. Goss.* 447, 220, 175-C8 (1995)

High-Resolution Far-Infrared Observations of DR 21. *Cecilia Colomé, Paul M. Harvey, Daniel F. Lester, Murray F. Campbell, & Harold M. Butner.* 447, 236, 175-E5 (1995)

The Large-Scale Structure, Kinematics, and Evolution of IC 1396. *Nimesh A. Patel, Paul F. Goldsmith, Ronald L. Snell, Thomas Hezel, & Taoling Xie.* 447, 721, 186-A4 (1995)

Identification of Ionizing Sources and Young Stellar Objects in M17. *Margaret Murray Hanson & Peter S. Conti.* 448, L45, 200-A9 (1995)

Identification of Emission-Line Stars in 30 Doradus Using *HST* Observations. *Joel Wm. Parker, Sara R. Heap, & Eliot M. Malumuth.* 448, 705, 204-D11 (1995)

A Comparison of Diffuse Ionized and Neutral Hydrogen Away from the Galactic Plane: Hα-emitting H I Clouds. *R. J. Reynolds, S. L. Tufte, D. T. Kung, P. R. McCullough, & C. Heiles.* 448, 715, 204-E12 (1995)

Radio Recombination Line Observations of Partially Ionized Gas in Galactic H II Regions. *Joseph S. Onello & J. A. Phillips.* 448, 727, 204-G1 (1995)

Si/O Abundance Ratios in Extragalactic H II Regions from Hubble Space Telescope UV Spectroscopy. *D. R. Garnett, R. J. Peimbert,*

S. Torres-Peimbert, G. A. Shields, E. D. Skillman, E. Terlevich, & R. J. Terlevich. 449, L77, 217-C8 (1995)

The Sagittarius B2 Star-forming Region. I. Sensitive 1.3 Centimeter Continuum Observations. *R. A. Gaume, M. J. Claussen, C. G. De Pree, W. M. Goss, & D. M. Mehringer.* 449, 663, 221-G5 (1995)

VLA Spectral Line Observations of a Shocked Cold H II Region in G70.7+1.2. *Joseph S. Onello, C. G. DePree, J. A. Phillips, & W. M. Goss.* 449, L127, 227-B8 (1995)

An H I/Optical Atlas of H II Galaxies and Their Companions. *Christopher L. Taylor, Elias Brinks, Randy M. Grashuis, & Evan D. Skillman.* 99, 427, 41-A2 (1995)

The Mass of a Star Formed in a Cloud Core: Theory and Its Application to the Orion A Cloud. *Takenori Nakano, Tetsuo Hasegawa, & Colin Norman.* 450, 183, 230-E7 (1995)

Hubble Space Telescope Imaging of the Wind-blown Lobe NGC 6165. *Paul Scowen, Jeff Hester, Arthur Code, Glen Mackie, C. Roger Lynds, & Earl J. O'Neil, Jr.* 450, 196, 230-F9 (1995)

Star Formation in the Gemini OB1 Molecular Cloud Complex. *John M. Carpenter, Ronald L. Snell, & F. Peter Schloerb.* 450, 201, 230-G5 (1995)

Balmer Discontinuity Temperatures in the Orion Nebula. *X.-W. Liu, M. J. Barlow, I. J. Danziger, & P. J. Storey.* 450, L59, 244-F8 (1995)

Element Abundances at High Redshifts: The N/O Ratio in a Primeval Galaxy. *Max Pettini, Keith Lipman, & Richard W. Hunstead.* 451, 100, 247-E1 (1995)

H II Regions in Four Galaxies in and near the Local Group. *Paul Hodge & Bryan W. Miller.* 451, 176, 248-D9 (1995)

The Density Structure in the Rosette Molecular Cloud: Signposts of Evolution. *Jonathan P. Williams, Leo Blitz, & Anthony A. Stark.* 451, 252, 249-D9 (1995)

The Sagittarius B2 Star-forming Region. II. High-Resolution H66α Observations of Sagittarius B2 North. *C. G. De Pree, R. A. Gaume, W. M. Goss, & M. J. Claussen.* 451, 284, 249-G6 (1995)

Ultraviolet Temporal Variability of the Peculiar Star R Aquarii. *S. R. Meier & M. Kafatos.* 451, 359, 250-G5 (1995)

Are Galaxies Optically Thin to Their Own Lyman-Continuum Radiation? I. M33. *Kanan Patel & Christine D. Wilson.* 451, 607, 255-E11 (1995)

High-Resolution Far-Infrared Mapping of the Star-forming Region RCW 122C. *C. Y. Zhang, P. M. Harvey, Beverly J. Smith, C. Colomé, & J. DiFrancesco.* 452, 308, 266-D1 (1995)

The Nebular Extinction in the Orion Nebula. *Manuel A. Bautista, Richard W. Pogge, & D. L. DePoy.* 452, 685, 274-B7 (1995)

Dense Gas in the DR 21 Region: High-Resolution Imaging of the NH_3 Inversion Lines. *T. L. Wilson, R. A. Gaume, K. J. Johnston, & A. R. Tieftrunk.* 452, 693, 274-C4 (1995)

Constraints on Circumstellar Disk Masses in the Trapezium Cluster. *Lee G. Mundy, Leslie W. Looney, & Elizabeth A. Lada.* 452, L137, 280-D12 (1995)

The Continuum Structure of 11 Galactic H II Regions. *Dana S. Balser, T. M. Bania, Robert T. Rood, & T. L. Wilson.* 100, 371, 51-C6 (1995)

IRAS LRS Spectra of the Sharpless H II Regions. *P. S. Chen, H. Gao, & G. Z. Xiong.* 100, 389, 51-D13 (1995)

Are Galaxies Optically Thin to Their Own Lyman-Continuum Radiation? II. NGC 6822. *Kanan Patel & Christine D. Wilson.* 453, 162, 283-D13 (1995)

Near-Infrared and Very High Sensitivity VLA 2 Centimeter Continuum Observations of the H II Region G29.96−0.02. *Alan L. Fey, Ralph A. Gaume, Mark J. Claussen, & Frederick J. Vrba.* 453, 308, 285-C14 (1995)

Warm Molecular Gas Associated with Cometary H II Regions. *Yolanda Gómez, Guido Garay, & Susana Lizano.* 453, 727, 293-G8 (1995)

Independent Confirmation of the 8.665 GHz Hyperfine Line of $^3He^+$ in W51. *M. B. Bell.* 453, 773, 294-E7 (1995)

Ionized Carbon in NGC 6334. *R. T. Boreiko & A. L. Betz.* 454, 307, 303-E3 (1995)

The H II Region Sharpless 170: A Multiscale Analysis of the Hα Velocity Field. *Marc-Antoine Miville-Deschênes, Gilles Joncas, & Daniel Durand.* 454, 316, 303-F1 (1995)

Accreting, Isolated Neutron Stars. III. Preheating of Infalling Gas and Cometary H II Regions. *Omer Blaes, Orlando Warren, & Piero Madau.* 454, 370, 304-D3 (1995)

Consequences of Dust in Metal-rich H II Regions. *Joseph C. Shields & Robert C. Kennicutt, Jr.* 454, 807, 313-A1 (1995)

The Star Formation Histories and Efficiencies of Two Giant H II Regions in M33. *Christine D. Wilson & Brenda C. Matthews.* 455, 125, 320-A1 (1995)

Young Star Clusters in Bright-rimmed Clouds: Small-Scale Sequential Star Formation? *Koji Sugitani, Motohide Tamura, & Katsuo Ogura.* 455, L39, 324-G9 (1995)

Wheels of Fire. I. Massive Star Formation in the Cartwheel Ring Galaxy. *James L. Higdon.* 455, 524, 329-B12 (1995)

H II Region Populations in Seyfert Galaxies. I. Database. *Zlatan I. Tsvetanov & Artashes R. Petrosian.* 101, 287, 57-F4 (1995)

ISM: INDIVIDUAL

Messier Number: M8

Chemical Composition of M8 Based on *IUE* and Visual Observations. *M. Peimbert, S. Torres-Peimbert, & R. J. Dufour.* 418, 760, 242-A8 (1993)

Messier Number: M17

Far-Infrared Observations of M17SW: The Clumpy Structure of the Photodissociation Region. *Margaret Meixner, Michael R. Haas, A. G. G. M. Tielens, E. F. Erickson, & M. Werner.* 390, 499, 81-E3 (1992)

CO Lines toward NGC 2024 and Other Star-forming Regions: A Closer Look at the Warm Gas Component. *U. U. Graf, A. Eckart, R. Genzel, A. I. Harris, A. Poglitsch, A. P. G. Russell, & J. Stutzki.* 405, 249, 44-B13 (1993)

Structure of Dense Cores in M17 SW. I. A Multitransition CS and $C^{34}S$ Study. *Yangsheng Wang, Daniel T. Jaffe, Neal J. Evans II, Masahiko Hayashi, Ken'ichi Tatematsu, & Shudong Zhou.* 419, 707, 256-D12 (1993)

CH_3C_2H as a Temperature Probe in Dense Giant Molecular Cloud Cores. *Edwin A. Bergin, Paul F. Goldsmith, Ronald L. Snell, & Hans Ungerechts.* 431, 674, 187-A3 (1994)

Identification of Ionizing Sources and Young Stellar Objects in M17. *Margaret Murray Hanson & Peter S. Conti.* 448, L45, 200-A9 (1995)

Messier Number: M42

A Search for the Rotational Transitions of H_2D^+ at 1370 GHz and H_3O^+ at 985 GHz. *R. T. Boreiko & A. L. Betz.* 405, L39, 47-F11 (1993)

Motion in the Orion Nebula: A Kinematic Study of [S III]. *Zheng Wen & C. R. O'Dell.* 409, 262, 100-D1 (1993)

NGC Number: NGC 595

The Molecular Interstellar Medium in Two Giant H II Regions in M33: NGC 604 and NGC 595. *Christine D. Wilson & Nick Scoville.* 385, 512, 19-E5 (1992)

Constraining the Influence of Star Formation on the Lowest ^{12}CO Line Ratios in M33. *Michele D. Thornley & Christine D. Wilson.* 421, 458, 23-G9 (1994)

The Star Formation Histories and Efficiencies of Two Giant H II Regions in M33. *Christine D. Wilson & Brenda C. Matthews.* 455, 125, 320-A1 (1995)

NGC Number: NGC 604

The Molecular Interstellar Medium in Two Giant H II Regions in M33: NGC 604 and NGC 595. *Christine D. Wilson & Nick Scoville.* 385, 512, 19-E5 (1992)

On the Supersonic Turbulence of NGC 604. *Nanci S. P. Sabalisck, Guillermo Tenorio-Tagle, Héctor O. Castañeda, & Casiana Muñoz-Tuñón.* 444, 200, 116-B8 (1995)

The Star Formation Histories and Efficiencies of Two Giant H II Regions in M33. *Christine D. Wilson & Brenda C. Matthews.* 455, 125, 320-A1 (1995)

NGC Number: NGC 1316

Planetary Nebulae as Standard Candles. IX. The Distance to the Fornax Cluster. *Russet McMillan, Robin Ciardullo, & George H. Jacoby.* 416, 62, 201-G7 (1993)

NGC Number: NGC 1333

Spectral Imaging of the 3.3 and 11.3 Micron Emission Bands in NGC 1333: Discovery of Spatially Separate Band Emissions. *Jesse Bregman, David Rank, Scott A. Sandford, & Pasquale Temi.* 410, 668, 122-A5 (1993)

A Molecular Line Study of NGC 1333/IRAS 4. *Geoffrey A. Blake, Göran Sandell, Ewine F. van Dishoeck, T. D. Groesbeck, Lee G. Mundy, & Colin Aspin.* 441, 689, 71-D13 (1995)

NGC Number: NGC 1399

Planetary Nebulae as Standard Candles. IX. The Distance to the Fornax Cluster. *Russet McMillan, Robin Ciardullo, & George H. Jacoby.* 416, 62, 201-G7 (1993)

NGC Number: NGC 1404

Planetary Nebulae as Standard Candles. IX. The Distance to the Fornax Cluster. *Russet McMillan, Robin Ciardullo, & George H. Jacoby.* 416, 62, 201-G7 (1993)

NGC Number: NGC 1976

Extinction and Scattering in the Orion Nebula: Comparison of Optical and VLA 21 Centimeter Studies. *C. R. O'Dell, Donald K. Walter, & Reginald J. Dufour.* 399, L67, 200-G12 (1992)

NGC Number: NGC 2023

Scattering of Infrared Radiation by Dust in NGC 7023 and NGC 2023. *K. Sellgren, M. W. Werner, & H. L. Dinerstein.* 400, 238, 211-G9 (1992)

High-Density CN Filaments in NGC 2023. *A. Fuente, J. Martín-Pintado, & R. Gaume.* 442, L33, 85-A11 (1995)

NGC Number: NGC 2024

High Spatial Resolution 1.3 Centimeter Imaging of the NGC 2024 Star-forming Region. *R. A. Gaume, K. J. Johnston, & T. L. Wilson.* 388, 489, 56-D1 (1992)

Orion B (NGC 2024). III. BIMA SO $J_K = 2_2 \rightarrow 1_1$ Observations: Evidence for Peculiar Sulfur Chemistry. *Peter J. Barnes & Richard M. Crutcher.* 389, 325, 64-A5 (1992)

CO Lines toward NGC 2024 and Other Star-forming Regions: A Closer Look at the Warm Gas Component. *U. U. Graf, A. Eckart, R. Genzel, A. I. Harris, A. Poglitsch, A. P. G. Russell, & J. Stutzki.* 405, 249, 44-B13 (1993)

A Flattened Cloud Core in NGC 2024. *Paul T. P. Ho, Yun-Lou Peng, José M. Torrelles, José F. Gómez, Luis F. Rodríguez, & Jorge Cantó.* 408, 565, 92-C1 (1993)

A Near-Infrared Reflection Nebula Associated with NGC 2024 FIR 4. *T. J. T. Moore & T. Yamashita.* 440, 722, 53-B6 (1995)

NGC Number: NGC 2071

Structure, Chemistry, and Clumping in the NGC 2071 (North) Molecular Cloud. *Paul F. Goldsmith, Michael Margulis, Ronald L. Snell, & Y. Fukui.* 385, 522, 19-F3 (1992)

High-Velocity OH in Absorption: A New Tracer of Shocked Gas in Outflows? *A. Ruiz, L. F. Rodríguez, J. Cantó, & I. F. Mirabel.* 398, 139, 183-F3 (1992)

High-Velocity Hot Ammonia in Bipolar Outflows. *R. Bachiller, J. Martín-Pintado, & A. Fuente.* 417, L45, 223-D1 (1993)

J H K L Imaging and *K* Polarimetry of the Bipolar Outflow NGC 2071. *D. M. Walther, E. I. Robson, C. Aspin, & W. R. F. Dent.* 418, 310, 234-G9 (1993)

NGC Number: NGC 2264

The Morphology of a Bright Rim in NGC 2264: Early Stages of High-Mass Star Formation. *Jan A. Tauber, Dariusz C. Lis, & Paul F. Goldsmith.* 403, 202, 16-D10 (1993)

Cometary Globules in the Southeast Quadrant of the Rosette Nebula. *Nimesh A. Patel, Taoling Xie, & Paul F. Goldsmith.* 413, 593, 163-G7 (1993)

NGC Number: NGC 2264G

The Molecular Core and the Powering Source of the Bipolar Molecular Outflow in NGC 2264G. *José F. Gómez, Salvador Curiel, José M. Torrelles, Luis F. Rodríguez, Guillem Anglada, & José M. Girart.* 436, 749, 275-G1 (1994)

NGC Number: NGC 2359

On the Wind-powered Nebula NGC 2359 and the WN Star HD 56925. *Yang Chen, Zhen-ru Wang, & Qin-yue Qu.* 438, 950, 17-C1 (1995)

NGC Number: NGC 2363

The Origin of Broad Emission Lines in the Extragalactic Giant H II Region NGC 2363. *Jean-René Roy, Martin Aubé, Marshall L. McCall, & R. J. Dufour.* 386, 498, 31-E7 (1992)

Violent Star Formation in NGC 2363. *Rosa M. González-Delgado, Enrique Pérez, Guillermo Tenorio-Tagle, José M. Vílchez, Elena Terlevich, Roberto Terlevich, Eduardo Telles, José M. Rodríguez-Espinosa, Miguel Mas-Hesse, María Luisa García-Vargas, Ángeles I. Díaz, Jordi Cepa, & Hector Castañeda.* 437, 239, 286-D10 (1994)

NGC Number: NGC 3603

NGC 3603 and Its Wolf-Rayet Stars: Galactic Clone of R136 at the Core of 30 Doradus, but without the Massive Surrounding Cluster Halo. *Anthony F. J. Moffat, Laurent Drissen, & Michael M. Shara.* 436, 183, 263-F7 (1994)

NGC Number: NGC 6165

Hubble Space Telescope Imaging of the Wind-blown Lobe NGC 6165. *Paul Scowen, Jeff Hester, Arthur Code, Glen Mackie, C. Roger Lynds, & Earl J. O'Neil, Jr.* 450, 196, 230-F9 (1995)

NGC Number: NGC 6334

Shock-excited NH_3 (3,3) Masers in the NGC 6334 Star-forming Region. *Kathleen E. Kraemer & James M. Jackson.* 439, L9, 29-F7 (1995)

Ammonia Observations of NGC 6334 I(N). *T. B. H. Kuiper, W. L. Peters III, J. R. Forster, F. F. Gardner, & J. B. Whiteoak.* 446, 692, 165-E13 (1995)

Rotation and Outflow in Compact H II Regions: VLA Observations of the Molecular and Ionized Gas in NGC 6334A and NGC 6334F. *C. G. De Pree, L. F. Rodríguez, H. R. Dickel, & W. M. Goss.* 447, 220, 175-C8 (1995)

Ionized Carbon in NGC 6334. *R. T. Boreiko & A. L. Betz.* 454, 307, 303-E3 (1995)

NGC Number: NGC 6888

An Infrared Study of Three Wolf-Rayet Ring Nebulae. *J. S. Mathis, J. P. Cassinelli, K. A. van der Hucht, T. Prusti, P. R. Wesselius, & P. M. Williams.* 384, 197, 3-D5 (1992)

On the Chemodynamics of Wolf-Rayet Ring Nebulae: NGC 6888. *César Esteban & José M. Vílchez.* 390, 536, 82-A7 (1992)

Wolf-Rayet Bubbles. I. Analytic Solutions. *Guillermo García-Segura & Mordecai-Mark Mac Low.* 455, 145, 320-B13 (1995)

NGC Number: NGC 7023

Scattering of Infrared Radiation by Dust in NGC 7023 and NGC 2023. *K. Sellgren, M. W. Werner, & H. L. Dinerstein.* 400, 238, 211-G9 (1992)

Hopkins Ultraviolet Telescope Observations of Far-Ultraviolet Scattering in NGC 7023: The Dust Albedo. *Jayant Murthy, Andrew Dring, Richard C. Henry, Jeffrey W. Kruk, William P. Blair, Randy A. Kimble, & Samuel T. Durrance.* 408, L97, 95-E3 (1993)

Voyager 2 Observations of NGC 7023: Dust Scattering Shortward of 1600 Å. *A. N. Witt, J. K. Petersohn, J. B. Holberg, J. Murthy, A. Dring, & R. C. Henry.* 410, 714, 122-E13 (1993)

H I, CO, and *IRAS* Observations of NGC 7023. *C. Rogers, Mark H. Heyer, & P. E. Dewdney.* 442, 694, 89-F10 (1995)

NGC Number: NGC 7026

Collisional Effects in He I: An Observational Analysis. *J. Kingdon & G. J. Ferland.* 442, 714, 90-A8 (1995)

NGC Number: NGC 7027

The Radiative Association of He^+ and He and H^+ and H. *P. C. Stancil, J. F. Babb, & A. Dalgarno.* 414, 672, 179-E8 (1993)

NGC Number: NGC 7129

Discovery of a Deeply Embedded Companion to LkHα 234. *David A. Weintraub, Joel H. Kastner, & Ashwin Mahesh.* 420, L87, 15-F1 (1994)

NGC Number: NGC 7538

Are the NGC 7538 Formaldehyde Masers Really Unusual? *Preethi Pratap, Lewis E. Snyder, & Wolfgang Batrla.* 387, 241, 40-A1 (1992)

The NGC 7538 IRS 1 Region of Star Formation: Observations of the H66α Recombination Line with a Spatial Resolution of 300 AU. *R. A. Gaume, W. M. Goss, H. R. Dickel, T. L. Wilson, & K. J. Johnston.* 438, 776, 15-A1 (1995)

An HCO^+ Study of NGC 7538, IRS 9, and GL 490. *Tatsuhiko I. Hasegawa & George F. Mitchell.* 441, 665, 71-B11 (1995)

Search for 6 Centimeter Formaldehyde Masers in 22 Galactic Star-forming Regions. *David M. Mehringer, W. M. Goss, & Patrick Palmer.* 452, 304, 266-C8 (1995)

NGC Number: NGC 7635

Scattering and Luminescence in the Bubble Nebula. *Jean-Pierre Sivan & Jean-Marie Perrin.* 404, 258, 31-B1 (1993)

Name: R Aquarii

Evidence for Precession of the R Aquarii Jet. *J. M. Hollis & A. G. Michalitsianos.* 411, 235, 130-B3 (1993)

Name: Barnard 1

Structure and Evolution of Magnetically Supported Molecular Clouds: Evidence for Ambipolar Diffusion in the Barnard 1 Cloud. *R. M. Crutcher, Telemachos Ch. Mouschovias, T. H. Troland, & Glenn E. Ciolek.* 427, 839, 123-A13 (1994)

Name: Barnard 5

Hierarchical Structure Analysis of Interstellar Clouds Using Nonorthogonal Wavelets. *William D. Langer, Robert W. Wilson, & Charles H. Anderson.* 408, L45, 89-C7 (1993)

Name: Becklin-Neugebauer

Near-Infrared Imaging of the Becklin-Neugebauer–IRc2 Region in Orion with Subarcsecond Resolution. *C. Dougados, P. Léna, S. T. Ridgway, J. C. Christou, & R. G. Probst.* 406, 112, 56-E5 (1993)

The Effect of Grain Mantles and Grain Shape upon the 9.7 and 18 Micron Silicate Features. *James E. O'Donnell.* 437, 262, 286-F10 (1994)

What is Powering the Orion Kleinmann-Low Infrared Nebula? *Karl M. Menten & Mark J. Reid.* 445, L157, 152-A12 (1995)

Subarcsecond-Resolution 86 GHz Continuum Maps of Orion KL. *R. L. Plambeck, M. C. H. Wright, L. G. Mundy, & L. W. Looney.* 455, L189, 334-G10 (1995)

Name: η Carinae

High-Resolution 6450–24500 Å Spectra of η Carinae. *Fred Hamann, D. L. DePoy, Sveneric Johansson, & Jay Elias.* 422, 626, 39-F1 (1994)

Name: Carina Nebula

High-Resolution Images of the Dust and Ionized Gas Distribution in the Carina Nebula. *Jonathan B. Z. Whiteoak.* 429, 225, 146-G7 (1994)

Name: Cassiopeia A

High-Resolution Measurements of NH_3 Absorption toward Cassiopeia A. *R. A. Gaume, T. L. Wilson, & K. J. Johnston.* 425, 127, 81-G1 (1994)

The Three-dimensional Structure of the Cassiopeia A Supernova Remnant. I. The Spherical Shell. *Jeri E. Reed, J. Jeff Hester, A. C. Fabian, & P. F. Winkler.* 440, 706, 53-A1 (1995)

The Polarization and Depolarization of Radio Emission from Supernova Remnant Cassiopeia A. *M. C. Anderson, J. W. Keohane, & L. Rudnick.* 441, 300, 63-D7 (1995)

The Deceleration Powering of Synchrotron Emission from Ejecta Components of Supernova Remnant Cassiopeia A. *M. C. Anderson & L. Rudnick.* 441, 307, 63-E9 (1995)

CGRO/OSSE Observations of the Cassiopeia A Supernova Remnant. *L.-S. The, M. D. Leising, D. D. Clayton, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, G. V. Jung, D. A. Grabelsky, W. R. Purcell, & M. P. Ulmer.* 444, 244, 116-G4 (1995)

Evidence for Thermal Absorption inside Cassiopeia A. *N. E. Kassim, R. A. Perley, K. S. Dwarakanath, & W. C. Erickson.* 455, L59, 325-C8 (1995)

Name: PV Cephei

Radio Continuum from the Powering Sources of the RNO 43, Haro 4-255 FIR, B335, and PV Cephei Outflows and from the Herbig-Haro Object 32A. *G. Anglada, L. F. Rodríguez, J. Cantó, R. Estalella, & J. M. Torrelles.* 395, 494, 148-G1 (1992)

Name: Cepheus A

A Circumstellar Molecular Gas Structure Associated with the Massive Young Star Cepheus A–HW 2. *José M. Torrelles, Luis F. Rodríguez, Jorge Cantó, & Paul T. P. Ho.* 404, L75, 40-F1 (1993)

From Bipolar to Quadrupolar: The Collimation Processes of the Cepheus A Outflow. *José M. Torrelles, Lourdes Verdes-Montenegro, Paul T. P. Ho, Luis F. Rodríguez, & Jorge Cantó.* 410, 202, 114-F1 (1993)

Cepheus A HW2: A Powerful Thermal Radio Jet. *Luis F. Rodríguez, Guido Garay, Salvador Curiel, Solange Ramírez, José M. Torrelles, Yolanda Gómez, & Arturo Velázquez.* 430, L65, 166-B2 (1994)

CH_3C_2H as a Temperature Probe in Dense Giant Molecular Cloud Cores. *Edwin A. Bergin, Paul F. Goldsmith, Ronald L. Snell, & Hans Ungerechts.* 431, 674, 187-A3 (1994)

The Distribution of Warm Dust in the Star-forming Region Cepheus A: Infrared Constraints. *Cecilia Colomé & Paul M. Harvey.* 449, 656, 221-F8 (1995)

Name: Cepheus OB3

A Multitransitional CO Study of the Cepheus C Cloud Core. *M. H. Heyer & E. F. Ladd.* 439, 269, 24-G10 (1995)

Name: Chameleon I

ROSAT X-Ray Study of the Chamaeleon I Dark Cloud. I. The Stellar Population. *Eric D. Feigelson, Sophie Casanova, Thierry Montmerle, & Jean Guibert.* 416, 623, 211-B8 (1993)

Name: Coalsack

Voyager Observations of Dust Scattering near the Coalsack Nebula. *Jayant Murthy, R. C. Henry, & J. B. Holberg.* 428, 233, 131-A13 (1994)

Name: Corona Australis Cloud

IRAS Observations of Young Stellar Objects in the Corona Australis Dark Cloud. *Bruce A. Wilking, Thomas P. Greene, Charles J. Lada, Michael R. Meyer, & Erick T. Young.* 397, 520, 177-C9 (1992)

Ice Grains in the Corona Australis Molecular Cloud. *W. P. Chen & J. A. Graham.* 409, 319, 101-A11 (1993)

The Nature of CO and H_2O Ices in the Corona Australis Molecular Cloud. *Masuo Tanaka, Tetsuya Nagata, Shuji Sato, & Tetsuo Yamamoto.* 430, 779, 171-E8 (1994)

Name: Crab Nebula

Relativistic Magnetosonic Shock Waves in Synchrotron Sources: Shock Structure and Nonthermal Acceleration of Positrons. *Masahiro Hoshino, Jonathan Arons, Yves A. Gallant, & A. Bruce Langdon.* 390, 454, 81-A9 (1992)

Relativistic, Perpendicular Shocks in Electron-Positron Plasmas. *Yves A. Gallant, Masahiro Hoshino, A. Bruce Langdon, Jonathan Arons, & Claire E. Max.* 391, 73, 87-A1 (1992)

Activity and Radio Spectral Index Variations near the Center of the Crab Nebula. *M. F. Bietenholz & P. P. Kronberg.* 393, 206, 116-F1 (1992)

Ultraviolet Imaging Telescope Observations of the Crab Nebula. *Gregory S. Hennessy, Robert W. O'Connell, Kwang P. Cheng, Ralph C. Bohlin, Nicholas R. Collins, Theodore R. Gull, Paul Hintzen, Joan E. Isensee, Wayne B. Landsman, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L13, 144-E5 (1992)

The Expected High-Energy to Ultra–High-Energy Gamma-Ray Spectrum of the Crab Nebula. *O. C. de Jager & A. K. Harding.* 396, 161, 157-B6 (1992)

An Axisymmetric Magnetohydrodynamic Model for the Crab Pulsar Wind Bubble. *Mitchell C. Begelman & Zhi-yun Li.* 397, 187, 170-C11 (1992)

The Synchrotron Bays of the Crab Nebula: A Magnetic Structure Associated with a Presupernova Circumstellar Disk. *Robert A. Fesen, Crystal L. Martin, & J. Michael Shull.* 399, 599, 205-C7 (1992)

Far-Ultraviolet Observations of the Crab Nebula Using the Hopkins Ultraviolet Telescope. *William P. Blair, Knox S. Long, Olaf Vancura, Charles W. Bowers, Sarah Conger, Arthur F. Davidsen, Gerard A. Kriss, & Richard B. C. Henry.* 399, 611, 205-E1 (1992)

Formation of the Dark Bays in the Crab Optical Synchrotron Nebula: Is the Crab Pulsar Wind Bubble Interacting with Its Progenitor's Wind? *Zhi-Yun Li & Mitchell C. Begelman.* 400, 186, 211-C1 (1992)

Survey of Candidate Gamma-Ray Sources at TeV Energies Using a High-Resolution Cerenkov Imaging System: 1988–1991. *P. T. Reynolds, C. W. Akerlof, M. F. Cawley, M. Chantell, D. J. Fegan, A. M. Hillas, R. C. Lamb, M. J. Lang, M. A. Lawrence, D. A. Lewis, D. Macomb, D. I. Meyer, G. Mohanty, K. S. O'Flaherty, M. Punch, M. S. Schubnell, G. Vacanti, T. C. Weekes, & T. Whitaker.* 404, 206, 30-D11 (1993)

Observations of the Crab Pulsar and Nebula by the EGRET Telescope on the *Compton Gamma-Ray Observatory*. *P. L. Nolan, Z. Arzoumanian, D. L. Bertsch, J. Chiang, C. E. Fichtel, J. M. Fierro, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, H. I. Nel, D. Nice, K. Pinkau, H. Rothermel, E. Schneid, M. Sommer, P. Sreekumar, J. H. Taylor, & D. J. Thompson.* 409, 697, 107-F8 (1993)

Alfvénic Fluctuations in a Relativistic Wind with a Spiral Magnetic Field and Random Magnetic Field Structures in the Crab Nebula. *Yu-Qing Lou.* 414, 656, 179-D2 (1993)

The Crab Nebula's Cosmic-Ray Acceleration Zone Revealed. *P. P. Kronberg, H. Lesch, P. F. Ortiz, & M. F. Bietenholz.* 416, 251, 204-B13 (1993)

Three-dimensional Propagation of Transverse Magnetohydrodynamic Perturbations in Relativistic Winds. *Yu-Qing Lou.* 418, 709, 241-C12 (1993)

SMM Observations of Gamma-Ray Transients. II. A Search for Gamma-Ray Lines between 400 and 600 keV from the Crab Nebula. *Michael J. Harris, Gerald H. Share, & Mark D. Leising.* 420, 649, 10-G1 (1994)

Relativistic Particle Acceleration in Plerions. *Jonathan Arons & Marco Tavani.* 90, 797, 13-F1 (1994)

Unpulsed High-Energy Radiation from the Crab Pulsar and Nebula. *W. M. Cheung & K. S. Cheng.* 90, 827, 14-A11 (1994)

0.95–1.3 Micron Spectrophotometry of Two Bright Filaments of the Crab Nebula. *Richard J. Rudy, George S. Rossano, & R. C. Puetter.* 426, 646, 106-D10 (1994)

Observation of Transient High-Energy Emission Features in the Spectra of Black Hole Candidates and the Crab Nebula by *GRANAT*/SIGMA.

M. Gilfanov, E. Churazov, R. Sunyaev, N. Khavenson, B. Novikov, A. Dyachkov, I. Tserenin, K. Sukhanov, L. Bouchet, M. Denis, M. C. Schmitz-Fraysse, P. Mandrou, J. Paul, B. Cordier, A. Goldwurm, & F. Lebrun. 92, 411, 37-C6 (1994)

Extraordinary Line-emitting Knots in the Crab Nebula. *Gordon M. MacAlpine, Stephen S. Lawrence, Beth A. Brown, Alan Uomoto, Bruce E. Woodgate, Larry W. Brown, Ronald J. Oliversen, James D. Lowenthal, & Charles Liu.* 432, L131, 207-C5 (1994)

Structure of Relativistic Shocks in Pulsar Winds: A Model of the Wisps in the Crab Nebula. *Yves A. Gallant & Jonathan Arons.* 435, 230, 246-E4 (1994)

WFPC2 Studies of the Crab Nebula. I. *HST* and *ROSAT* Imaging of the Synchrotron Nebula. *J. Jeff Hester, Paul A. Scowen, Ravi Sankrit, Christopher J. Burrows, John S. Gallagher III, Jon A. Holtzman, Alan Watson, John T. Trauger, Gilda E. Ballester, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, Richard E. Griffiths, John G. Hoessel, John Krist, Roger Lynds, Jeremy R. Mould, Earl J. O'Neil, Jr., Karl R. Stapelfeldt, & James A. Westphal.* 448, 240, 195-D12 (1995)

Name: Cygnus Loop

Global O VI Line Emission from the Cygnus Loop Supernova Remnant and Direct Kinematic Measurement of the Associated Shock. *Andrew Rasmussen & Christopher Martin.* 396, L103, 167-E7 (1992)

Spectroscopy of a Balmer-dominated Filament in the Cygnus Loop with the Hopkins Ultraviolet Telescope. *Knox S. Long, William P. Blair, Olaf Vancura, Charles W. Bowers, Arthur F. Davidsen, & John C. Raymond.* 400, 214, 211-E8 (1992)

Infrared Emission from X-Ray and Optically Emitting Regions in the Cygnus Loop Supernova Remnant. *Richard G. Arendt, Eli Dwek, & David Leisawitz.* 400, 562, 217-D1 (1992)

A Far-Ultraviolet Study of the Cygnus Loop Using the *Voyager* Ultraviolet Spectrometers. *Olaf Vancura, William P. Blair, Knox S. Long, John C. Raymond, & J. B. Holberg.* 417, 663, 227-E11 (1993)

The Balmer-dominated Northeast Limb of the Cygnus Loop Supernova Remnant. *J. Jeff Hester, John C. Raymond, & William P. Blair.* 420, 721, 11-G7 (1994)

A Study of X-Ray and Infrared Emissions from Dusty Nonradiative Shock Waves. *Olaf Vancura, John C. Raymond, Eli Dwek, William P. Blair, Knox S. Long, & Scott Foster.* 431, 188, 178-D13 (1994)

An X-Ray and Optical Study of the Interaction of the Cygnus Loop Supernova Remnant with an Interstellar Cloud. *James R. Graham, N. A. Levenson, J. J. Hester, J. C. Raymond, & R. Petre.* 444, 787, 127-C8 (1995)

Name: Cygnus X

A Complete CO Survey of the Cygnus X Region. *Helen O. Leung & P. Thaddeus.* 81, 267, 38-F3 (1992)

An *IRAS* Survey of Star-forming Regions toward Cygnus. *Sten F. Odenwald & Phil R. Schwartz.* 405, 706, 51-G7 (1993)

Name: 30 Doradus

A New Luminous Blue Variable: R143 in 30 Doradus. *Joel Wm. Parker, Geoffrey C. Clayton, Cláudia Winge, & Peter S. Conti.* 409, 770, 108-F3 (1993)

30 Doradus: Ultraviolet and Optical Stellar Photometry. *Jesse K. Hill, Ralph C. Bohlin, Kwang-Ping Cheng, Michael N. Fanelli, Paul Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 413, 604, 164-A5 (1993)

Kinematic Structure of the 30 Doradus Giant H II Region. *You-Hua Chu & Robert C. Kennicutt, Jr.* 425, 720, 90-F1 (1994)

Far-Infrared Lines from H II Regions: Abundance Variations in the Galaxy. *Janet P. Simpson, Sean W. J. Colgan, Robert H. Rubin, Edwin F. Erickson, & Michael R. Haas.* 444, 721, 126-C6 (1995)

Gas near the Center of 30 Doradus As Revealed by *Hubble Space Telescope* Images. *Deidre A. Hunter, Edward J. Shaya, Paul Scowen, J. Jeff Hester, Edward J. Groth, Roger Lynds, & Earl J. O'Neil, Jr.* 444, 758, 126-F11 (1995)

A Multiwavelength Study of 30 Doradus: The Interstellar Medium in a Low-Metallicity Galaxy. *A. Poglitsch, A. Krabbe, S. C. Madden, T. Nikola, N. Geis, L. E. B. Johansson, G. J. Stacey, & A. Sternberg.* 454, 293, 303-C8 (1995)

Name: Eridanus

The Separation between Gas and Dust Filaments at the Edge of the Expanding Shell in Eridanus. *G. L. Verschuur, L. J Rickard, F. Verter, M. W. Pound, & D. Leisawitz.* 390, 514, 81-F7 (1992)

A Multiwavelength Study of the Eridanus Soft X-Ray Enhancement. *D. N. Burrows, K. P. Singh, J. A. Nousek, G. P. Garmire, & J. Good.* 406, 97, 56-C7 (1993)

Voyager Observations of Diffuse Far-Ultraviolet Continuum and Line Emission in Eridanus. *Jayant Murthy, M. Im, R. C. Henry, & J. B. Holberg.* 419, 739, 256-G7 (1993)

Name: Gemini OB1

Anatomy of the Gemini OB1 Molecular Cloud Complex. *John M. Carpenter, Ronald L. Snell, & F. Peter Schloerb.* 445, 246, 136-A4 (1995)

Star Formation in the Gemini OB1 Molecular Cloud Complex. *John M. Carpenter, Ronald L. Snell, & F. Peter Schloerb.* 450, 201, 230-G5 (1995)

Name: Gum Nebula

Discovery of X-Ray Emission Associated with the Gum Nebula. *D. A. Leahy, J. Nousek, & G. Garmire.* 385, 561, 20-B4 (1992)

Highly Ionized Gas in the Gum Nebula and Elsewhere: A Comparison of *IUE* and *Copernicus* Satellite Results. *Richard J. Edgar & Blair D. Savage.* 396, 124, 156-F4 (1992)

Implications of ^{26}Al Emission at 1.8 MeV from the Vela Region. *U. Oberlack, R. Diehl, T. Montmerle, N. Prantzos, & P. von Ballmoos.* 92, 433, 37-E7 (1994)

Name: Haro 4-255 FIR

Radio Continuum from the Powering Sources of the RNO 43, Haro 4-255 FIR, B335, and PV Cephei Outflows and from the Herbig-Haro Object 32A. *G. Anglada, L. F. Rodríguez, J. Cantó, R. Estalella, & J. M. Torrelles.* 395, 494, 148-G1 (1992)

Molecular Cloud Core and CS Outflow Associated with Haro 4-255 FIR. *Ken'ichi Tatematsu, Tomofumi Umemoto, Yasuhiro Murata, Hua Chen, Naomi Hirano, & Hiroshi Takaba.* 419, 746, 257-A1 (1993)

Name: HVC Complex M

A Determination of the Distance to the High-Velocity Cloud Complex M. *Laura Danly, C. E. Albert, & K. D. Kuntz.* 416, L29, 207-D13 (1993)

Name: Kepler's Supernova

Dynamics of Kepler's Supernova Remnant. *Kazimierz J. Borkowski, John M. Blondin, & Craig L. Sarazin.* 400, 222, 211-F5 (1992)

On the X-Ray Spectrum of Kepler's Supernova Remnant. *Kazimierz J. Borkowski, Craig L. Sarazin, & John M. Blondin.* 429, 710, 154-E1 (1994)

Name: Kesteven 79

A *ROSAT* Observation of the Supernova Remnant Kesteven 79. *F. D. Seward & T. Velusamy.* 439, 715, 34-D13 (1995)

Name: Lynds 134

Moderate-Density Regions in the Lynds 134 Cloud Complex. *R. J. Laureijs, Y. Fukui, G. Helou, A. Mizuno, K. Imaoka, & F. O. Clark.* 101, 87, 54-A10 (1995)

Name: Lynds 1457

The Magnetic Field in Lynds 1457: Multiband Photopolarimetry. *B-G Andersson & Peter G. Wannier.* 443, L49, 103-B2 (1995)

Name: Maddalena Cloud

Determining Structure in Molecular Clouds. *Jonathan P. Williams, Eugène J. de Geus, & Leo Blitz.* 428, 693, 139-A1 (1994)

Name: Monoceros OB1

The Dense Gas Component of Outflows in the Monoceros OB1 Dark Cloud. *Grace A. Wolf-Chase & Christopher K. Walker.* 447, 244, 175-F4 (1995)

Name: Monoceros R2

High-Resolution Imaging of the Galactic Cloud Monoceros R2. *Constantine P. Gonatas, Patrick Palmer, & G. Novak.* 398, 118, 183-D7 (1992)

A Near-Infrared Study of the Monoceros R2 Star Formation Region. *Eric M. Howard, Judith L. Pipher, & William J. Forrest.* 425, 707, 90-D12 (1994)

The Giant Molecular Cloud Monoceros R2. I. Shell Structure. *Taoling Xie & Paul F. Goldsmith.* 430, 252, 162-B13 (1994)

Magnetic Field Structure in Monoceros R2. *T. H. Jarrett, G. Novak, T. Xie, & P. F. Goldsmith.* 430, 743, 171-B6 (1994)

Dense Clumps in the Monoceros R2 Outflow. *M. Tafalla, R. Bachiller, & M. C. H. Wright.* 432, L127, 207-B13 (1994)

Name: ρ Ophiuchi

Near-Infrared Observations of Young Stellar Objects in the ρ Ophiuchi Dark Cloud. *Thomas P. Greene & Erick T. Young.* 395, 516, 149-B5 (1992)

VLBI Survey of ρ Ophiuchi: A Population of Magnetized, Diskless Young Stellar Objects. *Philippe André, Bryan D. Deeney, Robert B. Phillips, & Jean-François Lestrade.* 401, 667, 230-G1 (1992)

From T Tauri Stars to Protostars: Circumstellar Material and Young Stellar Objects in the ρ Ophiuchi Cloud. *Philippe André & Thierry Montmerle.* 420, 837, 13-C12 (1994)

Gamma-Ray Observations of Ophiuchus with EGRET: The Diffuse Emission and Point Sources. *S. D. Hunter, S. W. Digel, E. J. de Geus, & G. Kanbach.* 436, 216, 264-B12 (1994)

10 Micron Spectroscopy of Young Stars in the ρ Ophiuchi Cloud. *M. S. Hanner, T. Y. Brooke, & A. T. Tokunaga.* 438, 250, 4-G9 (1995)

The Evolutionary Status of the Stellar Population in the ρ Ophiuchi Cloud Core. *Karen M. Strom, Jeremy Kepner, & Stephen E. Strom.* 438, 813, 15-D7 (1995)

ROSAT X-Ray Sources Embedded in the ρ Ophiuchi Cloud Core. *Sophie Casanova, Thierry Montmerle, Eric D. Feigelson, & Philippe André.* 439, 752, 35-A7 (1995)

Name: ρ Ophiuchi Cloud

A [C II] 158 Micron Line Map of the ρ Ophiuchi Cloud. *Yukari Yamashita Yui, Takao Nakagawa, Yasuo Doi, Haruyuki Okuda, Hiroshi Shibai, Tetsuo Nishimura, & Frank J. Low.* 419, L37, 252-F3 (1993)

Diffuse Band Profiles in the ρ Ophiuchi Cloud. *C. Gregory Seab & Theodore P. Snow, Jr.* 443, 698, 107-E1 (1995)

Name: ζ Ophiuchi Cloud

Determination of $^{12}C/^{13}C$ in the Interstellar Medium toward ζ Ophiuchi and ξ Persei. *Isabel Hawkins, Nahide Craig, & David M. Meyer.* 407, 185, 71-D1 (1993)

Name: Orion B

Global Star Formation in the L1630 Molecular Cloud. *Elizabeth A. Lada.* 393, L25, 120-D7 (1992)

High-Resolution H I Observations of H II Regions. III. Photodissociation Regions and the Magnetic Field near Orion B. *Paul P. van der Werf, W. M. Goss, Carl Heiles, R. M. Crutcher, & T. H. Troland.* 411, 247, 130-C8 (1993)

Name: Orion Complex

The Implications of Gamma-Ray Lines Observed from the Orion Complex. *Ramanath Cowsik & Michael W. Friedlander.* 444, L29, 121-E8 (1995)

Name: Orion Kleinmann-Low

High-Resolution Images of Dust Emission from Orion-KL. *Melvyn Wright, Goeran Sandell, David J. Wilner, & Richard L. Plambeck.* 393, 225, 117-A1 (1992)

N_2H^+ in the Orion Ambient Ridge: Cloud Clumping versus Rotation. *Maria Womack, L. M. Ziurys, & L. J. Sage.* 406, L29, 61-A1 (1993)

The Spectrum of Orion-KL at 2 Millimeters (150–160 GHz). *L. M. Ziurys & Douglas McGonagle.* 89, 155, 50-G13 (1993)

Confirmation of Interstellar Methylene. *J. M. Hollis, P. R. Jewell, & F. J. Lovas.* 438, 259, 5-A8 (1995)

What is Powering the Orion Kleinmann-Low Infrared Nebula? *Karl M. Menten & Mark J. Reid.* 445, L157, 152-A12 (1995)

The Detection and Mapping Observations of C_2H_5OH in Orion Kleinmann-Low. *Masatoshi Ohishi, Shin-ichi Ishikawa, Satoshi Yamamoto, Shuji Saito, & Takayoshi Amano.* 446, L43, 160-G7 (1995)

Name: Orion Nebula

Faint Emission Lines in the Spectrum of the Orion Nebula and the Abundances of Some of the Rarer Elements. *Donald E. Osterbrock, Hien D. Tran, & Sylvain Veilleux.* 389, 305, 63-F11 (1992)

Evidence for Large-Scale Expanding Motions within the Orion A Molecular Cloud. *M. H. Heyer, J. Morgan, F. P. Schloerb, R. L. Snell, & P. F. Goldsmith.* 395, L99, 154-B1 (1992)

CNO Abundances and Temperature Fluctuations in the Orion Nebula. *Donald K. Walter, Reginald J. Dufour, & J. Jeff Hester.* 397, 196, 170-D7 (1992)

CO (v = 1–0) Emission in the Molecular Shock Regions of OMC-1. *G. L. Grasdalen, John A. Hackwell, David K. Lynch, & Ray W. Russell.* 397, L119, 181-E13 (1992)

Imaging Spectrophotometry of the Orion Nebula Core. I. Emission-Line Mapping and Physical Conditions. *Richard W. Pogge, J. Michael Owen, & Bruce Atwood.* 399, 147, 197-A9 (1992)

Extinction and Scattering in the Orion Nebula: Comparison of Optical and VLA 21 Centimeter Studies. *C. R. O'Dell, Donald K. Walter, & Reginald J. Dufour.* 399, L67, 200-G12 (1992)

Identification of Velocity Systems in the Inner Orion Nebula. *C. R. O'Dell, Jacobus H. Valk, Zheng Wen, & David M. Meyer.* 403, 678, 24-B4 (1993)

158 Micron [C II] Mapping of the Orion Molecular Cloud. *G. J. Stacey, D. T. Jaffe, N. Geis, R. Genzel, A. I. Harris, A. Poglitsch, J. Stutzki, & C. H. Townes.* 404, 219, 30-E11 (1993)

Molecular Cloud Cores in the Orion A Cloud. I. Nobeyama CS (1–0) Survey. *Ken'ichi Tatematsu, Tomofumi Umemoto, Osamu Kameya, Naomi Hirano, Tetsuo Hasegawa, Masahiko Hayashi, Takahiro Iwata, Norio Kaifu, Hitomi Mikami, Yasuhiro Murata, Makoto Nakano, Takenori Nakano, Nagayoshi Ohashi, Kazuyoshi Sunada, Hiroshi Takaba, & Satoshi Yamamoto.* 404, 643, 37-A5 (1993)

Effects of Magnetic Fields and Rotation on the Fragmentation of Filamentary Molecular Clouds: Comparison of the Theory with the Orion A Cloud. *Tomoyuki Hanawa, Fumitaka Nakamura, Tomoaki Matsumoto, Takenori Nakano, Ken'ichi Tatematsu, Tomofumi Umemoto, Osamu Kameya, Naomi Hirano, Tetsuo Hasegawa, Norio Kaifu, & Satoshi Yamamoto.* 404, L83, 40-G1 (1993)

Hard X-Rays from the Orion Nebula Region. *Shigeo Yamauchi & Katsuji Koyama.* 405, 268, 44-D8 (1993)

Structure and Chemistry of Orion S. *Joseph P. McMullin, Lee G. Mundy, & Geoffrey A. Blake.* 405, 599, 50-E5 (1993)

Motion in the Orion Nebula: A Kinematic Study of [S III]. *Zheng Wen & C. R. O'Dell.* 409, 262, 100-D1 (1993)

The Physical Structure of Orion-KL on 2500 AU Scales Using the K-Doublet Transitions of Formaldehyde. *Jeffrey G. Mangum, Alwyn Wootten, & Richard L. Plambeck.* 409, 282, 100-E13 (1993)

Extended CO(7→6) Emission from Warm Gas in Orion. *J. E. Howe, D. T. Jaffe, E. N. Grossman, W. F. Wall, J. G. Mangum, & G. J. Stacey.* 410, 179, 114-D1 (1993)

Discovery of New Objects in the Orion Nebula on *HST* Images: Shocks, Compact Sources, and Protoplanetary Disks. *C. R. O'Dell, Zheng Wen, & Xihai Hu.* 410, 696, 122-C11 (1993)

Interferometric Observations for Oxygen-containing Organic Molecules toward Orion-KL. *Y. C. Minh, M. Ohishi, D. G. Roh, M. Ishiguro, & W. M. Irvine.* 411, 773, 139-D3 (1993)

Silicon and Carbon Abundances in the Orion Nebula. *Robert H. Rubin, Reginald J. Dufour, & Donald K. Walter.* 413, 242, 159-C6 (1993)

Fabry-Perot Imaging of Molecular Hydrogen Emission in Orion-KL Region. *Hajime Sugai, Tomonori Usuda, Hirokazu Kataza, Masuo Tanaka, Motoko Y. Inoue, Hironobu Kawabata, Hideki Takami, Tetsuo Aoki, & Norihisa Hiromoto.* 420, 746, 12-B12 (1994)

HST Photometry of the Trapezium Cluster. *Charles F. Prosser, John R. Stauffer, Lee Hartmann, David R. Soderblom, Burton F. Jones, Michael W. Werner, & Mark J. McCaughrean.* 421, 517, 24-E9 (1994)

Anatomy of a Photodissociation Region: High Angular Resolution Images of Molecular Emission in the Orion Bar. *Jan A. Tauber, A. G. G. M. Tielens, Margaret Meixner, & Paul F. Goldsmith.* 422, 136, 31-F13 (1994)

Maps of GHz Methyl Cyanide Emission in Orion-KL. *D. J. Wilner, M. C. H. Wright, & R. L. Plambeck.* 422, 642, 39-G7 (1994)

Spectral Imaging of the Orion Bar at 3.3, 8.4, and 11.3 Microns: Comparison with a Fluorescent Polycyclic Aromatic Hydrocarbon Model. *Jesse Bregman, Kristen Larson, David Rank, & Pasquale Temi.* 423, 326, 50-B10 (1994)

A Fabry-Perot Imager for Near-Infrared Astrophysics at the Communications Research Laboratory 1.5 Meter Telescope, and Imaging of Hydrogen Recombination Lines in the Orion Nebula. *Hajime Sugai, Tomonori Usuda, Hirokazu Kataza, Masuo Tanaka, Hironobu Kawabata, Motoko Y. Inoue, Hideki Takami, Tetsuo Aoki, & Norihisa Hiromoto.* 427, 511, 116-C10 (1994)

Spectral Imaging of the Ney-Allen Nebula at 10 and 20 Microns. *T. L. Hayward.* 429, 726, 154-F5 (1994)

The Molecular Gas Associated with the Orion Bright Bar. *Toshihiro Omodaka, Masahiko Hayashi, Tetsuo Hasegawa, & Saeko S. Hayashi.* 430, 256, 162-C7 (1994)

Shocked Pure-rotational Emission from H_2 in Orion. *Parvinder S. Parmar, John H. Lacy, & Jeffrey M. Achtermann.* 430, 786, 171-F3 (1994)

CH_3C_2H as a Temperature Probe in Dense Giant Molecular Cloud Cores. *Edwin A. Bergin, Paul F. Goldsmith, Ronald L. Snell, & Hans Ungerechts.* 431, 674, 187-A3 (1994)

ROSAT HRI Observations of Hot Stars in the Orion Nebula. *Jean-Pierre Caillault, Marc Gagné, & John R. Stauffer.* 432, 386, 198-A2 (1994)

[Fe II] Emission from High-Density Regions in the Orion Nebula. *Manuel A. Bautista, Anil K. Pradhan, & Donald E. Osterbrock.* 432, L135, 207-C13 (1994)

Thermal Infrared Imaging of Subarcsecond Structure in the Trapezium Nebula. *T. L. Hayward, J. R. Houck, & J. W. Miles.* 433, 157, 210-C1 (1994)

Two Micron Spectrophotometry of the Orion Nebula and the Detection of Significant [Fe III] Emission. *D. L. DePoy & Richard W. Pogge.* 433, 725, 220-B1 (1994)

Anomalous Balmer Continuum Temperatures in the Orion Nebula. *Donald K. Walter & Reginald J. Dufour.* 434, L29, 232-E5 (1994)

Postrefurbishment Mission *Hubble Space Telescope* Images of the Core of the Orion Nebula: Proplyds, Herbig-Haro Objects, and Measurements of a Circumstellar Disk. *C. R. O'Dell & Zheng Wen.* 436, 194, 263-G8 (1994)

H_2 Emission as a Tracer of Molecular Hydrogen: Large-Scale Observations of Orion. *M. L. Luhman, D. T. Jaffe, L. D. Keller, & Soojong Pak.* 436, L185, 282-C1 (1994)

A Three-dimensional Model of the Orion Nebula. *Zheng Wen & C. R. O'Dell.* 438, 784, 15-A13 (1995)

Velocity Field of the Orion-KL Region in Molecular Hydrogen Emission. *Hajime Sugai, Hironobu Kawabata, Tomonori Usuda, Motoko Y. Inoue, Hirokazu Kataza, & Masuo Tanaka.* 442, 674, 89-D3 (1995)

Iron to Oxygen Abundance Ratio in the Orion Nebula. *Manuel A. Bautista & Anil K. Pradhan.* 442, L65, 94-F1 (1995)

The Distribution of Molecules in the Core of OMC-1. *E. C. Sutton, R. Peng, W. C. Danchi, P. A. Jaminet, G. Sandell, & A. P. G. Russell.* 97, 455, 18-E12 (1995)

Deep *ROSAT* HRI Observations of the Orion Nebula Region. *Marc Gagné, Jean-Pierre Caillault, & John R. Stauffer.* 445, 280, 136-D2 (1995)

Balmer Discontinuity Temperatures in the Orion Nebula. *X.-W. Liu, M. J. Barlow, I. J. Danziger, & P. J. Storey.* 450, L59, 244-F8 (1995)

Fourier Transform Spectroscopy of the Orion Molecular Cloud Core. *E. Serabyn & E. W. Weisstein.* 451, 238, 249-C3 (1995)

The Nebular Extinction in the Orion Nebula. *Manuel A. Bautista, Richard W. Pogge, & D. L. DePoy.* 452, 685, 274-B7 (1995)

Constraints on Circumstellar Disk Masses in the Trapezium Cluster. *Lee G. Mundy, Leslie W. Looney, & Elizabeth A. Lada.* 452, L137, 280-D12 (1995)

Name: Orion IRc2

Detection of HCO^+ $J = 9 \rightarrow 8$ Line Emission toward Orion IRc2: Molecular Ions in Hot Dense Gas. *D. T. Jaffe, U. U. Graf, A. I. Harris, J. Stutzki, & S. H. Lepp.* 385, 240, 14-G13 (1992)

Mid-Infrared Imaging of Orion BN/KL: Astrometry of IRc2 and the SiO Maser. *Daniel Y. Gezari.* 396, L43, 160-G8 (1992)

Vibrational Ground-State SiO $J = 1$–0 Emission in Orion IRc2 Imaged with the VLA. *Claire J. Chandler & Christopher G. De Pree.* 455, L67, 325-E13 (1995)

SiO Emission from a 1000 AU Disk in Orion KL. *M. C. H. Wright, R. L. Plambeck, L. G. Mundy, & L. W. Looney.* 455, L185, 334-G3 (1995)

Subarcsecond-Resolution 86 GHz Continuum Maps of Orion KL. *R. L. Plambeck, M. C. H. Wright, L. G. Mundy, & L. W. Looney.* 455, L189, 334-G10 (1995)

Name: Parsamyan 21

The FU Orionis–Type Spectrum and Bipolar Outflow of Parsamyan 21. *H. J. Staude & Th. Neckel.* 400, 556, 217-C6 (1992)

Name: ξ Persei Cloud

Determination of $^{12}C/^{13}C$ in the Interstellar Medium toward ζ Ophiuchi and ξ Persei. *Isabel Hawkins, Nahide Craig, & David M. Meyer.* 407, 185, 71-D1 (1993)

Name: Perseus Molecular Cloud

Dense Cores in Dark Clouds. X. Ammonia Emission in the Perseus Molecular Cloud Complex. *E. F. Ladd, P. C. Myers, & A. A. Goodman.* 433, 117, 209-F10 (1994)

Name: Puppis A

CCD Soft X-Ray Observations of the Puppis A Supernova Remnant. *G. D. Berthiaume, D. N. Burrows, G. P. Garmire, & J. A. Nousek.* 425, 132, 81-G8 (1994)

A Far-Ultraviolet Spectrum of the Puppis A Supernova Remnant Using the Hopkins Ultraviolet Telescope. *William P. Blair, John C. Raymond, Knox S. Long, & Gerard A. Kriss.* 454, L35, 307-G12 (1995)

Name: Red Rectangle

Spatially Resolved Spectra of the Unidentified Infrared Features around HD 44179 (The Red Rectangle). *G. C. Sloan, G. L. Grasdalen, & Paul D. LeVan.* 409, 412, 102-B3 (1993)

3.3 and 11.3 Micron Images of HD 44179: Evidence for an Optically Thick Polycyclic Aromatic Hydrocarbon Disk. *Jesse D. Bregman, David Rank, Pasquale Temi, Doug Hudgins, & Laura Kay.* 411, 794, 139-F1 (1993)

A Long-lived Disk around the Red Rectangle? *M. Jura, S. P. Balm, & C. Kahane.* 453, 721, 293-F13 (1995)

Name: Ring Nebula

High-Resolution Far-Infrared Observations of the Ring Nebula. *C. Y. Zhang, P. M. Harvey, Beverly J. Smith, C. Colomé, & J. DiFrancesco.* 425, 687, 90-B13 (1994)

Name: Rosette Nebula

A High-Resolution H I Survey of the Rosette Nebula. *Thomas A. Kuchar & T. M. Bania.* 414, 664, 179-D12 (1993)

Determining Structure in Molecular Clouds. *Jonathan P. Williams, Eugène J. de Geus, & Leo Blitz.* 428, 693, 139-A1 (1994)

The Molecular Content of the Rosette's Teardrops. *E. González-Alfonso & J. Cernicharo.* 430, L125, 175-A7 (1994)

The Density Structure in the Rosette Molecular Cloud: Signposts of Evolution. *Jonathan P. Williams, Leo Blitz, & Anthony A. Stark.* 451, 252, 249-D9 (1995)

Name: Sagittarius A

CO Emission from Molecular Gas at −190 Kilometers per Second near Sagittarius A. *H. S. Liszt & W. B. Burton.* 407, L25, 75-C11 (1993)

The Center of the Galaxy in the Recent Past: A View from *GRANAT*. *R. A. Sunyaev, M. Markevitch, & M. Pavlinsky.* 407, 606, 78-B7 (1993)

Multiconfiguration VLA H92α Observations of Sagittarius A West at 1 Arcsecond Resolution. *D. A. Roberts & W. M. Goss.* 86, 133, 15-E1 (1993)

Excitation of the [Fe III] Bubble Surrounding the Galactic Center "Mini-Cavity." *D. Lutz, A. Krabbe, & R. Genzel.* 418, 244, 234-B1 (1993)

Submillimeter Continuum Survey of the Galactic Center. *D. C. Lis & J. E. Carlstrom.* 424, 189, 64-C8 (1994)

Infrared Photometry of the Black Hole Candidate Sagittarius A*. *Laird M. Close, Donald W. McCarthy, Jr., & Fulvio Melia.* 439, 682, 34-A1 (1995)

H110α Observations of Sagittarius A West: Ionized Gas at Peculiar Velocities at the Galactic Center. *Farhad Yusef-Zadeh, Jun-Hui Zhao, & W. M. Goss.* 442, 646, 88-G9 (1995)

Name: Sagittarius A East

Highly Blueshifted H I Gas toward the Galactic Center. *Farhad Yusef-Zadeh, Anthony Lasenby, & Jennifer Marshall.* 410, L27, 118-G12 (1993)

An H_2O Maser near Sagittarius A East: Evidence for Active Massive Star Formation near the Galactic Center. *Farhad Yusef-Zadeh & David M. Mehringer.* 452, L37, 270-A4 (1995)

Name: Sagittarius A West

Highly Blueshifted H I Gas toward the Galactic Center. *Farhad Yusef-Zadeh, Anthony Lasenby, & Jennifer Marshall.* 410, L27, 118-G12 (1993)

Name: Sagittarius A*

An Accreting Black Hole Model for Sagittarius A*. II. A Detailed Study. *Fulvio Melia.* 426, 577, 105-E9 (1994)

Anisotropy in the Angular Broadening of Sagittarius A* at the Galactic Center. *Farhad Yusef-Zadeh, William Cotton, Mark Wardle, Fulvio Melia, & Douglas A. Roberts.* 434, L63, 241-F1 (1994)

Name: Sagittarius B

Radio Continuum and Radio Recombination Line Observations of Sagittarius B1 and G0.6−0.0. *David M. Mehringer, F. Yusef-Zadeh, Patrick Palmer, & W. M. Goss.* 401, 168, 223-B1 (1992)

Deuterated Ammonia in Sagittarius B2. *Y. Peng, S. N. Vogel, & J. E. Carlstrom.* 418, 255, 234-C1 (1993)

Submillimeter Continuum Survey of the Galactic Center. *D. C. Lis & J. E. Carlstrom.* 424, 189, 64-C8 (1994)

6 Centimeter Formaldehyde Absorption toward the Sagittarius B Star-forming Complex. *David M. Mehringer, Patrick Palmer, & W. M. Goss.* 97, 497, 19-B1 (1995)

Name: Sagittarius B1

OH and H_2O Masers in Sagittarius B1: Evidence for Ongoing Star Formation. *David M. Mehringer, Patrick Palmer, & W. M. Goss.* 402, L69, 13-A1 (1993)

Name: Sagittarius B2

High Angular Resolution Far-Infrared Observations of Sagittarius B2. *Paul F. Goldsmith, Dariusz C. Lis, D. F. Lester, & P. M. Harvey.* 389, 338, 64-B7 (1992)

Millimeter-Wavelength Aperture Synthesis Observations of Massive Star-forming Regions in Sagittarius B2. *D. C. Lis, P. F. Goldsmith, J. E. Carlstrom, & N. Z. Scoville.* 402, 238, 4-A12 (1993)

The Center of the Galaxy in the Recent Past: A View from *GRANAT*. *R. A. Sunyaev, M. Markevitch, & M. Pavlinsky.* 407, 606, 78-B7 (1993)

Radio Continuum and Radio Recombination Line Observations of Sagittarius B2. *David M. Mehringer, Patrick Palmer, W. M. Goss, & F. Yusef-Zadeh.* 412, 684, 152-C11 (1993)

Detection of the Interstellar NH_2 Radical. *Ewine F. van Dishoeck, David J. Jansen, Peter Schilke, & T. G. Phillips.* 416, L83, 216-E10 (1993)

A Large-Scale Cloud Collision in the Galactic Center Molecular Cloud Near Sagittarius B2. *Tetsuo Hasegawa, Fumio Sato, John B. Whiteoak, & Ryosuke Miyawaki.* 429, L77, 158-C1 (1994)

New Formaldehyde Masers in Sagittarius B2. *David M. Mehringer, W. M. Goss, & Patrick Palmer.* 434, 237, 228-F6 (1994)

Three Millimeter Molecular Line Observations in Sagittarius B2. I. Full Synthesis Mapping Study of HNO, CCS, and $HC^{13}CCN$. *Yi-Jehng Kuan & Lewis E. Snyder.* 94, 651, 61-A8 (1994)

Complex Molecules in Sagittarius B2(N): The Importance of Grain Chemistry. *Yanti Miao, David M. Mehringer, Yi-Jehng Kuan, & Lewis E. Snyder.* 445, L59, 141-B13 (1995)

HCl Absorption toward Sagittarius B2. *J. Zmuidzinas, G. A. Blake, J. Carlstrom, J. Keene, & D. Miller.* 447, L125, 191-C2 (1995)

The Sagittarius B2 Star-forming Region. I. Sensitive 1.3 Centimeter Continuum Observations. *R. A. Gaume, M. J. Claussen, C. G. De Pree, W. M. Goss, & D. M. Mehringer.* 449, 663, 221-G5 (1995)

The Sagittarius B2 Star-forming Region. II. High-Resolution H66α Observations of Sagittarius B2 North. *C. G. De Pree, R. A. Gaume, W. M. Goss, & M. J. Claussen.* 451, 284, 249-G6 (1995)

BIMA Array CS $J = 2 \rightarrow 1$ Observations of Sagittarius B2. *David M. Mehringer.* 454, 782, 312-E8 (1995)

Silicon Monoxide in Sagittarius B2. *Y. Peng, Stuart N. Vogel, & J. E. Carlstrom.* 455, 223, 321-B14 (1995)

Name: Sagittarius B2 F

Very Hot Ionized Material in Sagittarius B2 F. *David M. Mehringer, C. G. De Pree, Ralph A. Gaume, W. M. Goss, & Mark J. Claussen.* 442, L29, 85-A5 (1995)

Name: Sagittarius C

Submillimeter Continuum Survey of the Galactic Center. *D. C. Lis & J. E. Carlstrom.* 424, 189, 64-C8 (1994)

Name: Scorpius OB2

The Far-Ultraviolet Dust Albedo in the Upper Scorpius Subgroup of the Scorpius OB2 Association. *Karl D. Gordon, Adolf N. Witt, George R. Carruthers, Susan A. Christensen, & Brian C. Dohne.* 432, 641, 204-A3 (1994)

Name: Serpens Dark Cloud

Solid Carbon Monoxide in the Serpens Dark Cloud. *J. E. Chiar, A. J. Adamson, T. H. Kerr, & D. C. B. Whittet.* 426, 240, 99-B2 (1994)

Name: Serpens Region

The Triple Radio Continuum Source in Serpens: Its Interaction with the Ambient Molecular Gas. *J. M. Torrelles, J. F. Gómez, S. Curiel, C. Eiroa, L. F. Rodríguez, & P. T. P. Ho.* 384, L59, 11-D7 (1992)

Name: Sharpless 170

The H II Region Sharpless 170: A Multiscale Analysis of the Hα Velocity Field. *Marc-Antoine Miville-Deschênes, Gilles Joncas, & Daniel Durand.* 454, 316, 303-F1 (1995)

Name: Sharpless 171

A CO Study of Sharpless 171: Evidence for Interaction between the H II Region and Its Neighboring Molecular Cloud. *Ji Yang & Yasuo Fukui.* 386, 618, 33-A8 (1992)

Name: HL Tauri

In Search of HL Tauri. *David A. Weintraub, Joel H. Kastner, & Barbara A. Whitney.* 452, L141, 280-E6 (1995)

Name: Taurus Cloud Complex

Overall Distribution of Dense Molecular Gas and Star Formation in the Taurus Cloud Complex. *A. Mizuno, T. Onishi, Y. Yonekura, T. Nagahama, H. Ogawa, & Y. Fukui.* 445, L161, 152-B7 (1995)

Name: Taurus Dark Cloud

Star Formation in Taurus. I. The *IRAS* Faint Source Survey. *C. A. Beichman, F. Boulanger, & M. Moshir.* 386, 248, 27-C5 (1992)

Global Aspects of Dynamics and Star Formation in Taurus. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 395, 501, 148-G13 (1992)

A $C^{18}O$ Survey of Dense Cores in the Taurus Molecular Cloud: Signatures of Evolution and Protostellar Collapse. *Shudong Zhou, Neal J. Evans II, Yangsheng Wang, Ruisheng Peng, & K. Y. Lo.* 433, 131, 209-G12 (1994)

Far-Ultraviolet Emission from the Taurus Molecular Cloud. *M. Hurwitz.* 433, 149, 210-B4 (1994)

Evidence for Chemical Processing of Precometary Icy Grains in Circumstellar Environments of Pre–Main-Sequence Stars. *Stephen C. Tegler, David A. Weintraub, Terrence W. Rettig, Yvonne J. Pendleton, Douglas C. B. Whittet, & Craig A. Kulesa.* 439, 279, 25-A9 (1995)

High-Resolution Studies of Solid CO in the Taurus Dark Cloud: Characterizing the Ices in Quiescent Clouds. *J. E. Chiar, A. J. Adamson, T. H. Kerr, & D. C. B. Whittet.* 455, 234, 321-C14 (1995)

Grain Alignment in the Taurus Dark Cloud. *P. A. Gerakines, D. C. B. Whittet, & A. Lazarian.* 455, L171, 334-E7 (1995)

Name: Taurus Molecular Cloud

Study of Structure and Small-Scale Fragmentation in TMC-1. *W. D. Langer, T. Velusamy, T. B. H. Kuiper, S. Levin, E. Olsen, & V. Migenes.* 453, 293, 285-B9 (1995)

Name: Trapezium Cluster

Constraints on Circumstellar Disk Masses in the Trapezium Cluster. *Lee G. Mundy, Leslie W. Looney, & Elizabeth A. Lada.* 452, L137, 280-D12 (1995)

Name: Tycho's Supernova

Evidence for Elemental Variation in the Ejecta of the Tycho Supernova Remnant. *O. Vancura, P. Gorenstein, & John P. Hughes.* 441, 680, 71-D1 (1995)

Name: Vela Supernova Remnant

ROSAT PSPC Observation of the Northeast Region of the Vela Supernova Remnant. I. Evidence of Thermal Structure on a Scale of 5′. *F. Bocchino, A. Maggio, & S. Sciortino.* 437, 209, 286-B1 (1994)

High-Velocity, High-Excitation Neutral Carbon in a Cloud in the Vela Supernova Remnant. *Edward B. Jenkins & George Wallerstein.* 440, 227, 44-C13 (1995)

Interstellar Lines in HD 72127A and B: A Binary Star behind the Vela Supernova Remnant. *George Wallerstein, Andrew Vanture, & Edward B. Jenkins.* 455, 590, 330-A9 (1995)

Alphanumeric: 0525−66

Negative Search for a Counterpart to the Gamma-Ray Repeater Source 0525−66. *John R. Dickel, You-Hua Chu, Christopher Gelino, Ross Beyer, Michael G. Burton, D. K. Milne, Jason Spyromilio, David A. Green, Christopher Wilkinson, & Norbert Junkes.* 448, 623, 203-D1 (1995)

Alphanumeric: 0540−69.3

The Outer Shell of SNR 0540−69.3. *F. D. Seward & F. R. Harnden, Jr.* 421, 581, 25-D5 (1994)

Alphanumeric: 0623+71

The 0623+71 Bow Shock Nebula. *J. M. Hollis, R. J. Oliversen, R. M. Wagner, & W. A. Feibelman.* 393, 217, 116-G3 (1992)

Alphanumeric: AFGL 437

The Powering Sources of the Molecular Outflows in the AFGL 437, AFGL 5142, and AFGL 5157 Regions. *José M. Torrelles, José F. Gómez, Guillem Anglada, Robert Estalella, Rainer Mauersberger, & Carlos Eiroa.* 392, 616, 109-G9 (1992)

On the Nature of the Bipolar Molecular Outflow in AFGL 437. *J. F. Gómez, J. M. Torrelles, R. Estalella, G. Anglada, L. Verdes-Montenegro, & P. T. P. Ho.* 397, 492, 177-A1 (1992)

Alphanumeric: AFGL 618

Near-Infrared Observations of AFGL 618. II. The Atomic Spectrum. *Douglas M. Kelly, William B. Latter, & G. H. Rieke.* 395, 174, 142-D1 (1992)

Alphanumeric: AFGL 2343

Discovery of an Extended Nebula around AFGL 2343 (HD 179821) at 10 Microns. *G. W. Hawkins, C. J. Skinner, M. M. Meixner, J. G. Jernigan, J. F. Arens, E. Keto, & J. R. Graham.* 452, 314, 266-D10 (1995)

Alphanumeric: AFGL 5142

The Powering Sources of the Molecular Outflows in the AFGL 437, AFGL 5142, and AFGL 5157 Regions. *José M. Torrelles, José F. Gómez, Guillem Anglada, Robert Estalella, Rainer Mauersberger, & Carlos Eiroa.* 392, 616, 109-G9 (1992)

The Molecular Cores in the L1287, AFGL 5142, and IRAS 20126+4104 Regions. *Robert Estalella, Rainer Mauersberger, José M. Torrelles, Guillem Anglada, José F. Gómez, Rosario López, & Dirk Muders.* 419, 698, 256-D1 (1993)

Alphanumeric: AFGL 5157

The Molecular Core in the AFGL 5157 Region. *José M. Torrelles, Carlos Eiroa, Rainer Mauersberger, Robert Estalella, Luis F. Miranda, & Guillem Anglada.* 384, 528, 8-F7 (1992)

The Powering Sources of the Molecular Outflows in the AFGL 437, AFGL 5142, and AFGL 5157 Regions. *José M. Torrelles, José F. Gómez, Guillem Anglada, Robert Estalella, Rainer Mauersberger, & Carlos Eiroa.* 392, 616, 109-G9 (1992)

Alphanumeric: AFGL 5376

AFGL 5376: A Strong, Large-Scale Shock near the Galactic Center. *Keven I. Uchida, Mark R. Morris, E. Serabyn, & John Bally.* 421, 505, 24-D9 (1994)

Alphanumeric: B335

Bipolar Outflow in B335: The Small-Scale Structure. *Naomi Hirano, Osamu Kameya, Takashi Kasuga, & Tomofumi Umemoto.* 390, L85, 85-B1 (1992)

Radio Continuum from the Powering Sources of the RNO 43, Haro 4-255 FIR, B335, and PV Cephei Outflows and from the Herbig-Haro Object 32A. *G. Anglada, L. F. Rodríguez, J. Cantó, R. Estalella, & J. M. Torrelles.* 395, 494, 148-G1 (1992)

Evidence for Protostellar Collapse in B335. *Shudong Zhou, Neal J. Evans II, Carsten Kömpe, & C. M. Walmsley.* 404, 232, 30-F11 (1993)

Line Formation in Collapsing Cloud Cores with Rotation and Applications to B335 and IRAS 16293−2422. *Shudong Zhou.* 442, 685, 89-E11 (1995)

Modeling Line Profiles of Protostellar Collapse in B335 with the Monte Carlo Method. *Minho Choi, Neal J. Evans II, Erik M. Gregersen, & Yangsheng Wang.* 448, 742, 204-A9 (1995)

CCS Observations of the Protostellar Envelope of B335. *T. Velusamy, T. B. H. Kuiper, & W. D. Langer.* 451, L75, 260-G11 (1995)

Alphanumeric: 3C 58

The X-Ray Emission of 3C 58 Revisited. *David J. Helfand, Robert H. Becker, & Richard L. White.* 453, 741, 294-A12 (1995)

Alphanumeric: 3C 400.2

ROSAT Observations of the Supernova Remnant 3C 400.2. *Jon M. Saken, Knox S. Long, William P. Blair, & P. Frank Winkler.* 443, 231, 98-C6 (1995)

Alphanumeric: CAL 83

Ionization Nebulae Surrounding CAL 83 and Other Supersoft X-Ray Sources. *R. A. Remillard, S. Rappaport, & L. M. Macri.* 439, 646, 33-C11 (1995)

Alphanumeric: CB 4

Magnetic Fields around Bok Globules: CCD Polarimetry of CB 4. *Brian D. Kane, Dan P. Clemens, Robert W. Leach, & Richard Barvainis.* 445, 269, 136-C2 (1995)

Alphanumeric: CB 34

Multiple Star Formation in Bok Globule CB 34. *João F. Alves & João L. Yun.* 438, L107, 20-C1 (1995)

Discovery of Herbig-Haro Objects and Molecular Hydrogen Jets near Bok Globule CB 34. *Miguel C. Moreira & João L. Yun.* 454, 850, 313-E1 (1995)

Alphanumeric: CRL 618

The 150 AU Structure of the Radio Continuum and the Ammonia Bipolar Outflow in CRL 618. *Jesús Martín-Pintado, Ralph Gaume, Rafael Bachiller, & Ken Johnson.* 419, 725, 256-F4 (1993)

The Disruption of the Dense Disk in CRL 618. *Jesús Martín-Pintado, Ralph A. Gaume, Kenneth J. Johnston, & Rafael Bachiller.* 446, 687, 165-E4 (1995)

Alphanumeric: CRL 2136

Motion at the Ionization Front in the Orion Nebula: A Kinematic Study of the [O I] Line. *C. R. O'Dell & Zheng Wen.* 387, 229, 39-F10 (1992)

The Juggler: A Three-lobed Near-Infrared Reflection Nebula toward CRL 2136 = OH 17.6+0.2. *Joel H. Kastner, David A. Weintraub, & C. Aspin.* 389, 357, 64-D1 (1992)

The Massive Molecular Outflow from CRL 2136 IRS 1. *Joel H. Kastner, David A. Weintraub, Ronald L. Snell, G. Sandell, C. Aspin, D. H. Hughes, & F. Baas.* 425, 695, 90-C9 (1994)

Alphanumeric: CRL 2688

The Multiple Molecular Winds of CRL 2688. *K. Young, G. Serabyn, T. G. Phillips, G. R. Knapp, R. Güsten, & A. Schulz.* 385, 265, 15-B13 (1992)

Alphanumeric: CTA 1

Faraday Rotation Measure Irregularities through the Supernova Remnant CTA 1: A Site of Enhanced Interstellar Plasma Turbulence. *John H. Simonetti.* 386, 170, 26-C3 (1992)

X-Ray Emission from the Supernova Remnant CTA 1. *F. D. Seward, B. Schmidt, & P. Slane.* 453, 284, 285-A11 (1995)

Alphanumeric: CTB 1

Spectroscopy of the Supernova Remnant CTB 1. *Charles J. Hailey & William W. Craig.* 434, 635, 236-E6 (1994)

Alphanumeric: CTB 80

Interaction between the Supernova Remnant CTB 80 and the Ambient Interstellar Medium: H I and CO Observations. *Bon-Chul Koo, Min-Su Yun, Paul T. P. Ho, & Youngung Lee.* 417, 196, 219-G10 (1993)

ROSAT Observations of the Unusual Supernova Remnant CTB 80 Containing the Pulsar PSR 1951+32. *Samar Safi-Harb, Hakki Ögelman, & John P. Finley.* 439, 722, 34-E10 (1995)

Alphanumeric: CTB 109

The Semicircular Shell of CTB 109. *Zhenru Wang, Quinyue Qu, Ding Luo, Richard McCray, & Mordecai-Mark Mac Low.* 388, 127, 50-E10 (1992)

Alphanumeric: DBB 80

Ultraviolet, Optical, and Infrared Observations of the High-Latitude Molecular Cloud toward HD 210121. *Daniel E. Welty & James R. Fowler.* 393, 193, 116-D13 (1992)

Alphanumeric: DEM 152

Triggered Star Formation and the Dynamics of a Superbubble in the LMC: The OB Association LH 47/48 in DEM 152. *M. S. Oey & Philip Massey.* 452, 210, 264-G11 (1995)

Alphanumeric: DR 21

Atomic and Molecular Outflow in DR 21. *A. P. G. Russell, J. Bally, R. Padman, & R. E. Hills.* 387, 219, 39-E13 (1992)

Synthesis Imaging of the DR 21 (OH) Cluster. II. Thermal Ammonia and Water Maser Emission. *Jeffrey G. Mangum, Alwyn Wootten, & Lee G. Mundy.* 388, 467, 56-B6 (1992)

High-Velocity HCO^+ Emission Associated with the DR 21 Molecular Outflow. *Rognvald P. Garden & John E. Carlstrom.* 392, 602, 109-F7 (1992)

High-Resolution Far-Infrared Observations of DR 21. *Cecilia Colomé, Paul M. Harvey, Daniel F. Lester, Murray F. Campbell, & Harold M. Butner.* 447, 236, 175-E5 (1995)

Dense Gas in the DR 21 Region: High-Resolution Imaging of the NH_3 Inversion Lines. *T. L. Wilson, R. A. Gaume, K. J. Johnston, & A. R. Tieftrunk.* 452, 693, 274-C4 (1995)

Alphanumeric: DR 21(OH)

Discovery of $^{14}NH_3(3, 3)$ Maser Emission in the Interstellar Medium. *Jeffrey G. Mangum & Alwyn Wootten.* 428, L33, 134-E8 (1994)

Alphanumeric: 1E 0102.2−7219

New Radio Observations of Supernova Remnant 1E 0102.2−7219 in the Small Magellanic Cloud. *S. W. Amy & Lewis Ball.* 411, 761, 139-C1 (1993)

Alphanumeric: G1.6−0.025

4_{-1}–3_0 *E* Methanol Emission in G1.6−0.025. *Aubrey D. Haschick & Willem A. Baan.* 410, 663, 121-G12 (1993)

Refrigeration of the 18.3 GHz C_3H_2 Transition in Dark Cloud G1.6−0.25. *T. B. H. Kuiper, J. B. Whiteoak, R.-S. Peng, W. L Peters III, & J. E. Reynolds.* 416, L33, 207-E7 (1993)

Alphanumeric: G2.4+1.4

Radio and *IRAS* Observations of Two Nebulae around WO Stars: G2.4+1.4 in the Galaxy and Sandage H II Region 3 in IC 1613. *W. M. Goss & Tatiana A. Lozinskaya.* 439, 637, 33-B8 (1995)

Alphanumeric: G5.89−0.39

Thermal Dust Imaging: The Onset of Asymmetry in the Ultracompact H II Region G5.89−0.39. *Roger Ball, John F. Arens, J. Garrett Jernigan, Eric Keto, & Margaret M. Meixner.* 389, 616, 69-B1 (1992)

G5.89−0.39: A Compact H II Region with a Very Dense Circumstellar Dust Torus. *Paul M. Harvey, Daniel F. Lester, Cecilia Colomé, Beverly Smith, Jean-Louis Monin, & Isabelle Vauglin.* 433, 187, 210-F1 (1994)

Alphanumeric: G10.0−0.3

Radio Monitoring and High-Resolution Imaging of the Soft Gamma-Ray Repeater 1806−20. *G. Vasisht, D. A. Frail, & S. R. Kulkarni.* 440, L65, 57-F6 (1995)

Alphanumeric: G10.5+0.0

Compact Ammonia Sources toward the G10.5+0.0 H II Region Complex. *Guido Garay, James M. Moran, & Luis F. Rodríguez.* 413, 582, 163-F8 (1993)

Alphanumeric: G10.6−0.4

The Rotating Molecular Core in G10.6−0.4: Synthesis Maps in $^{12}C^{18}O$. *Paul T. P. Ho, Susan Terebey, & Jean L. Turner.* 423, 320, 50-B1 (1994)

Alphanumeric: G13.3−1.3

A *ROSAT*-detected, New Galactic Supernova Remnant in Sagittarius, G13.3−1.3. *F. D. Seward, T. M. Dame, R. A. Fesen, & B. Aschenbach.* 449, 681, 222-B7 (1995)

Alphanumeric: G13.87+0.28

The Velocity Structure of the Cometary H II Regions G13.87+0.28, G32.80+0.19B, and G61.48+0.09B1. *Guido Garay, Susana Lizano, & Yolanda Gómez.* 429, 268, 147-D6 (1994)

Alphanumeric: G25.5+0.2

G25.5+0.2: A Ring Nebula around a Luminous Blue Star. *E. E. Becklin, B. Zuckerman, I. S. McLean, & T. R. Geballe.* 430, 774, 171-E1 (1994)

Alphanumeric: G27.4+0.0

The Nature of the Compact X-Ray Source in the Supernova Remnant G27.4+0.0. *David J. Helfand, R. H. Becker, G. Hawkins, & R. L. White.* 434, 627, 236-D9 (1994)

Alphanumeric: G29.9−0.02

Bow Shock Models for the Velocity Structure of Ultracompact H II Regions. *Dave Van Buren & Mordecai-Mark Mac Low.* 394, 534, 136-A7 (1992)

A Multiline, Multiresolution VLA Study of the Ultracompact H II Region G29.96−0.02. *A. Afflerbach, E. Churchwell, P. Hofner, & S. Kurtz.* 437, 697, 295-C12 (1994)

Alphanumeric: G32.80+0.19

The Velocity Structure of the Cometary H II Regions G13.87+0.28, G32.80+0.19B, and G61.48+0.09B1. *Guido Garay, Susana Lizano, & Yolanda Gómez.* 429, 268, 147-D6 (1994)

Near-Infrared and Very High Sensitivity VLA 2 Centimeter Continuum Observations of the H II Region G29.96−0.02. *Alan L. Fey, Ralph A. Gaume, Mark J. Claussen, & Frederick J. Vrba.* 453, 308, 285-C14 (1995)

Warm Molecular Gas Associated with Cometary H II Regions. *Yolanda Gómez, Guido Garay, & Susana Lizano.* 453, 727, 293-G8 (1995)

Alphanumeric: G34.3+0.1

The Environments of Young Stars: Mid-Infrared and Molecular Line Imaging. *Eric Keto, Deanne Proctor, Roger Ball, John Arens, & Garrett Jernigan.* 401, L113, 233-E11 (1992)

Alphanumeric: G34.3+0.2

The Molecular Core in G34.3+0.2: Millimeter Interferometric Observations of HCO^+, $H^{13}CN$, $HC^{15}N$, and SO. *Patricia Carral & William J. Welch.* 385, 244, 15-A4 (1992)

VLA Recombination Line Observations of the Cometary H II Region G34.3+0.2: Dynamics and Physical Properties. *Ralph A. Gaume, Alan L. Fey, & Mark J. Claussen.* 432, 648, 204-B1 (1994)

VLA Spectral Line Observations of the H II Complex G34.3+0.2. *Alan L. Fey, Ralph A. Gaume, Gerald E. Nedoluha, & Mark J. Claussen.* 435, 738, 256-C3 (1994)

Alphanumeric: G39.2−0.3

Spatial Spectral Index Variations in Galactic Shell Supernova Remnants G39.2−0.3 and G41.1−0.3. *Martha C. Anderson & Lawrence Rudnick.* 408, 514, 91-E9 (1993)

Alphanumeric: G41.1−0.3

Spatial Spectral Index Variations in Galactic Shell Supernova Remnants G39.2−0.3 and G41.1−0.3. *Martha C. Anderson & Lawrence Rudnick.* 408, 514, 91-E9 (1993)

Alphanumeric: G42.8−0.6

Supernova Remnant Candidates for the Soft γ-Ray Repeater 1900+14. *G. Vasisht, S. R. Kulkarni, D. A. Frail, & J. Greiner.* 431, L35, 182-F11 (1994)

Alphanumeric: G43.9+1.6

Supernova Remnant Candidates for the Soft γ-Ray Repeater 1900+14. *G. Vasisht, S. R. Kulkarni, D. A. Frail, & J. Greiner.* 431, L35, 182-F11 (1994)

Alphanumeric: G61.48+0.09

The Velocity Structure of the Cometary H II Regions G13.87+0.28, G32.80+0.19B, and G61.48+0.09B1. *Guido Garay, Susana Lizano, & Yolanda Gómez.* 429, 268, 147-D6 (1994)

Warm Molecular Gas Associated with Cometary H II Regions. *Yolanda Gómez, Guido Garay, & Susana Lizano.* 453, 727, 293-G8 (1995)

Alphanumeric: G100−13

The Unusual Cometary Star-forming Region G110−13. *Sten Odenwald, Jacqueline Fischer, Felix J. Lockman, & Sally Stemwedel.* 397, 174, 170-B9 (1992)

Alphanumeric: G216−2.5

The Cold, Massive Molecular Cloud G216−2.5. II. Structure and Kinematics. *Youngung Lee, Ronald L. Snell, & Robert L. Dickman.* 432, 167, 195-C8 (1994)

Alphanumeric: G292.0+1.8

Elemental Abundances of the Supernova Remnant G292.0+1.8: Evidence for a Massive Progenitor. *John P. Hughes & K. P. Singh.* 422, 126, 31-F1 (1994)

Alphanumeric: G318.9+0.4

Further Observations of the Peculiar Galactic Radio Source G318.9+0.4. *Jonathan B. Z. Whiteoak.* 415, 701, 196-E3 (1993)

Alphanumeric: G333.6−0.2

Detection of the [N II] 122 and 205 Micron Lines: Densities in G333.6−0.2. *Sean W. J. Colgan, Michael R. Haas, Edwin F. Erickson, Robert H. Rubin, Janet P. Simpson, & R. W. Russell.* 413, 237, 159-B13 (1993)

Nebular Properties from Far-Infrared Spectroscopy. *Robert H. Rubin, Janet P. Simpson, Steven D. Lord, Sean W. J. Colgan, Edwin F. Erickson, & Michael R. Haas.* 420, 772, 12-E1 (1994)

Alphanumeric: G359.1−00.2

Multifrequency Radio Studies of G359.1−00.2. *Andrew D. Gray, Jenniger Nicholls, Ron D. Ekers, & Lawrence E. Cram.* 448, 164, 194-D4 (1995)

Alphanumeric: G359.1−0.5

A Dense Molecular Ring Surrounding the Nonthermal Galactic Center Radio Shell G359.1−0.5. *Keven I. Uchida, Mark Morris, J. Bally, M. Pound, & F. Yusef-Zadeh.* 398, 128, 183-E5 (1992)

Alphanumeric: GC IRS 6E

Approaching the Interstellar Grain Organic Refractory Component. *J. Mayo Greenberg, Aigen Li, Celia X. Mendoza-Gómez, Willem A. Schutte, Perry A. Gerakines, & Menno de Groot.* 455, L177, 334-F1 (1995)

Alphanumeric: GL 490

A Multitransition CO Study of GL 490. *George F. Mitchell, Siow Wang Lee, Jean-Pierre Maillard, Henry Matthews, Tatsuhiko I. Hasegawa, & Andrew I. Harris.* 438, 794, 15-B12 (1995)

An HCO^+ Study of NGC 7538, IRS 9, and GL 490. *Tatsuhiko I. Hasegawa & George F. Mitchell.* 441, 665, 71-B11 (1995)

Alphanumeric: GL 618

Spectropolarimetry of the Post–Main-Sequence Bipolar Nebulae GL 618, M2-56, and M1-92. *Susan R. Trammell, Harriet L. Dinerstein, & Robert W. Goodrich.* 402, 249, 4-B12 (1993)

Alphanumeric: GL 2136

Methanol Ice in the Protostar GL 2136. *C. J. Skinner, A. G. G. M. Tielens, M. J. Barlow, & K. Justtanont.* 399, L79, 201-B7 (1992)

Alphanumeric: GL 2591

Infrared Morphology of Mass Outflow from GL 2591. *Motohide Tamura & Takuya Yamashita.* 391, 710, 96-G4 (1992)

Observation of [C I] toward the GL 2591 and W28 A2 Molecular Outflows. *Minho Choi, Neal J. Evans II, Daniel T. Jaffe, & Christopher K. Walker.* 435, 734, 256-B10 (1994)

Observation of Infrared and Radio Lines of Molecules toward GL 2591 and Comparison to Physical and Chemical Models. *John S. Carr, Neal J. Evans II, J. H. Lacy, & Shudong Zhou.* 450, 667, 240-A7 (1995)

CO J = 3–2 and HCO^+ J = 4–3 Observations of the GL 2591 Molecular Outflow. *Tatsuhiko I. Hasegawa & George F. Mitchell.* 451, 225, 249-B1 (1995)

Alphanumeric: GM 24

Further Studies on the Champagne Phase of GM 24 (IRAS 17136−3617). *J. F. Gómez, J. M. Torrelles, M. Tapia, Y. Gómez, L. F. Rodríguez, M. Roth, & P. T. P. Ho.* 409, 269, 100-D10 (1993)

Alphanumeric: GRS 1915+105

Radio Monitoring of GRS 1915+105. *L. F. Rodríguez, E. Gerard, I. F. Mirabel, Y. Gómez, & A. Velázquez.* 101, 173, 55-A5 (1995)

Alphanumeric: HH 1

Polarization Profiles of Scattered Emission Lines. II. Upstream Dust Scattering in the HH 1 Jet. *W. J. Henney, A. C. Raga, & D. J. Axon.* 427, 305, 113-F6 (1994)

Alphanumeric: HH 1–2

A New Herbig-Haro Flow in the HH 1–2 Complex. *Bo Reipurth, Steve Heathcote, M. Roth, A. Noriega-Crespo, & A. C. Raga.* 408, L49, 89-D1 (1993)

Ammonia Emission Downstream of the Herbig-Haro Object 1. *J. M. Torrelles, J. F. Gómez, P. T. P. Ho, G. Anglada, L. F. Rodríguez, & J. Cantó.* 417, 655, 227-D13 (1993)

The Puzzling Distribution of the High-Density Molecular Gas in HH 1–2: A Contracting Interstellar Toroid? *José M. Torrelles, José F. Gómez, Paul T. P. Ho, Luis F. Rodríguez, Guillem Anglada, & Jorge Cantó.* 435, 290, 247-D2 (1994)

Giant Bow Shock Pairs Associated with Herbig-Haro Jets. *Katsuo Ogura.* 450, L23, 235-F6 (1995)

Alphanumeric: HH 2

On the Nature of the Excitation of Herbig-Haro Object 2. *José M. Torrelles, Luis F. Rodríguez, Jorge Cantó, Guillem Anglada, José F. Gómez, Salvador Curiel, & Paul T. P. Ho.* 396, L95, 167-D7 (1992)

Alphanumeric: HH 7–11

The H_2 Velocity Field in Herbig-Haro 7-11. *John S. Carr.* 406, 553, 64-F6 (1993)

Alphanumeric: HH 32A

Radio Continuum from the Powering Sources of the RNO 43, Haro 4-255 FIR, B335, and PV Cephei Outflows and from the Herbig-Haro Object 32A. *G. Anglada, L. F. Rodríguez, J. Cantó, R. Estalella, & J. M. Torrelles.* 395, 494, 148-G1 (1992)

Alphanumeric: HH 46–47

Multiple Outflow Episodes from Protostars: Three-dimensional Models of Intermittent Jets. *Elisabete M. de Gouveia Dal Pino & Willy Benz.* 435, 261, 246-G11 (1994)

Alphanumeric: HH 47

Entrainment by the Jet in HH 47. *John C. Raymond, Jon A. Morse, Patrick Hartigan, Salvador Curiel, & Steve Heathcote.* 434, 232, 228-E12 (1994)

Molecular H_2 Emission in HH 47A: *Hubble Space Telescope* GHRS and FOC Observations. *Salvador Curiel, John C. Raymond, Mark Wolfire, Patrick Hartigan, Jon Morse, Richard D. Schwartz, & Peter Nisenson.* 453, 322, 285-E10 (1995)

Alphanumeric: HH 80

Large Proper Motions and Ejection of New Condensations in the HH 80–81 Thermal Radio Jet. *J. Martí, L. F. Rodríguez, & Bo Reipurth.* 449, 184, 212-F6 (1995)

Alphanumeric: HH 80 North

Ammonia Downstream from HH 80 North. *José M. Girart, Luis F. Rodriíguez, Guillem Anglada, Robert Estalella, José M. Torrelles, Josep Martí, Miriam Peña, Sandra Ayala, Salvador Curiel, & Alberto Noriega-Crespo.* 435, L145, 260-D4 (1994)

Alphanumeric: HH 81

Large Proper Motions and Ejection of New Condensations in the HH 80–81 Thermal Radio Jet. *J. Martí, L. F. Rodríguez, & Bo Reipurth.* 449, 184, 212-F6 (1995)

Alphanumeric: HH 83

The HH 83 Molecular Cloud: Gone with the Wind. *John Bally, Alain Castets, & Gilles Duvert.* 423, 310, 50-A3 (1994)

Circumstellar Gas around the Exciting Source of the HH 83 Jet. *Makoto Nakano, Koji Sugitani, Fumio Sato, & Katsuo Ogura.* 423, L147, 61-D5 (1994)

Alphanumeric: HH 111

Structure and Kinematics of the HH 111 Jet. *Bo Reipurth, A. C. Raga, & Steve Heathcote.* 392, 145, 102-F10 (1992)

Near-Infrared Observations of the HH 111 Region. *Roland Gredel & Bo Reipurth.* 407, L29, 75-D1 (1993)

Multiple Outflow Episodes from Protostars: Three-dimensional Models of Intermittent Jets. *Elisabete M. de Gouveia Dal Pino & Willy Benz.* 435, 261, 246-G11 (1994)

Alphanumeric: HH 124

Giant Bow Shock Pairs Associated with Herbig-Haro Jets. *Katsuo Ogura.* 450, L23, 235-F6 (1995)

Alphanumeric: HH 135

Spectacular Herbig-Haro Objects in the Carina Region. *K. Ogura & J. R. Walsh.* 400, 248, 212-A7 (1992)

Alphanumeric: HH 136

Spectacular Herbig-Haro Objects in the Carina Region. *K. Ogura & J. R. Walsh.* 400, 248, 212-A7 (1992)

Alphanumeric: HH 144

A New Herbig-Haro Flow in the HH 1–2 Complex. *Bo Reipurth, Steve Heathcote, M. Roth, A. Noriega-Crespo, & A. C. Raga.* 408, L49, 89-D1 (1993)

Alphanumeric: HH 145

A New Herbig-Haro Flow in the HH 1–2 Complex. *Bo Reipurth, Steve Heathcote, M. Roth, A. Noriega-Crespo, & A. C. Raga.* 408, L49, 89-D1 (1993)

Alphanumeric: IC 133

Microarcsecond Proper Motions of Extragalactic Water Vapor Masers in M33. *L. J. Greenhill, J. M. Moran, M. J. Reid, K. M. Menten, & H. Hirabayashi.* 406, 482, 63-F13 (1993)

Alphanumeric: IC 434

The [C II] 158 Micron Emission from the Horsehead Nebula. *S. Zhou, D. T. Jaffe, J. E. Howe, N. Geis, F. Herrmann, S. C. Madden, A. Poglitsch, & G. J. Stacey.* 419, 190, 248-E3 (1993)

Alphanumeric: IC 435

Scattering Properties of the Dust in the Reflection Nebula IC 435. *Daniela Calzetti, Ralph C. Bohlin, Karl D. Gordon, Adolf N. Witt, & Luciana Bianchi.* 446, L97, 171-C7 (1995)

Alphanumeric: IC 443

Strongly Shocked Interstellar Gas in IC 443. I. High-Resolution Molecular Observations. *Z. Wang & N. Z. Scoville.* 386, 158, 26-B3 (1992)

Tests of Shock Chemistry in IC 443G. *B. E. Turner, Kin-Wing Chan, S. Green, & D. A. Lubowich.* 399, 114, 196-E12 (1992)

Structure and Kinematics of Dense Gas Associated with the Supernova Remnant IC 443. *R. L. Dickman, Ronald L. Snell, L. M. Ziurys, & Yi-Long Huang.* 400, 203, 211-C9 (1992)

High-Resolution Images of Shocked Molecular Clumps in the Supernova Remnant IC 443. *Jan A. Tauber, Ronald L. Snell, Robert L. Dickman, & L. M. Ziurys.* 421, 570, 25-C4 (1994)

Infrared Imaging and Spectroscopy of the Molecular Shock in IC 443. *Matthew J. Richter, James R. Graham, & Gillian S. Wright.* 454, 277, 303-B1 (1995)

Alphanumeric: IC 1396

The Large-Scale Structure, Kinematics, and Evolution of IC 1396. *Nimesh A. Patel, Paul F. Goldsmith, Ronald L. Snell, Thomas Hezel, & Taoling Xie.* 447, 721, 186-A4 (1995)

Alphanumeric: IC 1396E

PIG (Partially Ionized Globule) Anatomy: Density and Temperature Structure of the Bright-rimmed Globule IC 1396E. *E. Serabyn, R. Güsten, & L. Mundy.* 404, 247, 31-A1 (1993)

Alphanumeric: IC 2220

An Infrared Study of the Remarkable Dusty M Star HR 3126. *J. E. Chiar, D. C. B. Whittet, D. K. Aitken, P. F. Roche, C. H. Smith, H. J. Walker, P. A. Whitelock, & C. Wright.* 409, 404, 102-A8 (1993)

Alphanumeric: IC 5146

Dust Extinction and Molecular Gas in the Dark Cloud IC 5146. *Charles J. Lada, Elizabeth A. Lada, Dan P. Clemens, & John Bally.* 429, 694, 154-C11 (1994)

Alphanumeric: IRAS 03282+3035

Shear in the IRAS 3282 Outflow. *M. Tafalla, R. Bachiller, J. Martín-Pintado, & M. C. H. Wright.* 415, L139, 200-F1 (1993)

High-Velocity Hot Ammonia in Bipolar Outflows. *R. Bachiller, J. Martín-Pintado, & A. Fuente.* 417, L45, 223-D1 (1993)

Shocked Molecular Gas around the Extremely Young Source IRAS 03282+3035. *R. Bachiller, S. Terebey, T. Jarrett, J. Martín-Pintado, C. A. Beichman, & D. Van Buren.* 437, 296, 287-C2 (1994)

Alphanumeric: IRAS 16293−2422

Molecular Abundances and Low-Mass Star Formation. I. Si- and S-bearing Species toward IRAS 16293−2422. *Geoffrey A. Blake, Ewine F. van Dishoeck, David J. Jansen, T. D. Groesbeck, & Lee G. Mundy.* 428, 680, 138-F13 (1994)

Line Formation in Collapsing Cloud Cores with Rotation and Applications to B335 and IRAS 16293−2422. *Shudong Zhou.* 442, 685, 89-E11 (1995)

Alphanumeric: IRAS 19550+3248

A Multiwavelength Study of IRAS 19550+3248: A Protostar Possibly Formed by a Cloud-Cloud Collision. *Bon-Chul Koo, Youngung Lee, G. A. Fuller, Myung Gyoon Lee, Suk-Minn Kwon, & Jae-Hoon Jung.* 429, 233, 147-A7 (1994)

Alphanumeric: IRAS 20050+2027

An Extremely High Velocity Multipolar Outflow around IRAS 20050+2720. *R. Bachiller, A. Fuente, & M. Tafalla.* 445, L51, 141-A13 (1995)

Alphanumeric: IRAS 20126+4104

The Molecular Cores in the L1287, AFGL 5142, and IRAS 20126+4104 Regions. *Robert Estalella, Rainer Mauersberger, José M. Torrelles, Guillem Anglada, José F. Gómez, Rosario López, & Dirk Muders.* 419, 698, 256-D1 (1993)

Alphanumeric: IRc2

What is Powering the Orion Kleinmann-Low Infrared Nebula? *Karl M. Menten & Mark J. Reid.* 445, L157, 152-A12 (1995)

The 685–692 GHz Spectrum of the Orion Core. *A. I. Harris, L. W. Avery, K.-F. Schuster, L. J. Tacconi, & R. Genzel.* 446, L85, 171-A9 (1995)

Alphanumeric: IRS 4

High-Resolution Far-Infrared Observations and Radiative-Transfer Models of W3 IRS 4 and IRS 5. *M. F. Campbell, H. M. Butner, P. M. Harvey, N. J. Evans II, M. B. Campbell, & C. N. Sabbey.* 454, 831, 313-C6 (1995)

Alphanumeric: IRS 5

High-Resolution Far-Infrared Observations and Radiative-Transfer Models of W3 IRS 4 and IRS 5. *M. F. Campbell, H. M. Butner, P. M. Harvey, N. J. Evans II, M. B. Campbell, & C. N. Sabbey.* 454, 831, 313-C6 (1995)

Alphanumeric: IRS 9

An HCO^+ Study of NGC 7538, IRS 9, and GL 490. *Tatsuhiko I. Hasegawa & George F. Mitchell.* 441, 665, 71-B11 (1995)

Alphanumeric: IRS 16

Evidence for the Interaction of the IRS 16 Wind with the Ionized and Molecular Gas at the Galactic Center. *Farhad Yusef-Zadeh & Mark Wardle.* 405, 584, 50-C5 (1993)

Highly Blueshifted H I Gas toward the Galactic Center. *Farhad Yusef-Zadeh, Anthony Lasenby, & Jennifer Marshall.* 410, L27, 118-G12 (1993)

Anisotropy in the Angular Broadening of Sagittarius A^* at the Galactic Center. *Farhad Yusef-Zadeh, William Cotton, Mark Wardle, Fulvio Melia, & Douglas A. Roberts.* 434, L63, 241-F1 (1994)

Alphanumeric: L134N

A Source Model for the L134N Molecular Cloud. *Daryl A. Swade & F. Peter Schloerb.* 392, 543, 109-A9 (1992)

Nitrogen Sulfide in Quiescent Dark Clouds. *Douglas McGonagle, William M. Irvine, & Masatoshi Ohishi.* 422, 621, 39-E8 (1994)

Alphanumeric: L483

The Infrared Nebula and Outflow in Lynds 483. *G. A. Fuller, E. A. Lada, C. R. Masson, & P. C. Myers.* 453, 754, 294-C3 (1995)

Alphanumeric: L810

Near-Infrared Discovery of the L810 Nebula Illuminator. *João Lin Yun, Dan P. Clemens, Mark J. McCaughrean, & Marcia Rieke.* 408, L101, 95-E9 (1993)

Alphanumeric: L1148

High-Velocity Hot Ammonia in Bipolar Outflows. *R. Bachiller, J. Martín-Pintado, & A. Fuente.* 417, L45, 223-D1 (1993)

Alphanumeric: L1157

The Outflow in the L1157 Dark Cloud: Evidence for Shock Heating of the Interacting Gas. *T. Umemoto, T. Iwata, Y. Fukui, H. Mikami, S. Yamamoto, O. Kameya, & N. Hirano.* 392, L83, 113-E6 (1992)

High-Velocity Hot Ammonia in Bipolar Outflows. *R. Bachiller, J. Martín-Pintado, & A. Fuente.* 417, L45, 223-D1 (1993)

Ammonia Emission from Bow Shocks in the L1157 Outflow. *M. Tafalla & R. Bachiller.* 443, L37, 102-G4 (1995)

Si Emission in a Jetlike Molecular Outflow toward L1157. *Q. Zhang, Paul T. P. Ho, M. C. H. Wright, & D. J. Wilner.* 451, L71, 260-G1 (1995)

Alphanumeric: L1204

Dense Cores in L1204/S140: Star Formation and Velocity Shifts. *M. Tafalla, R. Bachiller, & J. Martín-Pintado.* 403, 175, 16-B8 (1993)

Alphanumeric: L1228

Twin Herbig-Haro Jets and Molecular Outflows in L1228. *John Bally, David Devine, Robert A. Fesen, & Adair P. Lane.* 454, 345, 304-A9 (1995)

Alphanumeric: L1251

A New Look at the Dark Cloud L1251: Sensitive Observations of the Molecular Emission. *Fumio Sato, Akira Mizuno, Tomoo Nagahama, Toshikazu Onishi, Yoshinori Yonekura, & Yasuo Fukui.* 435, 279, 247-B11 (1994)

Alphanumeric: L1257

Proto–Brown Dwarfs. I. Methods and Results for High-Latitude Clouds. *Marc W. Pound & Leo Blitz.* 418, 328, 235-B9 (1993)

Alphanumeric: L1287

The Exciting Young Stellar Object for the Molecular Outflow at the Core of L1287. *David A. Weintraub & Joel Kastner.* 411, 767, 139-C9 (1993)

A Radio Candidate for the Exciting Source of the L1287 Bipolar Outflow. *Guillem Anglada, Luis F. Rodríguez, José M. Girart, Robert Estalella, & José M. Torrelles.* 420, L91, 15-F7 (1994)

Interferometric Observations of the Circumstellar Molecular Structure around the Young Stellar Object in L1287. *Ji Yang, Nagayoshi Ohashi, & Yasuo Fukui.* 455, 175, 320-E7 (1995)

Alphanumeric: L1448

The L1448 Molecular Jet. *John Bally, Elizabeth A. Lada, & Adair P. Lane.* 418, 322, 235-A10 (1993)

Alphanumeric: L1495

A Multiwavelength Study of Star Formation in the L1495E Cloud in Taurus. *Karen M. Strom & Stephen E. Strom.* 424, 237, 64-G4 (1994)

Alphanumeric: L1527

A $C^{18}O$ Survey of Dense Cores in the Taurus Molecular Cloud: Signatures of Evolution and Protostellar Collapse. *Shudong Zhou, Neal J. Evans II, Yangsheng Wang, Ruisheng Peng, & K. Y. Lo.* 433, 131, 209-G12 (1994)

Alphanumeric: L1551 IRS 5

The Molecular Hydrogen Emission around L1551 IRS 5: Shock- Heated Molecular Gas at the Base of the Molecular Outflow. *Takuya Yamashita & Motohide Tamura.* 387, L93, 48-E5 (1992)

Detection of Magnetohydrodynamic Shocks in the L1551 Outflow. *M. Barsony, N. Z. Scoville, & C. J. Chandler.* 409, 275, 100-E4 (1993)

Detection of the 2165 Inverse Centimeter (4.619 Micron) XCN Band in the Spectrum of L1551 IRS 5. *Stephen C. Tegler, David A. Weintraub, Louis J. Allamandola, Scott A. Sandford, Terrence W. Rettig, & Humberto Campins.* 411, 260, 130-D9 (1993)

"Spherical" Disks: Moving toward a Unified Source Model for L1551. *Harold M. Butner, Antonella Natta, & Neal J. Evans II.* 420, 326, 5-A1 (1994)

Successive Ejection Events in the L1551 Molecular Outflow. *R. Bachiller, M. Tafalla, & J. Cernicharo.* 425, L93, 94-F1 (1994)

Spatially Resolved Submillimeter Continuum Emission toward L1551 IRS 5. *E. F. Ladd, G. A. Fuller, R. Padman, P. C. Myers, & Fred C. Adams.* 439, 771, 35-C2 (1995)

Observations of the Clumpy Shell of the L1551 Bipolar Outflow. *R. L. Plambeck & R. L. Snell.* 446, 234, 156-D6 (1995)

Alphanumeric: L1551NE

The L1551NE Molecular Outflow. *G. H. Moriarty-Schieven, H. M. Butner, & P. G. Wannier.* 445, L55, 141-B6 (1995)

Alphanumeric: L1630

Global Star Formation in the L1630 Molecular Cloud. *Elizabeth A. Lada.* 393, L25, 120-D7 (1992)

The Structure and Nature of NGC 2071 IRS 1: High-Resolution Radio Continuum Maps. *Howard A. Smith & Sara C. Beck.* 420, 643, 10-F7 (1994)

Ultraviolet-illuminated Molecular Cloud Boundaries: Extended [C II] 158 Micron Emission toward L1630. *D. T. Jaffe, S. Zhou, J. E. Howe, F. Herrmann, S. C. Madden, A. Poglitsch, P. P. van der Werf, & G. J. Stacey.* 436, 203, 264-A10 (1994)

Alphanumeric: L1641

^{13}CO and HCO^+ Observations of *IRAS* Sources in L1641. *Hua Chen, Yasuo Fukui, & Ji Yang.* 398, 544, 190-G12 (1992)

The Association of ^{13}CO Molecular Gas with *IRAS* Sources in L1641. *H. Chen, Y. Fukui, & T. Iwata.* 411, 239, 130-B11 (1993)

Infrared Luminosity Functions for the Young Stellar Population Associated with the L1641 Molecular Cloud. *Karen M. Strom, Stephen E. Strom, & K. M. Merrill.* 412, 233, 145-A8 (1993)

Star Formation in the L1641 North Cluster. *Klaus-Werner Hodapp & James Deane.* 88, 119, 42-A1 (1993)

An *IRAS* Sample from Co-added Images of L1641. *H. Chen, A. T. Tokunaga, & Y. Fukui.* 416, 235, 204-A4 (1993)

Stellar Density Enhancements Associated with *IRAS* Sources in L1641. *Hua Chen & Alan T. Tokunaga.* 90, 149, 2-G12 (1994)

Alphanumeric: L1755

Does Near-Infrared Polarimetry Reveal the Magnetic Field in Cold Dark Clouds? *Alyssa A. Goodman, Terry J. Jones, Elizabeth A. Lada, & Philip C. Myers.* 448, 748, 205-B4 (1995)

Alphanumeric: LMC N49

A Multiwavelength Study of the Supernova Remnant N49 in the Large Magellanic Cloud. *Olaf Vancura, William P. Blair, Knox S. Long, & John C. Raymond.* 394, 158, 130-A1 (1992)

Alphanumeric: LMC N132D

High-Resolution X-Ray Spectroscopy of the Supernova Remnant N132D. *Una Hwang, John P. Hughes, Claude R. Canizares, & Thomas H. Markert.* 414, 219, 172-F11 (1993)

Alphanumeric: M−0.02−0.07

The Compression of the M-0.02-0.07 Molecular Cloud by the Sagittarius A East Shell Source. *E. Serabyn, J. H. Lacy, & J. M. Achtermann.* 395, 166, 142-C1 (1992)

Alphanumeric: M1-92

Spectropolarimetry of the Post–Main-Sequence Bipolar Nebulae GL 618, M2-56, and M1-92. *Susan R. Trammell, Harriet L. Dinerstein, & Robert W. Goodrich.* 402, 249, 4-B12 (1993)

Alphanumeric: M2-9

Spectropolarimetry of the Bipolar Planetary Nebula M2-9. *Susan R. Trammell, Robert W. Goodrich, & Harriet L. Dinerstein.* 453, 761, 294-D2 (1995)

Alphanumeric: M2-56

Spectropolarimetry of the Post–Main-Sequence Bipolar Nebulae GL 618, M2-56, and M1-92. *Susan R. Trammell, Harriet L. Dinerstein, & Robert W. Goodrich.* 402, 249, 4-B12 (1993)

Alphanumeric: M17SW

Detection of the Carbon Monoxide Ion (CO^+) in the Interstellar Medium and a Planetary Nebula. *William B. Latter, Christopher K. Walker, & Philip R. Maloney.* 419, L97, 259-F14 (1993)

Alphanumeric: MBM 12

Atomic Carbon in the High-Latitude Molecular Cloud MBM 12. *James G. Ingalls, T. M. Bania, & James M. Jackson.* 431, L139, 192-D4 (1994)

Alphanumeric: MBM 16

The Observation of Correlated Velocity Structures in a Translucent Molecular Cloud and Implications for Turbulence. *L. Magnani, T. N. LaRosa, & S. N. Shore.* 402, 226, 3-G10 (1993)

CH as a Tracer of a Translucent Cloud Boundary. *Loris Magnani & Joseph S. Onello.* 408, 559, 92-B9 (1993)

Alphanumeric: MSH 15−52

The Nonthermal Radio, X-Ray, and TeV Gamma-Ray Spectra of MSH 15−52. *I. du Plessis, O. C. de Jager, S. Buchner, H. I. Nel, A. R. North, B. C. Raubenheimer, & D. J. van der Walt.* 453, 746, 294-B6 (1995)

PSR 1509−58 and Its Plerionic Environment. *C. Greiveldinger, S. Caucino, S. Massaglia, H. Ögelman, & E. Trussoni.* 454, 855, 313-E11 (1995)

Alphanumeric: N49

Far-Ultraviolet Observations of the Supernova Remnant N49 Using the Hopkins Ultraviolet Telescope. *Olaf Vancura, William P. Blair, Knox S. Long, Arthur F. Davidsen, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Henry C. Ferguson, Richard C. Henry, Randy A. Kimble, Gerard A. Kriss, Jeffrey W. Kruk, & H. Warren Moos.* 401, 220, 223-G1 (1992)

Negative Search for a Counterpart to the Gamma-Ray Repeater Source 0525−66. *John R. Dickel, You-Hua Chu, Christopher Gelino, Ross Beyer, Michael G. Burton, D. K. Milne, Jason Spyromilio, David A. Green, Christopher Wilkinson, & Norbert Junkes.* 448, 623, 203-D1 (1995)

Alphanumeric: N132D

IUE Spectra and Optical Imaging of the Oxygen-rich Supernova Remnant N132D. *William P. Blair, John C. Raymond, & Knox S. Long.* 423, 334, 50-C7 (1994)

Alphanumeric: OH 231.8+4.2

Variation in the Near-Infrared Surface Brightness Distribution of the Bipolar Nebula OH 231.8+4.2. *Joel H. Kastner, David A. Weintraub, B. Zuckerman, E. E. Becklin, I. McLean, & I. Gatley.* 398, 552, 191-A8 (1992)

Radio and X-Ray Observations of OH 231.8+4.2. *Gregory B. Taylor & Mark Morris.* 409, 720, 108-A9 (1993)

Alphanumeric: OMC-1

Hydrogen Chloride in OMC-1. *Peter Schilke, T. G. Phillips, & Ning Wang.* 441, 334, 64-A1 (1995)

The 685–692 GHz Spectrum of the Orion Core. *A. I. Harris, L. W. Avery, K.-F. Schuster, L. J. Tacconi, & R. Genzel.* 446, L85, 171-A9 (1995)

Alphanumeric: RCW 58

An Infrared Study of Three Wolf-Rayet Ring Nebulae. *J. S. Mathis, J. P. Cassinelli, K. A. van der Hucht, T. Prusti, P. R. Wesselius, & P. M. Williams.* 384, 197, 3-D5 (1992)

Alphanumeric: RCW 122C

High-Resolution Far-Infrared Mapping of the Star-forming Region RCW 122C. *C. Y. Zhang, P. M. Harvey, Beverly J. Smith, C. Colomé, & J. DiFrancesco.* 452, 308, 266-D1 (1995)

Alphanumeric: RNO 1B/1C

The Molecular Cores in the L1287, AFGL 5142, and IRAS 20126+4104 Regions. *Robert Estalella, Rainer Mauersberger, José M. Torrelles, Guillem Anglada, José F. Gómez, Rosario López, & Dirk Muders.* 419, 698, 256-D1 (1993)

Alphanumeric: RNO 43

Radio Continuum from the Powering Sources of the RNO 43, Haro 4-255 FIR, B335, and PV Cephei Outflows and from the Herbig-Haro Object 32A. *G. Anglada, L. F. Rodríguez, J. Cantó, R. Estalella, & J. M. Torrelles.* 395, 494, 148-G1 (1992)

Alphanumeric: S106

CO Lines toward NGC 2024 and Other Star-forming Regions: A Closer Look at the Warm Gas Component. *U. U. Graf, A. Eckart, R. Genzel, A. I. Harris, A. Poglitsch, A. P. G. Russell, & J. Stutzki.* 405, 249, 44-B13 (1993)

The Distribution of Molecular and Neutral Gas and Magnetic Fields near the Bipolar H II Region S106. *D. A. Roberts, R. M. Crutcher, & T. H. Troland.* 442, 208, 80-A9 (1995)

Alphanumeric: S122

Riddle and Puzzle of the Optical Region S122 = 2306+1439. *J. P. Vallée & A. G. de Bruyn.* 393, 674, 124-B10 (1992)

Alphanumeric: S140

New VLA Observations of NH_3 in S140. *Shudong Zhou, Neal J. Evans II, Lee G. Mundy, & Marc L. Kutner.* 417, 613, 227-A7 (1993)

Observations of Large-Scale [C I] Emission from S140. *René Plume, D. T. Jaffe, & Jocelyn Keene.* 425, L49, 85-G3 (1994)

The S140 Core: Aperture Synthesis HCO^+ and SO Observations. *D. J. Wilner & W. J. Welch.* 427, 898, 123-G3 (1994)

CS Multitransitional Study of Density Distribution in Star-forming Regions. II. The S140 Region. *Shudong Zhou, Harold M. Butner, Neal J. Evans II, Rolf Güsten, Marc L. Kutner, & Lee G. Mundy.* 428, 219, 130-G10 (1994)

Alphanumeric: S147

A High Galactic Latitude Pulsar Survey of the Arecibo Sky. *R. S. Foster, B. J. Cadwell, A. Wolszczan, & S. B. Anderson.* 454, 826, 313-B12 (1995)

Alphanumeric: S255

High-Velocity OH in Absorption: A New Tracer of Shocked Gas in Outflows? *A. Ruiz, L. F. Rodríguez, J. Cantó, & I. F. Mirabel.* 398, 139, 183-F3 (1992)

Alphanumeric: S308

An Infrared Study of Three Wolf-Rayet Ring Nebulae. *J. S. Mathis, J. P. Cassinelli, K. A. van der Hucht, T. Prusti, P. R. Wesselius, & P. M. Williams.* 384, 197, 3-D5 (1992)

Alphanumeric: Sh 187

The Sharpless 187 Gas Complex: A Multifrequency Study. *G. Joncas, D. Durand, & R. S. Roger.* 387, 591, 46-A9 (1992)

Alphanumeric: SN 1006

Faint Object Spectrograph Spectra of the Broad Fe II Absorption Lines in the Remnant of SN 1006. *Chi-Chao Wu, D. Michael Crenshaw, Robert A. Fesen, Andrew J. S. Hamilton, & Craig L. Sarazin.* 416, 247, 204-B7 (1993)

Detection of Ultraviolet Emission Lines in SN 1006 with the Hopkins Ultraviolet Telescope. *John C. Raymond, William P. Blair, & Knox S. Long.* 454, L31, 307-G2 (1995)

Alphanumeric: SN 1985A

Detection of an Unresolved Nuclear Radio Source in M31. *Patrick C. Crane, John R. Dickel, & John J. Cowan.* 390, L9, 78-B7 (1992)

Alphanumeric: SN 1987A

Hydrogen Recombination at High Optical Depth and the Spectrum of SN 1987A. *Yueming Xu, Richard McCray, Ernesto Oliva, & Sofia Randich.* 386, 181, 26-D3 (1992)

Two New Light Echo Structures from SN 1987A at Large Distances. *Jun Xu, Arlin P. S. Crotts, & William E. Kunkel.* 435, 274, 247-B1 (1994)

HST Observations of the Ring around SN 1987A. *Philip C. Plait, Peter Lundqvist, Roger A. Chevalier, & Robert P. Kirshner.* 439, 730, 34-F8 (1995)

Alphanumeric: SNR 0540−693

The Radio Structure of Supernova Remnant 0540−693. *R. N. Manchester, L. Staveley-Smith, & M. J. Kesteven.* 411, 756, 139-B8 (1993)

Alphanumeric: SNR G326.3−1.8

ROSAT Observations of the Composite Supernova Remnant G326.3−1.8. *Namir E. Kassim, Paul Hertz, & Kurt W. Weiler.* 419, 733, 256-F13 (1993)

Alphanumeric: TMC

High-Resolution Observations of Turbulence in the Subcondensation TMC-1C in Heiles' Cloud 2: Estimation of the Velocity Spectrum of Turbulence. *Y. Kitamura, K. Sunada, M. Hayashi, & T. Hasegawa.* 413, 221, 159-A9 (1993)

Alphanumeric: TMC-1

Mapping Observations of Sulfur-containing Carbon-Chain Molecules in Taurus Molecular Cloud 1 (TMC-1). *Yasuhiro Hirahara, Hiroko Suzuki, Satoshi Yamamoto, Kentarou Kawaguchi, Norio Kaifu, Masatoshi Ohishi, Shuro Takano, Shin-ichi Ishikawa, & Akimasa Masuda.* 394, 539, 136-B1 (1992)

Sequential Star Formation in Taurus Molecular Cloud 1. *Tomoyuki Hanawa, Satoshi Yamamoto, & Yasuhiro Hirahara.* 420, 318, 4-G5 (1994)

Detection of a New Molecular Ion HC_3NH^+ in TMC-1. *Kentarou Kawaguchi, Yasuko Kasai, Shin-ichi Ishikawa, Masatoshi Ohishi, Norio Kaifu, & Takayoshi Amano.* 420, L95, 15-F12 (1994)

Nitrogen Sulfide in Quiescent Dark Clouds. *Douglas McGonagle, William M. Irvine, & Masatoshi Ohishi.* 422, 621, 39-E8 (1994)

Detection of a New Interstellar Molecule, H_2CN. *Masatoshi Ohishi, Douglas McGonagle, William M. Irvine, Satoshi Yamamoto, & Shuji Saito.* 427, L51, 117-G5 (1994)

Alphanumeric: VLA 1623

Submillimeter Continuum Observations of ρ Ophiuchi A: The Candidate Protostar VLA 1623 and Prestellar Clumps. *Philippe André, Derek Ward-Thompson, & Mary Barsony.* 406, 122, 56-F3 (1993)

Alphanumeric: VRO 42.05.01

ROSAT Observations of VRO 42.05.01. *David N. Burrows & Zhiyu Guo.* 421, L19, 21-E7 (1994)

Alphanumeric: W3

Anomalously High Apparent Abundances of Singly Ionized Helium in the Galactic H II Region W3A. *P. R. Roelfsema, W. M. Goss, & D. C. V. Mallik.* 394, 188, 130-C13 (1992)

Kinematics of W3(OH): First Proper Motions of OH Masers from VLBI Measurements. *E. E. Bloemhof, M. J. Reid, & J. M. Moran.* 397, 500, 177-A12 (1992)

Ammonia in the W3(OH) Region. *T. L. Wilson, R. A. Gaume, & K. J. Johnston.* 402, 230, 4-A1 (1993)

VLA Zeeman Observations of W3. *D. A. Roberts, R. M. Crutcher, T. H. Troland, & W. M. Goss.* 412, 675, 152-B12 (1993)

Luminous Radio-quiet Sources in W3(Main). *E. F. Ladd, J. R. Deane, D. B. Sanders, & C. G. Wynn-Williams.* 419, 186, 248-D11 (1993)

Submillimeter Observations of CO in the W3 Core. *Tatsuhiko I. Hasegawa, George F. Mitchell, Henry E. Matthews, & Linda Tacconi.* 426, 215, 98-G1 (1994)

Synchrotron Emission from the H_2O Maser Source in W3(OH). *M. J. Reid, A. L. Argon, C. R. Masson, K. M. Menten, & J. M. Moran.* 443, 238, 98-D3 (1995)

Line Broadening in the W3(OH) Champagne Flow. *E. R. Keto, W. J. Welch, M. J. Reid, & P. T. P. Ho.* 444, 765, 127-A8 (1995)

High-Resolution Far-Infrared Observations and Radiative-Transfer Models of W3 IRS 4 and IRS 5. *M. F. Campbell, H. M. Butner, P. M. Harvey, N. J. Evans II, M. B. Campbell, & C. N. Sabbey.* 454, 831, 313-C6 (1995)

Alphanumeric: W3(OH)

The Environments of Young Stars: Mid-Infrared and Molecular Line Imaging. *Eric Keto, Deanne Proctor, Roger Ball, John Arens, & Garrett Jernigan.* 401, L113, 233-E11 (1992)

Diagonalization of the Velocity Variance/Covariance Matrix as a Diagnostic of Maser Proper Motions. *E. E. Bloemhof.* 406, L75, 68-E9 (1993)

Sub-Arcsecond Imaging of W3(OH) at 87.7 GHz. *D. J. Wilner, W. J. Welch, & J. R. Forster.* 449, L73, 217-C1 (1995)

Alphanumeric: W28

A Young, Glitching Pulsar near the Direction of W28. *V. M. Kaspi, A. G. Lyne, R. N. Manchester, S. Johnston, N. D'Amico, & S. L. Shemar.* 409, L57, 111-E1 (1993)

Alphanumeric: W28 A2

Observation of [C I] toward the GL 2591 and W28 A2 Molecular Outflows. *Minho Choi, Neal J. Evans II, Daniel T. Jaffe, & Christopher K. Walker.* 435, 734, 256-B10 (1994)

Alphanumeric: W31A

Time Variations of H_2O Maser Emission at W31A and W75S. *E. E. Lekht, E. Mendoza-Torres, & R. L. Sorochenko.* 443, 222, 98-B8 (1995)

Alphanumeric: W33

Solid Carbonyl Sulphide (OCS) in W33A. *M. E. Palumbo, A. G. G. M. Tielens, & A. T. Tokunaga.* 449, 674, 222-A10 (1995)

Alphanumeric: W44

An X-Ray and Optical Study of the Supernova Remnant W44. *Jeonghee Rho, R. Petre, Eric M. Schlegel, & J. Jeff Hester.* 430, 757, 171-C8 (1994)

A Fast Expanding H I Shell in W44: A Preexisting Wind-blown Shell Overtaken by a Supernova Remnant. *Bon-Chul Koo & Carl Heiles.* 442, 679, 89-E1 (1995)

Alphanumeric: W48

Aperture Synthesis Imaging of Partially Ionized Gas in W48. *Joseph S. Onello, J. A. Phillips, P. Benaglia, W. M. Goss, & Yervant Terzian.* 426, 249, 99-B13 (1994)

Alphanumeric: W49

Distance and Kinematics of the W49N H_2O Maser Outflow. *C. R. Gwinn, J. M. Moran, & M. J. Reid.* 393, 149, 116-A1 (1992)

Fragmentation and Kinematics of the W49N Cloud Core. *E. Serabyn, R. Güsten, & A. Schulz.* 413, 571, 163-E9 (1993)

A Protostellar Jet Model for the Water Masers in W49N. *Mordecai-Mark Mac Low, Moshe Elitzur, James M. Stone, & Arieh Königl.* 427, 914, 124-A7 (1994)

Hypersonic Acceleration and Turbulence of H_2O Masers in W49N. *C. R. Gwinn.* 429, 241, 147-B3 (1994)

Physical Structure of H_2O Masers in W49N. *C. R. Gwinn.* 429, 253, 147-C3 (1994)

Radial Motions of Molecular Gas in the W49 Cloud Core. *James M. Jackson & Kathleen E. Kraemer.* 429, L37, 150-E7 (1994)

Modeling Radiative Transfer in Molecular Clouds. I. HCO^+ in the Star-forming Region W49A North. *Hélène R. Dickel & Lawrence H. Auer.* 437, 222, 286-C4 (1994)

Alphanumeric: W49B

Multifrequency Studies of Bright Radio Supernova Remnants. II. W49B. *David A. Moffett & Stephen P. Reynolds.* 437, 705, 295-D9 (1994)

Alphanumeric: W51

CO Lines toward NGC 2024 and Other Star-forming Regions: A Closer Look at the Warm Gas Component. *U. U. Graf, A. Eckart, R. Genzel, A. I. Harris, A. Poglitsch, A. P. G. Russell, & J. Stutzki.* 405, 249, 44-B13 (1993)

A Spectral-Line Survey of W51 from 17.6 to 22.0 GHz. *M. B. Bell, L. W. Avery, & J. K. G. Watson.* 86, 211, 16-F7 (1993)

High-Resolution Centimeter Radio Continuum and Ammonia Maser Observations of the W51 Region of Star Formation. *R. A. Gaume, K. J. Johnston, & T. L. Wilson.* 417, 645, 227-D1 (1993)

Radio Continuum and Radio Recombination Line Observations of W51. *David M. Mehringer.* 91, 713, 29-A2 (1994)

Near-Infrared Observations of W51. *Jeffrey D. Goldader & C. G. Wynn-Williams.* 433, 164, 210-D1 (1994)

ROSAT Observations of the Supernova Remnant W51C. *Bon-Chul Koo, Kee-Tae Kim, & Frederick D. Seward.* 447, 211, 175-B8 (1995)

Ammonia Maser in a Molecular Outflow toward W51. *Q. Zhang & Paul T. P. Ho.* 450, L63, 244-G1 (1995)

Independent Confirmation of the 8.665 GHz Hyperfine Line of $^3He^+$ in W51. *M. B. Bell.* 453, 773, 294-E7 (1995)

Alphanumeric: W75S

Time Variations of H_2O Maser Emission at W31A and W75S. *E. E. Lekht, E. Mendoza-Torres, & R. L. Sorochenko.* 443, 222, 98-B8 (1995)

ISM: JETS AND OUTFLOWS

The Molecular Core in the AFGL 5157 Region. *José M. Torrelles, Carlos Eiroa, Rainer Mauersberger, Robert Estalella, Luis F. Miranda, & Guillem Anglada.* 384, 528, 8-F7 (1992)

The Triple Radio Continuum Source in Serpens: Its Interaction with the Ambient Molecular Gas. *J. M. Torrelles, J. F. Gómez, S. Curiel, C. Eiroa, L. F. Rodríguez, & P. T. P. Ho.* 384, L59, 11-D7 (1992)

Discovery of Outflows from Young Stellar Objects in Bok Globules. *João Lin Yun & Dan P. Clemens.* 385, L21, 17-C6 (1992)

Knots in Stellar Jets from Time-dependent Sources. *A. C. Raga & Lev Kofman.* 386, 222, 27-A1 (1992)

A CO $J = 2 \rightarrow 1$ Study of the Outflow Sources GL 490, GS 2591, M8E-IR, and W3 IRS 5. *George F. Mitchell, Tatsuhiko I. Hasegawa, & Jason Schella.* 386, 604, 32-G6 (1992)

Atomic and Molecular Outflow in DR 21. *A. P. G. Russell, J. Bally, R. Padman, & R. E. Hills.* 387, 219, 39-E13 (1992)

Properties of Swept-up Molecular Outflows. *Colin R. Masson & Lawrence M. Chernin.* 387, L47, 43-F1 (1992)

The Magnetic Collimation of Bipolar Outflows. I. Adiabatic Simulations. *James M. Stone & Michael L. Norman.* 389, 297, 63-F1 (1992)

The Structure of the Inner Arcsecond of R Aquarii Observed with the *Hubble Space Telescope*. *Denis Burgarella & Francesco Paresce.* 389, L29, 66-D10 (1992)

Jet Formation in the Transition from the Asymptotic Giant Branch to Planetary Nebulae. *Noam Soker.* 389, 628, 69-C1 (1992)

Bipolar Outflow in B335: The Small-Scale Structure. *Naomi Hirano, Osamu Kameya, Takashi Kasuga, & Tomofumi Umemoto.* 390, L85, 85-B1 (1992)

Infrared Morphology of Mass Outflow from GL 2591. *Motohide Tamura & Takuya Yamashita.* 391, 710, 96-G4 (1992)

Structure and Kinematics of the HH 111 Jet. *Bo Reipurth, A. C. Raga, & Steve Heathcote.* 392, 145, 102-F10 (1992)

On the Use of Forbidden Lines as Density Diagnostics in Stratified Media. *Pedro N. Safier.* 392, 492, 108-D5 (1992)

High-Velocity HCO^+ Emission Associated with the DR 21 Molecular Outflow. *Rognvald P. Garden & John E. Carlstrom.* 392, 602, 109-F7 (1992)

The Powering Sources of the Molecular Outflows in the AFGL 437, AFGL 5142, and AFGL 5157 Regions. *José M. Torrelles, José F. Gómez, Guillem Anglada, Robert Estalella, Rainer Mauersberger, & Carlos Eiroa.* 392, 616, 109-G9 (1992)

The Outflow in the L1157 Dark Cloud: Evidence for Shock Heating of the Interacting Gas. *T. Umemoto, T. Iwata, Y. Fukui, H. Mikami, S. Yamamoto, O. Kameya, & N. Hirano.* 392, L83, 113-E6 (1992)

Distance and Kinematics of the W49N H_2O Maser Outflow. *C. R. Gwinn, J. M. Moran, & M. J. Reid.* 393, 149, 116-A1 (1992)

Surveys of Dense Cores for High-Velocity Gas. *Yuefang Wu, Shudong Zhou, & Neal J. Evans II.* 394, 196, 130-D9 (1992)

Evidence for a Wind-swept Cavity in HH 34? *Alexander Rudolph & William J. Welch.* 395, 488, 148-F3 (1992)

Radio Continuum from the Powering Sources of the RNO 43, Haro 4-255 FIR, B335, and PV Cephei Outflows and from the Herbig-Haro Object 32A. *G. Anglada, L. F. Rodríguez, J. Cantó, R. Estalella, & J. M. Torrelles.* 395, 494, 148-G1 (1992)

Evidence for Large-Scale Expanding Motions within the Orion A Molecular Cloud. *M. H. Heyer, J. Morgan, F. P. Schloerb, R. L. Snell, & P. F. Goldsmith.* 395, L99, 154-B1 (1992)

Extremely High Velocity CO Emission from NGC 2071. *Lawrence M. Chernin & Colin R. Masson.* 396, L35, 160-F8 (1992)

On the Nature of the Excitation of Herbig-Haro Object 2. *José M. Torrelles, Luis F. Rodríguez, Jorge Cantó, Guillem Anglada, José F. Gómez, Salvador Curiel, & Paul T. P. Ho.* 396, L95, 167-D7 (1992)

On the Nature of the Bipolar Molecular Outflow in AFGL 437. *J. F. Gómez, J. M. Torrelles, R. Estalella, G. Anglada, L. Verdes-Montenegro, & P. T. P. Ho.* 397, 492, 177-A1 (1992)

High-Velocity HCO^+ Emission from L1551 IRS 5: Evidence for Wind-Cloud Interactions. *Alexander Rudolph.* 397, L111, 181-D13 (1992)

^{13}CO and HCO^+ Observations of *IRAS* Sources in L1641. *Hua Chen, Yasuo Fukui, & Ji Yang.* 398, 544, 190-G12 (1992)

Mapping AG Carinae: Long-Slit Spectroscopy and Coronographic Imaging of the Nebula and Jet. *Antonella Nota, Claus Leitherer, Mark Clampin, Perry Greenfield, & David A. Golimowski.* 398, 621, 191-G6 (1992)

Multiple Jets from the Young Star IRAS 21334+5039. *Howard A. Smith & Jacqueline Fischer.* 398, L99, 194-D1 (1992)

Circumprotostellar Environments. I. Molecular Outflows from Protostar Candidates in Taurus. *G. H. Moriarty-Schieven, P. G. Wannier, M. Tamura, & Jocelyn Keene.* 400, 260, 212-B10 (1992)

The FU Orionis–Type Spectrum and Bipolar Outflow of Parsamyan 21. *H. J. Staude & Th. Neckel.* 400, 556, 217-C6 (1992)

Radiation-viscous Boundary Layers. *Nahum Arav & Mitchell C. Begelman.* 401, 125, 222-E7 (1992)

Polycyclic Aromatic Hydrocarbon Formation in Carbon-rich Stellar Envelopes. *Isabelle Cherchneff, John R. Barker, & Alexander G. G. M. Tielens.* 401, 269, 224-D1 (1992)

Millimeter-Wavelength Aperture Synthesis Observations of Massive Star-forming Regions in Sagittarius B2. *D. C. Lis, P. F. Goldsmith, J. E. Carlstrom, & N. Z. Scoville.* 402, 238, 4-A12 (1993)

Model Scattering Envelopes of Young Stellar Objects. II. Infalling Envelopes. *Barbara A. Whitney & Lee Hartmann.* 402, 605, 10-B5 (1993)

Theory of Jets from Young Stars. *R. V. E. Lovelace, M. M. Romanova, & J. Contopoulos.* 403, 158, 16-A1 (1993)

Wiggled Structure of Herbig-Haro Objects: Helical Kink Instability of Jets from Young Stellar Objects. *Yasushi Todo, Yutaka Uchida, Tetsuya Sato, & Robert Rosner.* 403, 164, 16-A9 (1993)

Dense Cores in L1204/S140: Star Formation and Velocity Shifts. *M. Tafalla, R. Bachiller, & J. Martín-Pintado.* 403, 175, 16-B8 (1993)

A Circumstellar Molecular Gas Structure Associated with the Massive Young Star Cepheus A–HW 2. *José M. Torrelles, Luis F. Rodríguez, Jorge Cantó, & Paul T. P. Ho.* 404, L75, 40-F1 (1993)

Magnetic Confinement of the Optical Jets in Young Stellar Objects. *S.-U. Choe & T. W. Jones.* 405, 698, 51-F11 (1993)

Submillimeter Continuum Observations of ρ Ophiuchi A: The Candidate Protostar VLA 1623 and Prestellar Clumps. *Philippe André, Derek Ward-Thompson, & Mary Barsony.* 406, 122, 56-F3 (1993)

The Circumstellar Density Distribution of L1551NE. *M. Barsony & C. J. Chandler.* 406, L71, 68-E1 (1993)

Near-Infrared Observations of the HH 111 Region. *Roland Gredel & Bo Reipurth.* 407, L29, 75-D1 (1993)

Turbulent Magnetohydrodynamic Dynamo for Accretion Disks Using the Cross-Helicity Effect. *Akira Yoshizawa & Nobumitsu Yokoi.* 407, 540, 77-C8 (1993)

Infrared and Optical Imaging of *IRAS* Sources with CO Outflow: A Snapshot of Early Star Formation. *H. Chen, A. T. Tokunaga, K. M. Strom, & K.-W. Hodapp.* 407, 639, 78-E4 (1993)

Centrifugally Driven Winds from Protostellar Disks. I. Wind Model and Thermal Structure. *Pedro N. Safier.* 408, 115, 84-E6 (1993)

Centrifugally Driven Winds from Protostellar Disks. II. Forbidden-Line Emission in T Tauri Stars. *Pedro N. Safier.* 408, 148, 85-A1 (1993)

A New Herbig-Haro Flow in the HH 1–2 Complex. *Bo Reipurth, Steve Heathcote, M. Roth, A. Noriega-Crespo, & A. C. Raga.* 408, L49, 89-D1 (1993)

A Flattened Cloud Core in NGC 2024. *Paul T. P. Ho, Yun-Lou Peng, José M. Torrelles, José F. Gómez, Luis F. Rodríguez, & Jorge Cantó.* 408, 565, 92-C1 (1993)

Near-Infrared Discovery of the L810 Nebula Illuminator. *João Lin Yun, Dan P. Clemens, Mark J. McCaughrean, & Marcia Rieke.* 408, L101, 95-E9 (1993)

Detection of Magnetohydrodynamic Shocks in the L1551 Outflow. *M. Barsony, N. Z. Scoville, & C. J. Chandler.* 409, 275, 100-E4 (1993)

The Formation and Evolution of Shocks in Stellar Jets from a Variable Wind. *Patrick Hartigan & John Raymond.* 409, 705, 107-G5 (1993)

From Bipolar to Quadrupolar: The Collimation Processes of the Cepheus A Outflow. *José M. Torrelles, Lourdes Verdes-Montenegro, Paul T. P. Ho, Luis F. Rodríguez, & Jorge Cantó.* 410, 202, 114-F1 (1993)

The Structure of Protostellar Accretion Disks and the Origin of Bipolar Flows. *Mark Wardle & Arieh Königl.* 410, 218, 114-G6 (1993)

High-Resolution Long-Slit Spectral Imaging of the Mass Outflows in the Immediate Vicinity of DG Tauri. *J. Solf & K. H. Böhm.* 410, L31, 118-F13 (1993)

Three-dimensional Simulations of Protostellar Jets. *Elisabete M. de Gouveia Dal Pino & Willy Benz.* 410, 686, 122-B13 (1993)

Discovery of New Objects in the Orion Nebula on *HST* Images: Shocks, Compact Sources, and Protoplanetary Disks. *C. R. O'Dell, Zheng Wen, & Xihai Hu.* 410, 696, 122-C11 (1993)

The Dynamics of Stellar Outflows Dominated by Interaction of Dust and Radiation. *Nathan Netzer & Moshe Elitzur.* 410, 701, 122-D11 (1993)

A Search for Herbig-Haro Objects near Herbig Ae/Be Stars. *Robert W. Goodrich.* 86, 499, 21-A5 (1993)

Evidence for Precession of the R Aquarii Jet. *J. M. Hollis & A. G. Michalitsianos.* 411, 235, 130-B3 (1993)

The Association of ^{13}CO Molecular Gas with *IRAS* Sources in L1641. *H. Chen, Y. Fukui, & T. Iwata.* 411, 239, 130-B11 (1993)

The Exciting Young Stellar Object for the Molecular Outflow at the Core of L1287. *David A. Weintraub & Joel Kastner.* 411, 767, 139-C9 (1993)

Numerical Simulations of Protostellar Jets with Nonequilibrium Cooling. I. Method and Two-dimensional Results. *James M. Stone & Michael L. Norman.* 413, 198, 158-E6 (1993)

Numerical Simulations of Protostellar Jets with Nonequilibrium Cooling. II. Models of Pulsed Jets. *James M. Stone & Michael L. Norman.* 413, 210, 158-F13 (1993)

Properties of Jet-driven Molecular Outflows. *Colin R. Masson & Lawrence M. Chernin.* 414, 230, 172-G10 (1993)

The Small-Scale Structure and Kinematics of B335. *Claire J. Chandler & Anneila I. Sargent.* 414, L29, 175-E13 (1993)

Continuum Hydrodynamical Equations for Multiphase Astrophysical Flows. *S. Pistinner & G. Shaviv.* 414, 612, 178-G5 (1993)

The Triple Radio Continuum Source in Serpens: The Birth of a Herbig-Haro System? *S. Curiel, L. F. Rodríguez, J. M. Moran, & J. Cantó.* 415, 191, 187-D5 (1993)

Molecular Line Emission Models of Herbig-Haro Objects. II. HCO^+ Emission. *Mark G. Wolfire & Arieh Königl.* 415, 204, 187-E6 (1993)

Star Formation in the L1641 North Cluster. *Klaus-Werner Hodapp & James Deane.* 88, 119, 42-A1 (1993)

The Detection of [C I] in Molecular Outflows Associated with Young Stellar Objects. *Christopher K. Walker, Gopal Narayanan, Thomas H. Büttgenbach, John E. Carlstrom, Jocelyn Keene, & T. G. Phillips.* 415, 672, 196-B10 (1993)

Kinematical Evidence for a Rotating, Episodic Jet in the Planetary Nebula Fleming 1. *J. A. Lopez, J. Meaburn, & J. W. Palmer.* 415, L135, 200-E8 (1993)

Shear in the IRAS 3282 Outflow. *M. Tafalla, R. Bachiller, J. Martín-Pintado, & M. C. H. Wright.* 415, L139, 200-F1 (1993)

HH 80–81: A Highly Collimated Herbig-Haro Complex Powered by a Massive Young Star. *J. Martí, L. F. Rodríguez, & B. Reipurth.* 416, 208, 203-F1 (1993)

An *IRAS* Sample from Co-added Images of L1641. *H. Chen, A. T. Tokunaga, & Y. Fukui.* 416, 235, 204-A4 (1993)

Ultraviolet Spectroscopy of Herbig-Haro Objects: Spatial Structure, Spectroscopic Diagnostics, and Variability. *K.-H. Böhm, A. Noriega-Crespo, & J. Solf.* 416, 647, 211-D11 (1993)

Hydrodynamic Collimation of Precessing Jets. *W. Peter & D. Eichler.* 417, 170, 219-E3 (1993)

Extremely High Velocity Outflows. *Minho Choi, Neal J. Evans II, & Daniel T. Jaffe.* 417, 624, 227-B6 (1993)

Ammonia Emission Downstream of the Herbig-Haro Object 1. *J. M. Torrelles, J. F. Gómez, P. T. P. Ho, G. Anglada, L. F. Rodríguez, & J. Cantó.* 417, 655, 227-D13 (1993)

A Deeply Embedded Companion to LkHα 198. *P. O. Lagage, G. Olofsson, S. Cabrit, C. J. Cesarsky, L. Nordh, & J. M. Rodriguez Espinosa.* 417, L79, 230-D6 (1993)

J H K L Imaging and *K* Polarimetry of the Bipolar Outflow NGC 2071. *D. M. Walther, E. I. Robson, C. Aspin, & W. R. F. Dent.* 418, 310, 234-G9 (1993)

The L1448 Molecular Jet. *John Bally, Elizabeth A. Lada, & Adair P. Lane.* 418, 322, 235-A10 (1993)

A Dynamically Accreting Gas Disk around HL Tauri. *Masahiko Hayashi, Nagayoshi Ohashi, & Shoken M. Miyama.* 418, L71, 245-C13 (1993)

Molecular Hydrogen in the IRAS 03282+3035 Stellar Jet. *John Bally, David Devine, Mark Hereld, & Bernard J. Rauscher.* 418, L75, 245-D7 (1993)

Magnetic Confinement of Jets. *David Eichler.* 419, 111, 247-E2 (1993)

A Well-shaped Bipolar Outflow Shell in Monoceros R2. *Taoling Xie, Paul F. Goldsmith, & Nimesh Patel.* 419, L33, 252-E7 (1993)

The 150 AU Structure of the Radio Continuum and the Ammonia Bipolar Outflow in CRL 618. *Jesús Martín-Pintado, Ralph Gaume, Rafael Bachiller, & Ken Johnson.* 419, 725, 256-F4 (1993)

Molecular Cloud Core and CS Outflow Associated with Haro 4-255 FIR. *Ken'ichi Tatematsu, Tomofumi Umemoto, Yasuhiro Murata, Hua Chen, Naomi Hirano, & Hiroshi Takaba.* 419, 746, 257-A1 (1993)

Numerical Simulations of Protostellar Jets with Nonequilibrium Cooling. III. Three-dimensional Results. *James M. Stone & Michael L. Norman.* 420, 237, 3-G4 (1994)

Fabry-Perot Imaging of Molecular Hydrogen Emission in Orion-KL Region. *Hajime Sugai, Tomonori Usuda, Hirokazu Kataza, Masuo Tanaka, Motoko Y. Inoue, Hironobu Kawabata, Hideki Takami, Tetsuo Aoki, & Norihisa Hiromoto.* 420, 746, 12-B12 (1994)

A Radio Candidate for the Exciting Source of the L1287 Bipolar Outflow. *Guillem Anglada, Luis F. Rodríguez, José M. Girart, Robert Estalella, & José M. Torrelles.* 420, L91, 15-F7 (1994)

Disks and Jets in Planetary Nebulae. *Noam Soker & Mario Livio.* 421, 219, 18-F7 (1994)

Slender Elliptical Jets. *Michael D. Smith.* 421, 400, 23-B11 (1994)

Pumping of Main Line OH Masers in the Circumstellar Envelopes of OH/Infrared Stars. *Alan J. Collison & Gerald E. Nedoluha.* 422, 193, 32-E1 (1994)

The Kinematics of Molecular Outflows. *Steven W. Stahler.* 422, 616, 39-E1 (1994)

Near-Infrared Observations of the HH 46/47 System. *Jochen Eislöffel, Chris J. Davis, Thomas P. Ray, & Reinhard Mundt.* 422, L91, 45-C9 (1994)

The HH 83 Molecular Cloud: Gone with the Wind. *John Bally, Alain Castets, & Gilles Duvert.* 423, 310, 50-A3 (1994)

A Molecular Jet from LkHα 234. *George F. Mitchell & Henry E. Matthews.* 423, L55, 53-G8 (1994)

Velocity, Obscuration, and Age of Ionized Winds: Can They Be Correlated? *S. C. Beck.* 423, 733, 57-F5 (1994)

Circumstellar Gas around the Exciting Source of the HH 83 Jet. *Makoto Nakano, Koji Sugitani, Fumio Sato, & Katsuo Ogura.* 423, L147, 61-D5 (1994)

Physics and Evolution of Constant Opening Angle Jets Using a Quasi–One-dimensional Magnetohydrodynamic Model. *Theodoros Koupelis.* 424, 645, 72-G12 (1994)

Molecular Outflows from FU Orionis Stars. *Neal J. Evans II, Stephen Balkum, Russell M. Levreault, Lee Hartmann, & Scott Kenyon.* 424, 793, 74-F2 (1994)

The Massive Molecular Outflow from CRL 2136 IRS 1. *Joel H. Kastner, David A. Weintraub, Ronald L. Snell, G. Sandell, C. Aspin, D. H. Hughes, & F. Baas.* 425, 695, 90-C9 (1994)

Fabry-Perot Observations and New Models of the HH 47A and HH 47D Bow Shocks. *Jon A. Morse, Patrick Hartigan, Steve Heathcote, John C. Raymond, & Gerald Cecil.* 425, 738, 91-A1 (1994)

Successive Ejection Events in the L1551 Molecular Outflow. *R. Bachiller, M. Tafalla, & J. Cernicharo.* 425, L93, 94-F1 (1994)

Momentum Transfer by Astrophysical Jets. *Lawrence Chernin, Colin Masson, Elisabete M. de Gouveia Dal Pino, & Willy Benz.* 426, 204, 98-F2 (1994)

Submillimeter Observations of CO in the W3 Core. *Tatsuhiko I. Hasegawa, George F. Mitchell, Henry E. Matthews, & Linda Tacconi.* 426, 215, 98-G1 (1994)

On the Optical Counterparts, Long-Term Variabilities, Radio Jets, and Accretion Sources in 1E 1740.7−2942 and GRS 1758−258. *Wan Chen, Neil Gehrels, & Marvin Leventhal.* 426, 586, 105-F6 (1994)

Near-Infrared Imaging of HH 1/2 in Shocked Molecular Hydrogen and [Fe II]. *Chris J. Davis, Jochen Eislöffel, & Thomas P. Ray.* 426, L93, 109-F5 (1994)

Polarization Profiles of Scattered Emission Lines. II. Upstream Dust Scattering in the HH 1 Jet. *W. J. Henney, A. C. Raga, & D. J. Axon.* 427, 305, 113-F6 (1994)

Outflows from Young Stellar Objects in Bok Globules: Maps. *João Lin Yun & Dan P. Clemens.* 92, 145, 33-C5 (1994)

VLA Positions and Distributions of H_2O Masers Associated with 15 Mira and Semiregular Variables. *P. F. Bowers & K. J. Johnston.* 92, 189, 33-G8 (1994)

A Protostellar Jet Model for the Water Masers in W49N. *Mordecai-Mark Mac Low, Moshe Elitzur, James M. Stone, & Arieh Königl.* 427, 914, 124-A7 (1994)

Asymmetries in Bipolar Jets from Young Stars. *Gerhard A. Hirth, Reinhard Mundt, Josef Solf, & Thomas P. Ray.* 427, L99, 127-B11 (1994)

Subarcsecond VLA Maps of the Disk and the Jet in HL Tauri. *L. F. Rodríguez, J. Cantó, J. M. Torrelles, J. F. Gómez, G. Anglada, & P. T. P. Ho.* 427, L103, 127-C3 (1994)

Multiple Outflows in the Bipolar Planetary Nebula M1-16: A Molecular Line Study. *Raghvendra Sahai, Alwyn Wootten, Hugo E. Schwarz, & W. Wild.* 428, 237, 131-B5 (1994)

A Bipolar Outflow of Ionized Gas in K3-50A: H76α Radio Recombination Line and Continuum Observations of K3-50. *C. G. De Pree, W. M. Goss, Patrick Palmer, & Robert H. Rubin.* 428, 670, 138-F1 (1994)

A Parsec-Scale "Superjet" and Quasi-periodic Structure in the HH 34 Outflow? *John Bally & David Devine.* 428, L65, 142-F8 (1994)

Is the Galactic Center Annihilator 1E 1740.7−2942 a Source of MeV Gamma-Ray Continuum Emission? *Philippe Laurent & Jacques Paul.* 92, 375, 36-G5 (1994)

Magnetically Driven Jets and Winds: Exact Solutions. *J. Contopoulos & R. V. E. Lovelace.* 429, 139, 145-G7 (1994)

Physical Structure of H_2O Masers in W49N. *C. R. Gwinn.* 429, 253, 147-C3 (1994)

A Sub-Arcsecond–Scale Spectroscopic Study of the Complex Mass Outflows in the Vicinity of T Tauri. *K.-H. Böhm & J. Solf.* 430, 277, 162-E6 (1994)

Cepheus A HW2: A Powerful Thermal Radio Jet. *Luis F. Rodríguez, Guido Garay, Salvador Curiel, Solange Ramírez, José M. Torrelles, Yolanda Gómez, & Arturo Velázquez.* 430, L65, 166-B2 (1994)

Giant Explosion at the Galactic Center and Huge Shocked Shells in the Halo. *Yoshiaki Sofue.* 431, L91, 191-E8 (1994)

Emission-Line Studies of Young Stars. IV. The Optical Forbidden Lines. *Fred Hamann.* 93, 485, 49-D4 (1994)

From Supersonic Winds to Accretion: Comments on the Stability of Stellar Winds and Related Flows. *M. Velli.* 432, L55, 199-G13 (1994)

Dense Clumps in the Monoceros R2 Outflow. *M. Tafalla, R. Bachiller, & M. C. H. Wright.* 432, L127, 207-B13 (1994)

A Numerical Simulation of a Variable Velocity Jet. *S. Biro & A. C. Raga.* 434, 221, 228-D11 (1994)

Entrainment by the Jet in HH 47. *John C. Raymond, Jon A. Morse, Patrick Hartigan, Salvador Curiel, & Steve Heathcote.* 434, 232, 228-E12 (1994)

A K' Imaging Survey of Molecular Outflow Sources. *Klaus-Werner Hodapp.* 94, 615, 60-D12 (1994)

A New Look at the Dark Cloud L1251: Sensitive Observations of the Molecular Emission. *Fumio Sato, Akira Mizuno, Tomoo Nagahama, Toshikazu Onishi, Yoshinori Yonekura, & Yasuo Fukui.* 435, 279, 247-B11 (1994)

The Puzzling Distribution of the High-Density Molecular Gas in HH 1–2: A Contracting Interstellar Toroid? *José M. Torrelles, José F. Gómez, Paul T. P. Ho, Luis F. Rodríguez, Guillem Anglada, & Jorge Cantó.* 435, 290, 247-D2 (1994)

Observation of [C I] toward the GL 2591 and W28 A2 Molecular Outflows. *Minho Choi, Neal J. Evans II, Daniel T. Jaffe, & Christopher K. Walker.* 435, 734, 256-B10 (1994)

A Massive Young Embedded Object Associated with the UC H II Region G31.41+0.31. *R. Cesaroni, L. Olmi, C. M. Walmsley, E. Churchwell, & P. Hofner.* 435, L137, 260-C3 (1994)

Ammonia Downstream from HH 80 North. *José M. Girart, Luis F. Rodríguez, Guillem Anglada, Robert Estalella, José M. Torrelles, Josep Martí, Miriam Peña, Sandra Ayala, Salvador Curiel, & Alberto Noriega-Crespo.* 435, L145, 260-D4 (1994)

Mass-Loss Rates, Ionization Fractions, Shock Velocities, and Magnetic Fields of Stellar Jets. *Patrick Hartigan, Jon A. Morse, & John Raymond.* 436, 125, 263-A6 (1994)

Postrefurbishment Mission *Hubble Space Telescope* Images of the Core of the Orion Nebula: Proplyds, Herbig-Haro Objects, and Measurements of a Circumstellar Disk. *C. R. O'Dell & Zheng Wen.* 436, 194, 263-G8 (1994)

High-Velocity Sulfur Monoxide Emission from Protostellar Outflows. *Lawrence M. Chernin, Colin R. Masson, & Gary A. Fuller.* 436, 741, 275-F3 (1994)

The Molecular Core and the Powering Source of the Bipolar Molecular Outflow in NGC 2264G. *José F. Gómez, Salvador Curiel, José M. Torrelles, Luis F. Rodríguez, Guillem Anglada, & José M. Girart.* 436, 749, 275-G1 (1994)

A Molecular Outflow Driven by an Optical Jet. *George F. Mitchell, Tatsuhiko I. Hasegawa, William R. F. Dent, & Henry E. Matthews.* 436, L177, 282-A11 (1994)

Discovery of a Molecular Hydrogen Jet near IC 348. *Mark J. McCaughrean, John T. Rayner, & Hans Zinnecker.* 436, L189, 282-C9 (1994)

Shocked Molecular Gas around the Extremely Young Source IRAS 03282+3035. *R. Bachiller, S. Terebey, T. Jarrett, J. Martín-Pintado, C. A. Beichman, & D. Van Buren.* 437, 296, 287-C2 (1994)

The Circumstellar Environment of IRAS 05338−0624. *Joseph P. McMullin, Lee G. Mundy, & Geoff A. Blake.* 437, 305, 287-D6 (1994)

Near-Infrared Imaging of the Jets and Flows Associated with Herbig-Haro Objects HH 91, HH 110, and HH 111. *Christopher J. Davis, Reinhard Mundt, & Jochen Eislöffel.* 437, L55, 292-B1 (1994)

Inertial Confinement of Astrophysical Jets. *W. Peter & D. Eichler.* 438, 244, 4-F11 (1995)

Spatially Resolved Submillimeter Continuum Emission toward L1551 IRS 5. *E. F. Ladd, G. A. Fuller, R. Padman, P. C. Myers, & Fred C. Adams.* 439, 771, 35-C2 (1995)

Magnetohydrodynamic Simulations of Outflows from Accretion Disks. *G. V. Ustyugova, A. V. Koldoba, M. M. Romanova, V. M. Chechetkin, & R. V. E. Lovelace.* 439, L39, 40-C3 (1995)

Hot Spots in the NGC 2071 Molecular Outflow. *Lawrence M. Chernin & W. J. Welch.* 440, L21, 48-D8 (1995)

A Near-Infrared Reflection Nebula Associated with NGC 2024 FIR 4. *T. J. T. Moore & T. Yamashita.* 440, 722, 53-B6 (1995)

Water Masers in the L1448C Outflow. *Lawrence M. Chernin.* 440, L97, 58-C9 (1995)

Simulation of the Instability of Mach 2 and Mach 4 Gaseous Jets in Two and Three Dimensions. *Gene M. Bassett & Paul R. Woodward.* 441, 582, 70-B1 (1995)

The Stability and Collimation of Three-dimensional Jets. *Philip E. Hardee, David A. Clarke, & D. Andrew Howell.* 441, 644, 71-A1 (1995)

An HCO^+ Study of NGC 7538, IRS 9, and GL 490. *Tatsuhiko I. Hasegawa & George F. Mitchell.* 441, 665, 71-B11 (1995)

A Molecular Line Study of NGC 1333/IRAS 4. *Geoffrey A. Blake, Göran Sandell, Ewine F. van Dishoeck, T. D. Groesbeck, Lee G. Mundy, & Colin Aspin.* 441, 689, 71-D13 (1995)

The Relationship of Dense Gas to Star Formation in the Monoceros OB1 Dark Cloud. *Grace A. Wolf-Chase, Christopher K. Walker, & Charles J. Lada.* 442, 197, 79-G9 (1995)

Images of HCO^+ (1–0) Emission in a Molecular Cloud near 1E 1740.7−2942. *J. A. Phillips & T. Joseph W. Lazio.* 442, L37, 85-B7 (1995)

Velocity Field of the Orion-KL Region in Molecular Hydrogen Emission. *Hajime Sugai, Hironobu Kawabata, Tomonori Usuda, Motoko Y. Inoue, Hirokazu Kataza, & Masuo Tanaka.* 442, 674, 89-D3 (1995)

H I, CO, and *IRAS* Observations of NGC 7023. *C. Rogers, Mark H. Heyer, & P. E. Dewdney.* 442, 694, 89-F10 (1995)

Powerful Jets and Weak Outflows: HH 1–2 and HH 34. *Lawrence M. Chernin & Colin R. Masson.* 443, 181, 97-E11 (1995)

Synchrotron Emission from the H_2O Maser Source in W3(OH). *M. J. Reid, A. L. Argon, C. R. Masson, K. M. Menten, & J. M. Moran.* 443, 238, 98-D3 (1995)

Ammonia Emission from Bow Shocks in the L1157 Outflow. *M. Tafalla & R. Bachiller.* 443, L37, 102-G4 (1995)

Distinction of Parallel Outflows in L1448 through H_2 Excitation. *Christopher J. Davis & Michael D. Smith.* 443, L41, 102-G14 (1995)

The Molecular Environment of the HH 34 System. *G. Anglada, R. Estalella, R. Mauersberger, J. M. Torrelles, L. F. Rodríguez, J. Cantó, P. T. P. Ho, & P. D'Alessio.* 443, 682, 107-C9 (1995)

Advection-dominated Accretion: Self-Similarity and Bipolar Outflows. *Ramesh Narayan & Insu Yi.* 444, 231, 116-F1 (1995)

Grain Formation around Carbon Stars. I. Stationary Outflow Models. *Michael P. Egan & Chun Ming Leung.* 444, 251, 117-A1 (1995)

Cooling Gas Outflows from Galaxies. *Boqi Wang.* 444, 590, 124-E3 (1995)

Line Broadening in the W3(OH) Champagne Flow. *E. R. Keto, W. J. Welch, M. J. Reid, & P. T. P. Ho.* 444, 765, 127-A8 (1995)

An Extremely High Velocity Multipolar Outflow around IRAS 20050+2720. *R. Bachiller, A. Fuente, & M. Tafalla.* 445, L51, 141-A13 (1995)

The L1551NE Molecular Outflow. *G. H. Moriarty-Schieven, H. M. Butner, & P. G. Wannier.* 445, L55, 141-B6 (1995)

The Discovery of a Jetlike Feature from the Massive Star Herschel 36. *B. Stecklum, T. Henning, A. Eckart, R. R. Howell, & M. G. Hoare.* 445, L153, 152-A3 (1995)

Observations of the Clumpy Shell of the L1551 Bipolar Outflow. *R. L. Plambeck & R. L. Snell.* 446, 234, 156-D6 (1995)

CS(2–1) Emission from Dense Gas in the Bipolar Outflow of CRL 618. *Arsen R. Hajian, J. A. Phillips, & Yervant Terzian.* 446, 244, 156-E7 (1995)

Rotation and Outflow in Compact H II Regions: VLA Observations of the Molecular and Ionized Gas in NGC 6334A and NGC 6334F. *C. G. De Pree, L. F. Rodríguez, H. R. Dickel, & W. M. Goss.* 447, 220, 175-C8 (1995)

High-Resolution Far-Infrared Observations of DR 21. *Cecilia Colomé, Paul M. Harvey, Daniel F. Lester, Murray F. Campbell, & Harold M. Butner.* 447, 236, 175-E5 (1995)

The Dense Gas Component of Outflows in the Monoceros OB1 Dark Cloud. *Grace A. Wolf-Chase & Christopher K. Walker.* 447, 244, 175-F4 (1995)

Precessing Jets and Point-Symmetric Nebulae. *J. A. Cliffe, A. Frank, M. Livio, & T. W. Jones.* 447, L49, 181-C10 (1995)

Thermal Structure of Mixing Layers in Bipolar Outflows. *Susana Lizano & Carlo Giovanardi.* 447, 742, 186-C1 (1995)

VLBI Observations of Cygnus X-3 during the 1985 October Radio Outburst. *C. J. Schalinski, K. J. Johnston, A. Witzel, R. E. Spencer, R. Fiedler, E. Waltman, G. G. Pooley, R. Hjellming, & L. A. Molnar.* 447, 752, 186-D1 (1995)

WFPC2 Studies of the Crab Nebula. I. *HST* and *ROSAT* Imaging of the Synchrotron Nebula. *J. Jeff Hester, Paul A. Scowen, Ravi Sankrit, Christopher J. Burrows, John S. Gallagher III, Jon A. Holtzman, Alan Watson, John T. Trauger, Gilda E. Ballester, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, Richard E. Griffiths, John G. Hoessel, John Krist, Roger Lynds, Jeremy R. Mould, Earl J. O'Neil, Jr., Karl R. Stapelfeldt, & James A. Westphal.* 448, 240, 195-D12 (1995)

Newly Discovered Galactic H_2O Masers Associated with Outflows. *Delin Xiang & B. E. Turner.* 99, 121, 35-F10 (1995)

Large Proper Motions and Ejection of New Condensations in the HH 80–81 Thermal Radio Jet. *J. Martí, L. F. Rodríguez, & Bo Reipurth.* 449, 184, 212-F6 (1995)

The Distribution of Warm Dust in the Star-forming Region Cepheus A: Infrared Constraints. *Cecilia Colomé & Paul M. Harvey.* 449, 656, 221-F8 (1995)

Further Mapping of the Radio Emission from Massive Young Stellar Objects. *Melvin G. Hoare & Simon T. Garrington.* 449, 874, 224-F11 (1995)

The Mass of a Star Formed in a Cloud Core: Theory and Its Application to the Orion A Cloud. *Takenori Nakano, Tetsuo Hasegawa, & Colin Norman.* 450, 183, 230-E7 (1995)

A Simple Type of Magnetically Driven Jets: An Astrophysical Plasma Gun. *J. Contopoulos.* 450, 616, 239-C12 (1995)

CO J = 3–2 and HCO^+ J = 4–3 Observations of the GL 2591 Molecular Outflow. *Tatsuhiko I. Hasegawa & George F. Mitchell.* 451, 225, 249-B1 (1995)

Ultraviolet Temporal Variability of the Peculiar Star R Aquarii. *S. R. Meier & M. Kafatos.* 451, 359, 250-G5 (1995)

Si Emission in a Jetlike Molecular Outflow toward L1157. *Q. Zhang, Paul T. P. Ho, M. C. H. Wright, & D. J. Wilner.* 451, L71, 260-G1 (1995)

Mass Flux and Terminal Velocities of Magnetically Driven Jets from Accretion Disks. *Takahiro Kudoh & Kazunari Shibata.* 452, L41, 270-B1 (1995)

Hubble Space Telescope Observations of the SN 1987A Triple Ring Nebula. *Christopher J. Burrows, John Krist, J. Jeff Hester, Raghvendra Sahai, John T. Trauger, Karl R. Stapelfeldt, John S. Gallagher III, Gilda E. Ballester, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, Richard E. Griffiths, John G. Hoessel, Jon A. Holtzman, Jeremy R. Mould, Paul A. Scowen, Alan M. Watson, & James A. Westphal.* 452, 680, 274-A11 (1995)

Thermal Jets and H_2O Masers: The Case of HH 80–81. *Y. Gómez, L. F. Rodríguez, & J. Martí.* 453, 268, 284-G3 (1995)

Molecular H_2 Emission in HH 47A: *Hubble Space Telescope* GHRS and FOC Observations. *Salvador Curiel, John C. Raymond, Mark Wolfire, Patrick Hartigan, Jon Morse, Richard D. Schwartz, & Peter Nisenson.* 453, 322, 285-E10 (1995)

Bipolar Jets from Extremely Young Stars Observed in Molecular Hydrogen Emission. *Klaus-Werner Hodapp & E. F. Ladd.* 453, 715, 293-E13 (1995)

The Infrared Nebula and Outflow in Lynds 483. *G. A. Fuller, E. A. Lada, C. R. Masson, & P. C. Myers.* 453, 754, 294-C3 (1995)

Polarization Profiles of Scattered Emission Lines. III. Effects of Multiple Scattering and Non-Rayleigh Phase Functions. *W. J. Henney & D. J. Axon.* 454, 233, 302-E4 (1995)

Twin Herbig-Haro Jets and Molecular Outflows in L1228. *John Bally, David Devine, Robert A. Fesen, & Adair P. Lane.* 454, 345, 304-A9 (1995)

Radio Monitoring of GRS 1915+105. *L. F. Rodríguez, E. Gerard, I. F. Mirabel, Y. Gómez, & A. Velázquez.* 101, 173, 55-A5 (1995)

BIMA Array CS $J = 2 \rightarrow 1$ Observations of Sagittarius B2. *David M. Mehringer.* 454, 782, 312-E8 (1995)

Discovery of Herbig-Haro Objects and Molecular Hydrogen Jets near Bok Globule CB 34. *Miguel C. Moreira & João L. Yun.* 454, 850, 313-E1 (1995)

The Circumstellar Molecular Core around L1551 IRS 5. *G. A. Fuller, E. F. Ladd, R. Padman, P. C. Myers, & Fred C. Adams.* 454, 862, 313-F7 (1995)

Radio Continuum Detection of the Exciting Sources of the DG Tauri B and L1551NE Outflows. *Luis F. Rodríguez, Guillem Anglada, & Alejandro Raga.* 454, L149, 316-F5 (1995)

Interferometric Observations of the Circumstellar Molecular Structure around the Young Stellar Object in L1287. *Ji Yang, Nagayoshi Ohashi, & Yasuo Fukui.* 455, 175, 320-E7 (1995)

Momentum Distribution in Molecular Outflows. *Lawrence M. Chernin & Colin R. Masson.* 455, 182, 320-F3 (1995)

Circum-Protostellar Environments. III. Gas Densities and Kinetic Temperatures. *G. H. Moriarty-Schieven, P. G. Wannier, J. G. Mangum, M. Tamura, & V. K. Olmsted.* 455, 190, 320-F14 (1995)

The Discovery of a Bipolar, Rotating, Episodic Jet (BRET) in the Planetary Nebula KjPn 8. *J. A. López, R. Vázquez, & L. F. Rodríguez.* 455, L63, 325-E2 (1995)

ISM: KINEMATICS AND DYNAMICS

Dense Cores in Dark Clouds. VII. Line Width–Size Relations. *G. A. Fuller & P. C. Myers.* 384, 523, 8-F1 (1992)

The Molecular Core in the AFGL 5157 Region. *José M. Torrelles, Carlos Eiroa, Rainer Mauersberger, Robert Estalella, Luis F. Miranda, & Guillem Anglada.* 384, 528, 8-F7 (1992)

The Distribution of the 6_2–6_1 and 5_2–5_1 E-Type Methanol Masers in OMC-1. *K. J. Johnston, R. Gaume, S. Stolovy, T. L. Wilson, C. M. Walmsley, & K. M. Menten.* 385, 232, 14-G3 (1992)

The Origin of Broad Emission Lines in the Extragalactic Giant H II Region NGC 2363. *Jean-René Roy, Martin Aubé, Marshall L. McCall, & R. J. Dufour.* 386, 498, 31-E7 (1992)

A CO $J = 2 \rightarrow 1$ Study of the Outflow Sources GL 490, GS 2591, M8E-IR, and W3 IRS 5. *George F. Mitchell, Tatsuhiko I. Hasegawa, & Jason Schella.* 386, 604, 32-G6 (1992)

Motion at the Ionization Front in the Orion Nebula: A Kinematic Study of the [O I] Line. *C. R. O'Dell & Zheng Wen.* 387, 229, 39-F10 (1992)

Spectroscopy of Emission-Line Nebulae in Powerful Radio Galaxies: Interpretation. *S. A. Baum, T. M. Heckman, & W. van Breugel.* 389, 208, 62-E7 (1992)

Kinematics and Morphology of Material Occulting ζ Ophiuchi. *H. S. Liszt.* 390, 226, 76-G1 (1992)

On the Chemodynamics of Wolf-Rayet Ring Nebulae: NGC 6888. *César Esteban & José M. Vílchez.* 390, 536, 82-A7 (1992)

Highly Ionized Atoms toward HD 93521. *Lyman Spitzer, Jr., & Edward L. Fitzpatrick.* 391, L41, 92-C11 (1992)

Structure and Kinematics of the HH 111 Jet. *Bo Reipurth, A. C. Raga, & Steve Heathcote.* 392, 145, 102-F10 (1992)

Initiation of Bipolar Flows by Magnetic Field Twisting in Protostellar Nebulae. *William I. Newman, Alice L. Newman, & Richard V. E. Lovelace.* 392, 622, 110-A1 (1992)

A Complete CO Survey of the Cygnus X Region. *Helen O. Leung & P. Thaddeus.* 81, 267, 38-F3 (1992)

Bow Shock Models for the Velocity Structure of Ultracompact H II Regions. *Dave Van Buren & Mordecai-Mark Mac Low.* 394, 534, 136-A7 (1992)

Global Aspects of Dynamics and Star Formation in Taurus. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 395, 501, 148-G13 (1992)

Twin Peaks of CO Emission in the Central Regions of Barred Galaxies. *Jeffrey D. P. Kenney, Christine D. Wilson, Nick Z. Scoville, Nicholas A. Devereux, & Judith S. Young.* 395, L79, 153-G5 (1992)

Evidence for Large-Scale Expanding Motions within the Orion A Molecular Cloud. *M. H. Heyer, J. Morgan, F. P. Schloerb, R. L. Snell, & P. F. Goldsmith.* 395, L99, 154-B1 (1992)

A High-Resolution 21 Centimeter Line Study of Infrared Cirrus. *G. Joncas, F. Boulanger, & P. E. Dewdney.* 397, 165, 170-A10 (1992)

Kinematics of W3(OH): First Proper Motions of OH Masers from VLBI Measurements. *E. E. Bloemhof, M. J. Reid, & J. M. Moran.* 397, 500, 177-A12 (1992)

The Bow Shock and Mach Disk of HH 34. *Jon A. Morse, Patrick Hartigan, Gerald Cecil, John C. Raymond, & Steve Heathcote.* 399, 231, 198-B3 (1992)

The Synchrotron Bays of the Crab Nebula: A Magnetic Structure Associated with a Presupernova Circumstellar Disk. *Robert A. Fesen, Crystal L. Martin, & J. Michael Shull.* 399, 599, 205-C7 (1992)

Structure and Kinematics of Dense Gas Associated with the Supernova Remnant IC 443. *R. L. Dickman, Ronald L. Snell, L. M. Ziurys, & Yi-Long Huang.* 400, 203, 211-C9 (1992)

Submillimeter Line Observations of the Proto–Planetary Nebula CRL 2688. *P. A. Jaminet, W. C. Danchi, Göran Sandell, & E. C. Sutton.* 400, 535, 217-A7 (1992)

Fragmentation of Elongated Cylindrical Clouds. IV. Clouds with Solid-Body Rotation about an Arbitrary Axis. *Ian Bonnell, Jean-Pierre Arcoragi, Hugo Martel, & Pierre Bastien.* 400, 579, 217-E8 (1992)

Radio Continuum and Radio Recombination Line Observations of Sagittarius B1 and G0.6−0.0. *David M. Mehringer, F. Yusef-Zadeh, Patrick Palmer, & W. M. Goss.* 401, 168, 223-B1 (1992)

The Dynamics of Molecular Cloud Envelopes in a Varying Ultraviolet Radiation Field. *C. Bréart de Boisanger, J.-P. Chièze, & B. Meltz.* 401, 182, 223-D1 (1992)

Dense Cores in L1204/S140: Star Formation and Velocity Shifts. *M. Tafalla, R. Bachiller, & J. Martín-Pintado.* 403, 175, 16-B8 (1993)

Identification of Velocity Systems in the Inner Orion Nebula. *C. R. O'Dell, Jacobus H. Valk, Zheng Wen, & David M. Meyer.* 403, 678, 24-B4 (1993)

Shock Propagation in a Turbulent Cloud. *Toshiya Kimura & Makoto Tosa.* 406, 512, 64-B10 (1993)

Dense Cores in Dark Clouds. VIII. Velocity Gradients. *A. A. Goodman, P. J. Benson, G. A. Fuller, & P. C. Myers.* 406, 528, 64-D3 (1993)

The H_2 Velocity Field in Herbig-Haro 7-11. *John S. Carr.* 406, 553, 64-F6 (1993)

Diagonalization of the Velocity Variance/Covariance Matrix as a Diagnostic of Maser Proper Motions. *E. E. Bloemhof.* 406, L75, 68-E9 (1993)

Can Galactic H I Be Radiatively Supported? *A. Ferrara.* 407, 157, 71-A7 (1993)

G-Star Astropauses: A Test for Interstellar Pressure. *P. C. Frisch.* 407, 198, 71-E1 (1993)

Relaxation of Molecular Velocities and Spectral Line Profiles of Astrophysical Masers. *Nels Anderson & William D. Watson.* 407, 620, 78-C10 (1993)

The Dispersal of Iron through the Interstellar Medium. *Nicholas P. T. Bateman & Richard B. Larson.* 407, 634, 78-D12 (1993)

Circumstellar Molecular Gas of the HH 34 and HH 111 Exciting Stars. *Karl R. Stapelfeldt & Nicholas Z. Scoville.* 408, 239, 86-B1 (1993)

Motion in the Orion Nebula: A Kinematic Study of [S III]. *Zheng Wen & C. R. O'Dell.* 409, 262, 100-D1 (1993)

The Hyades Cluster-Supercluster Connection: Evidence for a Local Concentration of Dark Matter. *Stefano Casertano, Icko Iben, Jr., & Aaron Shiels.* 410, 90, 113-C5 (1993)

Extended CO(7→6) Emission from Warm Gas in Orion. *J. E. Howe, D. T. Jaffe, E. N. Grossman, W. F. Wall, J. G. Mangum, & G. J. Stacey.* 410, 179, 114-D1 (1993)

Highly Blueshifted H I Gas toward the Galactic Center. *Farhad Yusef-Zadeh, Anthony Lasenby, & Jennifer Marshall.* 410, L27, 118-G12 (1993)

High-Resolution Ca II Observations of the Local Interstellar Medium. *J. V. Vallerga, P. W. Vedder, N. Craig, & B. Y. Welsh.* 411, 729, 138-F13 (1993)

Radio Continuum and Radio Recombination Line Observations of Sagittarius B2. *David M. Mehringer, Patrick Palmer, W. M. Goss, & F. Yusef-Zadeh.* 412, 684, 152-C11 (1993)

High-Resolution Observations of Turbulence in the Subcondensation TMC-1C in Heiles' Cloud 2: Estimation of the Velocity Spectrum of Turbulence. *Y. Kitamura, K. Sunada, M. Hayashi, & T. Hasegawa.* 413, 221, 159-A9 (1993)

Fragmentation and Kinematics of the W49N Cloud Core. *E. Serabyn, R. Güsten, & A. Schulz.* 413, 571, 163-E9 (1993)

Compact Ammonia Sources toward the G10.5+0.0 H II Region Complex. *Guido Garay, James M. Moran, & Luis F. Rodríguez.* 413, 582, 163-F8 (1993)

Observations of Entrainment and Time Variability in the HH 47 Jet. *Patrick Hartigan, Jon A. Morse, Steve Heathcote, & Gerald Cecil.* 414, L121, 186-B11 (1993)

High Spatial Resolution Observations of CO in CRL 618. *Katsunori M. Shibata, Shuji Deguchi, Naomi Hirano, Osamu Kameya, & Shin'ichi Tamura.* 415, 708, 196-F1 (1993)

Shear in the IRAS 3282 Outflow. *M. Tafalla, R. Bachiller, J. Martín-Pintado, & M. C. H. Wright.* 415, L139, 200-F1 (1993)

^{13}CO and $C^{18}O$ Maps of N-Body Magnetohydrodynamic Simulations of Dark Clouds. *Lars G. Stenholm & Ralph E. Pudritz.* 416, 218, 203-F13 (1993)

Observations of Nearby Interstellar Gas and Dust in the Direction toward the Globular Cluster ω Centauri. *K. D. Wood & B. Bates.* 417, 572, 226-D10 (1993)

Extremely High Velocity Outflows. *Minho Choi, Neal J. Evans II, & Daniel T. Jaffe.* 417, 624, 227-B6 (1993)

Thermal Material in Dense Cores: A New Narrow-Line Probe and Technique of Temperature Determination. *G. A. Fuller & P. C. Myers.* 418, 273, 234-D9 (1993)

The 150 AU Structure of the Radio Continuum and the Ammonia Bipolar Outflow in CRL 618. *Jesús Martín-Pintado, Ralph Gaume, Rafael Bachiller, & Ken Johnson.* 419, 725, 256-F4 (1993)

Detection of AU-Scale Structure in Molecular Clouds. *Alan P. Marscher, E. M. Moore, & Thomas M. Bania.* 419, L101, 259-G5 (1993)

Vorticity, Angular Momentum, and Cloud Fragmentation. *J. J. Monaghan.* 420, 692, 11-D7 (1994)

The Balmer-dominated Northeast Limb of the Cygnus Loop Supernova Remnant. *J. Jeff Hester, John C. Raymond, & William P. Blair.* 420, 721, 11-G7 (1994)

AFGL 5376: A Strong, Large-Scale Shock near the Galactic Center. *Keven I. Uchida, Mark R. Morris, E. Serabyn, & John Bally.* 421, 505, 24-D9 (1994)

The He I 2.06 Micron to Brγ Ratio in 12 Planetary Nebulae. *D. L. DePoy & Joseph C. Shields.* 422, 187, 32-D7 (1994)

The Kinematics of Molecular Outflows. *Steven W. Stahler.* 422, 616, 39-E1 (1994)

Near-Infrared Observations of the HH 46/47 System. *Jochen Eislöffel, Chris J. Davis, Thomas P. Ray, & Reinhard Mundt.* 422, L91, 45-C9 (1994)

The Rotating Molecular Core in G10.6−0.4: Synthesis Maps in $^{12}C^{18}O$. *Paul T. P. Ho, Susan Terebey, & Jean L. Turner.* 423, 320, 50-B1 (1994)

Kinematic Structure of the 30 Doradus Giant H II Region. *You-Hua Chu & Robert C. Kennicutt, Jr.* 425, 720, 90-F1 (1994)

[C II] 158 Micron and [O I] 63 Micron Observations of the Galactic Center Region. *Kohei Mizutani, Toshinori Maihara, Hideo Matsuhara, Takao Nakagawa, Hiroshi Shibai, Haruyuki Okuda, Yukiyasu Kobayashi, Norihisa Hiromoto, Tetsuo Nishimura, & Frank J. Low.* 91, 613, 27-G5 (1994)

Radio Continuum and Radio Recombination Line Observations of W51. *David M. Mehringer.* 91, 713, 29-A2 (1994)

On the Velocity Dispersion in the Core of the Globular Cluster M15. *P. Dubath, G. Meylan, & M. Mayor.* 426, 192, 98-E2 (1994)

Near-Infrared Imaging of HH 1/2 in Shocked Molecular Hydrogen and [Fe II]. *Chris J. Davis, Jochen Eislöffel, & Thomas P. Ray.* 426, L93, 109-F5 (1994)

A Bipolar Outflow of Ionized Gas in K3-50A: H76α Radio Recombination Line and Continuum Observations of K3-50. *C. G. De Pree, W. M. Goss, Patrick Palmer, & Robert H. Rubin.* 428, 670, 138-F1 (1994)

Hypersonic Acceleration and Turbulence of H_2O Masers in W49N. *C. R. Gwinn.* 429, 241, 147-B3 (1994)

Physical Structure of H_2O Masers in W49N. *C. R. Gwinn.* 429, 253, 147-C3 (1994)

Radial Motions of Molecular Gas in the W49 Cloud Core. *James M. Jackson & Kathleen E. Kraemer.* 429, L37, 150-E7 (1994)

A Large-Scale Cloud Collision in the Galactic Center Molecular Cloud Near Sagittarius B2. *Tetsuo Hasegawa, Fumio Sato, John B. Whiteoak, & Ryosuke Miyawaki.* 429, L77, 158-C1 (1994)

A Sub-Arcsecond–Scale Spectroscopic Study of the Complex Mass Outflows in the Vicinity of T Tauri. *K.-H. Böhm & J. Solf.* 430, 277, 162-E6 (1994)

On the Influence of Bars and Star Formation on Galactic Abundance Gradients. *D. Friedli, W. Benz, & R. Kennicutt.* 430, L105, 174-F3 (1994)

The Cold, Massive Molecular Cloud G216−2.5. II. Structure and Kinematics. *Youngung Lee, Ronald L. Snell, & Robert L. Dickman.* 432, 167, 195-C8 (1994)

VLA Recombination Line Observations of the Cometary H II Region G34.3+0.2: Dynamics and Physical Properties. *Ralph A. Gaume, Alan L. Fey, & Mark J. Claussen.* 432, 648, 204-B1 (1994)

Dense Clumps in the Monoceros R2 Outflow. *M. Tafalla, R. Bachiller, & M. C. H. Wright.* 432, L127, 207-B13 (1994)

Dense Cores in Dark Clouds. IX. Observations of ^{13}CO and $C^{18}O$ in Vela, Chamaeleon, Musca, and the Coalsack. *J. W. S. Vilas-Boas, P. C. Myers, & G. A. Fuller.* 433, 96, 209-D11 (1994)

Filaments of Neutral Hydrogen toward the Galactic Anticenter. *Christopher M. Tamanaha.* 433, 648, 219-B3 (1994)

Simulation of Variations of Absorption-Line Profiles in Clumpy Molecular Clouds. *Alan P. Marscher & Alan L. Stone.* 433, 705, 219-G2 (1994)

Entrainment by the Jet in HH 47. *John C. Raymond, Jon A. Morse, Patrick Hartigan, Salvador Curiel, & Steve Heathcote.* 434, 232, 228-E12 (1994)

Three Millimeter Molecular Line Observations in Sagittarius B2. I. Full Synthesis Mapping Study of HNO, CCS, and $HC^{13}CCN$. *Yi-Jehng Kuan & Lewis E. Snyder.* 94, 651, 61-A8 (1994)

A New Look at the Dark Cloud L1251: Sensitive Observations of the Molecular Emission. *Fumio Sato, Akira Mizuno, Tomoo Nagahama, Toshikazu Onishi, Yoshinori Yonekura, & Yasuo Fukui.* 435, 279, 247-B11 (1994)

The Puzzling Distribution of the High-Density Molecular Gas in HH 1–2: A Contracting Interstellar Toroid? *José M. Torrelles, José F. Gómez, Paul T. P. Ho, Luis F. Rodríguez, Guillem Anglada, & Jorge Cantó.* 435, 290, 247-D2 (1994)

Observation of [C I] toward the GL 2591 and W28 A2 Molecular Outflows. *Minho Choi, Neal J. Evans II, Daniel T. Jaffe, & Christopher K. Walker.* 435, 734, 256-B10 (1994)

A High-Resolution Survey of Interstellar Na I D_1 Lines. *Daniel E. Welty, L. M. Hobbs, & Varsha P. Kulkarni.* 436, 152, 263-C12 (1994)

Synthesized Spectra of Turbulent Clouds. *E. Falgarone, D. C. Lis, T. G. Phillips, A. Pouquet, D. H. Porter, & P. R. Woodward.* 436, 728, 275-E1 (1994)

Near-Infrared Imaging of the Jets and Flows Associated with Herbig-Haro Objects HH 91, HH 110, and HH 111. *Christopher J. Davis, Reinhard Mundt, & Jochen Eislöffel.* 437, L55, 292-B1 (1994)

Gasdynamical Approach to a Face-on View of the Milky Way. *Keiichi Wada, Yoshiaki Taniguchi, Asao Habe, & Tetsuo Hasegawa.* 437, L123, 299-D8 (1994)

The NGC 7538 IRS 1 Region of Star Formation: Observations of the H66α Recombination Line with a Spatial Resolution of 300 AU. *R. A. Gaume, W. M. Goss, H. R. Dickel, T. L. Wilson, & K. J. Johnston.* 438, 776, 15-A1 (1995)

GHRS Observations of Mass-loaded Flows in Abell 78. *J. Patrick Harrington, Kazimierz J. Borkowski, & Zlatan Tsvetanov.* 439, 264, 24-G1 (1995)

A Multitransitional CO Study of the Cepheus C Cloud Core. *M. H. Heyer & E. F. Ladd.* 439, 269, 24-G10 (1995)

High-Velocity, High-Excitation Neutral Carbon in a Cloud in the Vela Supernova Remnant. *Edward B. Jenkins & George Wallerstein.* 440, 227, 44-C13 (1995)

Alfvén Waves in Interstellar Gasdynamics. *Christopher F. McKee & Ellen G. Zweibel.* 440, 686, 52-F2 (1995)

The Three-dimensional Structure of the Cassiopeia A Supernova Remnant. I. The Spherical Shell. *Jeri E. Reed, J. Jeff Hester, A. C. Fabian, & P. F. Winkler.* 440, 706, 53-A1 (1995)

The Deceleration Powering of Synchrotron Emission from Ejecta Components of Supernova Remnant Cassiopeia A. *M. C. Anderson & L. Rudnick.* 441, 307, 63-E9 (1995)

Large HCO^+ and HCN Abundances in the Translucent Cloud toward PKS 0528+134. *Michiel R. Hogerheijde, Eugène J. de Geus, Marco Spaans, Huib Jan van Langevelde, & Ewine F. van Dishoeck.* 441, L93, 76-D4 (1995)

Distinction of Parallel Outflows in L1448 through H_2 Excitation. *Christopher J. Davis & Michael D. Smith.* 443, L41, 102-G14 (1995)

CO and OH Absorption toward the Low-Latitude Radio Source 2023+336. *Henry A. Kobulnicky, John M. Dickey, & Rachel L. Akeson.* 443, L45, 103-A9 (1995)

6 Centimeter Formaldehyde Absorption toward the Sagittarius B Star-forming Complex. *David M. Mehringer, Patrick Palmer, & W. M. Goss.* 97, 497, 19-B1 (1995)

On the Supersonic Turbulence of NGC 604. *Nanci S. P. Sabalisck, Guillermo Tenorio-Tagle, Héctor O. Castañeda, & Casiana Muñoz-Tuñón.* 444, 200, 116-B8 (1995)

Cooling Gas Outflows from Galaxies. *Boqi Wang.* 444, 590, 124-E3 (1995)

Optical and H I Observations of the Low-Velocity and Intermediate-Velocity Gas toward the Globular Cluster M13. *B. Bates, C. R. Shaw, S. N. Kemp, F. P. Keenan, & R. D. Davies.* 444, 672, 125-E7 (1995)

Fragmentation of Filamentary Molecular Clouds with Longitudinal Magnetic Fields: Formation of Disks and Their Collapse. *Fumitaka Nakamura, Tomoyuki Hanawa, & Takenori Nakano.* 444, 770, 127-B2 (1995)

Complex Molecules in Sagittarius B2(N): The Importance of Grain Chemistry. *Yanti Miao, David M. Mehringer, Yi-Jehng Kuan, & Lewis E. Snyder.* 445, L59, 141-B13 (1995)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. II. The $4° < |b| < 5°$ Strips. *H. Izumiura, R. Catchpole, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, K. Sekiguchi, N. Ukita, & I. Yamamura.* 98, 271, 25-E14 (1995)

Observations of the Clumpy Shell of the L1551 Bipolar Outflow. *R. L. Plambeck & R. L. Snell.* 446, 234, 156-D6 (1995)

CS(2–1) Emission from Dense Gas in the Bipolar Outflow of CRL 618. *Arsen R. Hajian, J. A. Phillips, & Yervant Terzian.* 446, 244, 156-E7 (1995)

Detection of the H92α Recombination Line toward the Very Compact Planetary Nebulae IC 5117 and Hb 12. *Luis F. Miranda, José M. Torrelles, & Carlos Eiroa.* 446, L39, 160-F13 (1995)

The Line Width–Size Relation in Massive Cloud Cores. *P. Caselli & P. C. Myers.* 446, 665, 165-C7 (1995)

Patterns of High-Velocity Molecular Gas near Sagittarius A*. *H. S. Liszt & W. B. Burton.* 98, 679, 32-F4 (1995)

Rotation and Outflow in Compact H II Regions: VLA Observations of the Molecular and Ionized Gas in NGC 6334A and NGC 6334F. *C. G. De Pree, L. F. Rodríguez, H. R. Dickel, & W. M. Goss.* 447, 220, 175-C8 (1995)

Physical Properties of Dense Cores: DCO^+ Observations. *Harold M. Butner, Elizabeth A. Lada, & Robert B. Loren.* 448, 207, 195-A11 (1995)

A Very High Resolution Survey of Interstellar CH and CH^+. *Philippe Crane, David L. Lambert, & Yaron Sheffer.* 99, 107, 35-E7 (1995)

VLA OH Observations of High Negative Velocity Gas toward Sagittarius A West: A High-Velocity Cloud Interacting with the Galactic Center. *Jun-Hui Zhao, W. M. Goss, & Paul T. P. Ho.* 450, 122, 229-F9 (1995)

Hubble Space Telescope Imaging of the Wind-blown Lobe NGC 6165. *Paul Scowen, Jeff Hester, Arthur Code, Glen Mackie, C. Roger Lynds, & Earl J. O'Neil, Jr.* 450, 196, 230-F9 (1995)

The Collision Origin of Cohen's Stream. *Christopher M. Tamanaha.* 450, 638, 239-E12 (1995)

Internal Heating of Molecular Clouds by Tidal Fields. *Mousumi Das & Chanda J. Jog.* 451, 167, 248-C11 (1995)

Collapse and Fragmentation of Molecular Cloud Cores. III. Initial Differential Rotation. *Alan P. Boss & Elizabeth A. Myhill.* 451, 218, 249-A6 (1995)

The Density Structure in the Rosette Molecular Cloud: Signposts of Evolution. *Jonathan P. Williams, Leo Blitz, & Anthony A. Stark.* 451, 252, 249-D9 (1995)

The Sagittarius B2 Star-forming Region. II. High-Resolution H66α Observations of Sagittarius B2 North. *C. G. De Pree, R. A. Gaume, W. M. Goss, & M. J. Claussen.* 451, 284, 249-G6 (1995)

Observational Probes of the Small-Scale Structure of Molecular Clouds. *E. M. Moore & Alan P. Marscher.* 452, 671, 273-G13 (1995)

Dense Gas in the DR 21 Region: High-Resolution Imaging of the NH_3 Inversion Lines. *T. L. Wilson, R. A. Gaume, K. J. Johnston, & A. R. Tieftrunk.* 452, 693, 274-C4 (1995)

Collapse Candidates among the Bok Globules. *Yangsheng Wang, Neal J. Evans II, Shudong Zhou, & Dan P. Clemens.* 454, 217, 302-C9 (1995)

Ionized Carbon in NGC 6334. *R. T. Boreiko & A. L. Betz.* 454, 307, 303-E3 (1995)

The H II Region Sharpless 170: A Multiscale Analysis of the Hα Velocity Field. *Marc-Antoine Miville-Deschênes, Gilles Joncas, & Daniel Durand.* 454, 316, 303-F1 (1995)

Momentum Distribution in Molecular Outflows. *Lawrence M. Chernin & Colin R. Masson.* 455, 182, 320-F3 (1995)

Circum-Protostellar Environments. III. Gas Densities and Kinetic Temperatures. *G. H. Moriarty-Schieven, P. G. Wannier, J. G. Mangum, M. Tamura, & V. K. Olmsted.* 455, 190, 320-F14 (1995)

A Turbulent Model for the Interstellar Medium. II. Magnetic Fields and Rotation. *Thierry Passot, Enrique Vázquez-Semadeni, & Annick Pouquet.* 455, 536, 329-D1 (1995)

ISM: MAGNETIC FIELDS

The Zeeman Effect in Astrophysical Water Masers and the Observation of Strong Magnetic Fields in Regions of Star Formation. *Gerald E. Nedoluha & William D. Watson.* 384, 185, 3-C5 (1992)

Zeeman Measurements of the Magnetic Fields at the Galactic Center. *N. E. B. Killeen, K. Y. Lo, & R. Crutcher.* 385, 585, 20-D6 (1992)

Rotation Measures of Low-Latitude Extragalactic Sources and the Magnetoionic Structure of the Galaxy. *Andrew W. Clegg, James M. Cordes, John H. Simonetti, & Shrinivas R. Kulkarni.* 386, 143, 26-A1 (1992)

Faraday Rotation Measure Irregularities through the Supernova Remnant CTA 1: A Site of Enhanced Interstellar Plasma Turbulence. *John H. Simonetti.* 386, 170, 26-C3 (1992)

Magnetic Fields and Radiative Shocks in Protogalaxies and the Origin of Globular Clusters. *Paul R. Shapiro, Alejandro Clocchiatti, & Hyesung Kang.* 389, 269, 63-C11 (1992)

Effect of an Ensemble of Explosions on the Galactic Dynamo. I. General Formulation. *Katia Ferrière.* 389, 286, 63-E1 (1992)

Infrared Polarimetry and the Galactic Magnetic Field. II. Improved Models. *Terry Jay Jones, Dimitri Klebe, & John M. Dickey.* 389, 602, 69-A1 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. II. Results and a Length Scale for Protostellar Cores. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 144, 75-G1 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. III. A Further Parameter Study and Magnetically Controlled Accretion Rate. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 166, 76-A11 (1992)

On the Origin of Cosmological Magnetic Fields. *T. Tajima, S. Cable, K. Shibata, & R. M. Kulsrud.* 390, 309, 79-B1 (1992)

Effect of the Explosion of Supernovae and Superbubbles on the Galactic Dynamo. *Katia Ferrière.* 391, 188, 88-C13 (1992)

Ambipolar Diffusion and Star Formation: Formation and Contraction of Axisymmetric Cloud Cores. I. Formulation of the Problem and Method of Solution. *Robert A. Fiedler & Telemachos Ch. Mouschovias.* 391, 199, 88-D12 (1992)

Giant Molecular Cloud Formation through the Parker Instability in a Skewed Magnetic Field. *Tomoyuki Hanawa, Ryoji Matsumoto, & Kazunari Shibata.* 393, L71, 127-E1 (1992)

Pressure-confined Clumps in Magnetized Molecular Clouds. *Frank Bertoldi & Christopher F. McKee.* 395, 140, 142-A1 (1992)

The Spectrum of Random Magnetic Fields in the Mean Field Dynamo Theory of the Galactic Magnetic Field. *Russell M. Kulsrud & Stephen W. Anderson.* 396, 606, 165-A1 (1992)

The Structure of Magnetic Fields in Dark Clouds: Infrared Polarimetry in B216–217. *Alyssa A. Goodman, Terry J. Jones, Elizabeth A. Lada, & Philip C. Myers.* 399, 108, 196-E3 (1992)

The Bow Shock and Mach Disk of HH 34. *Jon A. Morse, Patrick Hartigan, Gerald Cecil, John C. Raymond, & Steve Heathcote.* 399, 231, 198-B3 (1992)

Discovery of a Synchrotron-emitting Halo around NGC 253. *C. L. Carilli, M. A. Holdaway, P. T. P. Ho, & C. G. De Pree.* 399, L59, 200-F8 (1992)

Polarization of the Far-Infrared Emission from the Thermal Filaments of the Galactic Center Arc. *M. Morris, J. A. Davidson, M. Werner, J. Dotson, D. F. Figer, R. Hildebrand, G. Novak, & S. Platt.* 399, L63, 200-G6 (1992)

On the Amplification of Large-Scale Magnetic Fields in Spiral Galaxies by Galactic Winds. *S. J. Spencer & L. E. Cram.* 400, 484, 216-C12 (1992)

Fast Dynamos, Cosmic Rays, and the Galactic Magnetic Field. *E. N. Parker.* 401, 137, 222-F7 (1992)

The Full Alpha-Tensor Due to Supernova Explosions and Superbubbles in the Galactic Disk. *Katia Ferrière.* 404, 162, 30-A7 (1993)

Parker Instability in a Realistic Gravitational Field. *Ahmet T. Giz & Frank H. Shu.* 404, 185, 30-C3 (1993)

Effects of Magnetic Fields and Rotation on the Fragmentation of Filamentary Molecular Clouds: Comparison of the Theory with the Orion A Cloud. *Tomoyuki Hanawa, Fumitaka Nakamura, Tomoaki Matsumoto, Takenori Nakano, Ken'ichi Tatematsu, Tomofumi Umemoto, Osamu Kameya, Naomi Hirano, Tetsuo Hasegawa, Norio Kaifu, & Satoshi Yamamoto.* 404, L83, 40-G1 (1993)

Magnetic Field Strengths in High-Redshift Galaxies: Can the Galactic Dynamo Be Tested? *Judith J. Perry, Alan M. Watson, & Philipp P. Kronberg.* 406, 407, 62-F12 (1993)

The Circumstellar Density Distribution of L1551NE. *M. Barsony & C. J. Chandler.* 406, L71, 68-E1 (1993)

OH Zeeman Observations of Dark Clouds. *R. M. Crutcher, T. H. Troland, A. A. Goodman, C. Heiles, I. Kazès, & P. C. Myers.* 407, 175, 71-C1 (1993)

Models for the Magnetic Field of M81. *David Moss, Axel Brandenburg, Karl Johan Donner, & Magnus Thomasson.* 409, 179, 99-B10 (1993)

Multiconfiguration VLA H92α Observations of Sagittarius A West at 1 Arcsecond Resolution. *D. A. Roberts & W. M. Goss.* 86, 133, 15-E1 (1993)

Large-Scale Explosions and Superbubbles in the Galactic Disk and Halo. I. Magnetohydrodynamic Simulations. *Shin Mineshige, Kazunari Shibata, & Paul R. Shapiro.* 409, 663, 107-C1 (1993)

A Similarity Solution to the Kinematic $\alpha^2\omega$ Dynamo Equation with Time-dependent Coefficients. *Chung-Ming Ko.* 410, 128, 113-F8 (1993)

High-Resolution H I Observations of H II Regions. III. Photodissociation Regions and the Magnetic Field near Orion B. *Paul P. van der Werf, W. M. Goss, Carl Heiles, R. M. Crutcher, & T. H. Troland.* 411, 247, 130-C8 (1993)

Magnetic Fields in Massive Cloud Cores: Comparison of MILLIPOL and *IRAS* Results. *Brian D. Kane, Dan P. Clemens, Richard Barvainis, & Robert W. Leach.* 411, 708, 138-E1 (1993)

VLA Zeeman Observations of W3. *D. A. Roberts, R. M. Crutcher, T. H. Troland, & W. M. Goss.* 412, 675, 152-B12 (1993)

Oscillatory Instability of Radiative Shocks with Transverse Magnetic Field: Linear Analysis and Nonlinear Simulations. *G. Tóth & B. T. Draine.* 413, 176, 158-C8 (1993)

Ambipolar Diffusion and Star Formation: Formation and Contraction of Axisymmetric Cloud Cores. II. Results. *Robert A. Fiedler & Telemachos Ch. Mouschovias.* 415, 680, 196-C7 (1993)

Collapse of Magnetized Molecular Cloud Cores. I. Semianalytical Solution. *Daniele Galli & Frank H. Shu.* 417, 220, 220-C1 (1993)

Collapse of Magnetized Molecular Cloud Cores. II. Numerical Results. *Daniele Galli & Frank H. Shu.* 417, 243, 220-D13 (1993)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. I. Basic Physics and Formulation of the Problem. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 418, 774, 242-B13 (1993)

Interstellar Magnetic Bubbles. *J. P. Vallée.* 419, 670, 256-A12 (1993)

Local Shear Instabilities in Weakly Ionized, Weakly Magnetized Disks. *Omer M. Blaes & Steven A. Balbus.* 421, 163, 18-A12 (1994)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. II. Numerical Method of Solution. *Scott A. Morton, Telemachos Ch. Mouschovias, & Glenn E. Ciolek.* 421, 561, 25-B6 (1994)

The Magnetic Field in the Ophiuchus Dark Cloud Complex. *Alyssa A. Goodman & Carl Heiles.* 424, 208, 64-E1 (1994)

Basic Theory for Polarized, Astrophysical Maser Radiation in a Magnetic Field. *William D. Watson.* 424, L37, 69-E8 (1994)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. III. Typical Axisymmetric Solutions. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 425, 142, 82-A6 (1994)

Structure and Evolution of Magnetically Supported Molecular Clouds: Evidence for Ambipolar Diffusion in the Barnard 1 Cloud. *R. M. Crutcher, Telemachos Ch. Mouschovias, T. H. Troland, & Glenn E. Ciolek.* 427, 839, 123-A13 (1994)

The Formation of Sharp Structures by Ambipolar Diffusion. *Axel Brandenburg & Ellen G. Zweibel.* 427, L91, 127-A11 (1994)

Magnetic Field Structure in Monoceros R2. *T. H. Jarrett, G. Novak, T. Xie, & P. F. Goldsmith.* 430, 743, 171-B6 (1994)

VV 114: Making of an Ultraluminous Galaxy? *M. S. Yun, N. Z. Scoville, & R. A. Knop.* 430, L109, 174-F9 (1994)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. I. Axisymmetric Solutions. *Shantanu Basu & Telemachos Ch. Mouschovias.* 432, 720, 205-A6 (1994)

Shock Interactions with Magnetized Interstellar Clouds. I. Steady Shocks Hitting Nonradiative Clouds. *Mordecai-Mark Mac Low, Christopher F. McKee, Richard I. Klein, James M. Stone, & Michael L. Norman.* 433, 757, 220-E2 (1994)

Galactic Magnetic Field Strengths and Star Formation Parameters. *J. P. Vallée.* 433, 778, 220-G1 (1994)

On the Global Stability of Magnetized Accretion Disks. I. Axisymmetric Modes. *Charles Curry, Ralph E. Pudritz, & Peter G. Sutherland.* 434, 206, 228-C7 (1994)

Mass-Loss Rates, Ionization Fractions, Shock Velocities, and Magnetic Fields of Stellar Jets. *Patrick Hartigan, Jon A. Morse, & John Raymond.* 436, 125, 263-A6 (1994)

Galactic Magnetism and the Rotation Curves of M31 and the Milky Way. *J. P. Vallée.* 437, 179, 285-F1 (1994)

Alfvén Waves in Interstellar Gasdynamics. *Christopher F. McKee & Ellen G. Zweibel.* 440, 686, 52-F2 (1995)

Polarization Properties of Two Pulsars. *R. N. Manchester & Simon Johnston.* 441, L65, 75-G6 (1995)

Observations of Magnetic Fields in Diffuse Clouds. *P. C. Myers, A. A. Goodman, R. Güsten, & C. Heiles.* 442, 177, 79-E11 (1995)

On Magnetic Turbulence in Interstellar Clouds. *P. C. Myers & V. K. Khersonsky.* 442, 186, 79-F9 (1995)

The Distribution of Molecular and Neutral Gas and Magnetic Fields near the Bipolar H II Region S106. *D. A. Roberts, R. M. Crutcher, & T. H. Troland.* 442, 208, 80-A9 (1995)

Fragmentation of Filamentary Molecular Clouds with Longitudinal Magnetic Fields: Formation of Disks and Their Collapse. *Fumitaka Nakamura, Tomoyuki Hanawa, & Takenori Nakano.* 444, 770, 127-B2 (1995)

Hydromagnetic Waves and the Linewidth-Size Relation in Interstellar Molecular Clouds. *Telemachos Ch. Mouschovias & Dimitrios Psaltis.* 444, L105, 131-A8 (1995)

Magnetic Fields around Bok Globules: CCD Polarimetry of CB 4. *Brian D. Kane, Dan P. Clemens, Robert W. Leach, & Richard Barvainis.* 445, 269, 136-C2 (1995)

A Faraday Rotation Search for Magnetic Fields in Quasar-damped Lyα Absorption Systems. *Abraham L. Oren & Arthur M. Wolfe.* 445, 624, 143-F7 (1995)

The Magnetic Fields in the Galactic Center: Detection of H I Zeeman Splitting. *R. L. Plante, K. Y. Lo, & R. M. Crutcher.* 445, L113, 151-B4 (1995)

Anisotropic Modal Energy Transfer in Interstellar Turbulence. *David Montgomery & William H. Matthaeus.* 447, 706, 185-F10 (1995)

Effects of Pressure and Resistivity on the Ambipolar Diffusion Singularity: Too Little, Too Late. *Axel Brandenburg & Ellen G. Zweibel.* 448, 734, 204-G12 (1995)

Does Near-Infrared Polarimetry Reveal the Magnetic Field in Cold Dark Clouds? *Alyssa A. Goodman, Terry J. Jones, Elizabeth A. Lada, & Philip C. Myers.* 448, 748, 205-B4 (1995)

Zeeman Effect Observations of H I Emission Profiles. I. Magnetic Field Limits for Three Regions Based on Observations Corrected for Polarized Beam Structure. *Gerrit L. Verschuur.* 451, 624, 255-G10 (1995)

Zeeman Effect Observations of H I Emission Profiles. II. Results of an Attempt to Confirm Previous Claims of Field Detections. *Gerrit L. Verschuur.* 451, 645, 256-B6 (1995)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. II. A Parameter Study. *Shantanu Basu & Telemachos Ch. Mouschovias.* 452, 386, 267-D7 (1995)

Davis-Greenstein Alignment of Nonspherical Grains. *A. Lazarian.* 453, 229, 284-C5 (1995)

Grain Alignment by Ambipolar Diffusion in Molecular Clouds. *W. G. Roberge, S. Hanany, & D. W. Messinger.* 453, 238, 284-D3 (1995)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. III. Effect of the Initial Mass-to-Flux Ratio. *Shantanu Basu & Telemachos Ch. Mouschovias.* 453, 271, 284-G9 (1995)

On the Global Stability of Magnetized Accretion Disks. II. Vertical and Azimuthal Magnetic Fields. *Charles Curry & Ralph E. Pudritz.* 453, 697, 293-D6 (1995)

The Milky Way's Spiral Arms Traced by Magnetic Fields, Dust, Gas, and Stars. *J. P. Vallée.* 454, 119, 300-G9 (1995)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. IV. Effect of Ultraviolet Ionization and Magnetically Controlled Infall Rate. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 454, 194, 302-A10 (1995)

A Turbulent Model for the Interstellar Medium. II. Magnetic Fields and Rotation. *Thierry Passot, Enrique Vázquez-Semadeni, & Annick Pouquet.* 455, 536, 329-D1 (1995)

Grain Alignment in the Taurus Dark Cloud. *P. A. Gerakines, D. C. B. Whittet, & A. Lazarian.* 455, L171, 334-E7 (1995)

A Point in Favor of the Superparamagnetic Grain Hypothesis. *A. A. Goodman & D. C. B. Whittet.* 455, L181, 334-F8 (1995)

ISM: MOLECULES

^{13}CO in IC 342: Evidence for a Spiral Density Wave in the Nucleus. *Jean L. Turner & Robert L. Hurt.* 384, 72, 1-G13 (1992)

Ambiguities in the Identification of Giant Molecular Cloud Complexes from Longitude-Velocity Diagrams. *David S. Adler & William W. Roberts, Jr.* 384, 95, 2-B12 (1992)

Dense Cores in Dark Clouds. VII. Line Width–Size Relations. *G. A. Fuller & P. C. Myers.* 384, 523, 8-F1 (1992)

The Molecular Core in the AFGL 5157 Region. *José M. Torrelles, Carlos Eiroa, Rainer Mauersberger, Robert Estalella, Luis F. Miranda, & Guillem Anglada.* 384, 528, 8-F7 (1992)

The Triple Radio Continuum Source in Serpens: Its Interaction with the Ambient Molecular Gas. *J. M. Torrelles, J. F. Gómez, S. Curiel, C. Eiroa, L. F. Rodríguez, & P. T. P. Ho.* 384, L59, 11-D7 (1992)

The Millimeter-Wave Spectrum of the CaOH Radical ($X\,^2\Sigma^+$). *L. M. Ziurys, W. L. Barclay, Jr., & M. A. Anderson.* 384, L63, 11-E1 (1992)

Formaldehyde Absorption in the Nucleus of NGC 3628. *Willem A. Baan & W. M. Goss.* 385, 188, 14-C10 (1992)

The Distribution of the 6_2–6_1 and 5_2–5_1 *E*-Type Methanol Masers in OMC-1. *K. J. Johnston, R. Gaume, S. Stolovy, T. L. Wilson, C. M. Walmsley, & K. M. Menten.* 385, 232, 14-G3 (1992)

Detection of HCO$^+$ $J = 9\rightarrow8$ Line Emission toward Orion IRc2: Molecular Ions in Hot Dense Gas. *D. T. Jaffe, U. U. Graf, A. I. Harris, J. Stutzki, & S. H. Lepp.* 385, 240, 14-G13 (1992)

The Molecular Interstellar Medium in Two Giant H II Regions in M33: NGC 604 and NGC 595. *Christine D. Wilson & Nick Scoville.* 385, 512, 19-E5 (1992)

Structure, Chemistry, and Clumping in the NGC 2071 (North) Molecular Cloud. *Paul F. Goldsmith, Michael Margulis, Ronald L. Snell, & Y. Fukui.* 385, 522, 19-F3 (1992)

The Development of H I Dissociation Zones around New H II Regions. *R. S. Roger & P. E. Dewdney.* 385, 536, 19-G5 (1992)

Zeeman Measurements of the Magnetic Fields at the Galactic Center. *N. E. B. Killeen, K. Y. Lo, & R. Crutcher.* 385, 585, 20-D6 (1992)

An Extended Search for Extragalactic O_2. *H. S. Liszt.* 386, 139, 25-G9 (1992)

The Rotational Spectrum of the Carbon Chain Radical HCCCO. *A. L. Cooksy, J. K. G. Watson, C. A. Gottlieb, & P. Thaddeus.* 386, L27, 29-D7 (1992)

Numerical Models for the Collapse and Fragmentation of Centrally Condensed Molecular Cloud Cores. *Elizabeth A. Myhill & William M. Kaula.* 386, 578, 32-E4 (1992)

Detection of Isocyanoacetylene HCCNC in TMC-1. *Kentarou Kawaguchi, Masatoshi Ohishi, Shin-ichi Ishikawa, & Norio Kaifu.* 386, L51, 36-C10 (1992)

A Survey of CS $J = 7\rightarrow6$ in Regions of Massive Star Formation. *René Plume, D. T. Jaffe, & Neal J. Evans II.* 78, 505, 9-F5 (1992)

Atomic and Molecular Outflow in DR 21. *A. P. G. Russell, J. Bally, R. Padman, & R. E. Hills.* 387, 219, 39-E13 (1992)

Are the NGC 7538 Formaldehyde Masers Really Unusual? *Preethi Pratap, Lewis E. Snyder, & Wolfgang Batrla.* 387, 241, 40-A1 (1992)

A Survey of N_2H^+ in Dense Clouds: Implications for Interstellar Nitrogen and Ion-Molecule Chemistry. *M. Womack, L. M. Ziurys, & S. Wyckoff.* 387, 417, 42-B6 (1992)

Dense Molecular Gas and Starbursts in Ultraluminous Galaxies. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 387, L55, 48-B1 (1992)

The Molecular Hydrogen Emission around L1551 IRS 5: Shock- Heated Molecular Gas at the Base of the Molecular Outflow. *Takuya Yamashita & Motohide Tamura.* 387, L93, 48-E5 (1992)

Infrared Emission Spectra of Benzene and Naphthalene: Implications for the Interstellar Polycyclic Aromatic Hydrocarbon Hypothesis. *Jerrell D. Brenner & John R. Barker.* 388, L39, 52-D6 (1992)

Synthesis Imaging of the DR 21 (OH) Cluster. II. Thermal Ammonia and Water Maser Emission. *Jeffrey G. Mangum, Alwyn Wootten, & Lee G. Mundy.* 388, 467, 56-B6 (1992)

Orion B (NGC 2024). III. BIMA SO $J_K = 2_2 \rightarrow 1_1$ Observations: Evidence for Peculiar Sulfur Chemistry. *Peter J. Barnes & Richard M. Crutcher.* 389, 325, 64-A5 (1992)

High Angular Resolution Far-Infrared Observations of Sagittarius B2. *Paul F. Goldsmith, Dariusz C. Lis, D. F. Lester, & P. M. Harvey.* 389, 338, 64-B7 (1992)

Kinematics and Morphology of Material Occulting ζ Ophiuchi. *H. S. Liszt.* 390, 226, 76-G1 (1992)

Primordial Giant Molecular Cloud Clumps Can Be Probed—Optically. *David L. Block, J. E. Dyson, & Claus Madsen.* 390, L13, 78-C1 (1992)

Switch Shocks in Molecular Clouds. I. Plane-parallel Magnetohydrodynamic Analysis. *Michael D. Smith.* 390, 447, 81-A1 (1992)

Far-Infrared Observations of M17SW: The Clumpy Structure of the Photodissociation Region. *Margaret Meixner, Michael R. Haas, A. G. G. M. Tielens, E. F. Erickson, & M. Werner.* 390, 499, 81-E3 (1992)

Bipolar Outflow in B335: The Small-Scale Structure. *Naomi Hirano, Osamu Kameya, Takashi Kasuga, & Tomofumi Umemoto.* 390, L85, 85-B1 (1992)

The Kinematics of the Molecular Gas in Centaurus A. *A. C. Quillen, P. T. de Zeeuw, E. S. Phinney, & T. G. Phillips.* 391, 121, 87-D13 (1992)

SO in Starburst Galaxies. *S. J. Petuchowski & C. L. Bennett.* 391, 137, 87-F5 (1992)

Formaldehyde Reactions in Dark Clouds. *A. D. Sen, V. G. Anicich, & S. R. Federman.* 391, 141, 87-F10 (1992)

CO Emission from the Dwarf Irregular Galaxy NGC 6822. *Christine D. Wilson.* 391, 144, 87-G1 (1992)

Velocity Structure in Optical CH^+ Lines toward HD 190603 and Implications for the Formation of CH^+. *M. M. Allen & Theodore P. Snow.* 391, 152, 87-G13 (1992)

On the Nature of the Molecular Cores in High-Latitude Cirrus Clouds. II. Structure, Stability, and Physical Conditions from $C^{18}O$ Observations. *B. E. Turner, Lanping Xu, & L. J Rickard.* 391, 158, 88-A7 (1992)

Walls and Windows in the Molecular Milky Way. *William H. Waller & Lowell E. Tacconi-Garman.* 80, 305, 26-D3 (1992)

Infrared Morphology of Mass Outflow from GL 2591. *Motohide Tamura & Takuya Yamashita.* 391, 710, 96-G4 (1992)

Chemistry in Circumstellar Disks: CS toward HL Tauri. *Geoffrey A. Blake, Ewine F. van Dishoeck, & Anneila I. Sargent.* 391, L99, 100-A5 (1992)

A Source Model for the L134N Molecular Cloud. *Daryl A. Swade & F. Peter Schloerb.* 392, 543, 109-A9 (1992)

A Survey of CCS, HC_3N, HC_5N, and NH_3 toward Dark Cloud Cores and Their Production Chemistry. *Hiroko Suzuki, Satoshi Yamamoto, Masatoshi Ohishi, Norio Kaifu, Shin-ichi Ishikawa, Yasuhiro Hirahara, & Shuro Takano.* 392, 551, 109-B4 (1992)

The Diffuse Interstellar Cloud toward HD 179406 (20 Aquilae). *Margaret Murray Hanson, Theodore P. Snow, & John H. Black.* 392, 571, 109-C12 (1992)

High Spatial Resolution Observations of HCO^+ in the NGC 7027 Molecular Envelope. *S. Deguchi, H. Izumiura, Nguyen-Q-Rieu, K. M. Shibata, N. Ukita, & I. Yamamura.* 392, 597, 109-F1 (1992)

High-Velocity HCO^+ Emission Associated with the DR 21 Molecular Outflow. *Rogwald P. Garden & John E. Carlstrom.* 392, 602, 109-F7 (1992)

The Outflow in the L1157 Dark Cloud: Evidence for Shock Heating of the Interacting Gas. *T. Umemoto, T. Iwata, Y. Fukui, H. Mikami, S. Yamamoto, O. Kameya, & N. Hirano.* 392, L83, 113-E6 (1992)

Detection of SiO Emission in the L1157 Dark Cloud. *Hitomi Mikami, Tomofumi Umemoto, Satoshi Yamamoto, & Shuji Saito.* 392, L87, 113-E11 (1992)

Distance and Kinematics of the W49N H_2O Maser Outflow. *C. R. Gwinn, J. M. Moran, & M. J. Reid.* 393, 149, 116-A1 (1992)

Estimates of N_2 Abundances in Dense Molecular Clouds. *M. Womack, L. M. Ziurys, & S. Wyckoff.* 393, 188, 116-D6 (1992)

Ultraviolet, Optical, and Infrared Observations of the High-Latitude Molecular Cloud toward HD 210121. *Daniel E. Welty & James R. Fowler.* 393, 193, 116-D13 (1992)

The Tully-Fisher Relation for the CO Line. *John M. Dickey & Ilya Kazès.* 393, 530, 122-D5 (1992)

Surveys of Dense Cores for High-Velocity Gas. *Yuefang Wu, Shudong Zhou, & Neal J. Evans II.* 394, 196, 130-D9 (1992)

A Complete CO Survey of the Cygnus X Region. *Helen O. Leung & P. Thaddeus.* 81, 267, 38-F3 (1992)

Mapping Observations of Sulfur-containing Carbon-Chain Molecules in Taurus Molecular Cloud 1 (TMC-1). *Yasuhiro Hirahara, Hiroko Suzuki, Satoshi Yamamoto, Kentarou Kawaguchi, Norio Kaifu, Masatoshi Ohishi, Shuro Takano, Shin-ichi Ishikawa, & Akimasa Masuda.* 394, 539, 136-B1 (1992)

Pressure-confined Clumps in Magnetized Molecular Clouds. *Frank Bertoldi & Christopher F. McKee.* 395, 140, 142-A1 (1992)

The Compression of the M-0.02-0.07 Molecular Cloud by the Sagittarius A East Shell Source. *E. Serabyn, J. H. Lacy, & J. M. Achtermann.* 395, 166, 142-C1 (1992)

The Ultraviolet and Visible Spectrum of the Polycyclic Aromatic Hydrocarbon $C_{10}H_8^+$: Possible Contributions to the Diffuse Interstellar Bands and to the Ultraviolet–Visible Extinction. *F. Salama & L. J. Allamandola.* 395, 301, 143-G9 (1992)

Evidence for a Wind-swept Cavity in HH 34? *Alexander Rudolph & William J. Welch.* 395, 488, 148-F3 (1992)

Global Aspects of Dynamics and Star Formation in Taurus. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 395, 501, 148-G13 (1992)

High-Resolution Photoabsorption Cross Sections of $E^1\Pi$–$X^1\Sigma^+$ Vibrational Bands of ^{12}CO and ^{13}CO. *G. Stark, P. L. Smith, K. Ito, & K. Yoshino.* 395, 705, 152-B5 (1992)

Twin Peaks of CO Emission in the Central Regions of Barred Galaxies. *Jeffrey D. P. Kenney, Christine D. Wilson, Nick Z. Scoville, Nicholas A. Devereux, & Judith S. Young.* 395, L79, 153-G5 (1992)

Evidence for Large-Scale Expanding Motions within the Orion A Molecular Cloud. *M. H. Heyer, J. Morgan, F. P. Schloerb, R. L. Snell, & P. F. Goldsmith.* 395, L99, 154-B1 (1992)

Protonated Acetylene: An Important Circumstellar and Interstellar Ion. *A. E. Glassgold, A. Omont, & M. Guélin.* 396, 115, 156-E5 (1992)

Extended Infrared Emission around IRAS 21282+5050. *Jesse D. Bregman, John Booth, D. Kirk Gilmore, Laura Kay, & David Rank.* 396, 120, 156-E12 (1992)

Detection of HNCCC in TMC-1. *Kentarou Kawaguchi, Shuro Takano, Masatoshi Ohishi, Shin-ichi Ishikawa, Keisuke Miyazawa, Norio Kaifu, Koichi Yamashita, Satoshi Yamamoto, Shuji Saito, Yasuhiro Ohshima, & Yasuki Endo.* 396, L49, 161-A1 (1992)

Density Structure and Star Formation in Dense Cores with Thermal and Nonthermal Motions. *P. C. Myers & G. A. Fuller.* 396, 631, 165-C1 (1992)

A Sensitive Search for Rotational Lines of Vibrationally Excited HC_5N in IRC +10°216. *M. B. Bell, P. A. Feldman, & L. W. Avery.* 396, 643, 165-D1 (1992)

Outflowing Molecular Gas in NGC 3079. *Judith A. Irwin & Yoshiaki Sofue.* 396, L75, 167-B1 (1992)

On the Detectability of the Gas of Other Solar Nebulae. *Toshihiro Omodaka, Yoshimi Kitamura, & Eiko Kawazoe.* 396, L87, 167-C7 (1992)

On the Nature of the Excitation of Herbig-Haro Object 2. *José M. Torrelles, Luis F. Rodríguez, Jorge Cantó, Guillem Anglada, José F. Gómez, Salvador Curiel, & Paul T. P. Ho.* 396, L95, 167-D7 (1992)

Detection of Interstellar SO^+: A Diagnostic of Dissociative Shock Chemistry. *B. E. Turner.* 396, L107, 167-F1 (1992)

Aperture Synthesis CO (J = 3–2) Observations of a Protogalaxy Candidate IRAS F10214+4724. *R. Kawabe, K. Sakamoto, S. Ishizuki, & M. Ishiguro.* 397, L23, 173-C12 (1992)

Models of Gas-Grain Chemistry in Dense Interstellar Clouds with Complex Organic Molecules. *Tatsuhiko I. Hasegawa, Eric Herbst, & Chun Ming Leung.* 82, 167, 51-D13 (1992)

Calculations of Ion-Molecule Deuterium Fractionation Reactions Involving HD. *Sergio A. Maluendes, A. D. McLean, & Eric Herbst.* 397, 477, 176-F10 (1992)

Fractionation of CO in the Diffuse Clouds toward ζ Ophiuchi. *Yaron Sheffer, S. R. Federman, David L. Lambert, & Jason A. Cardelli.* 397, 482, 176-G3 (1992)

CO (v = 1–0) Emission in the Molecular Shock Regions of OMC-1. *G. L. Grasdalen, John A. Hackwell, David K. Lynch, & Ray W. Russell.* 397, L119, 181-E13 (1992)

Detection of the Quadrupole Hyperfine Structure in $HCNH^+$. *L. M. Ziurys, A. J. Apponi, & J. T. Yoder.* 397, L123, 181-F6 (1992)

CN Rotational Excitation. *E. Palazzi, N. Mandolesi, & Philippe Crane.* 398, 53, 182-F5 (1992)

High-Resolution Imaging of the Galactic Cloud Monoceros R2. *Constantine P. Gonatas, Patrick Palmer, & G. Novak.* 398, 118, 183-D7 (1992)

A Dense Molecular Ring Surrounding the Nonthermal Galactic Center Radio Shell G359.1−0.5. *Keven I. Uchida, Mark Morris, J. Bally, M. Pound, & F. Yusef-Zadeh.* 398, 128, 183-E5 (1992)

Warm Molecular Gas in the Primeval Galaxy IRAS 10214+4724. *P. M. Solomon, D. Downes, & S. J. E. Radford.* 398, L29, 187-E1 (1992)

Laboratory Measurement of the Rotational Spectrum of HCCS. *J. M. Vrtilek, C. A. Gottlieb, E. W. Gottlieb, W. Wang, & P. Thaddeus.* 398, L73, 188-C7 (1992)

^{13}CO and HCO^+ Observations of *IRAS* Sources in L1641. *Hua Chen, Yasuo Fukui, & Ji Yang.* 398, 544, 190-G12 (1992)

Nuclear Molecular Gas in the Virgo Cluster S0 Galaxy NGC 4710. *J. M. Wrobel & Jeffrey D. P. Kenney.* 399, 94, 196-C10 (1992)

Tests of Shock Chemistry in IC 443G. *B. E. Turner, Kin-Wing Chan, S. Green, & D. A. Lubowich.* 399, 114, 196-E12 (1992)

Infrared Spectroscopy of Dense Clouds in the C−H Stretch Region: Methanol and "Diamonds." *L. J. Allamandola, S. A. Sandford, A. G. G. M. Tielens, & T. M. Herbst.* 399, 134, 196-G7 (1992)

On the Molecular Complexity of the Hot Cores in Orion A: Grain Surface Chemistry as "The Last Refuge of the Scoundrel." *S. B. Charnley, A. G. G. M. Tielens, & T. J. Millar.* 399, L71, 201-A8 (1992)

Methanol Ice in the Protostar GL 2136. *C. J. Skinner, A. G. G. M. Tielens, M. J. Barlow, & K. Justtanont.* 399, L79, 201-B7 (1992)

Laboratory Measurement of the Millimeter and Submillimeter Wave Spectrum of $C_2H_3^+$. *M. Bogey, M. Cordonnier, C. Demuynck, & J. L. Destombes.* 399, L103, 201-E3 (1992)

A Survey for Extragalactic HCN and HCO^+. *Nguyen-Q-Rieu, James M. Jackson, Christian Henkel, Truong-Bach, & Rainer Mauersberger.* 399, 521, 204-D1 (1992)

Interstellar H_3O^+ and Its Relation to the O_2 and H_2O Abundances. *T. G. Phillips, Ewine F. van Dishoeck, & Jocelyn Keene.* 399, 533, 204-E1 (1992)

On the Virial Theorem for Turbulent Molecular Clouds. *Christopher F. McKee & Ellen G. Zweibel.* 399, 551, 204-F7 (1992)

Mid-Infrared Rotational Line Emission from Interstellar Molecular Hydrogen. *Michael G. Burton, D. J. Hollenbach, & A. G. G. M. Tielens.* 399, 563, 204-G7 (1992)

A Surface Brightness Correlation between Carbon Monoxide and Nonthermal Radio Continuum Emission in the Galaxy. *R. J. Allen.* 399, 573, 205-A5 (1992)

Submillimeter Line Observations of the Proto–Planetary Nebula CRL 2688. *P. A. Jaminet, W. C. Danchi, Göran Sandell, & E. C. Sutton.* 400, 535, 217-A7 (1992)

The Excitation Temperature of HC_9N in the Circumstellar Envelope of IRC +10216. *M. B. Bell, L. W. Avery, J. M. MacLeod, & H. E. Matthews.* 400, 551, 217-B12 (1992)

The Dynamics of Molecular Cloud Envelopes in a Varying Ultraviolet Radiation Field. *C. Bréart de Boisanger, J.-P. Chièze, & B. Meltz.* 401, 182, 223-D1 (1992)

VLBI Observations of the 6.7 GHz Methanol Masers toward W3(OH). *K. M. Menten, M. J. Reid, P. Pratap, J. M. Moran, & T. L. Wilson.* 401, L39, 227-F1 (1992)

Observational Constraints on Solar Nebula Nitrogen Chemistry: N_2/NH_3. *Maria Womack, Susan Wyckoff, & L. M. Ziurys.* 401, 728, 231-E6 (1992)

On Ionized Napthalene ($C_{10}H_8^+$) as a Carrier of Diffuse Interstellar Bands. *Theodore P. Snow.* 401, 775, 232-B10 (1992)

The Environments of Young Stars: Mid-Infrared and Molecular Line Imaging. *Eric Keto, Deanne Proctor, Roger Ball, John Arens, & Garrett Jernigan.* 401, L113, 233-E11 (1992)

Photometric and Spectroscopic Analysis of High Galactic Latitude Molecular Clouds. I. Distances and Extinctions of Stars toward 25 Selected Regions. *B. E. Penprase.* 83, 273, 61-E7 (1992)

Neutral Gas in the Central 2 Parsecs of the Galaxy. *J. M. Jackson, N. Geis, R. Genzel, A. I. Harris, S. Madden, A. Poglitsch, G. J. Stacey, & C. H. Townes.* 402, 173, 3-C1 (1993)

CO (J = 1–0) Line Emission from Giant Molecular Clouds. *Mark G. Wolfire, David Hollenbach, & A. G. G. M. Tielens.* 402, 195, 3-E1 (1993)

The Observation of Correlated Velocity Structures in a Translucent Molecular Cloud and Implications for Turbulence. *L. Magnani, T. N. LaRosa, & S. N. Shore.* 402, 226, 3-G10 (1993)

Ammonia in the W3(OH) Region. *T. L. Wilson, R. A. Gaume, & K. J. Johnston.* 402, 230, 4-A1 (1993)

Millimeter-Wavelength Aperture Synthesis Observations of Massive Star-forming Regions in Sagittarius B2. *D. C. Lis, P. F. Goldsmith, J. E. Carlstrom, & N. Z. Scoville.* 402, 238, 4-A12 (1993)

The Millimeter-Wave Spectrum of the MgH and MgD Radicals. *L. M. Ziurys, W. L. Barclay, Jr., & M. A. Anderson.* 402, L21, 6-D8 (1993)

First Measurements of Extragalactic CO(4–3). *R. Güsten, E. Serabyn, C. Kasemann, A. Schinckel, G. Schneider, A. Schulz, & K. Young.* 402, 537, 9-C1 (1993)

Warm Neutral Halos around Molecular Clouds. VI. Physical and Chemical Modeling. *B-G Andersson & P. G. Wannier.* 402, 585, 9-G9 (1993)

Gravitational Formation Times and Stellar Mass Distributions for Stars of Mass 0.3–30 $M_\odot$. *P. C. Myers & G. A. Fuller.* 402, 635, 10-E1 (1993)

Upper Limits to the CO J = 1–0 Emission around Vega-like Stars: Gas Depletion of the Circumstellar Ring around ϵ Eridani. *Takuya Yamashita, Toshihiro Handa, Toshihiro Omodaka, Yoshimi Kitamura, Eiko Kawazoe, Saeko S. Hayashi, & Norio Kaifu.* 402, L65, 12-G7 (1993)

A Possible Connection between Enhanced CH^+ and Intense Far-Ultraviolet Radiation Fields. *Theodore P. Snow.* 402, L73, 13-A7 (1993)

Dense Cores in L1204/S140: Star Formation and Velocity Shifts. *M. Tafalla, R. Bachiller, & J. Martín-Pintado.* 403, 175, 16-B8 (1993)

High-Velocity Formaldehyde Absorption within 30″ of the Galactic Nucleus. *T. Pauls, K. J. Johnston, T. L. Wilson, J. M. Marr, & A. Rudolph.* 403, L13, 20-B6 (1993)

New 3 Millimeter Observations of Interstellar HNO: Reinstating a Discredited Identification. *Lewis E. Snyder, Yi-Jehng Kuan, L. M. Ziurys, & J. M. Hollis.* 403, L17, 20-C1 (1993)

Survey of Galactic CO Emission toward Compact Extragalactic Millimeter-Wave Continuum Sources. *Harvey S. Liszt & Robert W. Wilson.* 403, 663, 23-G11 (1993)

Laboratory Detection of HNCCC and DNCCC by Pulsed Discharge Nozzle Fourier-Transform Microwave Spectroscopy. *Yasuhiro Hirahara, Yasuhiro Ohshima, & Yasuki Endo.* 403, L83, 27-F1 (1993)

158 Micron [C II] Mapping of the Orion Molecular Cloud. *G. J. Stacey, D. T. Jaffe, N. Geis, R. Genzel, A. I. Harris, A. Poglitsch, J. Stutzki, & C. H. Townes.* 404, 219, 30-E11 (1993)

Evidence for Protostellar Collapse in B335. *Shudong Zhou, Neal J. Evans II, Carsten Kömpe, & C. M. Walmsley.* 404, 232, 30-F11 (1993)

PIG (Partially Ionized Globule) Anatomy: Density and Temperature Structure of the Bright-rimmed Globule IC 1396E. *E. Serabyn, R. Güsten, & L. Mundy.* 404, 247, 31-A1 (1993)

Scattering and Luminescence in the Bubble Nebula. *Jean-Pierre Sivan & Jean-Marie Perrin.* 404, 258, 31-B1 (1993)

Molecular Cloud Cores in the Orion A Cloud. I. Nobeyama CS (1–0) Survey. *Ken'ichi Tatematsu, Tomofumi Umemoto, Osamu Kameya, Naomi Hirano, Tetsuo Hasegawa, Masahiko Hayashi, Takahiro Iwata, Norio Kaifu, Hitomi Mikami, Yasuhiro Murata, Makoto Nakano, Takenori Nakano, Nagayoshi Ohashi, Kazuyoshi Sunada, Hiroshi Takaba, & Satoshi Yamamoto.* 404, 643, 37-A5 (1993)

The Scale Height and Radial Distribution of Molecular Gas in NGC 891. *N. Z. Scoville, D. Thakkar, J. E. Carlstrom, & A. I. Sargent.* 404, L59, 40-D7 (1993)

Discovery of a Rotating Protoplanetary Gas Disk around the Young Star GG Tauri. *R. Kawabe, M. Ishiguro, T. Omodaka, Y. Kitamura, & S. M. Miyama.* 404, L63, 40-E1 (1993)

A Circumstellar Molecular Gas Structure Associated with the Massive Young Star Cepheus A–HW 2. *José M. Torrelles, Luis F. Rodríguez, Jorge Cantó, & Paul T. P. Ho.* 404, L75, 40-F1 (1993)

The $^{12}C/^{13}C$ Abundance Ratio in NGC 2264. *George F. Mitchell & Jean-Pierre Maillard.* 404, L79, 40-F8 (1993)

A Survey of Bimolecular Ion-Molecule Reactions for Use in Modeling the Chemistry of Planetary Atmospheres, Cometary Comae, and Interstellar Clouds: 1993 Supplement. *V. G. Anicich.* 84, 215, 4-C11 (1993)

On the Nature of the Molecular Cores in High-Latitude Cirrus Clouds. III. ^{13}CO Observations and Tests of CO Chemistry Models. *B. E. Turner.* 405, 229, 44-A3 (1993)

A Search for the Rotational Transitions of H_2D^+ at 1370 GHz and H_3O^+ at 985 GHz. *R. T. Boreiko & A. L. Betz.* 405, L39, 47-F11 (1993)

The Internal Mass Distribution of a Giant Molecular Cloud without Star Formation. *Jonathan P. Williams & Leo Blitz.* 405, L75, 54-E1 (1993)

The Ionized Gas in the Center and in the Bar of the Spiral Galaxy NGC 6946. *Jean-René Roy & Julien Belley.* 406, 60, 55-G1 (1993)

On the 2175 Å Absorption Band of Hollow, Onion-like Carbon Particles. *L. Henrard, A. A. Lucas, & Ph. Lambin.* 406, 92, 56-C1 (1993)

A Multiwavelength Study of the Eridanus Soft X-Ray Enhancement. *D. N. Burrows, K. P. Singh, J. A. Nousek, G. P. Garmire, & J. Good.* 406, 97, 56-C7 (1993)

N_2H^+ in the Orion Ambient Ridge: Cloud Clumping versus Rotation. *Maria Womack, L. M. Ziurys, & L. J. Sage.* 406, L29, 61-A1 (1993)

Heterogenous Array Observations of IC 342: The CO Isotopic Ratio. *M. C. H. Wright, S. Ishizuki, J. L. Turner, P. T. P. Ho, & K. Y. Lo.* 406, 470, 63-E10 (1993)

Interferometric Observations of Three Giant Molecular Clouds in M31. *Christine D. Wilson & Alexander L. Rudolph.* 406, 477, 63-F6 (1993)

Shock Propagation in a Turbulent Cloud. *Toshiya Kimura & Makoto Tosa.* 406, 512, 64-B10 (1993)

Switch Shocks in Molecular Clouds. II. Implications. *Michael D. Smith.* 406, 520, 64-C7 (1993)

Dense Cores in Dark Clouds. VIII. Velocity Gradients. *A. A. Goodman, P. J. Benson, G. A. Fuller, & P. C. Myers.* 406, 528, 64-D3 (1993)

Warm Neutral Halos around Molecular Clouds. V. OH (1665 and 1667 MHz) Observations. *Peter G. Wannier, B-G Andersson, S. R. Federman, B. M. Lewis, Y. P. Viala, & E. Shaya.* 407, 163, 71-B1 (1993)

OH Zeeman Observations of Dark Clouds. *R. M. Crutcher, T. H. Troland, A. A. Goodman, C. Heiles, I. Kazès, & P. C. Myers.* 407, 175, 71-C1 (1993)

CO Emission from Molecular Gas at −190 Kilometers per Second near Sagittarius A. *H. S. Liszt & W. B. Burton.* 407, L25, 75-C11 (1993)

Hierarchical Structure Analysis of Interstellar Clouds Using Nonorthogonal Wavelets. *William D. Langer, Robert W. Wilson, & Charles H. Anderson.* 408, L45, 89-C7 (1993)

Rotational Spectra of the $X\ ^2\Sigma^+$ States of CaH and CaD. *C. I. Frum, J. J. Oh, E. A. Cohen, & H. M. Pickett.* 408, L61, 89-F1 (1993)

The Millimeter-Wave Spectrum of CaH ($X\ ^2\Sigma^+$). *W. L. Barclay, Jr., M. A. Anderson, & L. M. Ziurys.* 408, L65, 89-F8 (1993)

Theoretical Infrared Spectra of Some Model Polycyclic Aromatic Hydrocarbons: Effect of Ionization. *D. J. De Frees, M. D. Miller, D. Talbi, F. Pauzat, & Y. Ellinger.* 408, 530, 91-G5 (1993)

$^{12}C/^{13}C$ Isotope Ratio in the Local Interstellar Medium from Observations of $^{13}C^{18}O$ in Molecular Clouds. *William D. Langer & Arno A. Penzias.* 408, 539, 92-A1 (1993)

Chemical Differentiation between Star-forming Regions: The Orion Hot Core and Compact Ridge. *P. Caselli, T. I. Hasegawa, & Eric Herbst.* 408, 548, 92-A11 (1993)

CH as a Tracer of a Translucent Cloud Boundary. *Loris Magnani & Joseph S. Onello.* 408, 559, 92-B9 (1993)

A Flattened Cloud Core in NGC 2024. *Paul T. P. Ho, Yun-Lou Peng, José M. Torrelles, José F. Gómez, Luis F. Rodríguez, & Jorge Cantó.* 408, 565, 92-C1 (1993)

H_2 Morphology of Young Planetary Nebulae. *James R. Graham, T. M. Herbst, K. Matthews, G. Neugebauer, B. T. Soifer, E. Serabyn, & S. Beckwith.* 408, L105, 95-F1 (1993)

Laboratory Detection of a New Free Radical C_4S ($^3\Sigma^-$). *Yasuhiro Hirahara, Yasuhiro Ohshima, & Yasuki Endo.* 408, L113, 95-F13 (1993)

Molecular Gas in Powerful Radio Galaxies Detected by *IRAS*. *J. M. Mazzarella, J. R. Graham, D. B. Sanders, & S. Djorgovski.* 409, 170, 99-A13 (1993)

The Physical Structure of Orion-KL on 2500 AU Scales Using the *K*-Doublet Transitions of Formaldehyde. *Jeffrey G. Mangum, Alwyn Wootten, & Richard L. Plambeck.* 409, 282, 100-E13 (1993)

Collisional Excitation of H_2 Molecules by H Atoms. *M. E. Mandy & P. G. Martin.* 86, 199, 16-E1 (1993)

H_2 in Interstellar and Extragalactic Ices: Infrared Characteristics, Ultraviolet Production, and Implications. *Scott A. Sandford & Louis J. Allamandola.* 409, L65, 111-F1 (1993)

Density Wave Kinematics and Giant Molecular Association Formation in M51. *Richard J. Rand.* 410, 68, 113-A3 (1993)

The Nature of the Molecular Cores in High-Latitude Cirrus Clouds. IV. The Electron Distribution and the Abundance and Chemistry of H_2CO. *B. E. Turner.* 410, 140, 113-G8 (1993)

Collapse and Fragmentation of Molecular Cloud Cores. I. Moderately Centrally Condensed Cores. *Alan P. Boss.* 410, 157, 114-B1 (1993)

Extended CO(7→6) Emission from Warm Gas in Orion. *J. E. Howe, D. T. Jaffe, E. N. Grossman, W. F. Wall, J. G. Mangum, & G. J. Stacey.* 410, 179, 114-D1 (1993)

The Formation of Cyanopolyyne Molecules in IRC +10216. *Isabelle Cherchneff, Alfred E. Glassgold, & Gary A. Mamon.* 410, 188, 114-D12 (1993)

From Bipolar to Quadrupolar: The Collimation Processes of the Cepheus A Outflow. *José M. Torrelles, Lourdes Verdes-Montenegro, Paul T. P. Ho, Luis F. Rodríguez, & Jorge Cantó.* 410, 202, 114-F1 (1993)

Detection of CO Emission from Massive Molecular Clouds in the Inner Disk of M31. *Ronald J. Allen & J. Lequeux.* 410, L15, 117-G7 (1993)

An Ab Initio Prediction of the Spectroscopic Constants of MgNC: The First Mg-bearing Molecule in Space. *Keisaku Ishii, Tsuneo Hirano, Umpei Nagashima, Bernhard Weis, & Koichi Yamashita.* 410, L43, 118-D7 (1993)

Laboratory Detection of C_5S by Pulsed–Discharge-Nozzle Fourier Transform Microwave Spectroscopy. *Yasuko Kasai, Kinichi Obi, Yasuhiro Ohshima, Yasuhiro Hirahara, Yasuki Endo, Kentarou Kawaguchi, & Akinori Murakami.* 410, L45, 118-D11 (1993)

Laboratory Measurements of the Millimeter-Wave Spectra of Calcium Isocyanide. *Timothy C. Steimle, Shuji Saito, & Shuro Takano.* 410, L49, 118-C2 (1993)

Laboratory Submillimeter-Wave Observation of the $N = 1$–0 Transition of the ND($^3\Sigma^-$) Radical. *Shuji Saito & Masahiro Goto.* 410, L53, 118-C7 (1993)

Submillimeter Continuum Emission from the Galactic Center Region. *W. R. F. Dent, H. E. Matthews, R. Wade, & W. D. Duncan.* 410, 650, 121-F11 (1993)

4_{-1}–3_0 *E* Methanol Emission in G1.6−0.025. *Aubrey D. Haschick & Willem A. Baan.* 410, 663, 121-G12 (1993)

Spectral Imaging of the 3.3 and 11.3 Micron Emission Bands in NGC 1333: Discovery of Spatially Separate Band Emissions. *Jesse Bregman, David Rank, Scott A. Sandford, & Pasquale Temi.* 410, 668, 122-A5 (1993)

Laboratory Spectra of Polycyclic Aromatic Hydrocarbon Ions and the Interstellar Extinction Curve. *Wei Lee & Thomas J. Wdowiak.* 410, L127, 126-E5 (1993)

On the Nature of the Molecular Cores in High-Latitude Cirrus Clouds. V. NH_3 and Its Chemistry. *B. E. Turner.* 411, 219, 129-G13 (1993)

The Association of ^{13}CO Molecular Gas with *IRAS* Sources in L1641. *H. Chen, Y. Fukui, & T. Iwata.* 411, 239, 130-B11 (1993)

Detection of the 2165 Inverse Centimeter (4.619 Micron) XCN Band in the Spectrum of L1551 IRS 5. *Stephen C. Tegler, David A. Weintraub, Louis J. Allamandola, Scott A. Sandford, Terrence W. Rettig, & Humberto Campins.* 411, 260, 130-D9 (1993)

HCO^+, $H^{13}CN$, and $H^{12}CN$ Aperture Synthesis Observations of the Circumnuclear Molecular Ring in the Galactic Center. *J. M. Marr, M. C. H. Wright, & D. C. Backer.* 411, 667, 138-A8 (1993)

Hunt for Variations in Molecular Gas and Cloud Properties across the Inner, Northern Galactic Disk. *Harvey S. Liszt.* 411, 720, 138-F1 (1993)

Interferometric Observations for Oxygen-containing Organic Molecules toward Orion-KL. *Y. C. Minh, M. Ohishi, D. G. Roh, M. Ishiguro, & W. M. Irvine.* 411, 773, 139-D3 (1993)

3.3 and 11.3 Micron Images of HD 44179: Evidence for an Optically Thick Polycyclic Aromatic Hydrocarbon Disk. *Jesse D. Bregman, David Rank, Pasquale Temi, Doug Hudgins, & Laura Kay.* 411, 794, 139-F1 (1993)

Molecular Gas in the Early-Type Starburst Galaxy NGC 3928. *Jonathan G. Li, E. R. Seaquist, & L. J. Sage.* 411, L71, 142-C11 (1993)

M82: The Saga Continues. *K. K. McLeod, G. H. Rieke, M. J. Rieke, & D. M. Kelly.* 412, 111, 143-D10 (1993)

The Nature of Unidentified Far-Infrared Point Sources. *William T. Reach, Carl Heiles, & Bon-Chul Koo.* 412, 127, 143-F1 (1993)

Magnetohydrodynamic Wave Propagation in One-dimensional Nonhomogeneous, Self-gravitating Clouds. *Marco Fatuzzo & Fred C. Adams.* 412, 146, 143-G10 (1993)

The Molecular Gas and Star Formation in *IRAS* Bright Early-Type Disk Galaxies. I. NGC 7625. *Jonathan G. Li, E. R. Seaquist, J. M. Wrobel, Zhong Wang, & L. J. Sage.* 413, 150, 158-A6 (1993)

High-Resolution Observations of Turbulence in the Subcondensation TMC-1C in Heiles' Cloud 2: Estimation of the Velocity Spectrum of Turbulence. *Y. Kitamura, K. Sunada, M. Hayashi, & T. Hasegawa.* 413, 221, 159-A9 (1993)

Cosmic-Ray–dominated Dense Molecular Gas in Normal and Starburst Galaxies. *Anatoly Suchkov, Ronald J. Allen, & Timothy M. Heckman.* 413, 542, 163-C1 (1993)

Fragmentation and Kinematics of the W49N Cloud Core. *E. Serabyn, R. Güsten, & A. Schulz.* 413, 571, 163-E9 (1993)

Compact Ammonia Sources toward the G10.5+0.0 H II Region Complex. *Guido Garay, James M. Moran, & Luis F. Rodríguez.* 413, 582, 163-F8 (1993)

Cometary Globules in the Southeast Quadrant of the Rosette Nebula. *Nimesh A. Patel, Taoling Xie, & Paul F. Goldsmith.* 413, 593, 163-G7 (1993)

Interstellar Cyanogen and the Temperature of the Cosmic Microwave Background Radiation. *Katherine C. Roth, David M. Meyer, & Isabel Hawkins.* 413, L67, 168-C5 (1993)

The Detection of a New Methanol Maser Transition at 9.9 GHz. *V. I. Slysh, S. V. Kalenskii, & I. E. Val'tts.* 413, L133, 169-C6 (1993)

Kiloparsec-Scale Molecular Gas Excitation in Spiral Galaxies. *W. F. Wall, D. T. Jaffe, F. N. Bash, F. P. Israel, P. R. Maloney, & F. Baas.* 414, 98, 171-C5 (1993)

Properties of Jet-driven Molecular Outflows. *Colin R. Masson & Lawrence M. Chernin.* 414, 230, 172-G10 (1993)

Density, Temperature, and Isotopic Abundance in Molecular Gas around ζ Ophiuchi. *Harvey S. Liszt.* 414, 242, 173-A10 (1993)

What Is New about the New Comet Yanaka (1988r)? *J. Mayo Greenberg, P. D. Singh, & A. A. de Almeida.* 414, L45, 175-G7 (1993)

Infrared Frequencies and Intensities for Astrophysically Important Polycyclic Aromatic Hydrocarbon Cations. *Jan Szczepanski & Martin Vala.* 414, 646, 179-C4 (1993)

Rotational Frequencies of Transition Metal Hydrides for Astrophysical Searches in the Far-Infrared. *John M. Brown, Stuart P. Beaton, & Kenneth M. Evenson.* 414, L125, 186-C6 (1993)

The Millimeter-Wave Spectrum of AlOH. *A. J. Apponi, W. L. Barclay, Jr., & L. M. Ziurys.* 414, L129, 186-C11 (1993)

Detection of Interstellar $^{12}C^{15}N$. *A. H. Saleck, R. Simon, N. Schneider, & G. Winnewisser.* 414, L133, 186-D3 (1993)

Formaldehyde Emission in Galaxies. *Willem A. Baan, Aubrey D. Haschick, & Robert Uglesich.* 415, 140, 186-G1 (1993)

Theoretical Modeling of the Infrared Fluorescence from Interstellar Polycyclic Aromatic Hydrocarbons. *W. A. Schutte, A. G. G. M. Tielens, & L. J. Allamandola.* 415, 397, 189-G12 (1993)

The C^0/CO Ratio Problem: A Possible New Precision Test of the Decaying Neutrino Theory. *D. W. Sciama.* 415, L31, 192-A8 (1993)

The Detection of [C I] in Molecular Outflows Associated with Young Stellar Objects. *Christopher K. Walker, Gopal Narayanan, Thomas H. Büttgenbach, John E. Carlstrom, Jocelyn Keene, & T. G. Phillips.* 415, 672, 196-B10 (1993)

CO Emission in the Radio-loud Quasar 3C 48. *N. Z. Scoville, S. Padin, D. B. Sanders, B. T. Soifer, & M. S. Yun.* 415, L75, 199-E7 (1993)

Ab Initio Rotational Constants of Isocyanopolyynes. *Arturo Arnau, Estanislao Silla, & Iñaki Tuñón.* 415, L151, 200-G8 (1993)

^{13}CO and $C^{18}O$ Maps of *N*-Body Magnetohydrodynamic Simulations of Dark Clouds. *Lars G. Stenholm & Ralph E. Pudritz.* 416, 218, 203-F13 (1993)

An *IRAS* Sample from Co-added Images of L1641. *H. Chen, A. T. Tokunaga, & Y. Fukui.* 416, 235, 204-A4 (1993)

Refrigeration of the 18.3 GHz C_3H_2 Transition in Dark Cloud G1.6−0.25. *T. B. H. Kuiper, J. B. Whiteoak, R.-S. Peng, W. L. Peters III, & J. E. Reynolds.* 416, L33, 207-E7 (1993)

Detection of the Interstellar NH_2 Radical. *Ewine F. van Dishoeck, David J. Jansen, Peter Schilke, & T. G. Phillips.* 416, L83, 216-E10 (1993)

Bistability in Dark Cloud Chemistry. *J. Le Bourlot, G. Pineau des Forêts, E. Roueff, & P. Schilke.* 416, L87, 216-F1 (1993)

Photometric and Spectroscopic Analysis of High Galactic Latitude Molecular Clouds. II. High-Resolution Spectroscopic Observations of Na I, Ca II, Ca I, CH, and CH^+. *B. E. Penprase.* 88, 433, 46-B13 (1993)

Calculations Concerning Interstellar Isomeric Abundance Ratios for C_3H and C_3H_2. *Sergio A. Maluendes, A. D. McLean, & Eric Herbst.* 417, 181, 219-F3 (1993)

Collapse of Magnetized Molecular Cloud Cores. I. Semianalytical Solution. *Daniele Galli & Frank H. Shu.* 417, 220, 220-C1 (1993)

Collapse of Magnetized Molecular Cloud Cores. II. Numerical Results. *Daniele Galli & Frank H. Shu.* 417, 243, 220-D13 (1993)

The Location of Warm HC_3N and Warm HC_5N Gas in the Circumstellar Envelope of IRC +10216. *M. B. Bell.* 417, 305, 221-C9 (1993)

C_3S and C_5S in IRC +10216. *M. B. Bell, L. W. Avery, & P. A. Feldman.* 417, L37, 223-C1 (1993)

Origin of the Hydrocarbon Component of Carbonaceous Chondrites: The Star-Meteorite Connection. *Wei Lee & Thomas J. Wdowiak.* 417, L49, 223-D8 (1993)

New VLA Observations of NH_3 in S140. *Shudong Zhou, Neal J. Evans II, Lee G. Mundy, & Marc L. Kutner.* 417, 613, 227-A7 (1993)

Extremely High Velocity Outflows. *Minho Choi, Neal J. Evans II, & Daniel T. Jaffe.* 417, 624, 227-B6 (1993)

High-Resolution Centimeter Radio Continuum and Ammonia Maser Observations of the W51 Region of Star Formation. *R. A. Gaume, K. J. Johnston, & T. L. Wilson.* 417, 645, 227-D1 (1993)

Ammonia Emission Downstream of the Herbig-Haro Object 1. *J. M. Torrelles, J. F. Gómez, P. T. P. Ho, G. Anglada, L. F. Rodríguez, & J. Cantó.* 417, 655, 227-D13 (1993)

CO Emission from Molecular Clouds in the Central Region of M31. *Yoshiaki Sofue & Shigeomi Yoshida.* 417, L63, 230-B12 (1993)

VLA Radio Recombination Line Observations of Ionized Gas in the -30 Kilometers per Second Molecular Cloud (G0.04+0.03) near the Galactic Center. I. The Discrete Radio Sources. *Jun-Hui Zhao, K. Desai, W. M. Goss, & F. Yusef-Zadeh.* 418, 235, 234-A1 (1993)

Deuterated Ammonia in Sagittarius B2. *Y. Peng, S. N. Vogel, & J. E. Carlstrom.* 418, 255, 234-C1 (1993)

Radiative Cooling of Warm Molecular Gas. *David A. Neufeld & Michael J. Kaufman.* 418, 263, 234-C11 (1993)

Thermal Material in Dense Cores: A New Narrow-Line Probe and Technique of Temperature Determination. *G. A. Fuller & P. C. Myers.* 418, 273, 234-D9 (1993)

The Langevin Equation and Its Application to Grain Alignment in Molecular Clouds. *W. G. Roberge, T. A. DeGraff, & J. E. Flaherty.* 418, 287, 234-E11 (1993)

New Observations of the Optical Spectrum of SiO^+ and the Prediction of Its Rotational Spectrum. *L. Zhang, R. Cameron, R. A. Holt, T. J. Scholl, & S. D. Rosner.* 418, 307, 234-G5 (1993)

The L1448 Molecular Jet. *John Bally, Elizabeth A. Lada, & Adair P. Lane.* 418, 322, 235-A10 (1993)

Formaldehyde as a Probe of Physical Conditions in Dense Molecular Clouds. *Jeffrey G. Mangum & Alwyn Wootten.* 89, 123, 50-E5 (1993)

The Spectrum of Orion-KL at 2 Millimeters (150–160 GHz). *L. M. Ziurys & Douglas McGonagle.* 89, 155, 50-G13 (1993)

A Complete CO Survey of M31. I. Distribution and Kinematics. *T. M. Dame, E. Koper, F. P. Israel, & P. Thaddeus.* 418, 730, 241-E8 (1993)

Molecular Hydrogen in the IRAS 03282+3035 Stellar Jet. *John Bally, David Devine, Mark Hereld, & Bernard J. Rauscher.* 418, L75, 245-D7 (1993)

The [C II] 158 Micron Emission from the Horsehead Nebula. *S. Zhou, D. T. Jaffe, J. E. Howe, N. Geis, F. Herrmann, S. C. Madden, A. Poglitsch, & G. J. Stacey.* 419, 190, 248-E3 (1993)

Evolution in Dust Lane Ellipticals: Detection of Accreted Molecular Gas. *Leslie J. Sage & Giuseppe Galletta.* 419, 544, 254-E5 (1993)

Circumstellar CO Emission of Evolved Stars and Mass Loss. *John Kwan & Zoe Webster.* 419, 674, 256-B3 (1993)

On the System of Diffuse Interstellar Bands at 5844 and 5850 Å. *J. Krełowski, Theodore P. Snow, J. Papaj, C. G. Seab, & B. Wszolek.* 419, 692, 256-C9 (1993)

Structure of Dense Cores in M17 SW. I. A Multitransition CS and $C^{34}S$ Study. *Yangsheng Wang, Daniel T. Jaffe, Neal J. Evans II, Masahiko Hayashi, Ken'ichi Tatematsu, & Shudong Zhou.* 419, 707, 256-D12 (1993)

Molecular Cloud Core and CS Outflow Associated with Haro 4-255 FIR. *Ken'ichi Tatematsu, Tomofumi Umemoto, Yasuhiro Murata, Hua Chen, Naomi Hirano, & Hiroshi Takaba.* 419, 746, 257-A1 (1993)

Detection of the Carbon Monoxide Ion (CO^+) in the Interstellar Medium and a Planetary Nebula. *William B. Latter, Christopher K. Walker, & Philip R. Maloney.* 419, L97, 259-F14 (1993)

Detection of AU-Scale Structure in Molecular Clouds. *Alan P. Marscher, E. M. Moore, & Thomas M. Bania.* 419, L101, 259-G5 (1993)

Size Effects on Dissociation Rates of Polycyclic Aromatic Hydrocarbon Cations: Laboratory Studies and Astrophysical Implications. *H. W. Jochims, E. Rühl, H. Baumgärtel, S. Tobita, & S. Leach.* 420, 307, 4-F6 (1994)

Sequential Star Formation in Taurus Molecular Cloud 1. *Tomoyuki Hanawa, Satoshi Yamamoto, & Yasuhiro Hirahara.* 420, 318, 4-G5 (1994)

The Physics and Chemistry of Small Molecular Clouds in the Galactic Plane. I. Physical Conditions from $C^{18}O$ and ^{13}CO Observations. *B. E. Turner.* 420, 661, 11-A1 (1994)

Fabry-Perot Imaging of Molecular Hydrogen Emission in Orion-KL Region. *Hajime Sugai, Tomonori Usuda, Hirokazu Kataza, Masuo Tanaka, Motoko Y. Inoue, Hironobu Kawabata, Hideki Takami, Tetsuo Aoki, & Norihisa Hiromoto.* 420, 746, 12-B12 (1994)

Interstellar Carbon Monoxide toward ζ Ophiuchi. *David L. Lambert, Yaron Sheffer, Ronald L. Gilliland, & S. R. Federman.* 420, 756, 12-C10 (1994)

The Production of Condensed Phase CO in Quiescent Molecular Clouds. *P. Caselli, T. I. Hasegawa, & Eric Herbst.* 421, 206, 18-E5 (1994)

Constraining the Influence of Star Formation on the Lowest ^{12}CO Line Ratios in M33. *Michele D. Thornley & Christine D. Wilson.* 421, 458, 23-G9 (1994)

AFGL 5376: A Strong, Large-Scale Shock near the Galactic Center. *Keven I. Uchida, Mark R. Morris, E. Serabyn, & John Bally.* 421, 505, 24-D9 (1994)

High-Resolution Images of Shocked Molecular Clumps in the Supernova Remnant IC 443. *Jan A. Tauber, Ronald L. Snell, Robert L. Dickman, & L. M. Ziurys.* 421, 570, 25-C4 (1994)

The Bipolar Symmetry of Ring-like Planetary Nebulae: Molecular Hydrogen Emission from Halos. *Joel H. Kastner, Ian Gatley, K. M. Merrill, R. Probst, & David A. Weintraub.* 421, 600, 25-F2 (1994)

Composition and Radiative Properties of Grains in Molecular Clouds and Accretion Disks. *James B. Pollack, David Hollenbach, Steven Beckwith, Damon P. Simonelli, Ted Roush, & Wesley Fong.* 421, 615, 26-A1 (1994)

Molecular Clouds in the Extreme Outer Galaxy. *S. Digel, E. de Geus, & P. Thaddeus.* 422, 92, 31-B13 (1994)

Anatomy of a Photodissociation Region: High Angular Resolution Images of Molecular Emission in the Orion Bar. *Jan A. Tauber, A. G. G. M. Tielens, Margaret Meixner, & Paul F. Goldsmith.* 422, 136, 31-F13 (1994)

Nitrogen Sulfide in Quiescent Dark Clouds. *Douglas McGonagle, William M. Irvine, & Masatoshi Ohishi.* 422, 621, 39-E8 (1994)

Maps of GHz Methyl Cyanide Emission in Orion-KL. *D. J. Wilner, M. C. H. Wright, & R. L. Plambeck.* 422, 642, 39-G7 (1994)

The Rotating Molecular Core in G10.6−0.4: Synthesis Maps in $^{12}C^{18}O$. *Paul T. P. Ho, Susan Terebey, & Jean L. Turner.* 423, 320, 50-B1 (1994)

Spectral Imaging of the Orion Bar at 3.3, 8.4, and 11.3 Microns: Comparison with a Fluorescent Polycyclic Aromatic Hydrocarbon Model. *Jesse Bregman, Kristen Larson, David Rank, & Pasquale Temi.* 423, 326, 50-B10 (1994)

Comparative Analysis of the Far-Infrared and ^{13}CO (J = 0–1) Emissions of the Taurus Complex. *Alain Abergel, François Boulanger, Akira Mizuno, & Yasuo Fukui.* 423, L59, 54-A3 (1994)

Infrared Spectroscopy and Imaging Polarimetry of the Disk around the T Tauri Star RNO 91. *David A. Weintraub, Stephen C. Tegler, Joel H. Kastner, & Terrence Rettig.* 423, 674, 57-A3 (1994)

Circumstellar Gas around the Exciting Source of the HH 83 Jet. *Makoto Nakano, Koji Sugitani, Fumio Sato, & Katsuo Ogura.* 423, L147, 61-D5 (1994)

Structure and Chemistry in the Northwestern Condensation of the Serpens Molecular Cloud Core. *Joseph P. McMullin, Lee G. Mundy, Bruce A. Wilking, T. Hezel, & Geoff A. Blake.* 424, 222, 64-F1 (1994)

The Millimeter-Wave Spectrum of the CaF Radical ($X\ ^2\Sigma^+$). *M. A. Anderson, M. D. Allen, & L. M. Ziurys.* 424, 503, 68-A13 (1994)

The H_2O Masers in IC 10SE. *Willem A. Baan & Aubrey Haschick.* 424, L33, 69-E1 (1994)

The Formation of Stellar Groups and Clusters in Molecular Cloud Cores. *Kanan Patel & Ralph E. Pudritz.* 424, 688, 73-D7 (1994)

CH^+ in the Interstellar Medium. *M. Marsha Allen.* 424, 754, 74-B11 (1994)

On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. III. Molecular Gas. *Miguel H. Ibáñez S., & Antonio Parravano.* 424, 763, 74-C8 (1994)

Chemical Transitions for Interstellar C_2 and CN in Cloud Envelopes. *S. R. Federman, C. J. Strom, D. L. Lambert, Jason A. Cardelli, V. V. Smith, & C. L. Joseph.* 424, 772, 74-D7 (1994)

Molecular Outflows from FU Orionis Stars. *Neal J. Evans II, Stephen Balkum, Russell M. Levreault, Lee Hartmann, & Scott Kenyon.* 424, 793, 74-F2 (1994)

The Source of the Relativistic Particles in the Galactic Center Arc. *E. Serabyn & Mark Morris.* 424, L91, 79-A1 (1994)

Shock-excited Maser Emission from the Supernova Remnant W28. *D. A. Frail, W. M. Goss, & V. I. Slysh.* 424, L111, 79-C8 (1994)

High-Resolution Measurements of NH_3 Absorption toward Cassiopeia A. *R. A. Gaume, T. L. Wilson, & K. J. Johnston.* 425, 127, 81-G1 (1994)

Evidence for HCO^+ Infall toward T Tauri? *Huib Jan van Langevelde, Ewine F. van Dishoeck, & Geoffrey A. Blake.* 425, L45, 85-F11 (1994)

Observations of Large-Scale [C I] Emission from S140. *René Plume. D. T. Jaffe, & Jocelyn Keene.* 425, L49, 85-G3 (1994)

Millimeter and Submillimeter Rest Frequencies for the MgF Radical. *M. A. Anderson, M. D. Allen, & L. M. Ziurys.* 425, L53, 85-G9 (1994)

A Large Area CO(J = 2–1) Mapping of the Giant Molecular Clouds in Orion. *Seiichi Sakamoto, Masahiko Hayashi, Tetsuo Hasegawa, Toshihiro Handa, & Tomoharu Oka.* 425, 641, 89-E10 (1994)

The Massive Molecular Outflow from CRL 2136 IRS 1. *Joel H. Kastner, David A. Weintraub, Ronald L. Snell, G. Sandell, C. Aspin, D. H. Hughes, & F. Baas.* 425, 695, 90-C9 (1994)

Submillimeter Observations of CO in the W3 Core. *Tatsuhiko I. Hasegawa, George F. Mitchell, Henry E. Matthews, & Linda Tacconi.* 426, 215, 98-G1 (1994)

A $C^{18}O$ (J = 1–0) Survey of Protostellar Candidates Embedded in the Taurus Molecular Cloud. *Masahiko Hayashi, Tetsuo Hasegawa, Nagayoshi Ohashi, & Kazuyoshi Sunada.* 426, 234, 99-A8 (1994)

Solid Carbon Monoxide in the Serpens Dark Cloud. *J. E. Chiar, A. J. Adamson, T. H. Kerr, & D. C. B. Whittet.* 426, 240, 99-B2 (1994)

General Analytic Results for Nonlinear Waves and Solitons in Molecular Clouds. *Fred C. Adams, Marco Fatuzzo, & Richard Watkins.* 426, 629, 106-C5 (1994)

Submillimeter Molecular Line Observations of IRC +10216: Searches for MgH, SiH_2, and HCO^+, and Detection of Hot HCN. *L. W. Avery, M. B. Bell, C. T. Cunningham, P. A. Feldman, R. H. Hayward, J. M. McLeod, H. E. Matthews, & J. D. Wade.* 426, 737, 107-E12 (1994)

Detection of Sodium Cyanide (NaCN) in IRC 10216. *B. E. Turner, T. C. Steimle, & Leo Meerts.* 426, L97, 109-F13 (1994)

Molecular Lines in Bok Globules and around Herbig Ae/Be Stars. *F. Scappini, G. G. C. Palumbo, G. Bruni, & P. Bergman.* 427, 259, 113-B12 (1994)

Detection of a New Interstellar Molecule, H_2CN. *Masatoshi Ohishi, Douglas McGonagle, William M. Irvine, Satoshi Yamamoto, & Shuji Saito.* 427, L51, 117-G5 (1994)

Accurate Determination of Predissociation Rates and Transition Frequencies for Carbon Monoxide. *W. Ubachs, K. S. E. Eikema, P. F. Levelt, W. Hogervorst, M. Drabbels, W. L. Meerts, & J. J. ter Meulen.* 427, L55, 117-G10 (1994)

Outflows from Young Stellar Objects in Bok Globules: Maps. *João Lin Yun & Dan P. Clemens.* 92, 145, 33-C5 (1994)

A Study of Molecular Gas in the Center of the S0 Galaxy NGC 4710. *G. A. Welch & G. F. Mitchell.* 427, 770, 122-C3 (1994)

The Photoelectric Heating Mechanism for Very Small Graphitic Grains and Polycyclic Aromatic Hydrocarbons. *E. L. O. Bakes & A. G. G. M. Tielens.* 427, 822, 122-G8 (1994)

Dense Molecular Shocks and Accretion onto Protostellar Disks. *David A. Neufeld & David J. Hollenbach.* 428, 170, 130-C11 (1994)

CS Multitransitional Study of Density Distribution in Star-forming Regions. II. The S140 Region. *Shudong Zhou, Harold M. Butner, Neal J. Evans II, Rolf Güsten, Marc L. Kutner, & Lee G. Mundy.* 428, 219, 130-G10 (1994)

Multiple Outflows in the Bipolar Planetary Nebula M1-16: A Molecular Line Study. *Raghvendra Sahai, Alwyn Wootten, Hugo E. Schwarz, & W. Wild.* 428, 237, 131-B5 (1994)

Discovery of $^{14}NH_3$(3, 3) Maser Emission in the Interstellar Medium. *Jeffrey G. Mangum & Alwyn Wootten.* 428, L33, 134-E8 (1994)

Large-Scale Characteristics of Interstellar Dust from *COBE* DIRBE Observations. *T. J. Sodroski, C. Bennett, N. Boggess, E. Dwek, B. A. Franz, M. G. Hauser, T. Kelsall, S. H. Moseley, N. Odegard, R. F. Silverberg, & J. L. Weiland.* 428, 638, 138-C1 (1994)

Molecular Abundances and Low-Mass Star Formation. I. Si- and S-bearing Species toward IRAS 16293−2422. *Geoffrey A. Blake, Ewine F. van Dishoeck, David J. Jansen, T. D. Groesbeck, & Lee G. Mundy.* 428, 680, 138-F13 (1994)

Detection of Absorption by H_2 in Molecular Clouds: A Direct Measurement of the H_2:CO Ratio. *J. H. Lacy, R. Knacke, T. R. Geballe, & A. T. Tokunaga.* 428, L69, 142-G1 (1994)

Infrared Spectra of Crystalline Phase Ices Condensed on Silicate Smokes at $T < 20$ K. *Marla H. Moore, Robert F. Ferrante, Reggie L. Hudson, Joseph A. Nuth III, & Bertram Donn.* 428, L81, 143-A7 (1994)

Is the Galactic Center Annihilator 1E 1740.7−2942 a Source of MeV Gamma-Ray Continuum Emission? *Philippe Laurent & Jacques Paul.* 92, 375, 36-G5 (1994)

A Multiwavelength Study of IRAS 19550+3248: A Protostar Possibly Formed by a Cloud-Cloud Collision. *Bon-Chul Koo, Youngung Lee, G. A. Fuller, Myung Gyoon Lee, Suk-Minn Kwon, & Jae-Hoon Jung.* 429, 233, 147-A7 (1994)

Physical Structure of H_2O Masers in W49N. *C. R. Gwinn.* 429, 253, 147-C3 (1994)

The Millimeter and Submillimeter Rotational Spectrum of the MgCN Radical ($X\ ^2\Sigma^+$). *M. A. Anderson, T. C. Steimle, & L. M. Ziurys.* 429, L41, 150-F1 (1994)

Survey of Local CO Emission toward Compact Extragalactic Millimeter-Wave Continuum Sources and Implications for Local Galactic Structure. *Harvey S. Liszt.* 429, 638, 153-F3 (1994)

Statistical Analysis of Turbulence in Molecular Clouds. *Mark S. Miesch & John Bally.* 429, 645, 153-F13 (1994)

Atomic and Molecular Gas in Interstellar Cirrus Clouds. *William T. Reach, Bon-Chul Koo, & Carl Heiles.* 429, 672, 154-B1 (1994)

Dust Extinction and Molecular Gas in the Dark Cloud IC 5146. *Charles J. Lada, Elizabeth A. Lada, Dan P. Clemens, & John Bally.* 429, 694, 154-C11 (1994)

High-Resolution Observations of a New Ammonia Maser Line in G9.62+0.19. *P. Hofner, S. Kurtz, E. Churchwell, C. M. Walmsley, & R. Cesaroni.* 429, L85, 158-D1 (1994)

Electric Dipole Moment of C_3S. *R. D. Suenram & F. J. Lovas.* 429, L89, 158-D7 (1994)

Overtone Emission from Interstellar Polycyclic Aromatic Hydrocarbons. *W. W. Duley.* 429, L91, 158-D11 (1994)

The Giant Molecular Cloud Monoceros R2. I. Shell Structure. *Taoling Xie & Paul F. Goldsmith.* 430, 252, 162-B13 (1994)

The Molecular Gas Associated with the Orion Bright Bar. *Toshihiro Omodaka, Masahiko Hayashi, Tetsuo Hasegawa, & Saeko S. Hayashi.* 430, 256, 162-C7 (1994)

Evolution of Macromolecular Dust: Far-Ultraviolet Spectral Dust Extinction and Gas Absorption of Stellar Light as Measured with the Hopkins Ultraviolet Telescope. *Richard H. Buss, Jr., Marsha Allen, Stephan McCandliss, Jeffrey Kruk, Ji-Cheng Liu, & Tom Brown.* 430, 630, 169-F5 (1994)

High Rydberg State Carbon Recombination Lines toward Cassiopeia A: 332 MHz VLA Observations and Comparison with H I and Molecular Lines. *K. R. Anantharamaiah, W. C. Erickson, H. E. Payne, & Nimisha G. Kantharia.* 430, 682, 170-C11 (1994)

New Detections of Interstellar HNO at 2 and 1.2 Millimeters: More N–O Bonds. *L. M. Ziurys, J. M. Hollis, & L. E. Snyder.* 430, 706, 170-E11 (1994)

Interstellar SO^+. *B. E. Turner.* 430, 727, 170-G9 (1994)

Shocked Pure-rotational Emission from H_2 in Orion. *Parvinder S. Parmar, John H. Lacy, & Jeffrey M. Achtermann.* 430, 786, 171-F3 (1994)

The Molecular Content of the Rosette's Teardrops. *E. González-Alfonso & J. Cernicharo.* 430, L125, 175-A7 (1994)

Detection of Formaldehyde Maser Emission near the Ultracompact H II Region G29.96–0.02. *Preethi Pratap, Karl M. Menten, & Lewis E. Snyder.* 430, L129, 175-A13 (1994)

A Comparison of CO ($J = 1 \rightarrow 0$) and CO ($J = 2 \rightarrow 1$) Emission in the Milky Way Molecular Ring. *Jean E. Chiar, Marc L. Kutner, Frances Verter, & James Leous.* 431, 658, 186-F13 (1994)

CH_3C_2H as a Temperature Probe in Dense Giant Molecular Cloud Cores. *Edwin A. Bergin, Paul F. Goldsmith, Ronald L. Snell, & Hans Ungerechts.* 431, 674, 187-A3 (1994)

Scattered Halos around H_2O Masers. *C. R. Gwinn.* 431, L123, 192-B7 (1994)

A Millimeter-Wave Study and Astronomical Search for the HCCCS Radical. *M. C. McCarthy, J. M. Vrtilek, E. W. Gottlieb, F.-M. Tao, C. A. Gottlieb, & P. Thaddeus.* 431, L127, 192-B13 (1994)

3 Millimeter $J = 1$–0 HCO^+ Emission from the Diffuse Cloud toward ζ Ophiuchi. *Harvey S. Liszt & Robert Lucas.* 431, L131, 192-C5 (1994)

Interpretation of the 4141 Inverse Centimeters (2.415 Microns) Interstellar Infrared Absorption Feature. *V. Buch & J. P. Devlin.* 431, L135, 192-C11 (1994)

Atomic Carbon in the High-Latitude Molecular Cloud MBM 12. *James G. Ingalls, T. M. Bania, & James M. Jackson.* 431, L139, 192-D4 (1994)

High-Resolution Oscillator Strength Measurements for the $A(v')$–$X(0)$ Bands of Carbon Monoxide with $11 \leq v' \leq 14$. *Peter L. Smith, G. Stark, K. Yoshino, & K. Ito.* 431, L143, 192-D11 (1994)

Highly Unsaturated Hydrocarbons as Potential Carriers of Some Diffuse Interstellar Bands. *P. Freivogel, J. Fulara, & J. P. Maier.* 431, L151, 192-E7 (1994)

Diffuse Molecular Clouds and the Molecular Interstellar Medium from ^{13}CO Observations of M33. *Christine D. Wilson & Constance E. Walker.* 432, 148, 195-A13 (1994)

Excitation of Interstellar Hydrogen Chloride. *David A. Neufeld & Sheldon Green.* 432, 158, 195-B11 (1994)

The Cold, Massive Molecular Cloud G216–2.5. II. Structure and Kinematics. *Youngung Lee, Ronald L. Snell, & Robert L. Dickman.* 432, 167, 195-C8 (1994)

The C_4H Radical and the Diffuse Interstellar Bands: An Ab Initio Study. *M. Kolbuszewski.* 432, L63, 200-A13 (1994)

Shock Propagation and the Generation of Magnetohydrodynamic Wave Fields in Inhomogeneous Molecular Clouds. *Mark S. Miesch & Ellen G. Zweibel.* 432, 622, 203-F9 (1994)

Intersystem Transitions of Interstellar Carbon Monoxide toward ζ Ophiuchi. *S. R. Federman, Jason A. Cardelli, Yaron Sheffer, David L. Lambert, & D. C. Morton.* 432, L139, 207-D5 (1994)

Dense Cores in Dark Clouds. IX. Observations of ^{13}CO and $C^{18}O$ in Vela, Chamaeleon, Musca, and the Coalsack. *J. W. S. Vilas-Boas, P. C. Myers, & G. A. Fuller.* 433, 96, 209-D11 (1994)

Dense Cores in Dark Clouds. X. Ammonia Emission in the Perseus Molecular Cloud Complex. *E. F. Ladd, P. C. Myers, & A. A. Goodman.* 433, 117, 209-F10 (1994)

A $C^{18}O$ Survey of Dense Cores in the Taurus Molecular Cloud: Signatures of Evolution and Protostellar Collapse. *Shudong Zhou, Neal J. Evans II, Yangsheng Wang, Ruisheng Peng, & K. Y. Lo.* 433, 131, 209-G12 (1994)

Far-Ultraviolet Emission from the Taurus Molecular Cloud. *M. Hurwitz.* 433, 149, 210-B4 (1994)

The 3.2–3.6 Micron Spectra of Monoceros R2/IRS-3 and Elias 16. *K. Sellgren, R. G. Smith, & T. Y. Brooke.* 433, 179, 210-E5 (1994)

A Search for Dense Gas in Quiescent Bok Globules. *Brian D. Kane, Dan P. Clemens, & Philip C. Myers.* 433, L49, 215-C9 (1994)

The Vertical Equilibrium of Molecular Gas in the Galactic Disk. *Sangeeta Malhotra.* 433, 687, 219-E10 (1994)

Simulation of Variations of Absorption-Line Profiles in Clumpy Molecular Clouds. *Alan P. Marscher & Alan L. Stone.* 433, 705, 219-G2 (1994)

On the Analysis of Para-Ammonia Observations. *T. B. H. Kuiper.* 433, 712, 219-G11 (1994)

Pump Cycles and Population Flow Networks in Astrophysical Masers: An Application to Class II Methanol Masers with Different Saturation Degrees. *A. M. Sobolev & S. Deguchi.* 433, 719, 220-A6 (1994)

The Association of High-Latitude Molecular Clouds with H I Gas. *Be-Young Gir, Leo Blitz, & Loris Magnani.* 434, 162, 227-C13 (1994)

Vibrational Excitation in the Products of Electron-Ion Recombination: A Test of Theory for Ions of Interstellar Significance. *Nigel G. Adams & Lucia M. Babcock.* 434, 184, 228-A1 (1994)

Collisional Excitation of Interstellar Sulfur Monoxide. *Sheldon Green.* 434, 188, 228-A8 (1994)

New Formaldehyde Masers in Sagittarius B2. *David M. Mehringer, W. M. Goss, & Patrick Palmer.* 434, 237, 228-F6 (1994)

First Observations of Individual Molecular Clouds in the Irregular Galaxy NGC 6822. *Christine D. Wilson.* 434, L11, 232-C1 (1994)

Detection of the Overtone of the 3.3 Micron Emission Feature in IRAS 21282+5050. *T. R. Geballe, C. Joblin, L. B. d'Hendecourt, M. Jourdain de Muizon, A. G. G. M. Tielens, & A. Léger.* 434, L15, 232-C8 (1994)

Morphology of the Interstellar Cooling Lines Detected by *COBE*. *C. L. Bennett, D. J. Fixsen, G. Hinshaw, J. C. Mather, S. H. Moseley, E. L. Wright, R. E. Eplee, Jr., J. Gales, T. Hewagama, R. B. Isaacman, R. A. Shafer, & K. Turpie.* 434, 587, 235-G13 (1994)

A K' Imaging Survey of Molecular Outflow Sources. *Klaus-Werner Hodapp.* 94, 615, 60-D12 (1994)

Three Millimeter Molecular Line Observations in Sagittarius B2. I. Full Synthesis Mapping Study of HNO, CCS, and $HC^{13}CCN$. *Yi-Jehng Kuan & Lewis E. Snyder.* 94, 651, 61-A8 (1994)

A New Look at the Dark Cloud L1251: Sensitive Observations of the Molecular Emission. *Fumio Sato, Akira Mizuno, Tomoo Nagahama, Toshikazu Onishi, Yoshinori Yonekura, & Yasuo Fukui.* 435, 279, 247-B11 (1994)

The Puzzling Distribution of the High-Density Molecular Gas in HH 1–2: A Contracting Interstellar Toroid? *José M. Torrelles, José F. Gómez, Paul T. P. Ho, Luis F. Rodríguez, Guillem Anglada, & Jorge Cantó.* 435, 290, 247-D2 (1994)

Formal Results Regarding Metric Space Techniques for the Study of Astrophysical Maps. *Fred C. Adams & Jennifer J. Wiseman.* 435, 693, 255-E12 (1994)

A Quantitative Analysis of *IRAS* Maps of Molecular Clouds. *Jennifer J. Wiseman & Fred C. Adams.* 435, 708, 255-G3 (1994)

A Massive Young Embedded Object Associated with the UC H II Region G31.41+0.31. *R. Cesaroni, L. Olmi, C. M. Walmsley, E. Churchwell, & P. Hofner.* 435, L137, 260-C3 (1994)

Ammonia Downstream from HH 80 North. *José M. Girart, Luis F. Rodríguez, Guillem Anglada, Robert Estalella, José M. Torrelles, Josep Martí, Miriam Peña, Sandra Ayala, Salvador Curiel, & Alberto Noriega-Crespo.* 435, L145, 260-D4 (1994)

Interstellar CN Rotational Spectra: $^{12}C^{15}N$. *A. H. Saleck, R. Simon, & G. Winnewisser.* 436, 176, 263-E11 (1994)

Ultraviolet-illuminated Molecular Cloud Boundaries: Extended [C II] 158 Micron Emission toward L1630. *D. T. Jaffe, S. Zhou, J. E. Howe, F. Herrmann, S. C. Madden, A. Poglitsch, P. P. van der Werf, & G. J. Stacey.* 436, 203, 264-A10 (1994)

A Compilation of Electronic Transitions in the CO Molecule and the Interpretation of Some Puzzling Interstellar Absorption Features. *Donald C. Morton & Louis Noreau.* 95, 301, 67-F11 (1994)

High-Velocity Sulfur Monoxide Emission from Protostellar Outflows. *Lawrence M. Chernin, Colin R. Masson, & Gary A. Fuller.* 436, 741, 275-F3 (1994)

The Molecular Core and the Powering Source of the Bipolar Molecular Outflow in NGC 2264G. *José F. Gómez, Salvador Curiel, José M. Torrelles, Luis F. Rodríguez, Guillem Anglada, & José M. Girart.* 436, 749, 275-G1 (1994)

Possible Detection of ^{14}CO in the Carbon Star IRC +10216. *Gregory A. Wright.* 436, L157, 281-F1 (1994)

Detection of a Thick Molecular Disk in the Galaxy. *T. M. Dame & P. Thaddeus.* 436, L173, 282-A3 (1994)

Detection of Interstellar N_2O: A New Molecule Containing an N–O Bond. *L. M. Ziurys, A. J. Apponi, J. M. Hollis, & L. E. Snyder.* 436, L181, 282-B7 (1994)

H_2 Emission as a Tracer of Molecular Hydrogen: Large-Scale Observations of Orion. *M. L. Luhman, D. T. Jaffe, L. D. Keller, & Soojong Pak.* 436, L185, 282-C1 (1994)

Discovery of a Molecular Hydrogen Jet near IC 348. *Mark J. McCaughrean, John T. Rayner, & Hans Zinnecker.* 436, L189, 282-C9 (1994)

High Altitude Molecular Clouds. *Sangeeta Malhotra.* 437, 194, 285-G8 (1994)

Modeling Radiative Transfer in Molecular Clouds. I. HCO^+ in the Star-forming Region W49A North. *Hélène R. Dickel & Lawrence H. Auer.* 437, 222, 286-C4 (1994)

The Near-Infrared Structure and Spectra of the Bipolar Nebulae M2-9 and AFGL 2688: The Role of Ultraviolet Pumping and Shocks in Molecular Hydrogen Excitation. *Joseph L. Hora & William B. Latter.* 437, 281, 287-A8 (1994)

Shocked Molecular Gas around the Extremely Young Source IRAS 03282+3035. *R. Bachiller, S. Terebey, T. Jarrett, J. Martín-Pintado, C. A. Beichman, & D. Van Buren.* 437, 296, 287-C2 (1994)

The Physics and Chemistry of Small Molecular Clouds in the Galactic Plane. II. H_2CO. *B. E. Turner.* 437, 658, 294-G12 (1994)

Homologous Series of Diffuse Interstellar Bands. *James K. G. Watson.* 437, 678, 295-B1 (1994)

The Discovery of Five New H_2O Megamasers in Active Galaxies. *J. A. Braatz, A. S. Wilson, & C. Henkel.* 437, L99, 299-A8 (1994)

Molecular Clouds in Cygnus. I. A Large-Scale ^{13}CO Survey. *Kazuhito Dobashi, Jean-Phillipe Bernard, Yoshinori Yonekura, & Yasuo Fukui.* 95, 419, 70-B2 (1994)

IRAS Images of Nearby Dark Clouds. *Douglas O. S. Wood, Philip C. Myers, & Debra A. Daugherty.* 95, 457, 70-E3 (1994)

Single-Sideband Calibration for CO, ^{13}CO, HCN, and CS Lines near 345 GHz. *Yangsheng Wang, Daniel T. Jaffe, Urs U. Graf, & Neal J. Evans II.* 95, 503, 71-C7 (1994)

Detection of C_3N in the Spiral Arm Gas Clouds in the Direction of Cassiopeia A. *M. B. Bell & H. E. Matthews.* 438, 223, 4-D10 (1995)

Confirmation of Interstellar Methylene. *J. M. Hollis, P. R. Jewell, & F. J. Lovas.* 438, 259, 5-A8 (1995)

A Theory for the Initial Mass Function. *Joseph Silk.* 438, L41, 10-C13 (1995)

Submillimeter HCN and HCO^+ Emission from Galaxies. *James M. Jackson, Timothy A. D. Paglione, John E. Carlstrom, & Nguyen-Q- Rieu.* 438, 695, 13-F11 (1995)

Hubble Space Telescope Observations of C_2 Molecules in Diffuse Interstellar Clouds. *David L. Lambert, Yaron Sheffer, & S. R. Federman.* 438, 740, 14-D11 (1995)

Collapse and Fragmentation of Molecular Cloud Cores. II. Collapse Induced by Stellar Shock Waves. *Alan P. Boss.* 439, 224, 24-C7 (1995)

Time-dependent Fluorescent H_2 Emission. *O. Goldshmidt & A. Sternberg.* 439, 256, 24-F3 (1995)

A Multitransitional CO Study of the Cepheus C Cloud Core. *M. H. Heyer & E. F. Ladd.* 439, 269, 24-G10 (1995)

Evidence for Chemical Processing of Precometary Icy Grains in Circumstellar Environments of Pre–Main-Sequence Stars. *Stephen C. Tegler, David A. Weintraub, Terrence W. Rettig, Yvonne J. Pendleton, Douglas C. B. Whittet, & Craig A. Kulesa.* 439, 279, 25-A9 (1995)

Laboratory Detection and Millimeter Spectrum of the MgCCH Radical. *M. A. Anderson & L. M. Ziurys.* 439, L25, 30-B5 (1995)

Equipartition of Energy for Turbulent Astrophysical Fluids: Accounting for the Unseen Energy in Molecular Clouds. *Ellen G. Zweibel & Christopher F. McKee.* 439, 779, 35-C13 (1995)

Turbulent Diffusion and Its Effects on the Chemistry of Molecular Clouds. *Taoling Xie, Mark Allen, & William D. Langer.* 440, 674, 52-E1 (1995)

The Galactic Distribution of Aliphatic Hydrocarbons in the Diffuse Interstellar Medium. *Scott A. Sandford, Yvonne J. Pendleton, & Louis J. Allamandola.* 440, 697, 52-G2 (1995)

HCN Emission from Bright Carbon Stars: The Ground State Masers and Peculiar Broad Features. *Hideyuki Izumiura, Nobuharu Ukita, & Takashi Tsuji.* 440, 728, 53-C1 (1995)

Cyanogen Excitation in Diffuse Interstellar Clouds. *Katherine C. Roth & David M. Meyer.* 441, 129, 61-B7 (1995)

Gas-Phase Chemistry in Dense Interstellar Clouds Including Grain Surface Molecular Depletion and Desorption. *E. A. Bergin, W. D. Langer, & P. F. Goldsmith.* 441, 222, 62-D7 (1995)

Dense Gas in High-Latitude Molecular Clouds. *William T. Reach, Marc W. Pound, David J. Wilner, & Youngung Lee.* 441, 244, 62-F5 (1995)

A Search for Pre–Main-Sequence Stars in High-Latitude Molecular Clouds. III. A Survey of the *Einstein* Database. *Jean-Pierre Caillault, Loris Magnani, & Chris Fryer.* 441, 261, 62-G12 (1995)

EGRET Observations of Gamma-Ray Emission from the Interstellar Gas in Orion. *S. W. Digel, S. D. Hunter, & R. Mukherjee.* 441, 270, 63-A11 (1995)

Hydrogen Chloride in OMC-1. *Peter Schilke, T. G. Phillips, & Ning Wang.* 441, 334, 64-A1 (1995)

An HCO^+ Study of NGC 7538, IRS 9, and GL 490. *Tatsuhiko I. Hasegawa & George F. Mitchell.* 441, 665, 71-B11 (1995)

A Molecular Line Study of NGC 1333/IRAS 4. *Geoffrey A. Blake, Göran Sandell, Ewine F. van Dishoeck, T. D. Groesbeck, Lee G. Mundy, & Colin Aspin.* 441, 689, 71-D13 (1995)

Large HCO^+ and HCN Abundances in the Translucent Cloud toward PKS 0528+134. *Michiel R. Hogerheijde, Eugène J. de Geus, Marco Spaans, Huib Jan van Langevelde, & Ewine F. van Dishoeck.* 441, L93, 76-D4 (1995)

Widespread Molecular Emission in the Galactic Plane from Species Other Than ^{12}CO. *Harvey S. Liszt.* 442, 163, 79-D8 (1995)

On Magnetic Turbulence in Interstellar Clouds. *P. C. Myers & V. K. Khersonsky.* 442, 186, 79-F9 (1995)

The Relationship of Dense Gas to Star Formation in the Monoceros OB1 Dark Cloud. *Grace A. Wolf-Chase, Christopher K. Walker, & Charles J. Lada.* 442, 197, 79-G9 (1995)

3.4 Micron Emission from Ultraviolet Excitation of Alkanes. *G. P. Pinho & W. W. Duley.* 442, L41, 85-C1 (1995)

Detection of a Series of Methanol Maser Lines at 1.9 Millimeter Wavelength. *V. I. Slysh, S. V. Kalenskii, & I. E. Val'tts.* 442, 668, 89-C7 (1995)

Velocity Field of the Orion-KL Region in Molecular Hydrogen Emission. *Hajime Sugai, Hironobu Kawabata, Tomonori Usuda, Motoko Y. Inoue, Hirokazu Kataza, & Masuo Tanaka.* 442, 674, 89-D3 (1995)

H I, CO, and *IRAS* Observations of NGC 7023. *C. Rogers, Mark H. Heyer, & P. E. Dewdney.* 442, 694, 89-F10 (1995)

CO and OH Absorption toward the Low-Latitude Radio Source 2023+336. *Henry A. Kobulnicky, John M. Dickey, & Rachel L. Akeson.* 443, L45, 103-A9 (1995)

The Importance of Classes of Neutral-Neutral Reactions in the Production of Complex Interstellar Molecules. *R. P. A. Bettens, H.-H. Lee, & Eric Herbst.* 443, 664, 107-A12 (1995)

The Molecular Environment of the HH 34 System. *G. Anglada, R. Estalella, R. Mauersberger, J. M. Torrelles, L. F. Rodríguez, J. Cantó, P. T. P. Ho, & P. D'Alessio.* 443, 682, 107-C9 (1995)

A New Desorption Mechanism for Condensed Phase Interstellar CO. *Fedor Dzegilenko & Eric Herbst.* 443, L81, 112-A11 (1995)

The Distribution of Molecules in the Core of OMC-1. *E. C. Sutton, R. Peng, W. C. Danchi, P. A. Jaminet, G. Sandell, & A. P. G. Russell.* 97, 455, 18-E12 (1995)

6 Centimeter Formaldehyde Absorption toward the Sagittarius B Star-forming Complex. *David M. Mehringer, Patrick Palmer, & W. M. Goss.* 97, 497, 19-B1 (1995)

Physical Properties of Molecular Clouds in the Inner Disk of M31. *R. J. Allen, J. Le Bourlot, J. Lequeux, G. Pineau des Forêts, & E. Roueff.* 444, 157, 115-E1 (1995)

The Millimeter/Submillimeter Rotational Spectrum of CaCCH($X\ ^2\Sigma^+$). *M. A. Anderson & L. M. Ziurys.* 444, L57, 122-B1 (1995)

Capture Calculations for the Rates of Important Neutral-Neutral Reactions in Dense Interstellar Clouds: $C + C_2H_2$ and $CN + C_2H_2$. *Qing Liao & Eric Herbst.* 444, 694, 125-G12 (1995)

The Physics and Chemistry of Small Molecular Clouds in the Galactic Plane. III. NH_3. *B. E. Turner.* 444, 708, 126-B4 (1995)

Hopkins Ultraviolet Telescope Observations of H_2 toward the Planetary Nebula NGC 1535. *Charles W. Bowers, William P. Blair, Knox S. Long, & Arthur F. Davidsen.* 444, 748, 126-E11 (1995)

Hydromagnetic Waves and the Linewidth-Size Relation in Interstellar Molecular Clouds. *Telemachos Ch. Mouschovias & Dimitrios Psaltis.* 444, L105, 131-A8 (1995)

Anatomy of the Gemini OB1 Molecular Cloud Complex. *John M. Carpenter, Ronald L. Snell, & F. Peter Schloerb.* 445, 246, 136-A4 (1995)

Vibrationally Excited H_2, HCl, and NO^+ in the Diffuse Clouds toward ζ Ophiuchi. *S. R. Federman, Jason A. Cardelli, Ewine F. van Dishoeck, David L. Lambert, & J. H. Black.* 445, 325, 137-A4 (1995)

Detection of MgCN in IRC +10216: A New Metal-bearing Free Radical. *L. M. Ziurys, A. J. Apponi, M. Guélin, & J. Cernicharo.* 445, L47, 141-A5 (1995)

An Extremely High Velocity Multipolar Outflow around IRAS 20050+2720. *R. Bachiller, A. Fuente, & M. Tafalla.* 445, L51, 141-A13 (1995)

The L1551NE Molecular Outflow. *G. H. Moriarty-Schieven, H. M. Butner, & P. G. Wannier.* 445, L55, 141-B6 (1995)

Complex Molecules in Sagittarius B2(N): The Importance of Grain Chemistry. *Yanti Miao, David M. Mehringer, Yi-Jehng Kuan, & Lewis E. Snyder.* 445, L59, 141-B13 (1995)

Laboratory Millimeter-Wave Spectrum of Chromium Monochloride. *Tomoko Oike, Toshiaki Okabayashi, & Mitsutoshi Tanimoto.* 445, L67, 141-D1 (1995)

The FCRAO Extragalactic CO Survey. I. The Data. *Judith S. Young, Shuding Xie, Linda Tacconi, Pat Knezek, Paul Viscuso, Lowell Tacconi-Garman, Nick Scoville, Steve Schneider, F. Peter Schloerb, Steve Lord, Amy Lesser, Jeff Kenney, Yi-Long Huang, Nick Devereux, Mark Claussen, James Case, John Carpenter, Mike Berry, & Lori Allen.* 98, 219, 23-E3 (1995)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. II. The $4° < |\ b\ | < 5°$ Strips. *H. Izumiura, R. Catchpole, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, K. Sekiguchi, N. Ukita, & I. Yamamura.* 98, 271, 25-E14 (1995)

Collisional Excitation of H_2 Molecules by H Atoms. *S. Lepp, V. Buch, & A. Dalgarno.* 98, 345, 26-E8 (1995)

Microwave Spectrum of the NS Radical in the $^2\Pi_r$ Ground Electronic State. *Sang K. Lee, Hiroyuki Ozeki, & Shuji Saito.* 98, 351, 26-F5 (1995)

Overall Distribution of Dense Molecular Gas and Star Formation in the Taurus Cloud Complex. *A. Mizuno, T. Onishi, Y. Yonekura, T. Nagahama, H. Ogawa, & Y. Fukui.* 445, L161, 152-B7 (1995)

Molecular Oxygen: A New Astrophysical Maser? *P. Bergman.* 445, L167, 152-D1 (1995)

The Detection and Mapping Observations of C_2H_5OH in Orion Kleinmann-Low. *Masatoshi Ohishi, Shin-ichi Ishikawa, Satoshi Yamamoto, Shuji Saito, & Takayoshi Amano.* 446, L43, 160-G7 (1995)

The Nuclear Structure of NGC 3079. *Willem A. Baan & Judith A. Irwin.* 446, 602, 164-D9 (1995)

GR 8: CO-to-H_2 Conversion Factor at Extremely Low Metallicity. *Frances Verter & Paul Hodge.* 446, 616, 164-F1 (1995)

The Line Width–Size Relation in Massive Cloud Cores. *P. Caselli & P. C. Myers.* 446, 665, 165-C7 (1995)

The 685–692 GHz Spectrum of the Orion Core. *A. I. Harris, L. W. Avery, K.-F. Schuster, L. J. Tacconi, & R. Genzel.* 446, L85, 171-A9 (1995)

The Dense Gas Component of Outflows in the Monoceros OB1 Dark Cloud. *Grace A. Wolf-Chase & Christopher K. Walker.* 447, 244, 175-F4 (1995)

Molecular Gas in the Inner 3.2 Kiloparsecs of NGC 2403: Star Formation at Subcritical Gas Surface Densities. *Michele D. Thornley & Christine D. Wilson.* 447, 616, 184-E10 (1995)

Toward Extragalactic Chemistry: Detections of N_2H^+ and SiO in Nearby Galaxies. *Leslie J. Sage & L. M. Ziurys.* 447, 625, 184-F9 (1995)

Molecular Abundances and Low-Mass Star Formation. II. Organic and Deuterated Species toward IRAS 16293−2422. *Ewine F. van Dishoeck, Geoffrey A. Blake, David J. Jansen, & T. D. Groesbeck.* 447, 760, 186-D12 (1995)

HCl Absorption toward Sagittarius B2. *J. Zmuidzinas, G. A. Blake, J. Carlstrom, J. Keene, & D. Miller.* 447, L125, 191-C2 (1995)

Physical Properties of Dense Cores: DCO^+ Observations. *Harold M. Butner, Elizabeth A. Lada, & Robert B. Loren.* 448, 207, 195-A11 (1995)

Turbulence in Molecular Clouds. *John Dubinski, Ramesh Narayan, & T. G. Phillips.* 448, 226, 195-C6 (1995)

Interstellar Alcohols. *S. B. Charnley, M. E. Kress, A. G. G. M. Tielens, & T. J. Millar.* 448, 232, 195-D1 (1995)

A Very High Resolution Survey of Interstellar CH and CH^+. *Philippe Crane, David L. Lambert, & Yaron Sheffer.* 99, 107, 35-E7 (1995)

Modeling Line Profiles of Protostellar Collapse in B335 with the Monte Carlo Method. *Minho Choi, Neal J. Evans II, Erik M. Gregersen, & Yangsheng Wang.* 448, 742, 204-A9 (1995)

The Metallicity Dependence of the CO-to-H_2 Conversion Factor from Observations of Local Group Galaxies. *Christine D. Wilson.* 448, L97, 209-C1 (1995)

Anomalously Excited OH and Competition between Maser Transitions toward Centaurus A. *Huib Jan van Langevelde, Ewine F. van Dishoeck, Maartje N. Sevenster, & Frank P. Israel.* 448, L123, 209-F2 (1995)

Infrared Diagnostics of the Formation of H_2 on Interstellar Dust. *J. Le Bourlot, G. Pineau des Forêts, E. Roueff, A. Dalgarno, & R. Gredel.* 449, 178, 212-E11 (1995)

Gravitational Infall in the Dense Cores L1527 and L483. *P. C. Myers, R. Bachiller, P. Caselli, G. A. Fuller, D. Mardones, M. Tafalla, & D. J. Wilner.* 449, L65, 217-B1 (1995)

A New 3.25 Micron Absorption Feature Toward Monoceros R2/IRS 3. *K. Sellgren, T. Y. Brooke, R. G. Smith, & T. R. Geballe.* 449, L69, 217-B8 (1995)

Detection of Pure Rotational H_2 Emission from the Supernova Remnant IC 443: Further Evidence for a Partially Dissociating J-Shock. *Matthew J. Richter, James. R. Graham, Gillian S. Wright, Douglas M. Kelly, & John H. Lacy.* 449, L83, 217-D2 (1995)

The Physics and Chemistry of Translucent Molecular Clouds. IV. HCO^+ and N_2H^+. *B. E. Turner.* 449, 635, 221-D12 (1995)

Solid Carbonyl Sulphide (OCS) in W33A. *M. E. Palumbo, A. G. G. M. Tielens, & A. T. Tokunaga.* 449, 674, 222-A10 (1995)

Detection of a Circumstellar Gas around DM Tauri: A Protoplanetary Disk around a Single Star? *Toshihiro Handa, Shoken M. Miyama, Takuya Yamashita, Toshihiro Omodaka, Yoshimi Kitamura, Masahiko Hayashi, Toshikazu Onishi, Ronald L. Snell, Stephen E. Strom, Karen M. Strom, Michael F. Skrutskie, Suzan Edwards, Nagayoshi Ohashi, Kazuyoshi Sunada, Masao Saito, Yasuo Fukui, Akira Mizuno, Jun-ichi Watanabe, & Hirokazu Kataza.* 449, 894, 225-B1 (1995)

Extended Molecular Gas in FSC 10214+4724. *N. Z. Scoville, M. S. Yun, R. L. Brown, & P. A. Vanden Bout.* 449, L109, 226-G2 (1995)

Chemistry in Dense Photon-dominated Regions. *A. Sternberg & A. Dalgarno.* 99, 565, 43-A3 (1995)

High-Resolution Berkeley-Illinois-Maryland Association Observations of CO, HCN, and ^{13}CO in NGC 1068. *Tamara T. Helfer & Leo Blitz.* 450, 90, 229-C10 (1995)

Star Formation in the Gemini OB1 Molecular Cloud Complex. *John M. Carpenter, Ronald L. Snell, & F. Peter Schloerb.* 450, 201, 230-G5 (1995)

Exponential Tails in the Centroid Velocity Distributions of Star-forming Regions. *Mark S. Miesch & John M. Scalo.* 450, L27, 235-G9 (1995)

The Oscillator Strengths of the C_2 Phillips System. *P. Erman & A. Iwamae.* 450, L31, 236-A3 (1995)

Internal Heating of Molecular Clouds by Tidal Fields. *Mousumi Das & Chanda J. Jog.* 451, 167, 248-C11 (1995)

Collapse and Fragmentation of Molecular Cloud Cores. III. Initial Differential Rotation. *Alan P. Boss & Elizabeth A. Myhill.* 451, 218, 249-A6 (1995)

CO J = 3–2 and HCO^+ J = 4–3 Observations of the GL 2591 Molecular Outflow. *Tatsuhiko I. Hasegawa & George F. Mitchell.* 451, 225, 249-B1 (1995)

Fourier Transform Spectroscopy of the Orion Molecular Cloud Core. *E. Serabyn & E. W. Weisstein.* 451, 238, 249-C3 (1995)

The Density Structure in the Rosette Molecular Cloud: Signposts of Evolution. *Jonathan P. Williams, Leo Blitz, & Anthony A. Stark.* 451, 252, 249-D9 (1995)

An Out-of-Plane CO (J = 2–1) Survey of the Milky Way. I. The Data. *Seiichi Sakamoto, Tetsuo Hasegawa, Masahiko Hayashi, Toshihiro Handa, & Tomoharu Oka.* 100, 125, 47-E1 (1995)

Thermal Balance in Dense Molecular Clouds: Radiative Cooling Rates and Emission-Line Luminosities. *David A. Neufeld, Stephen Lepp, & Gary J. Melnick.* 100, 132, 47-F2 (1995)

Investigating the Near-Infrared Properties of Planetary Nebulae. I. Narrowband Images. *William B. Latter, Douglas M. Kelly, Joseph L. Hora, & Lynne K. Deutsch.* 100, 159, 48-A8 (1995)

Maps of the Molecular Emission around 18 Evolved Stars. *K. Z. Stanek, G. R. Knapp, K. Young, & T. G. Phillips.* 100, 169, 48-C8 (1995)

The Radiative Association of C and S, C^+ and S, Si and O, and Si^+ and O. *C. M. Andreazza, P. D. Singh, & G. C. Sanzovo.* 451, 889, 259-D7 (1995)

CCS Observations of the Protostellar Envelope of B335. *T. Velusamy, T. B. H. Kuiper, & W. D. Langer.* 451, L75, 260-G11 (1995)

Microwave Spectra of the Isotopomers of HCS^+ and Its Substitution Structure. *Jian Tang & Shuji Saito.* 451, L93, 261-C7 (1995)

Laboratory Submillimeter-Wave Spectroscopy of the CH_2 ($^3B_1$) Radical. *Hiroyuki Ozeki & Shuji Saito.* 451, L97, 261-C13 (1995)

The Ratio of H_2 Column Density to ^{12}CO Intensity in the Vicinity of the Galactic Center. *T. J. Sodroski, N. Odegard, E. Dwek, M. G. Hauser, B. A. Franz, I. Freedman, T. Kelsall, W. F. Wall, G. B. Berriman, S. F. Odenwald, C. Bennett, W. T. Reach, & J. L. Weiland.* 452, 262, 265-F10 (1995)

Search for 6 Centimeter Formaldehyde Masers in 22 Galactic Star-forming Regions. *David M. Mehringer, W. M. Goss, & Patrick Palmer.* 452, 304, 266-C8 (1995)

Observational Probes of the Small-Scale Structure of Molecular Clouds. *E. M. Moore & Alan P. Marscher.* 452, 671, 273-G13 (1995)

Dense Gas in the DR 21 Region: High-Resolution Imaging of the NH_3 Inversion Lines. *T. L. Wilson, R. A. Gaume, K. J. Johnston, & A. R. Tieftrunk.* 452, 693, 274-C4 (1995)

Laboratory Measurement of the J = 1–0 Transition of AlH near 387 GHz. *Masahiro Goto & Shuji Saito.* 452, L147, 280-F1 (1995)

The Millimeter/Submillimeter Spectrum and Rotational Rest Frequencies of $MgCH_3(\tilde{X}\ ^2A_1)$. *M. A. Anderson & L. M. Ziurys.* 452, L157, 280-G7 (1995)

Study of Structure and Small-Scale Fragmentation in TMC-1. *W. D. Langer, T. Velusamy, T. B. H. Kuiper, S. Levin, E. Olsen, & V. Migenes.* 453, 293, 285-B9 (1995)

A Search for Interstellar C_3 in the Translucent Cloud toward HD 147889. *L. Matthew Haffner & David M. Meyer.* 453, 450, 287-C8 (1995)

Warm Molecular Gas Associated with Cometary H II Regions. *Yolanda Gómez, Guido Garay, & Susana Lizano.* 453, 727, 293-G8 (1995)

The Molecular Medium of H1413+117: BIMA CO (3–2) and HCO^+ (4–3) Observations. *D. J. Wilner, J.-H. Zhao, & Paul T. P. Ho.* 453, L91, 298-E11 (1995)

Collapse Candidates among the Bok Globules. *Yangsheng Wang, Neal J. Evans II, Shudong Zhou, & Dan P. Clemens.* 454, 217, 302-C9 (1995)

Infrared Imaging and Spectroscopy of the Molecular Shock in IC 443. *Matthew J. Richter, James R. Graham, & Gillian S. Wright.* 454, 277, 303-B1 (1995)

Organic Compounds Produced by Photolysis of Realistic Interstellar and Cometary Ice Analogs Containing Methanol. *Max P. Bernstein, Scott A. Sandford, Louis J. Allamandola, Sherwood Chang, & Maureen A. Scharberg.* 454, 327, 303-G1 (1995)

Moderate-Density Regions in the Lynds 134 Cloud Complex. *R. J. Laureijs, Y. Fukui, G. Helou, A. Mizuno, K. Imaoka, & F. O. Clark.* 101, 87, 54-A10 (1995)

BIMA Array CS $J = 2 \rightarrow 1$ Observations of Sagittarius B2. *David M. Mehringer.* 454, 782, 312-E8 (1995)

Can Gas-Phase Radical/Neutral Reactions Account for Observed Abundances of Propynal within Dense Interstellar Clouds? *Simon Petrie.* 454, L165, 317-A9 (1995)

Time-dependent Photodissociation Regions. *David Hollenbach & Antonella Natta.* 455, 133, 320-A12 (1995)

Interferometric Observations of the Circumstellar Molecular Structure around the Young Stellar Object in L1287. *Ji Yang, Nagayoshi Ohashi, & Yasuo Fukui.* 455, 175, 320-E7 (1995)

Circum-Protostellar Environments. III. Gas Densities and Kinetic Temperatures. *G. H. Moriarty-Schieven, P. G. Wannier, J. G. Mangum, M. Tamura, & V. K. Olmsted.* 455, 190, 320-F14 (1995)

Silicon Monoxide in Sagittarius B2. *Y. Peng, Stuart N. Vogel, & J. E. Carlstrom.* 455, 223, 321-B14 (1995)

High-Density Amorphous Ice, the Frost on Interstellar Grains. *P. Jenniskens, D. F. Blake, M. A. Wilson, & A. Pohorille.* 455, 389, 323-D10 (1995)

Deficit of Far-Infrared [C II] Line Emission toward the Galactic Center. *Takao Nakagawa, Yasuo Doi, Yukari Yamashita Yui, Haruyuki Okuda, Kenji Mochizuki, Hiroshi Shibai, Tetsuo Nishimura, & Frank J. Low.* 455, L35, 324-G3 (1995)

Confirmation of Interstellar HOC^+: Reevaluating the $[HCO^+]/[HOC^+]$ Abundance Ratio. *L. M. Ziurys & A. J. Apponi.* 455, L73, 325-F7 (1995)

Radio-astronomical Spectroscopy of the Hyperfine Structure of N_2H^+. *P. Caselli, P. C. Myers, & P. Thaddeus.* 455, L77, 325-G1 (1995)

Analytic Temperature Dependences for a Complete Set of Rate Coefficients for Collisional Excitation and Dissociation of H_2 Molecules by H Atoms. *P. G. Martin & M. E. Mandy.* 455, L89, 326-A9 (1995)

The Physics and Chemistry of Small Translucent Molecular Clouds. V. SO and SO_2. *B. E. Turner.* 455, 556, 329-E10 (1995)

Photon Heating of Envelopes around Young Stellar Objects: An Explanation for CO J = 6–5. *Marco Spaans, Michiel R. Hogerheijde, Lee G. Mundy, & Ewine F. van Dishoeck.* 455, L167, 334-D12 (1995)

Microwave Spectra, Hyperfine Structure, and Electric Dipole Moments for Conformers I and II of Glycine. *F. J. Lovas, Y. Kawashima, J.-U. Grabow, R. D. Suenram, G. T. Fraser, & E. Hirota.* 455, L201, 335-B3 (1995)

ISM: PLANETARY NEBULAE: GENERAL

Level Populations for Fe III Applicable to Astrophysical Plasmas and a Comparison with Planetary Nebula Observations. *F. P. Keenan, K. A. Berrington, P. G. Burke, C. J. Zeippen, M. Le Dourneuf, & R. E. S. Clegg.* 384, 385, 5-F7 (1992)

Dust and Extinction in the Planetary Nebula NGC 7027. *Charles E. Woodward, Judith L. Pipher, W. J. Forrest, Andrea Moneti, & Mark A. Shure.* 385, 567, 20-B12 (1992)

Extended Red Emission from Dust in Planetary Nebulae. *D. G. Furton & A. N. Witt.* 386, 587, 32-F1 (1992)

Unusual 3 Micron Emission Features in Three Proto–Planetary Nebulae. *T. R. Geballe, A. G. G. M. Tielens, S. Kwok, & B. J. Hrivnak.* 387, L89, 48-E1 (1992)

Planetary Nebulae as Standard Candles. VIII. Evidence for a Change in the Luminosity Function Cutoff at Low Metallicity. *Robin Ciardullo & George H. Jacoby.* 388, 268, 53-F1 (1992)

A Theoretical Calibration of the Planetary Nebular Cosmic Distance Scale. *Michael A. Dopita, George H. Jacoby, & E. Vassiliadis.* 389, 27, 60-D1 (1992)

Improved Calculations for the C III λλ1907,1909 and Si III λλ1883,1892 Electron Density Sensitive Emission-Line Ratios, and a Comparison with *IUE* Observations. *F. P. Keenan, W. A. Feibelman, & K. A. Berrington.* 389, 443, 65-D5 (1992)

Jet Formation in the Transition from the Asymptotic Giant Branch to Planetary Nebulae. *Noam Soker.* 389, 628, 69-C1 (1992)

N III Line Emission in Planetary Nebulae: Continuum Fluorescence. *G. J. Ferland.* 389, L63, 73-D1 (1992)

Spectrophotometry of Bowen Resonance Fluorescence Lines in Three Planetary Nebulae. *C. R. O'Dell & Christopher O. Miller.* 390, 219, 76-F4 (1992)

Compact Radio Sources near the Galactic Plane. *D. J. Helfand, S. Zoonematkermani, R. H. Becker, & R. L. White.* 80, 211, 25-B1 (1992)

Models of Planetary Nebula Spectral Evolution. *Kevin Volk.* 80, 347, 27-B11 (1992)

Stellar Wind Paleontology. II. Faint Halos and Historical Mass Ejection in Planetary Nebulae. *Bruce Balick, Guillermo Gonzalez, Adam Frank, & George Jacoby.* 392, 582, 109-D11 (1992)

The Kinematics of Planetary Nebulae in the Outer Fields of the Large Magellanic Cloud. *E. Vassiliadis, Stephen J. Meatheringham, & Michael A. Dopita.* 394, 489, 135-D7 (1992)

X-Ray Observations of Planetary Nebulae with Binary Nuclei. *K. M. V. Apparao, G. D. Berthiaume, & J. A. Nousek.* 397, 534, 177-E5 (1992)

Optical Spectroscopy of Magellanic Cloud Planetary Nebulae. III. *E. Vassiliadis, Michael A. Dopita, D. H. Morgan, & J. F. Bell.* 83, 87, 58-B1 (1992)

Spectropolarimetry of the Post–Main-Sequence Bipolar Nebulae GL 618, M2-56, and M1-92. *Susan R. Trammell, Harriet L. Dinerstein, & Robert W. Goodrich.* 402, 249, 4-B12 (1993)

Continuous Absorption of He I λ10830 in Planetary Nebulae. *J. Kingdon & G. J. Ferland.* 403, 211, 16-E7 (1993)

Oxygen, Sulfur, Argon, and the Chemical Evolution of the Galactic Disk. *J. A. de Freitas Pacheco.* 403, 673, 24-A10 (1993)

Astrophysical Gasdynamics Confronts Reality: The Shaping of Planetary Nebuale. *Adam Frank, Bruce Balick, Vincent Icke, & Garrelt Mellema.* 404, L25, 33-F7 (1993)

CCD Mosaic Images of the Supernova Remnant 3C 400.2. *P. Frank Winkler, Todd M. Olinger, & Scott A. Westerbeke.* 405, 608, 50-F1 (1993)

A Model for the Dramatic Decline of FG Sagittae. *Icko Iben, Jr., & Mario Livio.* 406, L15, 60-F8 (1993)

H_2 Morphology of Young Planetary Nebulae. *James R. Graham, T. M. Herbst, K. Matthews, G. Neugebauer, B. T. Soifer, E. Serabyn, & S. Beckwith.* 408, L105, 95-F1 (1993)

Circumstellar Shells Resolved in *IRAS* Survey Data. II. Analysis. *K. Young, T. G. Phillips, & G. R. Knapp.* 409, 725, 108-B3 (1993)

On the Distance to Galactic Planetary Nebulae. *C. Y. Zhang.* 410, 239, 115-B1 (1993)

Search for Ionized Cores in Proto–Planetary Nebulae, and the Asymptotic Giant Branch to Planetary Nebula Transition. *Hans Ulrich Käufl, Alvio Renzini, & Letizia Stanghellini.* 410, 251, 115-C1 (1993)

The Ratio of Optical-to-Infrared Emission Line Strengths in Ar III as Electron Density Diagnostics for Planetary Nebulae. *F. P. Keenan & E. S. Conlon.* 410, 426, 117-C12 (1993)

Circumstellar Shells Resolved in the *IRAS* Survey Data. I. Data Processing Procedure, Results, and Confidence Tests. *K. Young, T. G. Phillips, & G. R. Knapp.* 86, 517, 21-B11 (1993)

The Spectrum of the Central Star of the Planetary Nebula in M22. *J. Patrick Harrington & George Paltoglou.* 411, L103, 142-G3 (1993)

The Radial Velocities of Planetary Nebulae in NGC 3379. *Robin Ciardullo, George H. Jacoby, & Herwig B. Dejonghe.* 414, 454, 176-G3 (1993)

The Planetary Nebula System and Dynamics of NGC 5128. I. Planetary Nebulae as Standard Candles. *Xiaohui Hui, Holland C. Ford, Robin Ciardullo, & George H. Jacoby.* 414, 463, 177-A1 (1993)

Bright Planetary Nebulae as Probes of Chemical Evolution. *Michael G. Richer.* 415, 240, 188-A6 (1993)

Infrared Spectra of Transition Objects and the Composition and Evolution of Carbon Dust. *R. H. Buss, Jr., A. G. G. M. Tielens, M. Cohen, M. W. Werner, J. D. Bregman, & F. C. Witteborn.* 415, 250, 188-B3 (1993)

Winds in Central Stars of Planetary Nebulae. *A. Modigliani, P. Patriarchi, & M. Perinotto.* 415, 258, 188-B12 (1993)

Trace of Planetary Nebula Evolution by Distance-independent Parameters. *C. Y. Zhang & S. Kwok.* 88, 137, 42-B9 (1993)

Electron Density Diagnostics for Gaseous Nebulae Involving the O IV Intercombination Lines near 1400 Å. *F. P. Keenan, E. S. Conlon, D. A. Bowden, W. A. Feibelman, & A. K. Pradhan.* 88, 169, 42-E1 (1993)

Planetary Nebulae as Standard Candles. IX. The Distance to the Fornax Cluster. *Russet McMillan, Robin Ciardullo, & George H. Jacoby.* 416, 62, 201-G7 (1993)

The Planetary Nebula System and Dynamics of NGC 5128. II. A Planetary Nebula Catalog. *Xiaohui Hui, Holland C. Ford, Robin Ciardullo, & George H. Jacoby.* 88, 423, 46-B1 (1993)

Improved Observations of Faint Planetary Nebulae in the Magellanic Clouds. *George H. Jacoby & James B. Kaler.* 417, 209, 220-A12 (1993)

Formation and Evolution of Binary Planetary Nebula Nuclei and Related Objects. *Icko Iben, Jr., & Alexander V. Tutukov.* 418, 343, 235-C12 (1993)

The Formation of Binary and Single Nuclei of Planetary Nebulae. *L. R. Yungelson, A. V. Tutukov, & M. Livio.* 418, 794, 242-D8 (1993)

A Comparison of the Planetary Nebula Luminosity Function and Surface Brightness Fluctuation Distance Scales. *Robin Ciardullo, George H. Jacoby, & John L. Tonry.* 419, 479, 253-F9 (1993)

The 150 AU Structure of the Radio Continuum and the Ammonia Bipolar Outflow in CRL 618. *Jesús Martín-Pintado, Ralph Gaume, Rafael Bachiller, & Ken Johnson.* 419, 725, 256-F4 (1993)

Observations of [S IV] and the O/S Abundance Ratio in Two Halo Population Planetary Nebulae. *Donald R. Garnett & John H. Lacy.* 419, L93, 259-F8 (1993)

Near-Infrared Spectroscopy of Proto–Planetary Nebulae. *Bruce J. Hrivnak, Sun Kwok, & T. R. Geballe.* 420, 783, 12-F1 (1994)

Disks and Jets in Planetary Nebulae. *Noam Soker & Mario Livio.* 421, 219, 18-F7 (1994)

Magnetic Shaping of Planetary Nebulae and Other Stellar Wind Bubbles. *Roger A. Chevalier & Ding Luo.* 421, 225, 18-G1 (1994)

Density Contrast Shell Models for the Planetary Nebula IC 2165. *S. Hyung.* 90, 119, 2-E4 (1994)

The Bipolar Symmetry of Ring-like Planetary Nebulae: Molecular Hydrogen Emission from Halos. *Joel H. Kastner, Ian Gatley, K. M. Merrill, R. Probst, & David A. Weintraub.* 421, 600, 25-F2 (1994)

The He I 2.06 Micron to Brγ Ratio in 12 Planetary Nebulae. *D. L. DePoy & Joseph C. Shields.* 422, 187, 32-D7 (1994)

A Laboratory Approach to the Interstellar Sulfide Dust Problem. *B. Begemann, J. Dorschner, T. Henning, H. Mutschke, & E. Thamm.* 423, L71, 54-C1 (1994)

FLIERs and Other Microstructures in Planetary Nebulae. II. *Bruce Balick, M. Perinotto, A. Maccioni, Yervant Terzian, & A. Hajian.* 424, 800, 74-F11 (1994)

High-Resolution Spectroscopy of V1853 Cygni (LS II +34°26): Birth of a Planetary Nebula? *Verne V. Smith & David L. Lambert.* 424, L123, 79-D13 (1994)

Narrowband *HST* Imagery of the Young Planetary Nebula Henize 1357. *M. Bobrowsky.* 426, L47, 103-F5 (1994)

Post–Asymptotic Giant Branch Evolution of Low- to Intermediate-Mass Stars. *E. Vassiliadis & P. R. Wood.* 92, 125, 33-A4 (1994)

The Radiation Gasdynamics of Planetary Nebulae. IV. From the Owl to the Eskimo. *Adam Frank & Garrelt Mellema.* 430, 800, 171-G5 (1994)

Abundances, Planetary Nebulae, and Stellar Evolution. *Lawrence H. Aller.* 432, 427, 201-C1 (1994)

Two Planetary Nebula Candidates around Hot DA White Dwarfs. *Richard W. Tweedy & Karen B. Kwitter.* 433, L93, 224-B11 (1994)

Radiative Shock Overstability of Finite-sized Objects. *Ruth Dgani & Noam Soker.* 434, 262, 229-A11 (1994)

Time-dependent Fluorescent H_2 Emission. *O. Goldshmidt & A. Sternberg.* 439, 256, 24-F3 (1995)

The Kinetics of Systems of Planetesimals. *J. F. Luciani, F. Namouni, & R. Pellat.* 439, 800, 35-E13 (1995)

A Volume-limited Survey of High Galactic Latitude Planetary Nebulae with the *Extreme Ultraviolet Explorer*. *Antonella Fruscione, Jeremy J. Drake, Kelley McDonald, & Roger F. Malina.* 441, 726, 72-A1 (1995)

Planetary Nebulae as Probes of Dark Matter in NGC 3384. *Benoit Tremblay, David Merritt, & T. B. Williams.* 443, L5, 102-B8 (1995)

Oxygen Abundances in Diffuse Ellipticals and the Metallicity-Luminosity Relations for Dwarf Galaxies. *Michael G. Richer & Marshall L. McCall.* 445, 642, 144-A1 (1995)

The Ionized Masses of Planetary Nebulae. *David Buckley & Stephen E. Schneider.* 446, 279, 157-B2 (1995)

He 3-1475 and Its Jets. *M. Bobrowsky, A. A. Zijlstra, E. K. Grebel, C. G. Tinney, P. te Lintel Hekkert, G. C. Van de Steene, L. Likkel, & T. R. Bedding.* 446, L89, 171-B3 (1995)

A Statistical Distance Scale for Galactic Planetary Nebulae. *C. Y. Zhang.* 98, 659, 32-D9 (1995)

A Survey of Planetary Nebulae at Na D: Evidence for Neutral Envelopes. *Harriet L. Dinerstein, Christopher Sneden, & John Uglum.* 447, 262, 176-A7 (1995)

Precessing Jets and Point-Symmetric Nebulae. *J. A. Cliffe, A. Frank, M. Livio, & T. W. Jones.* 447, L49, 181-C10 (1995)

Temperature Fluctuations in Photoionized Nebulae. *J. B. Kingdon & G. J. Ferland.* 450, 691, 240-C6 (1995)

Luminous Supersoft X-Ray Sources and the Planetary Nebula Luminosity Function. *R. Di Stefano, F. Paerels, & S. Rappaport.* 450, 705, 240-D10 (1995)

Investigating the Near-Infrared Properties of Planetary Nebulae. I. Narrowband Images. *William B. Latter, Douglas M. Kelly, Joseph L. Hora, & Lynne K. Deutsch.* 100, 159, 48-A8 (1995)

Evolutionary Paths in Multiple-Shell Planetary Nebulae. *Letizia Stanghellini & Anna Pasquali.* 452, 286, 266-B1 (1995)

Evolutionary Tests of the Planetary Nebula Luminosity Function. *Letizia Stanghellini.* 452, 515, 271-G1 (1995)

C IV and O VI Transitions in the Region λλ1100–2000 and Examples Found in *IUE* Spectra of Hot Stars. *Walter A. Feibelman & Sveneric Johansson.* 100, 405, 51-F3 (1995)

Four Newly Identified Sources with 21 Micron Emission. *Sun Kwok, Bruce J. Hrivnak, & T. R. Geballe.* 454, 394, 304-F8 (1995)

The 30 Micron Emission Band in Carbon-rich Pre–Planetary Nebulae. *A. Omont, S. H. Moseley, P. Cox, W. Glaccum, S. Casey, T. Forveille, Kin-Wing Chan, R. Szczerba, R. F. Loewenstein, P. M. Harvey, & S. Kwok.* 454, 819, 313-B2 (1995)

Time-dependent Photodissociation Regions. *David Hollenbach & Antonella Natta.* 455, 133, 320-A12 (1995)

Asymmetrical Mass Loss from Rotating Red Giant Variables. *S. M. Asida & Y. Tuchman.* 455, 286, 322-B2 (1995)

ISM: PLANETARY NEBULAE: INDIVIDUAL

NGC Number: NGC 1535

Hopkins Ultraviolet Telescope Observations of H_2 toward the Planetary Nebula NGC 1535. *Charles W. Bowers, William P. Blair, Knox S. Long, & Arthur F. Davidsen.* 444, 748, 126-E11 (1995)

NGC Number: NGC 2438

Radio and X-Ray Observations of OH 231.8+4.2. *Gregory B. Taylor & Mark Morris.* 409, 720, 108-A9 (1993)

NGC Number: NGC 3242

Fast, Low-Ionization Emission Regions and Other Microstructures in Planetary Nebulae. *Bruce Balick, M. Rugers, Yervant Terzian, & Jayaram N. Chengalur.* 411, 778, 139-D10 (1993)

NGC Number: NGC 6302

Detection of the Angular Expansion Rate and Determination of the Distance of the Planetary Nebula NGC 6302. *Yolanda Gómez, Luis F. Rodríguez, & James M. Moran.* 416, 620, 211-B1 (1993)

The Highly Ionized Regions of NGC 6302 and NGC 6537. *N. Rowlands, J. R. Houck, & T. Herter.* 427, 867, 123-D8 (1994)

NGC Number: NGC 6537

The Highly Ionized Regions of NGC 6302 and NGC 6537. *N. Rowlands, J. R. Houck, & T. Herter.* 427, 867, 123-D8 (1994)

NGC Number: NGC 6720

The Bipolar Symmetry of Ring-like Planetary Nebulae: Molecular Hydrogen Emission from Halos. *Joel H. Kastner, Ian Gatley, K. M. Merrill, R. Probst, & David A. Weintraub.* 421, 600, 25-F2 (1994)

NGC Number: NGC 6751

The *IUE* Spectrum of the Planetary Nebula NGC 6751. *Walter A. Feibelman.* 448, 766, 205-C11 (1995)

NGC Number: NGC 7027

0.8–1.6 Micron Spectroscopy of the Planetary Nebula NGC 7027. *Richard J. Rudy, Peter Erwin, George S. Rossano, & R. C. Puetter.* 384, 536, 8-G1 (1992)

Al II Emission-Line Strengths in Low-Density Astrophysical Plasmas. *F. P. Keenan, L. K. Harra, K. M. Aggarwal, & W. A. Feibelman.* 385, 375, 16-E1 (1992)

Dust and Extinction in the Planetary Nebula NGC 7027. *Charles E. Woodward, Judith L. Pipher, W. J. Forrest, Andrea Moneti, & Mark A. Shure.* 385, 567, 20-B12 (1992)

The High-Excitation Region of NGC 7027. *N. Rowlands, J. R. Houck, T. L. Hayward, & J. W. Miles.* 390, L93, 85-C1 (1992)

High Spatial Resolution Observations of HCO^+ in the NGC 7027 Molecular Envelope. *S. Deguchi, H. Izumiura, Nguyen-Q-Rieu, K. M. Shibata, N. Ukita, & I. Yamamura.* 392, 597, 109-F1 (1992)

BIMA Observations of HCO^+ Emission from the Planetary Nebula NGC 7027. *Lauren Likkel.* 397, L115, 181-E6 (1992)

H_2 Morphology of Young Planetary Nebulae. *James R. Graham, T. M. Herbst, K. Matthews, G. Neugebauer, B. T. Soifer, E. Serabyn, & S. Beckwith.* 408, L105, 95-F1 (1993)

Emission of HeH^+ in Nebulae. *C. Cecchi-Pestellini & A. Dalgarno.* 413, 611, 164-B5 (1993)

Detection of the Carbon Monoxide Ion (CO^+) in the Interstellar Medium and a Planetary Nebula. *William B. Latter, Christopher K. Walker, & Philip R. Maloney.* 419, L97, 259-F14 (1993)

The Bipolar Symmetry of Ring-like Planetary Nebulae: Molecular Hydrogen Emission from Halos. *Joel H. Kastner, Ian Gatley, K. M. Merrill, R. Probst, & David A. Weintraub.* 421, 600, 25-F2 (1994)

Collisional Effects in He I: An Observational Analysis. *J. Kingdon & G. J. Ferland.* 442, 714, 90-A8 (1995)

Accurate Wavenumbers for Mid-Infrared Fine-Structure Lines. *Douglas M. Kelly & John H. Lacy.* 454, L161, 317-A1 (1995)

NGC Number: NGC 7293

CO in the Cometary Globules of the Helix Nebula. *P. J. Huggins, R. Bachiller, P. Cox, & T. Forveille.* 401, L43, 227-F7 (1992)

Two-Temperature X-Ray Emission from the Planetary Nebula NGC 7293. *D. A. Leahy, C. Y. Zhang, & Sun Kwok.* 422, 205, 32-F1 (1994)

NGC Number: NGC 7662

Fast, Low-Ionization Emission Regions and Other Microstructures in Planetary Nebulae. *Bruce Balick, M. Rugers, Yervant Terzian, & Jayaram N. Chengalur.* 411, 778, 139-D10 (1993)

Name: Abell 30

HST Imaging of Hydrogen-poor Ejecta in Abell 30 and Abell 78: Wind-blown Cometary Structures. *Kazimierz J. Borkowski, J. Patrick Harrington, Zlatan Tsvetanov, & Robin E. S. Clegg.* 415, L47, 192-C4 (1993)

The Dust in the Hydrogen-poor Ejecta of Abell 30. *Kazimierz J. Borkowski, J. Patrick Harrington, William P. Blair, & Jesse D. Bregman.* 435, 722, 256-A6 (1994)

Diffuse X-Ray Emission from the Hydrogen-deficient Planetary Nebula Abell 30. *You-Hua Chu & Ching-Hwa Ho.* 448, L127, 209-F9 (1995)

Name: Abell 78

HST Imaging of Hydrogen-poor Ejecta in Abell 30 and Abell 78: Wind-blown Cometary Structures. *Kazimierz J. Borkowski, J. Patrick Harrington, Zlatan Tsvetanov, & Robin E. S. Clegg.* 415, L47, 192-C4 (1993)

GHRS Observations of Mass-loaded Flows in Abell 78. *J. Patrick Harrington, Kazimierz J. Borkowski, & Zlatan Tsvetanov.* 439, 264, 24-G1 (1995)

Name: Fleming 1

Kinematical Evidence for a Rotating, Episodic Jet in the Planetary Nebula Fleming 1. *J. A. Lopez, J. Meaburn, & J. W. Palmer.* 415, L135, 200-E8 (1993)

Name: Henize 1357

Narrowband *HST* Imagery of the Young Planetary Nebula Henize 1357. *M. Bobrowsky.* 426, L47, 103-F5 (1994)

Name: Red Rectangle

Adaptive Optics Imaging of Proto–Planetary Nebulae: Frosty Leo and the Red Rectangle. *F. Roddier, C. Roddier, J. E. Graves, & M. J. Northcott.* 443, 249, 98-E7 (1995)

Name: BE Ursae Majoris

BE Ursae Majoris: Precataclysmic Binary System and Planetary Nucleus. *James Liebert, R. W. Tweedy, R. Napiwotzki, & M. S. Fulbright.* 441, 424, 65-B11 (1995)

Alphanumeric: A30

Interaction of a Stellar Wind with Clumpy Stellar Ejecta in A30. *Kazimierz J. Borkowski, J. Patrick Harrington, & Zlatan I. Tsvetanov.* 449, L143, 227-D8 (1995)

Alphanumeric: AFGL 618

Near-Infrared Observations of the Proto–Planetary Nebula AFGL 618. *William B. Latter, Philip R. Maloney, Douglas M. Kelly, John H. Black, G. H. Rieke, & M. J. Rieke.* 389, 347, 64-C3 (1992)

Near-Infrared Observations of AFGL 618. II. The Atomic Spectrum. *Douglas M. Kelly, William B. Latter, & G. H. Rieke.* 395, 174, 142-D1 (1992)

Alphanumeric: AFGL 2688

The Near-Infrared Structure and Spectra of the Bipolar Nebulae M2-9 and AFGL 2688: The Role of Ultraviolet Pumping and Shocks in Molecular Hydrogen Excitation. *Joseph L. Hora & William B. Latter.* 437, 281, 287-A8 (1994)

Alphanumeric: BD +30°3639

H_2 Morphology of Young Planetary Nebulae. *James R. Graham, T. M. Herbst, K. Matthews, G. Neugebauer, B. T. Soifer, E. Serabyn, & S. Beckwith.* 408, L105, 95-F1 (1993)

Near- and Mid-Infrared Imaging of the Planetary Nebulae BD +30°3639 and IC 418. *Joseph L. Hora, Lynne K. Deutsch, William F. Hoffmann, Giovanni G. Fazio, & Kandiah Shivanandan.* 413, 304, 160-A10 (1993)

Near- and Mid-Infrared Imaging of the Planetary Nebulae BD +30°3639 and IC 418. *Joseph L. Hora, Lynne K. Deutsch, William F. Hoffmann, Giovanni G. Fazio, & Kandiah Shivanandan.* 413, 304, 160-A10 (1993)

Alphanumeric: 3C 400.2

CCD Mosaic Images of the Supernova Remnant 3C 400.2. *P. Frank Winkler, Todd M. Olinger, & Scott A. Westerbeke.* 405, 608, 50-F1 (1993)

Alphanumeric: CRL 618

High Spatial Resolution Observations of CO in CRL 618. *Katsunori M. Shibata, Shuji Deguchi, Naomi Hirano, Osamu Kameya, & Shin'ichi Tamura.* 415, 708, 196-F1 (1993)

CS(2–1) Emission from Dense Gas in the Bipolar Outflow of CRL 618. *Arsen R. Hajian, J. A. Phillips, & Yervant Terzian.* 446, 244, 156-E7 (1995)

Alphanumeric: CRL 915

Radio-Frequency Continuum Emission from Evolved Stars. *G. R. Knapp, P. F. Bowers, K. Young, & T. G. Phillips.* 455, 293, 322-B12 (1995)

Alphanumeric: CRL 2688

Submillimeter Line Observations of the Proto–Planetary Nebula CRL 2688. *P. A. Jaminet, W. C. Danchi, Göran Sandell, & E. C. Sutton.* 400, 535, 217-A7 (1992)

Alphanumeric: Hb 12

Detection of the H92α Recombination Line toward the Very Compact Planetary Nebulae IC 5117 and Hb 12. *Luis F. Miranda, José M. Torrelles, & Carlos Eiroa.* 446, L39, 160-F13 (1995)

Alphanumeric: He 3-1357

Recent Changes in the *IUE* Spectrum of the Very Young Planetary Nebula He 3-1357 (=SAO 244567). *Walter A. Feibelman.* 443, 245, 98-D13 (1995)

Alphanumeric: He 3-1475

He 3-1475 and Its Jets. *M. Bobrowsky, A. A. Zijlstra, E. K. Grebel, C. G. Tinney, P. te Lintel Hekkert, G. C. Van de Steene, L. Likkel, & T. R. Bedding.* 446, L89, 171-B3 (1995)

Alphanumeric: IC 418

The Spectra of IC 418 and IC 5117 from 1.5 to 1.75 Microns. *C. Y. Zhang & Sun Kwok.* 385, 255, 15-B1 (1992)

Alphanumeric: IC 2149

Fast, Low-Ionization Emission Regions and Other Microstructures in Planetary Nebulae. *Bruce Balick, M. Rugers, Yervant Terzian, & Jayaram N. Chengalur.* 411, 778, 139-D10 (1993)

Spectrum of IC 2149 and Its Central Star. *Walter A. Feibelman, Siek Hyung, & Lawrence H. Aller.* 426, 653, 106-E6 (1994)

Alphanumeric: IC 2165

Density Contrast Shell Models for the Planetary Nebula IC 2165. *S. Hyung.* 90, 119, 2-E4 (1994)

Alphanumeric: IC 4593

The Morphology and Interaction with the Interstellar Medium of the Planetary Nebula IC 4593. *Daniel B. Zucker & Noam Soker.* 408, 579, 92-D5 (1993)

Alphanumeric: IC 4997

Fe III Emission Lines in the Optical Spectrum of the Planetary Nebula IC 4997. *F. P. Keenan, L. H. Aller, S. Hyung, E. S. Conlon, & G. A. Warren.* 410, 430, 117-D3 (1993)

The Spectrum of the Variable Planetary Nebula IC 4997. *Siek Hyung, Lawrence H. Aller, & Walter A. Feibelman.* 93, 465, 49-B5 (1994)

Alphanumeric: IC 5117

The Spectra of IC 418 and IC 5117 from 1.5 to 1.75 Microns. *C. Y. Zhang & Sun Kwok.* 385, 255, 15-B1 (1992)

Detection of the H92α Recombination Line toward the Very Compact Planetary Nebulae IC 5117 and Hb 12. *Luis F. Miranda, José M. Torrelles, & Carlos Eiroa.* 446, L39, 160-F13 (1995)

Alphanumeric: IRAS 09371+1212

Adaptive Optics Imaging of Proto–Planetary Nebulae: Frosty Leo and the Red Rectangle. *F. Roddier, C. Roddier, J. E. Graves, & M. J. Northcott.* 443, 249, 98-E7 (1995)

Alphanumeric: IRAS 17423−1755

Radio-Frequency Continuum Emission from Evolved Stars. *G. R. Knapp, P. F. Bowers, K. Young, & T. G. Phillips.* 455, 293, 322-B12 (1995)

Alphanumeric: IRAS 18333−2357

Stripping of a Planetary Nebula from the Globular Cluster M22. *Kazimierz J. Borkowski, Zlatan Tsvetanov, & J. Patrick Harrington.* 402, L57, 12-F9 (1993)

The Spectrum of the Central Star of the Planetary Nebula in M22. *J. Patrick Harrington & George Paltoglou.* 411, L103, 142-G3 (1993)

Alphanumeric: IRAS 21282+5050

Extended Infrared Emission around IRAS 21282+5050. *Jesse D. Bregman, John Booth, D. Kirk Gilmore, Laura Kay, & David Rank.* 396, 120, 156-E12 (1992)

Photometry and Imaging of the Peculiar Planetary Nebula IRAS 21282+5050. *Sun Kwok, Bruce J. Hrivnak, & Philip P. Langill.* 408, 586, 92-E3 (1993)

2–12.5 Micron Imaging of IRAS 21282+5050: The Structure of a Young Planetary Nebula. *M. Meixner, C. J. Skinner, P. Temi, D. Rank, Jesse Bregman, J. R. Ball, E. Keto, J. F. Arens, & J. G. Jernigan.* 411, 266, 130-E3 (1993)

Detection of the Overtone of the 3.3 Micron Emission Feature in IRAS 21282+5050. *T. R. Geballe, C. Joblin, L. B. d'Hendecourt, M. Jourdain de Muizon, A. G. G. M. Tielens, & A. Léger.* 434, L15, 232-C8 (1994)

Alphanumeric: KjPn 8

The Discovery of a Bipolar, Rotating, Episodic Jet (BRET) in the Planetary Nebula KjPn 8. *J. A. López, R. Vázquez, & L. F. Rodríguez.* 455, L63, 325-E2 (1995)

Alphanumeric: LMC N66

Imaging of Four Planetary Nebulae in the Magellanic Clouds Using the *Hubble Space Telescope* Faint Object Camera. *J. C. Blades, M. J. Barlow, R. Albrecht, C. Barbieri, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, S. Osmer, & W. B. Sparks.* 398, L41, 187-F7 (1992)

Time-dependent Behavior and Physical Conditions of the LMC Planetary Nebula N66. *M. Peña, M. Peimbert, S. Torres-Peimbert, M. T. Ruiz, & J. Maza.* 441, 343, 64-B1 (1995)

Alphanumeric: LMC N201

Imaging of Four Planetary Nebulae in the Magellanic Clouds Using the *Hubble Space Telescope* Faint Object Camera. *J. C. Blades, M. J. Barlow, R. Albrecht, C. Barbieri, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, S. Osmer, & W. B. Sparks.* 398, L41, 187-F7 (1992)

Alphanumeric: LSIV −12° 111

LSIV −12° 111: A Candidate Halo Proto–Planetary Nebula. *E. S. Conlon, P. L. Dufton, R. J. H. McCausland, & F. P. Keenan.* 408, 593, 92-E11 (1993)

Alphanumeric: M1-16

Multiple Outflows in the Bipolar Planetary Nebula M1-16: A Molecular Line Study. *Raghvendra Sahai, Alwyn Wootten, Hugo E. Schwarz, & W. Wild.* 428, 237, 131-B5 (1994)

Alphanumeric: M1-75

Extreme Nitrogen Enrichment in the Asymmetrical Planetary Nebula M1-75. *Martín A. Guerrero, Letizia Stanghellini, & Arturo Manchado.* 444, L49, 122-A1 (1995)

Alphanumeric: M1-92

A Direct Image of Wind Interaction in the Post-AGB Evolution: CO Observations of M1-92. *V. Bujarrabal, J. Alcolea, R. Neri, & M. Grewing.* 436, L169, 281-G9 (1994)

Alphanumeric: M2-9

The Near-Infrared Structure and Spectra of the Bipolar Nebulae M2-9 and AFGL 2688: The Role of Ultraviolet Pumping and Shocks in Molecular Hydrogen Excitation. *Joseph L. Hora & William B. Latter.* 437, 281, 287-A8 (1994)

Spectropolarimetry of the Bipolar Planetary Nebula M2-9. *Susan R. Trammell, Robert W. Goodrich, & Harriet L. Dinerstein.* 453, 761, 294-D2 (1995)

Alphanumeric: N66

A Thermal Pulse in Progress in the Nucleus of the Large Magellanic Cloud Planetary Nebula N66. *M. Peña, S. Torres-Peimbert, M. Peimbert, M. T. Ruiz, & J. Maza.* 428, L9, 134-B13 (1994)

Alphanumeric: N67/SMP 22

A Comprehensive X-Ray Study of the Small Magellanic Cloud. *Qingde Wang & Xiaoyi Wu.* 78, 391, 7-G5 (1992)

Einstein Observations of Ultrasoft X-Ray Sources in the Magellanic Clouds. *Thomas Brown, France Córdova, Robin Ciardullo, Richard Thompson, & Howard Bond.* 422, 118, 31-E4 (1994)

Alphanumeric: Sh 2-216

The Closest Planetary Nebula, Sh 2-216, and Its Interaction with the Interstellar Medium. *R. W. Tweedy, M. A. Martos, & A. Noriega-Crespo.* 447, 257, 175-G7 (1995)

Alphanumeric: SMC N2

Imaging of Four Planetary Nebulae in the Magellanic Clouds Using the *Hubble Space Telescope* Faint Object Camera. *J. C. Blades, M. J. Barlow, R. Albrecht, C. Barbieri, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, S. Osmer, & W. B. Sparks.* 398, L41, 187-F7 (1992)

Alphanumeric: SMC N5

Imaging of Four Planetary Nebulae in the Magellanic Clouds Using the *Hubble Space Telescope* Faint Object Camera. *J. C. Blades, M. J. Barlow, R. Albrecht, C. Barbieri, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, S. Osmer, & W. B. Sparks.* 398, L41, 187-F7 (1992)

Alphanumeric: SMP 83

Hubble Space Telescope Observations of Planetary Nebulae in the Magellanic Clouds. I. The Extreme Type I SMP 83/WS 35. *Michael A. Dopita, Holland C. Ford, Ralph Bohlin, Ian N. Evans, & Stephen J. Meatheringham.* 418, 804, 242-E7 (1993)

Alphanumeric: SMP 85

Hubble Space Telescope Observations of Planetary Nebulae in the Magellanic Clouds. II. SMP 85, A Young Planetary. *Michael A. Dopita, Emanuel Vassiliadis, Stephen J. Meatheringham, Holland C. Ford, Ralph Bohlin, Peter R. Wood, Theodore P. Stecher, Stephen P. Maran, & J. Patrick Harrington.* 426, 150, 98-A6 (1994)

Alphanumeric: Vy 2-2

Detection of the H92α Recombination Line toward the Very Compact Planetary Nebulae IC 5117 and Hb 12. *Luis F. Miranda, José M. Torrelles, & Carlos Eiroa.* 446, L39, 160-F13 (1995)

Alphanumeric: WDHS 1

A Very Hot, Hydrogen-rich, White Dwarf Planetary Nucleus. *James Liebert, P. Bergeron, & R. W. Tweedy.* 424, 817, 75-A3 (1994)

ISM: REFLECTION NEBULAE

The Juggler: A Three-lobed Near-Infrared Reflection Nebula toward CRL 2136 = OH 17.6+0.2. *Joel H. Kastner, David A. Weintraub, & C. Aspin.* 389, 357, 64-D1 (1992)

Riddle and Puzzle of the Optical Region S122 = 2306+1439. *J. P. Vallée & A. G. de Bruyn.* 393, 674, 124-B10 (1992)

Quenched Carbonaceous Composite: Fluorescence Spectrum Compared to the Extended Red Emission Observed in Reflection Nebulae. *Akira Sakata, Setsuko Wada, Takatoshi Narisawa, Yoichi Asano, Yutaka Iijima, Takashi Onaka, & Alan T. Tokunaga.* 393, L83, 127-F7 (1992)

Ultraviolet Imaging Telescope Images of the Reflection Nebula NGC 7023: Derivation of Ultraviolet Scattering Properties of Dust Grains. *Adolf N. Witt, Jens K. Petersohn, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L5, 144-D1 (1992)

Scattering of Infrared Radiation by Dust in NGC 7023 and NGC 2023. *K. Sellgren, M. W. Werner, & H. L. Dinerstein.* 400, 238, 211-G9 (1992)

The Low Filling Factor of Dust in the Galaxy. *Jayant Murthy, H. J. Walker, & R. C. Henry.* 401, 574, 229-F8 (1992)

Hopkins Ultraviolet Telescope Observations of Far-Ultraviolet Scattering in NGC 7023: The Dust Albedo. *Jayant Murthy, Andrew Dring, Richard C. Henry, Jeffrey W. Kruk, William P. Blair, Randy A. Kimble, & Samuel T. Durrance.* 408, L97, 95-E3 (1993)

Near-Infrared Discovery of the L810 Nebula Illuminator. *João Lin Yun, Dan P. Clemens, Mark J. McCaughrean, & Marcia Rieke.* 408, L101, 95-E9 (1993)

An Infrared Study of the Remarkable Dusty M Star HR 3126. *J. E. Chiar, D. C. B. Whittet, D. K. Aitken, P. F. Roche, C. H. Smith, H. J. Walker, P. A. Whitelock, & C. Wright.* 409, 404, 102-A8 (1993)

Voyager 2 Observations of NGC 7023: Dust Scattering Shortward of 1600 Å. *A. N. Witt, J. K. Petersohn, J. B. Holberg, J. Murthy, A. Dring, & R. C. Henry.* 410, 714, 122-E13 (1993)

Ultraviolet Background Radiation. *Richard C. Henry & Jayant Murthy.* 418, L17, 238-C1 (1993)

A Near-Infrared Study of the Monoceros R2 Star Formation Region. *Eric M. Howard, Judith L. Pipher, & William J. Forrest.* 425, 707, 90-D12 (1994)

Polarization Profiles of Scattered Emission Lines. II. Upstream Dust Scattering in the HH 1 Jet. *W. J. Henney, A. C. Raga, & D. J. Axon.* 427, 305, 113-F6 (1994)

The Giant Molecular Cloud Monoceros R2. I. Shell Structure. *Taoling Xie & Paul F. Goldsmith.* 430, 252, 162-B13 (1994)

Broken Symmetry: The Structure of the Dust Envelope of IRC +10216. *Joel H. Kastner & David A. Weintraub.* 434, 719, 237-F7 (1994)

A Near-Infrared Reflection Nebula Associated with NGC 2024 FIR 4. *T. J. T. Moore & T. Yamashita.* 440, 722, 53-B6 (1995)

H I, CO, and *IRAS* Observations of NGC 7023. *C. Rogers, Mark H. Heyer, & P. E. Dewdney.* 442, 694, 89-F10 (1995)

Scattering Properties of the Dust in the Reflection Nebula IC 435. *Daniela Calzetti, Ralph C. Bohlin, Karl D. Gordon, Adolf N. Witt, & Luciana Bianchi.* 446, L97, 171-C7 (1995)

In Search of HL Tauri. *David A. Weintraub, Joel H. Kastner, & Barbara A. Whitney.* 452, L141, 280-E6 (1995)

ISM: STRUCTURE

The Distribution of the 6_2–6_1 and 5_2–5_1 *E*-Type Methanol Masers in OMC-1. *K. J. Johnston, R. Gaume, S. Stolovy, T. L. Wilson, C. M. Walmsley, & K. M. Menten.* 385, 232, 14-G3 (1992)

Structure, Chemistry, and Clumping in the NGC 2071 (North) Molecular Cloud. *Paul F. Goldsmith, Michael Margulis, Ronald L. Snell, & Y. Fukui.* 385, 522, 19-F3 (1992)

Comparing Restored *HST* and VLA Imagery of R Aquarii. *J. M. Hollis, J. E. Dorband, & F. Yusef-Zadeh.* 386, 293, 27-G3 (1992)

Motion at the Ionization Front in the Orion Nebula: A Kinematic Study of the [O I] Line. *C. R. O'Dell & Zheng Wen.* 387, 229, 39-F10 (1992)

Synthesis Imaging of the DR 21 (OH) Cluster. II. Thermal Ammonia and Water Maser Emission. *Jeffrey G. Mangum, Alwyn Wootten, & Lee G. Mundy.* 388, 467, 56-B6 (1992)

High Spatial Resolution 1.3 Centimeter Imaging of the NGC 2024 Star-forming Region. *R. A. Gaume, K. J. Johnston, & T. L. Wilson.* 388, 489, 56-D1 (1992)

Dense Clumps of Ionized Gas near π Scorpii, as Revealed by the Fine-Structure Excitation of N II. *Frank Bertoldi & Edward B. Jenkins.* 388, 495, 56-D9 (1992)

Orion B (NGC 2024). III. BIMA SO $J_K = 2_2 \rightarrow 1_1$ Observations: Evidence for Peculiar Sulfur Chemistry. *Peter J. Barnes & Richard M. Crutcher.* 389, 325, 64-A5 (1992)

The Juggler: A Three-lobed Near-Infrared Reflection Nebula toward CRL 2136 = OH 17.6+0.2. *Joel H. Kastner, David A. Weintraub, & C. Aspin.* 389, 357, 64-D1 (1992)

Far-Infrared Observations of M17SW: The Clumpy Structure of the Photodissociation Region. *Margaret Meixner, Michael R. Haas, A. G. G. M. Tielens, E. F. Erickson, & M. Werner.* 390, 499, 81-E3 (1992)

Stellar Wind Paleontology. II. Faint Halos and Historical Mass Ejection in Planetary Nebulae. *Bruce Balick, Guillermo Gonzalez, Adam Frank, & George Jacoby.* 392, 582, 109-D11 (1992)

Recognition and Characterization of Hierarchical Interstellar Structure. II. Structure Tree Statistics. *Padraig Houlahan & John Scalo.* 393, 172, 116-C1 (1992)

A Multiwavelength Study of the Supernova Remnant N49 in the Large Magellanic Cloud. *Olaf Vancura, William P. Blair, Knox S. Long, & John C. Raymond.* 394, 158, 130-A1 (1992)

High-Resolution Imaging of the Galactic Cloud Monoceros R2. *Constantine P. Gonatas, Patrick Palmer, & G. Novak.* 398, 118, 183-D7 (1992)

Variation in the Near-Infrared Surface Brightness Distribution of the Bipolar Nebula OH 231.8+4.2. *Joel H. Kastner, David A. Weintraub, B. Zuckerman, E. E. Becklin, I. McLean, & I. Gatley.* 398, 552, 191-A8 (1992)

Interstellar Cloud Shapes: A Minimum-Hypothesis Account Involving a Purely Gravitational Effect. *Robert C. Fleck, Jr.* 401, 146, 222-G3 (1992)

Nonlinear Waves and Solitons in Molecular Clouds. *Fred C. Adams & Marco Fatuzzo.* 403, 142, 15-F13 (1993)

608 MHz VLBI Observations of the Compact Double Radio Source 2050+364: Constraints on Interstellar Scattering. *Alan L. Fey & Robert L. Mutel.* 404, 197, 30-D1 (1993)

Models of Clumpy Photodissociation Regions. *M. Meixner & A. G. G. M. Tielens.* 405, 216, 43-G2 (1993)

N_2H^+ in the Orion Ambient Ridge: Cloud Clumping versus Rotation. *Maria Womack, L. M. Ziurys, & L. J. Sage.* 406, L29, 61-A1 (1993)

The Morphology and Interaction with the Interstellar Medium of the Planetary Nebula IC 4593. *Daniel B. Zucker & Noam Soker.* 408, 579, 92-D5 (1993)

Interstellar Matter near the Pleiades. IV. The Wake of the Pleiades through the Interstellar Medium in Taurus. *Richard E. White & John Bally.* 409, 234, 99-G13 (1993)

Motion in the Orion Nebula: A Kinematic Study of [S III]. *Zheng Wen & C. R. O'Dell.* 409, 262, 100-D1 (1993)

Modeling the Structure of H I in the Galactic Disk. *Joel N. Bregman, Daniel D. Kelson, & Gregory A. Ashe.* 409, 682, 107-D9 (1993)

Angular Broadening of Pulsars and the Distribution of Interstellar Plasma Fluctuations. *C. R. Gwinn, N. Bartel, & J. M. Cordes.* 410, 673, 122-A13 (1993)

The First Detection of Ionized Helium in the Local ISM: *EUVE* and *IUE* Spectroscopy of the Hot DA Dwarf GD 246. *Stéphane Vennes, Jean Dupois, Todd Rumph, Jeremy Drake, Stuart Bowyer, Pierre Chayer, & Gilles Fontaine.* 410, L119, 126-D7 (1993)

High-Resolution H I Observations of H II Regions. III. Photodissociation Regions and the Magnetic Field near Orion B. *Paul P. van der Werf, W. M. Goss, Carl Heiles, R. M. Crutcher, & T. H. Troland.* 411, 247, 130-C8 (1993)

Hunt for Variations in Molecular Gas and Cloud Properties across the Inner, Northern Galactic Disk. *Harvey S. Liszt.* 411, 720, 138-F1 (1993)

Interferometric Observations for Oxygen-containing Organic Molecules toward Orion-KL. *Y. C. Minh, M. Ohishi, D. G. Roh, M. Ishiguro, & W. M. Irvine.* 411, 773, 139-D3 (1993)

Fast, Low-Ionization Emission Regions and Other Microstructures in Planetary Nebulae. *Bruce Balick, M. Rugers, Yervant Terzian, & Jayaram N. Chengalur.* 411, 778, 139-D10 (1993)

A Determination of the Distance to the High-Velocity Cloud Complex M. *Laura Danly, C. E. Albert, & K. D. Kuntz.* 416, L29, 207-D13 (1993)

The Diffuse Ionized Interstellar Medium: Structures Resulting from Ionization by O Stars. *Walter Warren Miller III & Donald P. Cox.* 417, 579, 226-E7 (1993)

High-Resolution Centimeter Radio Continuum and Ammonia Maser Observations of the W51 Region of Star Formation. *R. A. Gaume, K. J. Johnston, & T. L. Wilson.* 417, 645, 227-D1 (1993)

VLA Radio Recombination Line Observations of Ionized Gas in the -30 Kilometers per Second Molecular Cloud (G0.04+0.03) near the Galactic Center. I. The Discrete Radio Sources. *Jun-Hui Zhao, K. Desai, W. M. Goss, & F. Yusef-Zadeh.* 418, 235, 234-A1 (1993)

Proto–Brown Dwarfs. I. Methods and Results for High-Latitude Clouds. *Marc W. Pound & Leo Blitz.* 418, 328, 235-B9 (1993)

Star Formation at Compressed Interfaces in Turbulent Self-gravitating Clouds. *B. G. Elmegreen.* 419, L29, 252-E1 (1993)

Structure of Dense Cores in M17 SW. I. A Multitransition CS and $C^{34}S$ Study. *Yangsheng Wang, Daniel T. Jaffe, Neal J. Evans II, Masahiko Hayashi, Ken'ichi Tatematsu, & Shudong Zhou.* 419, 707, 256-D12 (1993)

Detection of AU-Scale Structure in Molecular Clouds. *Alan P. Marscher, E. M. Moore, & Thomas M. Bania.* 419, L101, 259-G5 (1993)

Low Density of Neutral Hydrogen and Helium in the Local Interstellar Medium: *Extreme Ultraviolet Explorer* Photometry of the Lyman Continuum of the Hot White Dwarfs MCT 0501−2858, MCT 0455−2812, HZ 43, and GD 153. *Stéphane Vennes, Jean Dupuis, Stuart Bowyer, Gilles Fontaine, Alexandria Wiercigroch, Patrick Jelinsky, François Wesemael, & Roger Malina.* 421, L35, 21-G12 (1994)

Hierarchical Structure in Nearly Pressureless Flows as a Consequence of Self-similar Statistics. *Enrique Vázquez-Semadeni.* 423, 681, 57-A12 (1994)

Analysis Procedures for *ROSAT* XRT/PSPC Observations of Extended Objects and the Diffuse Background. *S. L. Snowden, D. McCammon, D. N. Burrows, & J. A. Mendenhall.* 424, 714, 73-F7 (1994)

FLIERs and Other Microstructures in Planetary Nebulae. II. *Bruce Balick, M. Perinotto, A. Maccioni, Yervant Terzian, & A. Hajian.* 424, 800, 74-F11 (1994)

Ultracompact H II Regions. II. New High-Resolution Radio Images. *S. Kurtz, E. Churchwell, & D. O. S. Wood.* 91, 659, 28-D1 (1994)

Multiple Outflows in the Bipolar Planetary Nebula M1-16: A Molecular Line Study. *Raghvendra Sahai, Alwyn Wootten, Hugo E. Schwarz, & W. Wild.* 428, 237, 131-B5 (1994)

Determining Structure in Molecular Clouds. *Jonathan P. Williams, Eugène J. de Geus, & Leo Blitz.* 428, 693, 139-A1 (1994)

DIRBE Evidence for a Warp in the Interstellar Dust Layer and Stellar Disk of the Galaxy. *H. T. Freudenreich, G. B. Berriman, E. Dwek, M. G. Hauser, T. Kelsall, S. H. Moseley, R. F. Silverberg, T. J. Sodroski, G. N. Toller, & J. L. Weiland.* 429, L69, 158-B3 (1994)

The Giant Molecular Cloud Monoceros R2. I. Shell Structure. *Taoling Xie & Paul F. Goldsmith.* 430, 252, 162-B13 (1994)

The Impact of SN 1987A with Its Circumstellar Ring. *Ding Luo, Richard McCray, & Jonathan Slavin.* 430, 264, 162-D3 (1994)

A Summary of Extreme Scattering Events and a Descriptive Model. *R. Fiedler, B. Dennison, K. J. Johnston, E. B. Waltman, & R. S. Simon.* 430, 581, 169-A13 (1994)

Galactic Structures Associated with Extreme Scattering Events in the Radio Light Curves of NRAO 140, 0954+658, and 2352+495. *R. Fiedler, T. Pauls, K. J. Johnston, & B. Dennison.* 430, 595, 169-C1 (1994)

The Spectrum of the Variable Planetary Nebula IC 4997. *Siek Hyung, Lawrence H. Aller, & Walter A. Feibelman.* 93, 465, 49-B5 (1994)

[Fe II] Emission from High-Density Regions in the Orion Nebula. *Manuel A. Bautista, Anil K. Pradhan, & Donald E. Osterbrock.* 432, L135, 207-C13 (1994)

Simulation of Variations of Absorption-Line Profiles in Clumpy Molecular Clouds. *Alan P. Marscher & Alan L. Stone.* 433, 705, 219-G2 (1994)

Broken Symmetry: The Structure of the Dust Envelope of IRC +10216. *Joel H. Kastner & David A. Weintraub.* 434, 719, 237-F7 (1994)

Ultraviolet-illuminated Molecular Cloud Boundaries: Extended [C II] 158 Micron Emission toward L1630. *D. T. Jaffe, S. Zhou, J. E. Howe, F. Herrmann, S. C. Madden, A. Poglitsch, P. P. van der Werf, & G. J. Stacey.* 436, 203, 264-A10 (1994)

Detection of a Thick Molecular Disk in the Galaxy. *T. M. Dame & P. Thaddeus.* 436, L173, 282-A3 (1994)

The Near-Infrared Structure and Spectra of the Bipolar Nebulae M2-9 and AFGL 2688: The Role of Ultraviolet Pumping and Shocks in Molecular Hydrogen Excitation. *Joseph L. Hora & William B. Latter.* 437, 281, 287-A8 (1994)

A Study of the Ultraviolet Absorption Lines through the Complete Galactic Halo by the Analysis of *HST* Faint Object Spectrograph Spectra of Active Galactic Nuclei. I. *Geoffrey S. Burks, Frank Bartko, J. Michael Shull, John T. Stocke, Elise R. Sachs, E. Margaret Burbidge, Ross D. Cohen, Vesa T. Junkkarinen, Richard J. Harms, & Derck Massa.* 437, 630, 294-D7 (1994)

The Local Distribution of Na I Interstellar Gas. *B. Y. Welsh, N. Craig, P. W. Vedder, & J. V. Vallerga.* 437, 638, 294-E4 (1994)

The Three-dimensional Structure of the Cassiopeia A Supernova Remnant. I. The Spherical Shell. *Jeri E. Reed, J. Jeff Hester, A. C. Fabian, & P. F. Winkler.* 440, 706, 53-A1 (1995)

The Deceleration Powering of Synchrotron Emission from Ejecta Components of Supernova Remnant Cassiopeia A. *M. C. Anderson & L. Rudnick.* 441, 307, 63-E9 (1995)

First Spectral Observations of the Diffuse Background with the *Extreme Ultraviolet Explorer*. *P. Jelinsky, J. V. Vallerga, & J. Edelstein.* 442, 653, 89-A8 (1995)

Iron to Oxygen Abundance Ratio in the Orion Nebula. *Manuel A. Bautista & Anil K. Pradhan.* 442, L65, 94-F1 (1995)

Electron Density Power Spectrum in the Local Interstellar Medium. *J. W. Armstrong, B. J. Rickett, & S. R. Spangler.* 443, 209, 98-A6 (1995)

CO and OH Absorption toward the Low-Latitude Radio Source 2023+336. *Henry A. Kobulnicky, John M. Dickey, & Rachel L. Akeson.* 443, L45, 103-A9 (1995)

Socket Stars: *UBVRIJK* Radial Profiles. *Bradley E. Schaefer.* 444, 739, 126-D13 (1995)

Gas near the Center of 30 Doradus As Revealed by *Hubble Space Telescope* Images. *Deidre A. Hunter, Edward J. Shaya, Paul Scowen, J. Jeff Hester, Edward J. Groth, Roger Lynds, & Earl J. O'Neil, Jr.* 444, 758, 126-F11 (1995)

Anatomy of the Gemini OB1 Molecular Cloud Complex. *John M. Carpenter, Ronald L. Snell, & F. Peter Schloerb.* 445, 246, 136-A4 (1995)

The Closest Planetary Nebula, Sh 2-216, and Its Interaction with the Interstellar Medium. *R. W. Tweedy, M. A. Martos, & A. Noriega-Crespo.* 447, 257, 175-G7 (1995)

Multifrequency Radio Studies of G359.1−00.2. *Andrew D. Gray, Jenniger Nicholls, Ron D. Ekers, & Lawrence E. Cram.* 448, 164, 194-D4 (1995)

WFPC2 Studies of the Crab Nebula. I. *HST* and *ROSAT* Imaging of the Synchrotron Nebula. *J. Jeff Hester, Paul A. Scowen, Ravi Sankrit, Christopher J. Burrows, John S. Gallagher III, Jon A. Holtzman, Alan Watson, John T. Trauger, Gilda E. Ballester, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, Richard E. Griffiths, John G. Hoessel, John Krist, Roger Lynds, Jeremy R. Mould, Earl J. O'Neil, Jr., Karl R. Stapelfeldt, & James A. Westphal.* 448, 240, 195-D12 (1995)

The Sagittarius B2 Star-forming Region. I. Sensitive 1.3 Centimeter Continuum Observations. *R. A. Gaume, M. J. Claussen, C. G. De Pree, W. M. Goss, & D. M. Mehringer.* 449, 663, 221-G5 (1995)

The Sagittarius B2 Star-forming Region. II. High-Resolution H66α Observations of Sagittarius B2 North. *C. G. De Pree, R. A. Gaume, W. M. Goss, & M. J. Claussen.* 451, 284, 249-G6 (1995)

Investigating the Near-Infrared Properties of Planetary Nebulae. I. Narrowband Images. *William B. Latter, Douglas M. Kelly, Joseph L. Hora, & Lynne K. Deutsch.* 100, 159, 48-A8 (1995)

Maps of the Molecular Emission around 18 Evolved Stars. *K. Z. Stanek, G. R. Knapp, K. Young, & T. G. Phillips.* 100, 169, 48-C8 (1995)

A Three-dimensional Study Using Light Echoes of the Structure of the Interstellar Medium in Front of SN 1987A. *Jun Xu, Arlin P. S. Crotts, & William E. Kunkel.* 451, 806, 258-C6 (1995)

Evolutionary Paths in Multiple-Shell Planetary Nebulae. *Letizia Stanghellini & Anna Pasquali.* 452, 286, 266-B1 (1995)

Observational Probes of the Small-Scale Structure of Molecular Clouds. *E. M. Moore & Alan P. Marscher.* 452, 671, 273-G13 (1995)

Near-Infrared and Very High Sensitivity VLA 2 Centimeter Continuum Observations of the H II Region G29.96−0.02. *Alan L. Fey, Ralph A. Gaume, Mark J. Claussen, & Frederick J. Vrba.* 453, 308, 285-C14 (1995)

The Multiphase Structure of the Galactic Halo: High-Velocity Clouds in a Hot Corona. *Mark G. Wolfire, Christopher F. McKee, David Hollenbach, & A. G. G. M. Tielens.* 453, 673, 293-B3 (1995)

The Infrared Nebula and Outflow in Lynds 483. *G. A. Fuller, E. A. Lada, C. R. Masson, & P. C. Myers.* 453, 754, 294-C3 (1995)

A Multiwavelength Study of 30 Doradus: The Interstellar Medium in a Low-Metallicity Galaxy. *A. Poglitsch, A. Krabbe, S. C. Madden, T. Nikola, N. Geis, L. E. B. Johansson, G. J. Stacey, & A. Sternberg.* 454, 293, 303-C8 (1995)

High-Resolution Far-Infrared Observations and Radiative-Transfer Models of W3 IRS 4 and IRS 5. *M. F. Campbell, H. M. Butner, P. M. Harvey, N. J. Evans II, M. B. Campbell, & C. N. Sabbey.* 454, 831, 313-C6 (1995)

Wolf-Rayet Bubbles. I. Analytic Solutions. *Guillermo García-Segura & Mordecai-Mark Mac Low.* 455, 145, 320-B13 (1995)

A Very Luminous Binary Millisecond Pulsar. *José Navarro, A. G. de Bruyn, D. A. Frail, S. R. Kulkarni, & A. G. Lyne.* 455, L55, 325-C1 (1995)

Hot White Dwarfs in the Local Interstellar Medium: Hydrogen and Helium Interstellar Column Densities and Stellar Effective Temperatures from *Extreme-Ultraviolet Explorer* Spectroscopy. *Jean Dupuis, Stéphane Vennes, Stuart Bowyer, Anil K. Pradhan, & Peter Thejll.* 455, 574, 329-G3 (1995)

ISM: SUPERNOVA REMNANTS

Discovery of X-Ray Emission Associated with the Gum Nebula. *D. A. Leahy, J. Nousek, & G. Garmire.* 385, 561, 20-B4 (1992)

Strongly Shocked Interstellar Gas in IC 443. I. High-Resolution Molecular Observations. *Z. Wang & N. Z. Scoville.* 386, 158, 26-B3 (1992)

Faraday Rotation Measure Irregularities through the Supernova Remnant CTA 1: A Site of Enhanced Interstellar Plasma Turbulence. *John H. Simonetti.* 386, 170, 26-C3 (1992)

The Spectral Archive of Cosmic X-Ray Sources Observed by the *Einstein Observatory* Focal Plane Crystal Spectrometer. *Kenneth S. K. Lum, Claude R. Canizares, George W. Clark, Joan M. Coyne, Thomas H. Markert, Pablo J. Saez, Mark L. Schattenburg, & P. Frank Winkler.* 78, 423, 8-E11 (1992)

The [O I] λλ6300,6364 Doublet of SN 1987A. *Hongwei Li & Richard McCray.* 387, 309, 40-F12 (1992)

The Semicircular Shell of CTB 109. *Zhenru Wang, Quinyue Qu, Ding Luo, Richard McCray, & Mordecai-Mark Mac Low.* 388, 127, 50-E10 (1992)

G203.2−12.3: A New Optical Supernova Remnant in Orion. *P. Frank Winkler & Bo Reipurth.* 389, L25, 66-D1 (1992)

On the Optical Counterpart of 1E 1207.4−5209, the Central X-Ray Source of a Ring-shaped Supernova Remnant. *Giovanni F. Bignami, Patrizia A. Caraveo, & Sandro Mereghetti.* 389, L67, 73-D5 (1992)

Detection of an Unresolved Nuclear Radio Source in M31. *Patrick C. Crane, John R. Dickel, & John J. Cowan.* 390, L9, 78-B7 (1992)

The Three-dimensional Interaction of a Supernova Remnant with an Interstellar Cloud. *James M. Stone & Michael L. Norman.* 390, L17, 78-C11 (1992)

Hydrodynamic Instabilities in Supernova Remnants: Self-similar Driven Waves. *Roger A. Chevalier, John M. Blondin, & Robert T. Emmering.* 392, 118, 102-D9 (1992)

Completing the Evolution of Supernova Remnants and Their Bubbles. *Jonathan D. Slavin & Donald P. Cox.* 392, 131, 102-E9 (1992)

Activity and Radio Spectral Index Variations near the Center of the Crab Nebula. *M. F. Bietenholz & P. P. Kronberg.* 393, 206, 116-F1 (1992)

Shock Breakout in SN 1987A. *Lisa Ensman & Adam Burrows.* 393, 742, 125-A10 (1992)

A Speckle Hologram of the Interstellar Plasma. *K. M. Desai, C. R. Gwinn, J. Reynolds, E. A. King, D. Jauncey, C. Flanagan, G. Nicolson, R. A. Preston, & D. L. Jones.* 393, L75, 127-E7 (1992)

A Multiwavelength Study of the Supernova Remnant N49 in the Large Magellanic Cloud. *Olaf Vancura, William P. Blair, Knox S. Long, & John C. Raymond.* 394, 158, 130-A1 (1992)

The Compression of the M-0.02-0.07 Molecular Cloud by the Sagittarius A East Shell Source. *E. Serabyn, J. H. Lacy, & J. M. Achtermann.* 395, 166, 142-C1 (1992)

Ultraviolet Imaging Telescope Observations of the Cygnus Loop. *Robert H. Cornett, Edward B. Jenkins, Ralph C. Bohlin, Kwang-Ping Cheng, Theodore R. Gull, Robert W. O'Connell, Robert A. R. Parker, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L9, 144-D7 (1992)

Ultraviolet Imaging Telescope Observations of the Crab Nebula. *Gregory S. Hennessy, Robert W. O'Connell, Kwang P. Cheng, Ralph C. Bohlin, Nicholas R. Collins, Theodore R. Gull, Paul Hintzen, Joan E. Isensee, Wayne B. Landsman, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L13, 144-E5 (1992)

Astro-1 Ultraviolet Imaging of the 30 Doradus and SN 1987A Fields with the Ultraviolet Imaging Telescope. *Kwang-Ping Cheng, Andrew G. Michalitsianos, Paul Hintzen, Ralph C. Bohlin, Robert W. O'Connell, Robert H. Cornett, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L29, 145-A1 (1992)

Pulsar Nebulae in Supernovae. *Roger A. Chevalier & Claes Fransson.* 395, 540, 149-E3 (1992)

A Rapid Decline in the Optical Emission from SN 1957D in M83. *Knox S. Long, P. Frank Winkler, & William P. Blair.* 395, 632, 151-A5 (1992)

High-Resolution Optical Imaging of the Large Magellanic Cloud Plerion 0540−69. *P. A. Caraveo, G. F. Bignami, S. Mereghetti, & M. Mombelli.* 395, L103, 154-B11 (1992)

An *IRAS* Survey of Galactic Supernova Remnants. *Jon M. Saken, Robert A. Fesen, & J. Michael Shull.* 81, 715, 45-F9 (1992)

Diffusive Acceleration of Electrons in SN 1987A. *Lewis Ball & J. G. Kirk.* 396, L39, 160-G1 (1992)

Cosmic-Ray–modified Supernova Remnant Shocks. *T. W. Jones & Hyesung Kang.* 396, 575, 164-E9 (1992)

X-Ray Emission from SN 1986J in NGC 891. *Joel N. Bregman & Rachel A. Pildis.* 398, L107, 194-E7 (1992)

A Comparison of Models for Supernova Remnants Including Cosmic Rays. *Hyesung Kang & L. O'C. Drury.* 399, 182, 197-D11 (1992)

Electron Acceleration in Tycho's and Kepler's Supernova Remnants: Spectral Evidence of Fermi Shock Acceleration. *Stephen P. Reynolds & Donald C. Ellison.* 399, L75, 201-B1 (1992)

The Synchrotron Bays of the Crab Nebula: A Magnetic Structure Associated with a Presupernova Circumstellar Disk. *Robert A. Fesen, Crystal L. Martin, & J. Michael Shull.* 399, 599, 205-C7 (1992)

Far-Ultraviolet Observations of the Crab Nebula Using the Hopkins Ultraviolet Telescope. *William P. Blair, Knox S. Long, Olaf Vancura, Charles W. Bowers, Sarah Conger, Arthur F. Davidsen, Gerard A. Kriss, & Richard B. C. Henry.* 399, 611, 205-E1 (1992)

G308.8−0.1: An Unusual Supernova Remnant Containing a Short-Period Pulsar, PSR J1341−6220. *J. L. Caswell, M. J. Kesteven, R. T. Stewart, D. K. Milne, & R. F. Haynes.* 399, L151, 208-D1 (1992)

PSR J1341−6220: A Young Pulsar in a Supernova Remnant. *Victoria M. Kaspi, R. N. Manchester, Simon Johnston, A. G. Lyne, & N. D'Amico.* 399, L155, 208-D5 (1992)

Shock Wave Emergence at the Stellar Surface and the Subsequent Gas Expansion into a Vacuum: The Sphericity Involvement. *Ya. M. Kazhdan & Marina Murzina.* 400, 192, 211-C9 (1992)

Structure and Kinematics of Dense Gas Associated with the Supernova Remnant IC 443. *R. L. Dickman, Ronald L. Snell, L. M. Ziurys, & Yi-Long Huang.* 400, 203, 211-C9 (1992)

Spectroscopy of a Balmer-dominated Filament in the Cygnus Loop with the Hopkins Ultraviolet Telescope. *Knox S. Long, William P. Blair, Olaf Vancura, Charles W. Bowers, Arthur F. Davidsen, & John C. Raymond.* 400, 214, 211-E8 (1992)

Dynamics of Kepler's Supernova Remnant. *Kazimierz J. Borkowski, John M. Blondin, & Craig L. Sarazin.* 400, 222, 211-F5 (1992)

Infrared Emission from X-Ray and Optically Emitting Regions in the Cygnus Loop Supernova Remnant. *Richard G. Arendt, Eli Dwek, & David Leisawitz.* 400, 562, 217-D1 (1992)

Two-Temperature Models of Old Supernova Remnants with Ion and Electron Thermal Conduction. *Wei Cui & Donald P. Cox.* 401, 206, 223-F1 (1992)

Far-Ultraviolet Observations of the Supernova Remnant N49 Using the Hopkins Ultraviolet Telescope. *Olaf Vancura, William P. Blair, Knox S. Long, Arthur F. Davidsen, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Henry C. Ferguson, Richard C. Henry, Randy A. Kimble, Gerard A. Kriss, Jeffrey W. Kruk, & H. Warren Moos.* 401, 220, 223-G1 (1992)

Radio Detection of PSR B0540−69. *R. N. Manchester, D. P. Mar, A. G. Lyne, V. M. Kaspi, & S. Johnston.* 403, L29, 20-D1 (1993)

Faint Object Camera Observations of the Shape and Expansion of SN 1987A. *P. Jakobsen, F. Macchetto, & N. Panagia.* 403, 736, 24-G10 (1993)

CCD Mosaic Images of the Supernova Remnant 3C 400.2. *P. Frank Winkler, Todd M. Olinger, & Scott A. Westerbeke.* 405, 608, 50-F1 (1993)

A Multiwavelength Study of the Eridanus Soft X-Ray Enhancement. *D. N. Burrows, K. P. Singh, J. A. Nousek, G. P. Garmire, & J. Good.* 406, 97, 56-C7 (1993)

The Impact of Supernova Fragments on the Evolution of Multisupernova Remnants. *J. Franco, A. Ferrara, M. Różyczka, G. Tenorio-Tagle, & D. P. Cox.* 407, 100, 70-C11 (1993)

The Optical Recovery of SN 1979C in NGC 4321 (M100). *Robert A. Fesen & David M. Matonick.* 407, 110, 70-D9 (1993)

Nonlinear Growth of Dynamical Overstabilities in Blast Waves. *Mordecai-Mark Mac Low & Michael L. Norman.* 407, 207, 71-E11 (1993)

Optical Emission-Line Properties of M33 Supernova Remnants. *R. Chris Smith, Robert P. Kirshner, William P. Blair, Knox S. Long, & P. Frank Winkler.* 407, 564, 77-E9 (1993)

The Freeze-out Phase of SN 1987A: Implications for the Light Curve. *Claes Fransson & Cecilia Kozma.* 408, L25, 89-A1 (1993)

Spatial Spectral Index Variations in Galactic Shell Supernova Remnants G39.2−0.3 and G41.1−0.3. *Martha C. Anderson & Lawrence Rudnick.* 408, 514, 91-E9 (1993)

Deep VLA Imaging of Pulsar-powered Nebulae and the Beaming Fraction of Young Pulsars. *Dale A. Frail & David A. Moffett.* 408, 637, 93-B5 (1993)

Star Trapping and Metallicity Enrichment in Quasars and Active Galactic Nuclei. *Paweł Artymowicz, D. N. C. Lin, & E. Joseph Wampler.* 409, 592, 106-C12 (1993)

Large-Scale Explosions and Superbubbles in the Galactic Disk and Halo. I. Magnetohydrodynamic Simulations. *Shin Mineshige, Kazunari Shibata, & Paul R. Shapiro.* 409, 663, 107-C1 (1993)

Modeling the Structure of H I in the Galactic Disk. *Joel N. Bregman, Daniel D. Kelson, & Gregory A. Ashe.* 409, 682, 107-D9 (1993)

A Young, Glitching Pulsar near the Direction of W28. *V. M. Kaspi, A. G. Lyne, R. N. Manchester, S. Johnston, N. D'Amico, & S. L. Shemar.* 409, L57, 111-E1 (1993)

Angular Broadening of Pulsars and the Distribution of Interstellar Plasma Fluctuations. *C. R. Gwinn, N. Bartel, & J. M. Cordes.* 410, 673, 122-A13 (1993)

The Radio Structure of Supernova Remnant 0540−693. *R. N. Manchester, L. Staveley-Smith, & M. J. Kesteven.* 411, 756, 139-B8 (1993)

New Radio Observations of Supernova Remnant 1E 0102.2−7219 in the Small Magellanic Cloud. *S. W. Amy & Lewis Ball.* 411, 761, 139-C1 (1993)

Radio Emission from Young Supernova Remnants. II. Evolution and Dependence on Characteristics of the Progenitor and the External Medium. *John R. Dickel, Jean A. Eilek, & Eric M. Jones.* 412, 648, 151-G7 (1993)

A Model of Unpulsed Gamma Rays from the Crab Pulsar. *W. M. Cheung & K. S. Cheng.* 413, 694, 165-B1 (1993)

The Optical Recovery of SN 1970G in M101 (NGC 5457). *Robert A. Fesen.* 413, L109, 168-G13 (1993)

Hidden Supernova Remnants in the Large Magellanic Cloud H II Complex N44. *You-Hua Chu, Mordecai-Mark Mac Low, Guillermo Garcia-Segura, Bart Wakker, & Robert C. Kennicutt, Jr.* 414, 213, 172-F2 (1993)

High-Resolution X-Ray Spectroscopy of the Supernova Remnant N132D. *Una Hwang, John P. Hughes, Claude R. Canizares, & Thomas H. Markert.* 414, 219, 172-F11 (1993)

Alfvénic Fluctuations in a Relativistic Wind with a Spiral Magnetic Field and Random Magnetic Field Structures in the Crab Nebula. *Yu-Qing Lou.* 414, 656, 179-D2 (1993)

X-Rays from SN 1986J: Emission of a Shocked Clumpy Wind. *N. N. Chugai.* 414, L101, 185-G10 (1993)

Further Observations of the Peculiar Galactic Radio Source G318.9+0.4. *Jonathan B. Z. Whiteoak.* 415, 701, 196-E3 (1993)

Associating Young Pulsars and Supernova Remnants: PSR 1610−50 and the Case for High-Velocity Pulsars. *Patrizia A. Caraveo.* 415, L111, 200-B6 (1993)

Faint Object Spectrograph Spectra of the Broad Fe II Absorption Lines in the Remnant of SN 1006. *Chi-Chao Wu, D. Michael Crenshaw, Robert A. Fesen, Andrew J. S. Hamilton, & Craig L. Sarazin.* 416, 247, 204-B7 (1993)

Evolution of Supernova Remnant Bubbles in a Warm Diffuse Medium: Survey of Results from One-dimensional Models and Their Impact on Estimates of Interstellar Porosity. *Jonathan D. Slavin & Donald P. Cox.* 417, 187, 219-F12 (1993)

Interaction between the Supernova Remnant CTB 80 and the Ambient Interstellar Medium: H I and CO Observations. *Bon-Chul Koo, Min-Su Yun, Paul T. P. Ho, & Youngung Lee.* 417, 196, 219-G10 (1993)

A Far-Ultraviolet Study of the Cygnus Loop Using the *Voyager* Ultraviolet Spectrometers. *Olaf Vancura, William P. Blair, Knox S. Long, John C. Raymond, & J. B. Holberg.* 417, 663, 227-E11 (1993)

The Discovery of a Supernova Remnant Embedded in a Giant H II Region of M33. *Shawn M. Gordon, Robert P. Kirshner, Nebojsa Duric, & Knox S. Long.* 418, 743, 241-F10 (1993)

ROSAT Observations of the Composite Supernova Remnant G326.3−1.8. *Namir E. Kassim, Paul Hertz, & Kurt W. Weiler.* 419, 733, 256-F13 (1993)

Iron, Cobalt, and Nickel in SN 1987A. *Hongwei Li, Richard McCray, & Rashid A. Sunyaev.* 419, 824, 257-G10 (1993)

On the Hydrodynamic Interaction of Shock Waves with Interstellar Clouds. I. Nonradiative Shocks in Small Clouds. *Richard I. Klein, Christopher F. McKee, & Philip Colella.* 420, 213, 3-E5 (1994)

Emission from Circumstellar Interaction in Normal Type II Supernovae. *Roger A. Chevalier & Claes Fransson.* 420, 268, 4-C1 (1994)

High-Resolution Spectroscopy of Balmer-dominated Shocks in the Large Magellanic Cloud. *R. Chris Smith, John C. Raymond, & J. Martin Laming.* 420, 286, 4-D7 (1994)

Detection of X-Rays from SN 1987A with *ROSAT*. *Paul Gorenstein, John P. Hughes, & Wallace H. Tucker.* 420, L25, 7-D8 (1994)

The Balmer-dominated Northeast Limb of the Cygnus Loop Supernova Remnant. *J. Jeff Hester, John C. Raymond, & William P. Blair.* 420, 721, 11-G7 (1994)

Bright Radio Continuum Emission from Star Formation in the Cores of Nearby Spiral Galaxies. *Jean L. Turner & Paul T. P. Ho.* 421, 122, 17-E7 (1994)

Revised Proper-Motion Results for the Soft X-Ray–emitting Radio Pulsar PSR 0656+14. *R. J. Thompson, Jr., & F. A. Córdova.* 421, L13, 21-D11 (1994)

ROSAT Observations of VRO 42.05.01. *David N. Burrows & Zhiyu Guo.* 421, L19, 21-E7 (1994)

The Dynamical and Radiative Evolution of Clumpy Supernova Ejecta. *M. C. Anderson, T. W. Jones, L. Rudnick, I. L. Tregillis, & Hyesung Kang.* 421, L31, 21-G1 (1994)

High-Resolution Images of Shocked Molecular Clumps in the Supernova Remnant IC 443. *Jan A. Tauber, Ronald L. Snell, Robert L. Dickman, & L. M. Ziurys.* 421, 570, 25-C4 (1994)

The Outer Shell of SNR 0540−69.3. *F. D. Seward & F. R. Harnden, Jr.* 421, 581, 25-D5 (1994)

Elemental Abundances of the Supernova Remnant G292.0+1.8: Evidence for a Massive Progenitor. *John P. Hughes & K. P. Singh.* 422, 126, 31-F1 (1994)

The Spectral Turnover of the "Filled-Center" Supernova Remnant 3C 58: Implications for When Acceleration Occurs. *D. A. Green.* 90, 817, 13-G12 (1994)

Evolution of Supernova Remnants with Cosmic Rays and Radiative Cooling. *E. A. Dorfi.* 90, 841, 14-B14 (1994)

Model Images of Radio Halos around Supernova Remnants. *Stephen P. Reynolds.* 90, 845, 14-C6 (1994)

IUE Spectra and Optical Imaging of the Oxygen-rich Supernova Remnant N132D. *William P. Blair, John C. Raymond, & Knox S. Long.* 423, 334, 50-C7 (1994)

Compact Radio Sources in the Starburst Galaxy M82 and the $\Sigma - D$ Relation for Supernova Remnants. *Z. P. Huang, T. X. Thuan, R. A. Chevalier, J. J. Condon, & Q. F. Yin.* 424, 114, 63-D7 (1994)

Do the Compact Radio Sources in NGC 253 and M82 Fade over Time? *James S. Ulvestad & Robert R. J. Antonucci.* 424, L29, 69-D10 (1994)

X-Ray Enhancement of SN 1987A Due to Interaction with Its Ringlike Nebula. *Kuniaki Masai & Ken'ichi Nomoto.* 424, 924, 76-C3 (1994)

The Very Luminous Supernova Remnant in NGC 6946. *Eric M. Schlegel.* 424, L99, 79-B3 (1994)

The Optical Counterpart to the Luminous X-Ray Supernova Remnant in NGC 6946. *William P. Blair & Robert A. Fesen.* 424, L103, 79-B9 (1994)

Shock-excited Maser Emission from the Supernova Remnant W28. *D. A. Frail, W. M. Goss, & V. I. Slysh.* 424, L111, 79-C8 (1994)

The Ring around Supernova 1987A Revisited. I. Ellipticity of the Ring. *Andrew Gould.* 425, 51, 80-G2 (1994)

High-Resolution Measurements of NH_3 Absorption toward Cassiopeia A. *R. A. Gaume, T. L. Wilson, & K. J. Johnston.* 425, 127, 81-G1 (1994)

CCD Soft X-Ray Observations of the Puppis A Supernova Remnant. *G. D. Berthiaume, D. N. Burrows, G. P. Garmire, & J. A. Nousek.* 425, 132, 81-G8 (1994)

Multifrequency Studies of Bright Radio Supernova Remnants. I. 3C 391. *David A. Moffett & Stephen P. Reynolds.* 425, 668, 90-A1 (1994)

The Radio Counterpart to the Luminous X-Ray Supernova Remnant in NGC 6946. *Schuyler D. Van Dyk, Richard A. Sramek, Kurt W. Weiler, Scott D. Hyman, & Rachel E. Virden.* 425, L77, 94-D1 (1994)

Electron Injection and Acceleration at Nonlinear Shocks: Results of Numerical Simulations. *Amir Levinson.* 426, 327, 100-C1 (1994)

0.95–1.3 Micron Spectrophotometry of Two Bright Filaments of the Crab Nebula. *Richard J. Rudy, George S. Rossano, & R. C. Puetter.* 426, 646, 106-D10 (1994)

X-Ray Observations of Supernova Remnants as Distance Indicators. *Namir E. Kassim, Paul Hertz, Schuyler D. Van Dyk, & Kurt W. Weiler.* 427, L95, 127-B5 (1994)

The Late-Time Optical Spectrum of SN 1980K. *Robert A. Fesen & David M. Matonick.* 428, 157, 130-B7 (1994)

Geminga: A Cooling Superfluid Neutron Star. *Dany Page.* 428, 250, 131-C6 (1994)

Magnetic Fields in Young Supernova Remnants. *Yu-Qing Lou.* 428, L21, 134-D2 (1994)

Implications of ^{26}Al Emission at 1.8 MeV from the Vela Region. *U. Oberlack, R. Diehl, T. Montmerle, N. Prantzos, & P. von Ballmoos.* 92, 433, 37-E7 (1994)

On the X-Ray Spectrum of Kepler's Supernova Remnant. *Kazimierz J. Borkowski, Craig L. Sarazin, & John M. Blondin.* 429, 710, 154-E1 (1994)

Observation of 7 TeV Gamma Rays from the Crab Using the Large Zenith Angle Air Čerenkov Imaging Technique. *T. Tanimori, T. Tsukagoshi, T. Kifune, P. G. Edwards, M. Fujimoto, T. Hara, N. Hayashida, Y. Matsubara, Y. Mizumoto, Y. Muraki, S. Ogio, J. R. Patterson, M. D. Roberts, G. Rowell, T. Suda, T. Tamura, M. Teshima, G. J. Thornton, T. Watase, & T. Yoshikoshi.* 429, L61, 158-A5 (1994)

An X-Ray and Optical Study of the Supernova Remnant W44. *Jeonghee Rho, R. Petre, Eric M. Schlegel, & J. Jeff Hester.* 430, 757, 171-C8 (1994)

G25.5+0.2: A Ring Nebula around a Luminous Blue Star. *E. E. Becklin, B. Zuckerman, I. S. McLean, & T. R. Geballe.* 430, 774, 171-E1 (1994)

A Study of X-Ray and Infrared Emissions from Dusty Nonradiative Shock Waves. *Olaf Vancura, John C. Raymond, Eli Dwek, William P. Blair, Knox S. Long, & Scott Foster.* 431, 188, 178-D13 (1994)

Supernova Remnant Candidates for the Soft γ-Ray Repeater 1900+14. *G. Vasisht, S. R. Kulkarni, D. A. Frail, & J. Greiner.* 431, L35, 182-F11 (1994)

A More Direct Measure of Supernova Rates in Starburst Galaxies. *Dave Van Buren & Matthew A. Greenhouse.* 431, 640, 186-E5 (1994)

An X-Ray Study of Five Supernova Remnants in the Carina Spiral Arm. *Una Hwang & Thomas H. Markert.* 431, 819, 188-G5 (1994)

The Unusual Tail of the Tornado Nebula. *R. T. Stewart, R. F. Haynes, A. D. Gray, & W. Reich.* 432, L39, 199-F2 (1994)

Extraordinary Line-emitting Knots in the Crab Nebula. *Gordon M. MacAlpine, Stephen S. Lawrence, Beth A. Brown, Alan Uomoto, Bruce E. Woodgate, Larry W. Brown, Ronald J. Oliversen, James D. Lowenthal, & Charles Liu.* 432, L131, 207-C5 (1994)

Shock Interactions with Magnetized Interstellar Clouds. I. Steady Shocks Hitting Nonradiative Clouds. *Mordecai-Mark Mac Low, Christopher F. McKee, Richard I. Klein, James M. Stone, & Michael L. Norman.* 433, 757, 220-E2 (1994)

Radio Observations of M83 and Its Supernova Remnants. *John J. Cowan, Douglas A. Roberts, & David Branch.* 434, 128, 226-G10 (1994)

The PSR 1800−21/G8.7−0.1 Association: A View from *ROSAT*. *John P. Finley & Hakki Ögelman.* 434, L25, 232-D11 (1994)

The Nature of the Compact X-Ray Source in the Supernova Remnant G27.4+0.0. *David J. Helfand, R. H. Becker, G. Hawkins, & R. L. White.* 434, 627, 236-D9 (1994)

Spectroscopy of the Supernova Remnant CTB 1. *Charles J. Hailey & William W. Craig.* 434, 635, 236-E6 (1994)

Two New Light Echo Structures from SN 1987A at Large Distances. *Jun Xu, Arlin P. S. Crotts, & William E. Kunkel.* 435, 274, 247-B1 (1994)

Observations of SN 1987A with the COSTAR-corrected Faint Object Camera. *P. Jakobsen, R. Jedrzejewski, F. Macchetto, & N. Panagia.* 435, L47, 252-C2 (1994)

Thin Shell Formation in Radiative Shocks. I. Supernova Remnants in Low-Density Media. *José Franco, Walter Warren Miller III, S. J. Arthur, Guillermo Tenorio-Tagle, & Roberto Terlevich.* 435, 805, 257-B10 (1994)

Electron Energy Loss in Oxygen Plasmas. *G. A. Victor, John C. Raymond, & J. L. Fox.* 435, 864, 258-A7 (1994)

ROSAT PSPC Observation of the Northeast Region of the Vela Supernova Remnant. I. Evidence of Thermal Structure on a Scale of 5′. *F. Bocchino, A. Maggio, & S. Sciortino.* 437, 209, 286-B1 (1994)

Multifrequency Studies of Bright Radio Supernova Remnants. II. W49B. *David A. Moffett & Stephen P. Reynolds.* 437, 705, 295-D9 (1994)

Nonequilibria in Thermal Emission from Supernova Remnants. *Kuniaki Masai.* 437, 770, 296-C2 (1994)

The Radio Lifetime of Supernova Remnants and the Distribution of Pulsar Velocities at Birth. *D. A. Frail, W. M. Goss, & J. B. Z. Whiteoak.* 437, 781, 296-D2 (1994)

The Circumstellar Envelope of SN 1987A. I. The Shape of the Double-lobed Nebula and Its Rings and the Distance to the Large Magellanic Cloud. *Arlin P. S. Crotts, William E. Kunkel, & Stephen R. Heathcote.* 438, 724, 14-B11 (1995)

Neutral Gas Contributions to [S II] Emission. *S. J. Petuchowski & C. L. Bennett.* 438, 735, 14-D3 (1995)

Very High Energy Gamma Rays from PSR 1706−44. *T. Kifune, T. Tanimori, S. Ogio, T. Tamura, H. Fujii, M. Fujimoto, T. Hara, N. Hayashida, S. Kabe, F. Kakimoto, Y. Matsubara, Y. Mizumoto, Y. Muraki, T. Suda, M. Teshima, T. Tsukagoshi, Y. Watase, T. Yoshikoshi, P. G. Edwards, J. R. Patterson, M. D. Roberts, G. P. Rowell, & G. J. Thornton.* 438, L91, 20-A1 (1995)

Young Oxygen-rich Supernova Remnants. II. An Oxygen-rich Emission Mechanism. *Ralph S. Sutherland & Michael A. Dopita.* 439, 381, 26-D4 (1995)

ROSAT Observations of the Eridanus Soft X-Ray Enhancement. *S. L. Snowden, D. N. Burrows, W. T. Sanders, B. Aschenbach, & E. Pfeffermann.* 439, 399, 26-E11 (1995)

A *ROSAT* Observation of the Supernova Remnant Kesteven 79. *F. D. Seward & T. Velusamy.* 439, 715, 34-D13 (1995)

ROSAT Observations of the Unusual Supernova Remnant CTB 80 Containing the Pulsar PSR 1951+32. *Samar Safi-Harb, Hakki Ögelman, & John P. Finley.* 439, 722, 34-E10 (1995)

High-Velocity, High-Excitation Neutral Carbon in a Cloud in the Vela Supernova Remnant. *Edward B. Jenkins & George Wallerstein.* 440, 227, 44-C13 (1995)

The Three-dimensional Structure of the Cassiopeia A Supernova Remnant. I. The Spherical Shell. *Jeri E. Reed, J. Jeff Hester, A. C. Fabian, & P. F. Winkler.* 440, 706, 53-A1 (1995)

Radio Monitoring and High-Resolution Imaging of the Soft Gamma-Ray Repeater 1806−20. *G. Vasisht, D. A. Frail, & S. R. Kulkarni.* 440, L65, 57-F6 (1995)

The Hot Gas Filling Factor in the Vicinity of the Sun. *K. M. Ferrière.* 441, 281, 63-B12 (1995)

The Polarization and Depolarization of Radio Emission from Supernova Remnant Cassiopeia A. *M. C. Anderson, J. W. Keohane, & L. Rudnick.* 441, 300, 63-D7 (1995)

The Deceleration Powering of Synchrotron Emission from Ejecta Components of Supernova Remnant Cassiopeia A. *M. C. Anderson & L. Rudnick.* 441, 307, 63-E9 (1995)

High-Resolution X-Ray Imaging of M33. *Eric Schulman & Joel N. Bregman.* 441, 568, 69-G6 (1995)

Evidence for Elemental Variation in the Ejecta of the Tycho Supernova Remnant. *O. Vancura, P. Gorenstein, & John P. Hughes.* 441, 680, 71-D1 (1995)

A Fast Expanding H I Shell in W44: A Preexisting Wind-blown Shell Overtaken by a Supernova Remnant. *Bon-Chul Koo & Carl Heiles.* 442, 679, 89-E1 (1995)

ROSAT Observations of the Supernova Remnant 3C 400.2. *Jon M. Saken, Knox S. Long, William P. Blair, & P. Frank Winkler.* 443, 231, 98-C6 (1995)

High-Resolution Measurements of the Kα Spectra of Low-Ionization Species of Iron: A New Spectral Signature of Nonequilibrium Ionization Conditions in Young Supernova Remnants. *V. Decaux, P. Beiersdorfer, A. Osterheld, M. Chen, & S. M. Kahn.* 443, 464, 101-D13 (1995)

A Star Trail Model of the Galactic Center Snake. *Jennifer Nicholls & E. T. Le Strange.* 443, 638, 106-F3 (1995)

The Radio Detection of SN 1968D in NGC 6946. *Scott D. Hyman, Schuyler D. Van Dyk, Kurt W. Weiler, & Richard A. Sramek.* 443, L77, 112-A2 (1995)

CGRO/OSSE Observations of the Cassiopeia A Supernova Remnant. *L.-S. The, M. D. Leising, D. D. Clayton, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, G. V. Jung, D. A. Grabelsky, W. R. Purcell, & M. P. Ulmer.* 444, 244, 116-G4 (1995)

An X-Ray and Optical Study of the Interaction of the Cygnus Loop Supernova Remnant with an Interstellar Cloud. *James R. Graham, N. A. Levenson, J. J. Hester, J. C. Raymond, & R. Petre.* 444, 787, 127-C8 (1995)

ASCA Observations of the Large Magellanic Cloud Supernova Remnant Sample: Typing Supernovae from Their Remnants. *John P. Hughes, Ichizo Hayashi, David Helfand, Una Hwang, Masayuki Itoh, Robert Kirshner, Katsuji Koyama, Thomas Markert, Hiroshi Tsunemi, & Jonathan Woo.* 444, L81, 130-E1 (1995)

The Relativistic ISM in M33: Role of the Supernova Remnants. *N. Duric, S. M. Gordon, W. M. Goss, F. Viallefond, & C. Lacey.* 445, 173, 134-G8 (1995)

A Supergiant Supernova-blown Bubble in the Spiral Galaxy NGC 1620. *J. Patricia Vader & Brian Chaboyer.* 445, 691, 144-F1 (1995)

Observational Constraints on the Maximum Neutron Star Mass. *H. A. Bethe & G. E. Brown.* 445, L129, 151-E1 (1995)

Similarity Solution for a Supernova Remnant Evolving in an Inhomogeneous Stellar Wind. *Yang Chen, Ning Liu, & Zhen-ru Wang.* 446, 755, 166-D11 (1995)

The Optical Counterpart to the Extremely Luminous X-Ray Source near Holmberg IX: A Possible Supershell in a Tidal Tail. *Bryan W. Miller.* 446, L75, 170-G4 (1995)

ROSAT Observations of the Supernova Remnant W51C. *Bon-Chul Koo, Kee-Tae Kim, & Frederick D. Seward.* 447, 211, 175-B8 (1995)

Negative Search for a Counterpart to the Gamma-Ray Repeater Source 0525−66. *John R. Dickel, You-Hua Chu, Christopher Gelino, Ross Beyer, Michael G. Burton, D. K. Milne, Jason Spyromilio, David A. Green, Christopher Wilkinson, & Norbert Junkes.* 448, 623, 203-D1 (1995)

Detection of Pure Rotational H_2 Emission from the Supernova Remnant IC 443: Further Evidence for a Partially Dissociating J-Shock. *Matthew J. Richter, James. R. Graham, Gillian S. Wright, Douglas M. Kelly, & John H. Lacy.* 449, L83, 217-D2 (1995)

A *ROSAT*-detected, New Galactic Supernova Remnant in Sagittarius, G13.3−1.3. *F. D. Seward, T. M. Dame, R. A. Fesen, & B. Aschenbach.* 449, 681, 222-B7 (1995)

A Search for *r*-Process Elements in the Vela Supernova Remnant. *George Wallerstein, Andrew D. Vanture, Edward B. Jenkins, & George M. Fuller.* 449, 688, 222-C10 (1995)

A Three-dimensional Study Using Light Echoes of the Structure of the Interstellar Medium in Front of SN 1987A. *Jun Xu, Arlin P. S. Crotts, & William E. Kunkel.* 451, 806, 258-C6 (1995)

The Presupernova H II Region around SN 1987A. *Roger A. Chevalier & Vikram V. Dwarkadas.* 452, L45, 270-B8 (1995)

On the Hot Gas Fraction in Supernova Remnants. *Uffe Hellsten & Jesper Sommer-Larsen.* 453, 264, 284-F10 (1995)

X-Ray Emission from the Supernova Remnant CTA 1. *F. D. Seward, B. Schmidt, & P. Slane.* 453, 284, 285-A11 (1995)

The X-Ray Emission of 3C 58 Revisited. *David J. Helfand, Robert H. Becker, & Richard L. White.* 453, 741, 294-A12 (1995)

The Nonthermal Radio, X-Ray, and TeV Gamma-Ray Spectra of MSH 15−52. *I. du Plessis, O. C. de Jager, S. Buchner, H. I. Nel, A. R. North, B. C. Raubenheimer, & D. J. van der Walt.* 453, 746, 294-B6 (1995)

The Hydrodynamics of Shock-Cloud Interactions in Three Dimensions. *Jianjun Xu & James M. Stone.* 454, 172, 301-E12 (1995)

Infrared Imaging and Spectroscopy of the Molecular Shock in IC 443. *Matthew J. Richter, James R. Graham, & Gillian S. Wright.* 454, 277, 303-B1 (1995)

Detection of Ultraviolet Emission Lines in SN 1006 with the Hopkins Ultraviolet Telescope. *John C. Raymond, William P. Blair, & Knox S. Long.* 454, L31, 307-G2 (1995)

A Far-Ultraviolet Spectrum of the Puppis A Supernova Remnant Using the Hopkins Ultraviolet Telescope. *William P. Blair, John C. Raymond, Knox S. Long, & Gerard A. Kriss.* 454, L35, 307-G12 (1995)

PSR 1509−58 and Its Plerionic Environment. *C. Greiveldinger, S. Caucino, S. Massaglia, H. Ögelman, & E. Trussoni.* 454, 855, 313-E11 (1995)

Does the Crab Have a Shell? *D. A. Frail, N. E. Kassim, T. J. Cornwell, & W. M. Goss.* 454, L129, 316-C8 (1995)

Hydrogen Molecules in SN 1987A. *Michael Culhane & Richard McCray.* 455, 335, 322-F7 (1995)

Evidence for Thermal Absorption inside Cassiopeia A. *N. E. Kassim, R. A. Perley, K. S. Dwarakanath, & W. C. Erickson.* 455, L59, 325-C8 (1995)

Discovery of a Candidate Isolated Neutron Star in a New Supernova Remnant near CTB 1. *Charles J. Hailey & William W. Craig.* 455, L151, 334-B12 (1995)

LABORATORY SPECTRA

The Millimeter-Wave Spectrum of Highly Vibrationally Excited SiO. *R. Mollaaghababa, C. A. Gottlieb, J. M. Vrtilek, & P. Thaddeus.* 368, L19, 28-D1 (1991)

High-Resolution Absorption Cross Sections of Carbon Monoxide Bands at 295 K between 91.7 and 100.4 Nanometers. *G. Stark, K. Yoshino, Peter L. Smith, K. Ito, & W. H. Parkinson.* 369, 574, 44-G13 (1991)

Far-Infrared Fourier Transform Spectroscopy of $^{12}C^{18}O$. *P. De Natale, M. Inguscio, C. Rois Orza, & L. R. Zink.* 370, L53, 53-G5 (1991)

Laboratory Observation of the $^3P_1$–$^3P_0$ Transition of the Neutral Carbon Atom by Submillimeter-Wave Absorption Spectroscopy. *Satoshi Yamamoto & Shuji Saito.* 370, L103, 59-F7 (1991)

Ablation of Silicate Particles in High-Speed Continuum and Transition Flow with Application to the Collection of Interplanetary Dust Particles. *Aaron J. Rulison, Richard C. Flagan, Thomas J. Ahrens, & Wayne F. Miller.* 371, 432, 65-E5 (1991)

Laboratory Detection of HC_9N Using a Fourier Transform Microwave Spectrometer. *Minoru Iida, Yasuhiro Ohshima, & Yasuki Endo.* 371, L45, 66-F7 (1991)

Atomic Oxygen Fine-Structure Splittings with Tunable Far-Infrared Spectroscopy. *Lyndon R. Zink, Kenneth M. Evenson, Fusakazu Matsushima, Thomas Nelis, & Ruth L. Robinson.* 371, L85, 73-E3 (1991)

The SiH Vibrational Stretch as an Indicator of the Chemical State of Interstellar Grains. *Marla H. Moore, Toshihiko Tanabé, & Joseph A. Nuth.* 373, L31, 91-D7 (1991)

Trapped H_2O in SiO Condensate: An Explanation for the 3 Micron Band Observed toward the Galactic Center. *S. Wada, A. Sakata, & A. T. Tokunaga.* 375, L17, 117-C1 (1991)

Association of CH_3^+ and H_2: Conflicting Results. *David R. Bates.* 375, 833, 123-A5 (1991)

Pure Rotational Spectrum of Hydrogen Deuteride by Far-Infrared Fourier Transform Spectroscopy. *Lorenzo Ulivi, Paolo De Natale, & Massimo Inguscio.* 378, L29, 157-D7 (1991)

Millimeter- and Submillimeter-Wave Spectrum of Highly Excited States of Water. *J. C. Pearson, Todd Anderson, Eric Herbst, Frank C. De Lucia, & Paul Helminger.* 379, L41, 169-D12 (1991)

On the State of the Emitter of the 3.3 Micron Unidentified Infrared Band: Absorption Spectroscopy of Polycyclic Aromatic Hydrocarbon Species. *Gregory C. Flickinger, Thomas J. Wdowiak, & Percy L. Gómez.* 380, L43, 181-F1 (1991)

Regularities of Stark Parameters along the Periodic Table. *J. Purić, M. Ćuk, M. S. Dimitrijević, & A. Lesage.* 382, 353, 204-E7 (1991)

Laboratory Infrared Spectra of CH_2D^+ and $HCCD^+$ and Predicted Microwave Transitions. *Matthias Rösslein, Mary-Frances Jagod, Charles M. Gabrys, & Takeshi Oka.* 382, L51, 205-F1 (1991)

Hydrogenated Amorphous Carbon Grains and the 2175 Å Interstellar Hump. *Armando Blanco, Ezio Bussoletti, Luigi Colangeli, Sergio Fonti, & John R. Stephens.* 382, L97, 211-E8 (1991)

3.3 Micron Emission from Ultraviolet Excitation of Some Aromatic Molecules. *Jun Shan, Masako Suto, & L. C. Lee.* 383, 459, 218-A7 (1991)

LINE: FORMATION

The Origin of the Optical Emission Lines Associated with Extragalactic Radio Sources. *S. M. Viegas & Elisabete M. de Gouveia Dal Pino.* 384, 467, 8-A1 (1992)

Fe II Emission Lines. II. Excitation Mechanisms in Cool Stars. *P. G. Judge, C. Jordan, & U. Feldman.* 384, 613, 9-F10 (1992)

Inner Shell of Optically Thin Gas in Active Galactic Nuclei. *Wei Zheng.* 385, 127, 13-E4 (1992)

Magnetic Acceleration of Broad Emission-Line Clouds in Active Galactic Nuclei. *Robert T. Emmering, Roger D. Blandford, & Isaac Shlosman.* 385, 460, 19-A1 (1992)

Resonance Line Radiation Instability in Fully Ionized Plasmas. *William G. Mathews.* 386, 90, 25-C1 (1992)

Hydrogen Recombination at High Optical Depth and the Spectrum of SN 1987A. *Yueming Xu, Richard McCray, Ernesto Oliva, & Sofia Randich.* 386, 181, 26-D3 (1992)

Winds from T Tauri Stars. II. Balmer Line Profiles for Inner Disk Winds. *Nuria Calvet, Lee Hartmann, & Robert Hewett.* 386, 229, 27-A9 (1992)

Resonant Compton Cooling and Annihilation Line Production in Gamma-Ray Bursts. *R. D. Preece & A. K. Harding.* 386, 308, 28-B1 (1992)

Partially Coherent Scattering in Stellar Chromospheres. I. Effects on Resonance Line Thermalization. *Kenneth G. Gayley.* 78, 549, 10-D7 (1992)

Anisotropic Line Emission and the Geometry of the Broad-Line Region in Active Galactic Nuclei. *G. J. Ferland, B. M. Peterson, K. Horne, W. F. Welsh, & S. N. Nahar.* 387, 95, 38-C1 (1992)

The Sobolev Approximation for Line Formation with Partial Frequency Redistribution. *D. G. Hummer & G. B. Rybicki.* 387, 248, 40-A10 (1992)

The [O I] λλ6300,6364 Doublet of SN 1987A. *Hongwei Li & Richard McCray.* 387, 309, 40-F12 (1992)

On the Density and Field Sensitivities of Dielectronic Recombination. *Daniel B. Reisenfeld, John C. Raymond, Albert R. Young, & John L. Kohl.* 389, L37, 66-E5 (1992)

N III Line Emission in Planetary Nebulae: Continuum Fluorescence. *G. J. Ferland.* 389, L63, 73-D1 (1992)

Partially Coherent Scattering in Stellar Chromospheres. II. The First-Order Escape Probability Method. *K. G. Gayley.* 390, 573, 82-D8 (1992)

X-Ray Emission-Line Spectra of Photoionized Plasmas: Density Sensitivity of the Fe L-Shell Series. *Duane A. Liedahl, Steven M. Kahn, Albert L. Osterheld, & William H. Goldstein.* 391, 306, 89-F11 (1992)

The Age and Chemical Evolution of High-Redshift QSOs. *Fred Hamann & Gary Ferland.* 391, L53, 99-C7 (1992)

Electron Impact Polarization of Atomic Spectral Lines. I. A General Theoretical Scheme. *Silvano Fineschi & Egidio Landi Degl'Innocenti.* 392, 337, 105-B6 (1992)

A Modified Eddington-Barbier Relation in Highly Coherent Resonance-Line Wings. *K. G. Gayley.* 392, 353, 105-C9 (1992)

On the Use of Forbidden Lines as Density Diagnostics in Stratified Media. *Pedro N. Safier.* 392, 492, 108-D5 (1992)

Non-LTE Radiating Acoustic Shocks and Ca II K2V Bright Points. *Mats Carlsson & Robert F. Stein.* 397, L59, 173-G11 (1992)

Angle-dependent Green's Functions for Relativistic Compton Reflection. *Xin-Min Hua & Richard E. Lingenfelter.* 397, 591, 178-D1 (1992)

Inversion of Stokes Profiles. *B. Ruiz Cobo & J. C. del Toro Iniesta.* 398, 375, 186-D11 (1992)

Resonance Scattering of Fe XVII: A Density Diagnostic. *J. T. Schmelz, J. L. R. Saba, & K. T. Strong.* 398, L115, 194-F6 (1992)

CO (J = 1–0) Line Emission from Giant Molecular Clouds. *Mark G. Wolfire, David Hollenbach, & A. G. G. M. Tielens.* 402, 195, 3-E1 (1993)

Molecular Line Emission from Circumstellar Disks. *Steven V. W. Beckwith & Anneila I. Sargent.* 402, 280, 4-E9 (1993)

CCD Observations of the Hα Line in Late G and K Supergiants and Their Interpretation. *Sushma V. Mallik.* 402, 303, 4-G10 (1993)

O I Lines in the Sun and Stars. I. Understanding the Resonance Lines. *M. Carlsson & P. G. Judge.* 402, 344, 5-D9 (1993)

A New Interpretation of the Redshift Observed in Optically Thin Transition Region Lines. *Viggo Hansteen.* 402, 741, 11-G1 (1993)

An Interpretation of the Narrow Positron Annihilation Feature from X-Ray Nova Muscae 1991. *Wan Chen, Neil Gehrels, & F. H. Cheng.* 403, L71, 27-D7 (1993)

The Ca II Emission Lines of SN 1987A. *Hongwei Li & Richard McCray.* 405, 730, 52-B9 (1993)

Multiline Transfer and the Dynamics of Wolf-Rayet Winds. *L. B. Lucy & D. C. Abbott.* 405, 738, 52-C5 (1993)

The Excitation Mechanism of [Fe II] 1.644 Micron Emission in Seyfert and Starburst Galaxies Revisited. *Hideaki Mouri, Kimiaki Kawara, & Yoshiaki Taniguchi.* 406, 52, 55-F5 (1993)

Energy Balance in the Solar Transition Region. III. Helium Emission in Hydrostatic, Constant-Abundance Models with Diffusion. *J. M. Fontenla, E. H. Avrett, & R. Loeser.* 406, 319, 59-A7 (1993)

Centrifugally Driven Winds from Protostellar Disks. II. Forbidden-Line Emission in T Tauri Stars. *Pedro N. Safier.* 408, 148, 85-A1 (1993)

An Implicit Integral Method to Solve Selected Radiative Transfer Problems. I. Non-LTE Line Formation. *E. Simonneau & L. Crivellari.* 409, 830, 109-D12 (1993)

Rigorous Treatment of the Radiative Transfer Problem in Stellar Winds: Significance of the Velocity Law and the Chromosphere in the Hα Profile. *Lydia S. Cidale & Adela E. Ringuelet.* 411, 874, 140-F5 (1993)

Strong-Field Cyclotron Scattering. I. Scattering Amplitudes and Natural Line Width. *Carlo Graziani.* 412, 351, 146-D13 (1993)

The Atmospheres of T Tauri Stars. II. Chromospheric Line Fluxes and Veiling. *C. C. Batalha & Gibor Basri.* 412, 363, 146-E13 (1993)

Spectrum Formation in Supernovae: Numerical Techniques. *Ronald G. Eastman & Philip A. Pinto.* 412, 731, 152-G12 (1993)

The "Baldwin Effect" in Wolf-Rayet Stars. *Patrick Morris, Peter S. Conti, Henny J. G. L. M. Lamers, & Gloria Koenigsberger.* 414, L25, 175-E7 (1993)

A Semi-Analytic Model for Cyclotron Line Formation. *J. C. L. Wang, I. Wasserman, & D. Q. Lamb.* 414, 815, 181-D2 (1993)

The X-Ray Spectra of Cluster Cooling Flows. I. Optically Thin Models. *Michael W. Wise & Craig L. Sarazin.* 415, 58, 185-F10 (1993)

Infrared Coronal Emission Lines and the Possibility of Their Laser Emission in Seyfert Nuclei. *Matthew A. Greenhouse, Uri Feldman, Howard A. Smith, Marcel Klapisch, Anand K. Bhatia, & Avi Bar-Shalom.* 88, 23, 40-C11 (1993)

The Relativistic Sobolev Method Applied to Homologously Expanding Atmospheres. *David J. Jeffery.* 415, 734, 197-A5 (1993)

Partially Coherent Scattering in Stellar Chromospheres. IV. Analytic Wing Approximations. *K. G. Gayley.* 415, 811, 198-A1 (1993)

Compton Backscattered Annihilation Radiation and the Mass of Nova Muscae. *Xin-Min Hua & Richard E. Lingenfelter.* 416, L17, 207-C11 (1993)

Refrigeration of the 18.3 GHz C_3H_2 Transition in Dark Cloud G1.6−0.25. *T. B. H. Kuiper, J. B. Whiteoak, R.-S. Peng, W. L Peters III, & J. E. Reynolds.* 416, L33, 207-E7 (1993)

Semiempirical Flare Models with Chromospheric Condensation. *W. Q. Gan, E. Rieger, & C. Fang.* 416, 886, 214-D10 (1993)

Formation of P Cygni Line Profiles in Relativistically Expanding Atmospheres. II. The Effect of the Continuum Frequency Shape and Limb Darkening of the Core. *Damien Hutsemékers.* 417, 97, 218-D12 (1993)

Helium-like Iron Line Temperature Diagnostics in Clusters of Galaxies. *Douglas A. Swartz & Martin E. Sulkanen.* 417, 487, 225-D3 (1993)

Resonance Scattering by Mercurian Sodium. *Donald M. Hunten & Lloyd V. Wallace.* 417, 757, 228-G6 (1993)

The Chemical Evolution of QSOs and the Implications for Cosmology and Galaxy Formation. *Fred Hamann & Gary Ferland.* 418, 11, 231-B13 (1993)

Forbidden Line Formation in Hydromagnetic Disk Winds. I. Oblique Shocks. *Rachid Ouyed & Ralph E. Pudritz.* 419, 255, 249-C13 (1993)

Iron, Cobalt, and Nickel in SN 1987A. *Hongwei Li, Richard McCray, & Rashid A. Sunyaev.* 419, 824, 257-G10 (1993)

Stimulated Raman Scattering as an Explanation for the Extreme High-Velocity Features of Water Maser Emission. *Shuji Deguchi.* 420, 551, 9-D11 (1994)

The He I λ10830 Line in Classical Cepheids. I. Observations. *Dimitar D. Sasselov & John B. Lester.* 423, 777, 58-C11 (1994)

The He I λ10830 Line in Classical Cepheids. II. Mechanism of Formation. *Dimitar D. Sasselov & John B. Lester.* 423, 785, 58-D7 (1994)

The Chromospheric Structure of Classical Cepheids: Constraints from the He I λ10830 Line. *Dimitar D. Sasselov & John B. Lester.* 423, 795, 58-E6 (1994)

Carbon Monoxide Fundamental Bands in Late-Type Stars. III. Chromosphere or CO-mosphere? *G. Wiedemann, T. R. Ayres, D. E. Jennings, & S. H. Saar.* 423, 806, 58-F6 (1994)

Polarization Profiles of Scattered Emission Lines. I. General Formalism for Optically Thin Rayleigh Scattering. *W. J. Henney.* 427, 288, 113-E1 (1994)

Polarization Profiles of Scattered Emission Lines. II. Upstream Dust Scattering in the HH 1 Jet. *W. J. Henney, A. C. Raga, & D. J. Axon.* 427, 305, 113-F6 (1994)

The Time Development of a Resonance Line in the Expanding Universe. *George B. Rybicki & Ian P. Dell'Antonio.* 427, 603, 120-C2 (1994)

Molecular Hydrogen Emission in Galaxies: Determination of Excitation Mechanism. *Hideaki Mouri.* 427, 777, 122-C12 (1994)

The Envelopes of Be Stars Driven by Optically Thin Lines. *Haiqi Chen & J. M. Marlborough.* 427, 1005, 125-B7 (1994)

Recombinational Lines of P_S (Positronium) as Tracer of Annihilation Processes. *V. V. Burdyuzha & V. L. Kauts.* 92, 549, 39-B6 (1994)

The Impact of SN 1987A with Its Circumstellar Ring. *Ding Luo, Richard McCray, & Jonathan Slavin.* 430, 264, 162-D3 (1994)

High Rydberg State Carbon Recombination Lines toward Cassiopeia A: Physical Conditions and a New Class of Models. *H. E. Payne, K. R. Anantharamaiah, & W. C. Erickson.* 430, 690, 170-D7 (1994)

Shocked Pure-rotational Emission from H_2 in Orion. *Parvinder S. Parmar, John H. Lacy, & Jeffrey M. Achtermann.* 430, 786, 171-F3 (1994)

Compton Scattering in Jets: A Mechanism for ∼0.4 and ≤ 0.2 MeV Line Production. *J. G. Skibo, C. D. Dermer, & R. Ramaty.* 431, L39, 182-G5 (1994)

Emission-Line Studies of Young Stars. IV. The Optical Forbidden Lines. *Fred Hamann.* 93, 485, 49-D4 (1994)

Resonance Line Polarization in Spherical Atmospheres: Partial Redistribution Effects Studied with the Domke-Hubeny Redistribution Matrix. *K. N. Nagendra.* 432, 274, 196-E10 (1994)

A Spectroscopic Analysis of DAO and Hot DA White Dwarfs: The Implications of the Presence of Helium and the Nature of DAO Stars. *P. Bergeron, F. Wesemael, A. Beauchamp, M. A. Wood, R. Lamontagne, G. Fontaine, & James Liebert.* 432, 305, 197-A6 (1994)

Dynamic Processes in Be Star Atmospheres. II. He I $2P$–nD Line Formation in λ Eridani (Outburst). *Myron A. Smith, Ivan Hubeny, Thierry Lanz, & Thomas Meylan.* 432, 392, 198-A10 (1994)

Imaging Spectroscopy of the Solar CO Lines at 4.67 Microns. *Han Uitenbroek, R. W. Noyes, & Douglas Rabin.* 432, L67, 200-B5 (1994)

Laser Action in Far-Infrared Astrophysical Sources. *Jianfang Peng & Anil K. Pradhan.* 432, L123, 207-B7 (1994)

The Formation of the Solar He II 1640.4 Å Emission Line. *Cathrine Wahlstrøm & Mats Carlsson.* 433, 417, 213-E1 (1994)

Star-Disk Collisions and the Origin of the Broad Lines in Quasars. *Wojciech H. Zurek, Aneta Siemiginowska, & Stirling A. Colgate.* 434, 46, 225-G2 (1994)

Flat Spectrum T Tauri Stars: The Case for Infall. *Nuria Calvet, Lee Hartmann, Scott J. Kenyon, & Barbara A. Whitney.* 434, 330, 230-A6 (1994)

[Fe II] 1.53 and 1.64 Micron Emission from Pre–Main-Sequence Stars. *Fred Hamann, Michal Simon, John S. Carr, & Lisa Prato.* 436, 292, 265-C10 (1994)

The Origin of N III λ990 and C III λ977 Emission in AGN Narrow-Line Region Gas. *J. W. Ferguson, G. J. Ferland, & A. K. Pradhan.* 438, L55, 19-B11 (1995)

A Potential Cyclotron Line Signature in Low-Luminosity X-Ray Sources. *Robert W. Nelson, John C. L. Wang, E. E. Salpeter, & Ira Wasserman.* 438, L99, 20-B1 (1995)

Non-LTE Line-blanketed Model Atmospheres of Hot Stars. II. Hot, Metal-rich White Dwarfs. *T. Lanz & I. Hubeny.* 439, 905, 37-B1 (1995)

Lithium Abundances in Strong Lithium K Giant Stars: LTE and Non-LTE Analyses. *Ramiro de la Reza & Licio da Silva.* 439, 917, 37-C3 (1995)

The He I Emission Lines of SN 1987A. *Hongwei Li & Richard McCray.* 441, 821, 73-C6 (1995)

Infrared Line Emission from High-Redshift Galaxies. I. Calculations. *Filippo Mannucci & Steven V. W. Beckwith.* 442, 569, 87-F8 (1995)

Line Formation in Collapsing Cloud Cores with Rotation and Applications to B335 and IRAS 16293−2422. *Shudong Zhou.* 442, 685, 89-E11 (1995)

Broad Ne VIII λ774 Emission from Quasars in the *HST*-FOS Snapshot Survey (ABSNAP). *Fred Hamann, Lin Zuo, & David Tytler.* 444, L69, 130-C1 (1995)

A Duty Cycle Hypothesis for the Central Engines of LINERs. *Michael Eracleous, Mario Livio, & Luc Binette.* 445, L1, 140-B1 (1995)

On Spectral Line Formation and Measurement in Cepheids: Implications to Distance Determination. *C. N. Sabbey, D. D. Sasselov, M. S. Fieldus, J. B. Lester, K. A. Venn, & R. P. Butler.* 446, 250, 156-F2 (1995)

Line-driven Instability Growth Rates in Wolf-Rayet Winds. *Kenneth G. Gayley & Stanely P. Owocki.* 446, 801, 167-B4 (1995)

On Solar Emission Lines: Calculation of Relative Line Intensities Based on the Finite-Temperature Schrödinger Equation. *G. P. Malik, Usha Malik, L. K. Pande, & V. S. Varma.* 447, 443, 178-E8 (1995)

The Mg I λ285.21 Nanometer Line: An Example of Non-LTE Line Formation. *Han Uitenbroek & Carine Briand.* 447, 453, 178-F9 (1995)

High-Resolution Ultraviolet Spectroscopy of Jupiter's Aurora with the *Hubble Space Telescope*. *Y. H. Kim, J. J. Caldwell, & J. L. Fox.* 447, 906, 188-D3 (1995)

Solution to the Bivariate Integral Inversion Problem: The Determination of Emission Measures Differential in Temperature and Density. *Veronika Hubeny & Philip G. Judge.* 448, L61, 200-C13 (1995)

The H_2 Excitation by Formation Pumping in the Merging Galaxy NGC 6240? *Hideaki Mouri & Yoshiaki Taniguchi.* 449, 134, 212-A8 (1995)

Photoevaporation of Dusty Clouds near Active Galactic Nuclei. *Edward A. Pier & G. Mark Voit.* 450, 628, 239-D13 (1995)

Bound-Bound Transitions in Strongly Magnetized Hydrogen Plasma. *George G. Pavlov & Alexander Y. Potekhin.* 450, 883, 243-B6 (1995)

The Disruption of Molecular Cloud Cores by Photoionization. *J. A. Rodríguez-Gaspar, G. Tenorio-Tagle, & J. Franco.* 451, 210, 248-G10 (1995)

Iteration Profiles in Radiative Transfer Problems. I. From Vectorial to Scalar Coupling. *L. Crivellari & E. Simonneau.* 451, 328, 250-D6 (1995)

A Semiempirical Determination of the Wind Velocity Structure for the Hybrid-Chromosphere Star α Trianguli Australis. *Graham M. Harper, Brian E. Wood, Jeffrey L. Linsky, Philip D. Bennett, Thomas R. Ayres, & Alexander Brown.* 452, 407, 267-F6 (1995)

Polarization Profiles of Scattered Emission Lines. III. Effects of Multiple Scattering and Non-Rayleigh Phase Functions. *W. J. Henney & D. J. Axon.* 454, 233, 302-E4 (1995)

An Improved Line-Strength Parameterization in Hot-Star Winds. *Kenneth G. Gayley.* 454, 410, 305-A4 (1995)

Broad Ne VIII λ744 Emission from the Quasar PG 1148+549. *Fred Hamann, Joseph C. Shields, Gary J. Ferland, & Kirk T. Korista.* 454, 688, 311-B9 (1995)

The Structure of Wolf-Rayet Winds. I. Observation of Ionization Stratification in WR 6 and WR 111. *Regina E. Schulte-Ladbeck, Philippe R. J. Eenens, & Kevin Davis.* 454, 917, 314-D11 (1995)

Hydrogen Molecules in SN 1987A. *Michael Culhane & Richard McCray.* 455, 335, 322-F7 (1995)

Partial Redistribution in Multilevel Atoms. I. Method and Application to the Solar Hydrogen Line Formation. *I. Hubeny & B. W. Lites.* 455, 376, 323-C8 (1995)

On the Failure of Standard Emission Measure Analysis for Solar Extreme-Ultraviolet and Ultraviolet Irradiance Spectra. *P. G. Judge, T. N. Woods, P. Brekke, & G. J. Rottman.* 455, L85, 326-A2 (1995)

LINE FORMATION

The Escape of Lyman-Alpha Radiation from a Multiphase Interstellar Medium. *David A. Neufeld.* 370, L85, 59-D13 (1991)

Magnetic Two-Photon Scattering and Two-Photon Emission: Cross Sections and Redistribution Functions. *S. G. Alexander & P. Mészáros.* 372, 554, 82-E11 (1991)

Cyclotron Harmonics in Accreting Pulsars and Gamma-Ray Bursters: Effect of Two-Photon Processes. *S. G. Alexander & P. Mészáros.* 372, 565, 82-F9 (1991)

Temperature-dependent Saturation of Hydrogen Lines in Solar Flares. *K. G. Gayley.* 374, 773, 108-F5 (1991)

Energy Balance in the Solar Transition Region. II. Effects of Pressure and Energy Input on Hydrostatic Models. *J. M. Fontenla, E. H. Avrett, & R. Loeser.* 377, 712, 148-E1 (1991)

Fe II Emission Lines. I. Chromospheric Spectra of Red Giants. *P. G. Judge & C. Jordan.* 77, 75, 44-E1 (1991)

On Solar Emission Lines. *G. P. Malik, L. K. Pande, & Vijaya S. Varma.* 379, 788, 174-E1 (1991)

The Inability of the Resonant Compton Upscattering Model of Gamma-Ray Bursts to Produce a Third Cyclotron Harmonic. *J. J. Brainerd.* 379, L57, 175-C1 (1991)

Formation of the Infrared Emission Lines of Mg I in the Solar Atmosphere. *E. S. Chang, E. H. Avrett, P. J. Mauas, R. W. Noyes, & R. Loeser.* 379, L79, 175-E1 (1991)

Effects of Aberration and Advection on Line Formation. *A. Peraiah.* 380, 212, 178-F1 (1991)

Compton Backscattered 511 keV Annihilation Line Emission and the 170 keV Line from the Galactic Center Direction. *Richard E. Lingenfelter & Xin-Min Hua.* 381, 426, 196-A10 (1991)

N III Line Emission in Planetary Nebulae: Not Bowen Fluorescence. *S. O. Kastner & A. K. Bhatia.* 381, L59, 199-D7 (1991)

Electric Field Strengths from the Solar 12 Micron Lines. *Edward S. Chang & William G. Schoenfeld.* 383, 450, 217-G9 (1991)

LINE: IDENTIFICATION

Detection of HCO^+ $J = 9 \rightarrow 8$ Line Emission toward Orion IRc2: Molecular Ions in Hot Dense Gas. *D. T. Jaffe, U. U. Graf, A. I. Harris, J. Stutzki, & S. H. Lepp.* 385, 240, 14-G13 (1992)

Accurate Far-Infrared Rotational Frequencies of Carbon Monoxide. *Thomas D. Varberg & Kenneth M. Evenson.* 385, 763, 22-E8 (1992)

The Contribution of Methanol to the 3.4 Micron Emission Feature in Comets. *Dennis C. Reuter.* 386, 330, 28-C11 (1992)

Detection of Isocyanoacetylene HCCNC in TMC-1. *Kentarou Kawaguchi, Masatoshi Ohishi, Shin-ichi Ishikawa, & Norio Kaifu.* 386, L51, 36-C10 (1992)

The 3 Micron Spectrum of the Classical Be Star β Monocerotis A. *K. Sellgren & R. G. Smith.* 388, 178, 51-B13 (1992)

Near-Ultraviolet Spectroscopy of Comet Austin (1989c1). *Jacobus H. Valk, C. R. O'Dell, Anita L. Cochran, William D. Cochran, Chet B. Opal, & Edwin S. Barker.* 388, 621, 58-A1 (1992)

The Comet-Tail (A–X) System of CO^+: Precise Molecular Constants of Its $X\ ^2\Sigma^+$, $A\ ^2\Pi_i$, and $B\ ^2\Sigma^+$ States. *C. Haridass, C. V. V. Prasad, & S. Paddi Reddy.* 388, 669, 58-E1 (1992)

Improved Laboratory Rest Frequency Measurements and Pressure Shift and Broadening Parameters for the $J = 2 \leftarrow 1$ and $J = 3 \leftarrow 2$ Rotational Transitions of CO. *S. P. Belov, M. Yu. Tretyakov, & R. D. Suenram.* 393, 848, 126-D9 (1992)

Near-Infrared Observations of AFGL 618. II. The Atomic Spectrum. *Douglas M. Kelly, William B. Latter, & G. H. Rieke.* 395, 174, 142-D1 (1992)

The Ultraviolet and Visible Spectrum of the Polycyclic Aromatic Hydrocarbon $C_{10}H_8^+$: Possible Contributions to the Diffuse Interstellar Bands and to the Ultraviolet–Visible Extinction. *F. Salama & L. J. Allamandola.* 395, 301, 143-G9 (1992)

Detection of HNCCC in TMC-1. *Kentarou Kawaguchi, Shuro Takano, Masatoshi Ohishi, Shin-ichi Ishikawa, Keisuke Miyazawa, Norio Kaifu, Koichi Yamashita, Satoshi Yamamoto, Shuji Saito, Yasuhiro Ohshima, & Yasuki Endo.* 396, L49, 161-A1 (1992)

Global O VI Line Emission from the Cygnus Loop Supernova Remnant and Direct Kinematic Measurement of the Associated Shock. *Andrew Rasmussen & Christopher Martin.* 396, L103, 167-E7 (1992)

An Extension of the High-Resolution Millimeter- and Submillimeter-Wave Spectrum of Methanol to High Angular Momentum Quantum Numbers. *Todd Anderson, Eric Herbst, & Frank C. De Lucia.* 82, 405, 55-A9 (1992)

Detection of the Quadrupole Hyperfine Structure in $HCNH^+$. *L. M. Ziurys, A. J. Apponi, & J. T. Yoder.* 397, L123, 181-F6 (1992)

Laboratory Measurement of the Rotational Spectrum of HCCS. *J. M. Vrtilek, C. A. Gottlieb, E. W. Gottlieb, W. Wang, & P. Thaddeus.* 398, L73, 188-C7 (1992)

The Spectrum of the Peculiar WC7+OB Star HD 192641. *Anne B. Underhill.* 398, 636, 192-A10 (1992)

Infrared Spectroscopy of Dense Clouds in the C–H Stretch Region: Methanol and "Diamonds." *L. J. Allamandola, S. A. Sandford, A. G. G. M. Tielens, & T. M. Herbst.* 399, 134, 196-G7 (1992)

Interstellar H_3O^+ and Its Relation to the O_2 and H_2O Abundances. *T. G. Phillips, Ewine F. van Dishoeck, & Jocelyn Keene.* 399, 533, 204-E1 (1992)

Hubble Space Telescope Faint Object Spectrograph and Ground-based Observations of the Broad Absorption Line Quasar 0226–1024. *Kirk T. Korista, Ray J. Weymann, Simon L. Morris, Michael Kopko, Jr., David A. Turnshek, George F. Hartig, Craig B. Foltz, E. Margaret Burbidge, & Vesa T. Junkkarinen.* 401, 529, 229-C1 (1992)

On Ionized Napthalene ($C_{10}H_8^+$) as a Carrier of Diffuse Interstellar Bands. *Theodore P. Snow.* 401, 775, 232-B10 (1992)

The Millimeter-Wave Spectrum of the MgH and MgD Radicals. *L. M. Ziurys, W. L. Barclay, Jr., & M. A. Anderson.* 402, L21, 6-D8 (1993)

A 25 m$\AA$ Isotope Shift in B I at 2090 $\AA$: A Possible Diagnostic of the Cosmic $^{11}B/^{10}B$ Ratio? *Sveneric G. Johansson, Ulf Litzén, Jörg Kasten, & Manfred Kock.* 403, L25, 20-C11 (1993)

Laboratory Detection of HNCCC and DNCCC by Pulsed Discharge Nozzle Fourier-Transform Microwave Spectroscopy. *Yasuhiro Hirahara, Yasuhiro Ohshima, & Yasuki Endo.* 403, L83, 27-F1 (1993)

Scattering and Luminescence in the Bubble Nebula. *Jean-Pierre Sivan & Jean-Marie Perrin.* 404, 258, 31-B1 (1993)

Laboratory Spectroscopy of MgNC: The First Radioastronomical Identification of Mg-bearing Molecule. *Kentarou Kawaguchi, Eriko Kagi, Tsuneo Hirano, Shuro Takano, & Shuji Saito.* 406, L39, 61-B1 (1993)

The Ultraviolet Spectrum of Annealed Hydrogenated Amorphous Carbon Grains. *A. Blanco, E. Bussoletti, L. Colangeli, S. Fonti, V. Mennella, & J. R. Stephens.* 406, 739, 67-B12 (1993)

The Diffuse Interstellar Bands. IX. Constraints on the Identification. *G. H. Herbig.* 407, 142, 70-G5 (1993)

The Millimeter-Wave Spectrum of CaH ($X\ ^2\Sigma^+$). *W. L. Barclay, Jr., M. A. Anderson, & L. M. Ziurys.* 408, L65, 89-F8 (1993)

Laboratory Detection of a New Free Radical C_4S ($^3\Sigma^-$). *Yasuhiro Hirahara, Yasuhiro Ohshima, & Yasuki Endo.* 408, L113, 95-F13 (1993)

A Spectral-Line Survey of W51 from 17.6 to 22.0 GHz. *M. B. Bell, L. W. Avery, & J. K. G. Watson.* 86, 211, 16-F7 (1993)

On the Carrier of the Band at 700 Nanometers in the Iron Hydride Spectrum. *John G. Phillips & Sumner P. Davis.* 409, 860, 109-G9 (1993)

Laboratory Detection of C_5S by Pulsed–Discharge-Nozzle Fourier Transform Microwave Spectroscopy. *Yasuko Kasai, Kinichi Obi, Yasuhiro Ohshima, Yasuhiro Hirahara, Yasuki Endo, Kentarou Kawaguchi, & Akinori Murakami.* 410, L45, 118-D11 (1993)

Laboratory Measurements of the Millimeter-Wave Spectra of Calcium Isocyanide. *Timothy C. Steimle, Shuji Saito, & Shuro Takano.* 410, L49, 118-C2 (1993)

Mid- and Far-Infrared Spectroscopy of Ices: Optical Constants and Integrated Absorbances. *D. M. Hudgins, S. A. Sandford, L. J. Allamandola, & A. G. G. M. Tielens.* 86, 713, 23-E13 (1993)

Detection of the 2165 Inverse Centimeter (4.619 Micron) XCN Band in the Spectrum of L1551 IRS 5. *Stephen C. Tegler, David A. Weintraub, Louis J. Allamandola, Scott A. Sandford, Terrence W. Rettig, & Humberto Campins.* 411, 260, 130-D9 (1993)

An Improved Ultraviolet Spectral Line List for the Symbiotic Star RR Telescopii. *G. A. Doschek & W. A. Feibelman.* 87, 331, 31-C7 (1993)

IUE Short-Wavelength High-Dispersion Line List for the Symbiotic Nova RR Telescopii. *Jason P. Aufdenberg.* 87, 337, 31-D3 (1993)

Detection of [O III] λ5007 Emission from the Io Plasma Torus. *Nicolas Thomas.* 414, L41, 175-G2 (1993)

Rotational Frequencies of Transition Metal Hydrides for Astrophysical Searches in the Far-Infrared. *John M. Brown, Stuart P. Beaton, & Kenneth M. Evenson.* 414, L125, 186-C6 (1993)

The Millimeter-Wave Spectrum of AlOH. *A. J. Apponi, W. L. Barclay, Jr., & L. M. Ziurys.* 414, L129, 186-C11 (1993)

Detection of Interstellar $^{12}C^{15}N$. *A. H. Saleck, R. Simon, N. Schneider, & G. Winnewisser.* 414, L133, 186-D3 (1993)

Theoretical Modeling of the Infrared Fluorescence from Interstellar Polycyclic Aromatic Hydrocarbons. *W. A. Schutte, A. G. G. M. Tielens, & L. J. Allamandola.* 415, 397, 189-G12 (1993)

Ab Initio Rotational Constants of Isocyanopolyynes. *Arturo Arnau, Estanislao Silla, & Iñaki Tuñón.* 415, L151, 200-G8 (1993)

The Spectrum of EZ Canis Majoris (HD 50896) to the Lyman Limit with the Hopkins Ultraviolet Telescope. *Stephan R. McCandliss, Richard H. Buss, Jr., William P. Blair, Charles W. Bowers, Arthur F. Davidsen, Paul D. Feldman, & Jeffrey W. Kruk.* 416, 372, 205-F3 (1993)

Detection of the Interstellar NH_2 Radical. *Ewine F. van Dishoeck, David J. Jansen, Peter Schilke, & T. G. Phillips.* 416, L83, 216-E10 (1993)

The Spectrum of Orion-KL at 2 Millimeters (150–160 GHz). *L. M. Ziurys & Douglas McGonagle.* 89, 155, 50-G13 (1993)

The Laboratory Spectrum of Acetaldehyde at 1 Millimeter (230–325 GHz). *W. L. Barclay, Jr., M. A. Anderson, L. M. Ziurys, I. Kleiner, & J. T. Hougen.* 89, 221, 51-G3 (1993)

On the System of Diffuse Interstellar Bands at 5844 and 5850 Å. *J. Krełowski, Theodore P. Snow, J. Papaj, C. G. Seab, & B. Wszolek.* 419, 692, 256-C9 (1993)

A High-Resolution ^{13}C Isotope Study in the Vacuum Ultraviolet of Spectra of $CO(A \rightarrow X)$, C I, and C II. *C. Haridass & K. P. Huber.* 420, 433, 6-C1 (1994)

Detection of a New Molecular Ion HC_3NH^+ in TMC-1. *Kentarou Kawaguchi, Yasuko Kasai, Shin-ichi Ishikawa, Masatoshi Ohishi, Norio Kaifu, & Takayoshi Amano.* 420, L95, 15-F12 (1994)

The Tololo Nova Survey: Spectra of Recent Novae. *R. E. Williams, M. M. Phillips, & M. Hamuy.* 90, 297, 5-F1 (1994)

Comparison of New Experimental and Astrophysical *f*-Values for Some Ru II Lines, Observed in *HST* Spectra of χ Lupi. *Sveneric G. Johansson, Ali Joueizadeh, Ulf Litzén, Jörgen Larsson, Anders Persson, Claes-Göran Wahlström, Sune Svanberg, David S. Leckrone, & Glenn M. Wahlgren.* 421, 809, 28-C8 (1994)

Gamma-Ray Spectral Observations with *Yohkoh*. *M. Yoshimori, K. Suga, K. Morimoto, T. Hiraoka, J. Sato, K. Kawabata, & K. Ohki.* 90, 639, 11-F7 (1994)

A Measurement of the $J = 2 \leftarrow 1$ Fine-Structure Interval for ^{28}Si and ^{29}Si in the Ground ^3P State. *John M. Brown, Lyndon R. Zink, & K. M. Evenson.* 423, L151, 61-D13 (1994)

The Millimeter-Wave Spectrum of the CaF Radical ($X\ ^2\Sigma^+$). *M. A. Anderson, M. D. Allen, & L. M. Ziurys.* 424, 503, 68-A13 (1994)

Laboratory Measurements of Rotational Transitions of Lithium Hydride in the Far-Infrared. *M. Bellini, P. de Natale, M. Inguscio, E. Fink, D. Galli, & F. Palla.* 424, 507, 68-B4 (1994)

On the Carrier of the Band at 700 Nanometers in the Iron Hydride Spectrum of Phillips and Davis: Evidence Favoring Calcium Hydride. *Walter J. Balfour & Lennart Klynning.* 424, 1049, 78-A1 (1994)

Millimeter and Submillimeter Rest Frequencies for the MgF Radical. *M. A. Anderson, M. D. Allen, & L. M. Ziurys.* 425, L53, 85-G9 (1994)

Extreme Ultraviolet Explorer Satellite Observation of Jupiter's Io Plasma Torus. *D. T. Hall, G. R. Gladstone, H. W. Moos, F. Bagenal, J. T. Clarke, P. D. Feldman, M. A. McGrath, N. M. Schneider, D. E. Shemansky, D. F. Strobel, & J. H. Waite.* 426, L51, 103-G1 (1994)

Submillimeter Molecular Line Observations of IRC +10216: Searches for MgH, SiH_2, and HCO^+, and Detection of Hot HCN. *L. W. Avery, M. B. Bell, C. T. Cunningham, P. A. Feldman, R. H. Hayward, J. M. McLeod, H. E. Matthews, & J. D. Wade.* 426, 737, 107-E12 (1994)

The Fe XIV Spectrum: Predicted Line Intensities and Solar Identifications. *A. K. Bhatia, S. O. Kastner, F. P. Keenan, E. S. Conlon, & K. G. Widing.* 427, 497, 116-B8 (1994)

GHRS Observations of Cool, Low-Gravity Stars. I. The Far-Ultraviolet Spectrum of α Orionis (M2 Iab). *Kenneth G. Carpenter, Richard D. Robinson, Glenn M. Wahlgren, Jeffrey L. Linsky, & Alexander Brown.* 428, 329, 132-C6 (1994)

The Fine-Structure Intervals of $^{14}N^+$ by Far-Infrared Laser Magnetic Resonance. *John M. Brown, Thomas D. Varberg, Kenneth M. Evenson, & Andrew L. Cooksy.* 428, L37, 134-E13 (1994)

Infrared Spectra of Crystalline Phase Ices Condensed on Silicate Smokes at $T < 20$ K. *Marla H. Moore, Robert F. Ferrante, Reggie L. Hudson, Joseph A. Nuth III, & Bertram Donn.* 428, L81, 143-A7 (1994)

Analysis of the $3d^6 4s(^6D)4f$–$5g$ Supermultiplet of Fe I in Laboratory and Solar Infrared Spectra. *S. Johansson, G. Nave, M. Geller, A. J. Sauval, N. Grevesse, W. G. Schoenfeld, E. S. Chang, & C. B. Farmer.* 429, 419, 149-C11 (1994)

The Millimeter and Submillimeter Rotational Spectrum of the MgCN Radical ($X\ ^2\Sigma^+$). *M. A. Anderson, T. C. Steimle, & L. M. Ziurys.* 429, L41, 150-F1 (1994)

Accurate Calculation of the Isotope Shift and Hyperfine Structure in the Boron (B II) Line at 1362 Å. *Per Jönsson, Sveneric G. Johansson, & Charlotte Froese Fischer.* 429, L45, 150-F7 (1994)

New Detections of Interstellar HNO at 2 and 1.2 Millimeters: More N–O Bonds. *L. M. Ziurys, J. M. Hollis, & L. E. Snyder.* 430, 706, 170-E11 (1994)

Misdirected Quasars and Evolved Stars in Distant Radio Galaxies. *Sperello di Serego Alighieri, Andrea Cimatti, & Robert A. E. Fosbury.* 431, 123, 177-F5 (1994)

A Millimeter-Wave Study and Astronomical Search for the HCCCS Radical. *M. C. McCarthy, J. M. Vrtilek, E. W. Gottlieb, F.-M. Tao, C. A. Gottlieb, & P. Thaddeus.* 431, L127, 192-B13 (1994)

Atomic Sulfur: Frequency Measurement of the $J = 0 \leftarrow 1$ Fine-Structure Transition at 56.3 Microns by Laser Magnetic Resonance. *John M. Brown, Kenneth M. Evenson, & Lyndon R. Zink.* 431, L147, 192-E2 (1994)

The Submillimeter-Wave Spectrum of Propionitrile (C_2H_5CN). *J. C. Pearson, K. V. L. N. Sastry, Eric Herbst, & F. C. De Lucia.* 93, 589, 51-A6 (1994)

The C_4H Radical and the Diffuse Interstellar Bands: An Ab Initio Study. *M. Kolbuszewski.* 432, L63, 200-A13 (1994)

MEPSICRON Spectrophotometry of Seyfert Galaxies. I. Spectral Atlas. *Irene Cruz-González, Luis Carrasco, Alfonso Serrano, José Guichard, Deborah Dultzin-Hacyan, & Gian Franco Bisiacchi.* 94, 47, 52-E9 (1994)

The Molecular Emission-Line Spectrum of IRC +10216 between 330 and 358 GHz. *T. D. Groesbeck, T. G. Phillips, & Geoffrey A. Blake.* 94, 147, 53-F12 (1994)

A Far-Ultraviolet Atlas of Symbiotic Stars Observed with *IUE*. I. The SWP Range. *S. R. Meier, M. Kafatos, R. P. Fahey, & A. G. Michalitsianos.* 94, 183, 54-C2 (1994)

A New Multiplet Table for Fe I. *G. Nave, S. Johansson, R. C. M. Learner, A. P. Thorne, & J. W. Brault.* 94, 221, 54-F12 (1994)

Two Micron Spectrophotometry of the Orion Nebula and the Detection of Significant [Fe III] Emission. *D. L. DePoy & Richard W. Pogge.* 433, 725, 220-B1 (1994)

Exotic Fluoride Molecules in IRC +10216: Confirmation of AlF and Searches for MgF and CaF. *L. M. Ziurys, A. J. Apponi, & T. G. Phillips.* 433, 729, 220-B7 (1994)

Morphology of the Interstellar Cooling Lines Detected by *COBE*. *C. L. Bennett, D. J. Fixsen, G. Hinshaw, J. C. Mather, S. H. Moseley, E. L. Wright, R. E. Eplee, Jr., J. Gales, T. Hewagama, R. B. Isaacman, R. A. Shafer, & K. Turpie.* 434, 587, 235-G13 (1994)

Ground-based Detection of an Infrared [Si X] Coronal Emission Line and Improved Wavelengths for the Infrared [Fe XIII] Emission Lines. *M. J. Penn & J. R. Kuhn.* 434, 807, 239-A10 (1994)

Interstellar CN Rotational Spectra: $^{12}C^{15}N$. *A. H. Saleck, R. Simon, & G. Winnewisser.* 436, 176, 263-E11 (1994)

Detection of Interstellar N_2O: A New Molecule Containing an N–O Bond. *L. M. Ziurys, A. J. Apponi, J. M. Hollis, & L. E. Snyder.* 436, L181, 282-B7 (1994)

Ab Initio Rotational Constants of the Nitriles Derived from Cyanodiacetylene (HC_4CN). *Raúl Moreno, Estanislao Silla, Iñaki Tuñon, & Arturo Arnau.* 437, 532, 290-D9 (1994)

Homologous Series of Diffuse Interstellar Bands. *James K. G. Watson.* 437, 678, 295-B1 (1994)

Confirmation of Interstellar Methylene. *J. M. Hollis, P. R. Jewell, & F. J. Lovas.* 438, 259, 5-A8 (1995)

The Soft Gamma-Ray Spectrum of A0535+26: Detection of an Absorption Feature at 110 keV by OSSE. *J. E. Grove, M. S. Strickman, W. N. Johnson, J. D. Kurfess, R. L. Kinzer, C. H. Starr, G. V. Jung, E. Kendziorra, P. Kretschmar, M. Maisack, & R. Staubert.* 438, L25, 10-A9 (1995)

EUVE Spectroscopy of ϵ Canis Majoris (B2 II) from 70 to 730 Å. *J. P. Cassinelli, D. H. Cohen, J. J. MacFarlane, J. E. Drew, A. E. Lynas-Gray, M. G. Hoare, J. V. Vallerga, B. Y. Welsh, P. W. Vedder, I. Hubeny, & T. Lanz.* 438, 932, 17-A8 (1995)

Laboratory Detection and Millimeter Spectrum of the MgCCH Radical. *M. A. Anderson & L. M. Ziurys.* 439, L25, 30-B5 (1995)

Theoretical Determination of the Electronic Ground State of the MgC Molecule. *Clarissa O. da Silva, Edilson C. da Silva, & Marco Antonio Chaer Nascimento.* 439, 1044, 39-B3 (1995)

Intermediate-Resolution Spectroscopy of the Radio Galaxy B2 0902+34 at $z \approx 3.4$. *J. M. Martín-Mirones, E. Martínez-González, J. I. González-Serrano, & J. L. Sanz.* 440, 191, 43-G2 (1995)

Atomic Iron in Its ^5D Ground State: A Direct Measurement of the $J = 0 \leftarrow 1$ and $J = 1 \leftarrow 2$ Fine-Structure Intervals. *John M. Brown & Kenneth M. Evenson.* 441, L97, 76-D11 (1995)

Laboratory Measurement of Rotational Spectrum of the ^{18}OH Radical Using a Tunable Far-Infrared Spectrometer. *Isamu Morino, Hitoshi Odashima, Fusakazu Matsushima, Shozo Tsunekawa, & Kojiro Takagi.* 442, 907, 92-F3 (1995)

Laboratory Studies of 3.3 Micron Emission from Naphthalene Induced by 193 and 248 Nanometer Excitation. *Richard M. Williams & Stephen R. Leone.* 443, 675, 107-B13 (1995)

The Distribution of Molecules in the Core of OMC-1. *E. C. Sutton, R. Peng, W. C. Danchi, P. A. Jaminet, G. Sandell, & A. P. G. Russell.* 97, 455, 18-E12 (1995)

SIGMA Observations of the Galactic Center at 511 keV. *I. Malet, J. P. Roques, L. Bouchet, G. Vedrenne, J. Paul, B. Cordier, J. Ballet, F. Lebrun, R. Sunyaev, E. Churazov, M. Gilfanov, N. Khavenson, A. Dyachkov, N. Kuleshova, A. Sheikhet, & I. Tzerenin.* 444, 222, 116-D13 (1995)

The Millimeter/Submillimeter Rotational Spectrum of CaCCH($X\ ^2\Sigma^+$). *M. A. Anderson & L. M. Ziurys.* 444, L57, 122-B1 (1995)

Broad Ne VIII λ774 Emission from Quasars in the *HST*-FOS Snapshot Survey (ABSNAP). *Fred Hamann, Lin Zuo, & David Tytler.* 444, L69, 130-C1 (1995)

Detection of MgCN in IRC +10216: A New Metal-bearing Free Radical. *L. M. Ziurys, A. J. Apponi, M. Guélin, & J. Cernicharo.* 445, L47, 141-A5 (1995)

Microwave Spectrum of the NS Radical in the $^2\Pi_r$ Ground Electronic State. *Sang K. Lee, Hiroyuki Ozeki, & Shuji Saito.* 98, 351, 26-F5 (1995)

Interpretation of Anomalous Ultraviolet Transitions of Fe II Observed in Laboratory Fourier Transform Spectra and Stellar *HST* and *IUE* Spectra. *Sveneric Johansson, Tomas Brage, David S. Leckrone, Gillian Nave, & Glenn M. Wahlgren.* 446, 361, 158-C1 (1995)

The 685–692 GHz Spectrum of the Orion Core. *A. I. Harris, L. W. Avery, K.-F. Schuster, L. J. Tacconi, & R. Genzel.* 446, L85, 171-A9 (1995)

BATSE Gamma-Ray Burst Line Search. III. Line Detectability. *D. L. Band, L. A. Ford, J. L. Matteson, M. S. Briggs, W. S. Paciesas, G. N. Pendleton, R. D. Preece, D. M. Palmer, B. J. Teegarden, & B. E. Schaefer.* 447, 289, 176-D4 (1995)

The Ultraviolet Emission Properties of 13 Quasars. *Ari Laor, John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, & Richard F. Green.* 99, 1, 34-C1 (1995)

Fourier Transform Spectroscopy of the Orion Molecular Cloud Core. *E. Serabyn & E. W. Weisstein.* 451, 238, 249-C3 (1995)

Laboratory Submillimeter-Wave Spectroscopy of the CH_2 ($^3B_1$) Radical. *Hiroyuki Ozeki & Shuji Saito.* 451, L97, 261-C13 (1995)

Laboratory Measurement of the $J = 1$–0 Transition of AlH near 387 GHz. *Masahiro Goto & Shuji Saito.* 452, L147, 280-F1 (1995)

The Millimeter/Submillimeter Spectrum and Rotational Rest Frequencies of $MgCH_3$($\tilde{X}\ ^2A_1$). *M. A. Anderson & L. M. Ziurys.* 452, L157, 280-G7 (1995)

C IV and O VI Transitions in the Region λλ1100–2000 and Examples Found in *IUE* Spectra of Hot Stars. *Walter A. Feibelman & Sveneric Johansson.* 100, 405, 51-F3 (1995)

New and Alternative Line Identifications in Solar Chromospheric and Photospheric Spectra. *S. O. Kastner.* 100, 473, 52-D13 (1995)

A Search for Interstellar C_3 in the Translucent Cloud toward HD 147889. *L. Matthew Haffner & David M. Meyer.* 453, 450, 287-C8 (1995)

Infrared Absorption and Emission Spectra of SiO. *J. M. Campbell, D. Klapstein, M. Dulick, P. F. Bernath, & L. Wallace.* 101, 237, 55-G10 (1995)

Broad Ne VIII λ744 Emission from the Quasar PG 1148+549. *Fred Hamann, Joseph C. Shields, Gary J. Ferland, & Kirk T. Korista.* 454, 688, 311-B9 (1995)

The Canada-France Redshift Survey. III. "Single Emission-Line" Objects, Analysis of Repeat Observations, and Spectroscopic Identifications in the 1415+52 and 2215+00 Fields. *S. J. Lilly, F. Hammer, O. Le Fèvre, & David Crampton.* 455, 75, 319-C6 (1995)

Confirmation of Interstellar HOC^+: Reevaluating the $[HCO^+]/[HOC^+]$ Abundance Ratio. *L. M. Ziurys & A. J. Apponi.* 455, L73, 325-F7 (1995)

Microwave Spectra, Hyperfine Structure, and Electric Dipole Moments for Conformers I and II of Glycine. *F. J. Lovas, Y. Kawashima, J.-U. Grabow, R. D. Suenram, G. T. Fraser, & E. Hirota.* 455, L201, 335-B3 (1995)

LINE IDENTIFICATIONS

Southern *IRAS* Quasar with Extreme Fe II Emission. *S. Lípari, F. D. Macchetto, & D. Golombek.* 366, L65, 11-C1 (1991)

A Search for Vibrationally Excited H_2O at 68 GHz. *S. J. Petuchowski & C. L. Bennett.* 367, 168, 14-B4 (1991)

The Millimeter-Wave Spectrum of Highly Vibrationally Excited SiO. *R. Mollaaghababa, C. A. Gottlieb, J. M. Vrtilek, & P. Thaddeus.* 368, L19, 28-D1 (1991)

New Ultraviolet Spectroscopic Features Found in Comet Brorsen-Metcalf (1989o). *C. R. O'Dell, Christopher O. Miller, Anita L. Cochran, William D. Cochran, Chet B. Opal, & Edwin S. Barker.* 368, 616, 32-G1 (1991)

Astronomical Detection of H_2CCC. *J. Cernicharo, C. A. Gottlieb, M. Guélin, T. C. Killian, G. Paubert, P. Thaddeus, & J. M. Vrtilek.* 368, L39, 35-C7 (1991)

Astronomical Detection of H_2CCCC. *J. Cernicharo, C. A. Gottlieb, M. Guélin, T. C. Killian, P. Thaddeus, & J. M. Vrtilek.* 368, L43, 35-C11 (1991)

A Ubiquitous Absorption Feature in the X-Ray Spectra of BL Lacertae Objects. *Greg M. Madejski, Richard F. Mushotzky, Kimberly A. Weaver, Keith A. Arnaud, & C. Megan Urry.* 370, 198, 49-F1 (1991)

The Solar Spectrum between 914 and 1177 Å. *U. Feldman & G. A. Doschek.* 75, 925, 14-B13 (1991)

Theoretical Vibrations of Carbon Chains C_3, C_4, C_5, C_6, C_7, C_8, and C_9. *Joe Kurtz & Ludwik Adamowicz.* 370, 784, 58-C5 (1991)

Spectral Observations of the Extreme Ultraviolet Background. *Simon E. Labov & Stuart Bowyer.* 371, 810, 71-F1 (1991)

An Ultraviolet Spectral Atlas of a Sunspot and an Active Region 1190–1730 Å. *P. Brekke, O. Kjeldseth-Moe, J.-D. F. Bartoe, & G. E. Brueckner.* 75, 1337, 23-C1 (1991)

The SiH Vibrational Stretch as an Indicator of the Chemical State of Interstellar Grains. *Marla H. Moore, Toshihiko Tanabé, & Joseph A. Nuth.* 373, L31, 91-D7 (1991)

A High Signal-to-Noise Ratio Composite Quasar Spectrum. *Paul J. Francis, Paul C. Hewett, Craig B. Foltz, Frederic H. Chaffee, Ray J. Weymann, & Simon L. Morris.* 373, 465, 93-F10 (1991)

Broad Na D Emission in QSOs and the Profile of He I λ5876. *Keith L. Thompson.* 374, 496, 105-C7 (1991)

Cyclotron Line Features in the Spectrum of the Transient X-Ray Pulsar X0115+634. *F. Nagase, T. Dotani, Y. Tanaka, K. Makishima, T. Mihara, T. Sakao, H. Tsunemi, S. Kitamoto, K. Tamura, A. Yoshida, & H. Nakamura.* 375, L49, 124-B11 (1991)

The Spectrum of NGC 7027 from 3080 to 2630 Wavenumbers (3.25–3.80 Microns): Detection of New Atomic and Molecular Hydrogen Lines and New Constraints on the Chemical Sidegroups on Polycyclic Aromatic Hydrocarbons. *Scott A. Sandford.* 376, 599, 133-G1 (1991)

Millimeter- and Submillimeter-Wave Spectrum of Highly Excited States of Water. *J. C. Pearson, Todd Anderson, Eric Herbst, Frank C. De Lucia, & Paul Helminger.* 379, L41, 169-D12 (1991)

Search for Starbursts among X-Ray–selected Galaxies: Optical Spectroscopy. *Antonella Fruscione & Richard E. Griffiths.* 380, L13, 181-C1 (1991)

A Catalog of Absorption in the Spectra of Quasi-stellar Objects. *V. Junkkarinen, A. Hewitt, & G. Burbidge.* 77, 203, 47-B1 (1991)

Molecular Line Survey of Sagittarius B2(M) from 330 to 355 GHz and Comparison with Sagittarius B2(N). *E. C. Sutton, P. A. Jaminet, W. C. Danchi, & Geoffrey A. Blake.* 77, 255, 47-F1 (1991)

A Table of Astronomically Important Ro-vibrational Transitions for the H_3^+ Molecular Ion. *Lancelot Kao, Takeshi Oka, Steven Miller, & Jonathan Tennyson.* 77, 317, 48-E1 (1991)

The 1.0–1.3 Micron Spectrum of LkHα 101. *Richard J. Rudy, Peter Erwin, George S. Rossano, & R. C. Puetter.* 383, 344, 216-D7 (1991)

Infrared Molecular Spectroscopy toward the Orion IRc2 and IRc7 Sources: A New Probe of Physical Conditions and Abundances in Molecular Clouds. *Neal J. Evans II, J. H. Lacy, & John S. Carr.* 383, 674, 222-E13 (1991)

Extreme-Ultraviolet Spectroscopy and Photometry of EQ Pegasi. *Brunella C. Monsignori Fossi, Massimo Landini, Antonella Fruscione, & Jean Dupuis.* 449, 376, 215-C7 (1995)

Solid Carbonyl Sulphide (OCS) in W33A. *M. E. Palumbo, A. G. G. M. Tielens, & A. T. Tokunaga.* 449, 674, 222-A10 (1995)

LINE: PROFILES

Line Shapes of Rotating Stars with Application to Alpha Lyrae. *G. H. Elste.* 384, 284, 4-D10 (1992)

Energetics and Dynamics in a Large Solar Flare of 1989 March. *Jean-Pierre Wülser, Dominic M. Zarro, & Richard C. Canfield.* 384, 341, 5-B13 (1992)

Fluid Flow in a Jet and the Ca XIX Line Profiles Observed during Solar Flares. *P. L. Bornmann & J. R. Lemen.* 385, 363, 16-D1 (1992)

Winds from T Tauri Stars. II. Balmer Line Profiles for Inner Disk Winds. *Nuria Calvet, Lee Hartmann, & Robert Hewett.* 386, 229, 27-A9 (1992)

Balmer Line Profiles for Infalling T Tauri Envelopes. *Nuria Calvet & Lee Hartmann.* 386, 239, 27-B8 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. II. Galaxy Rotation as Virial Parameter. *Mark Whittle.* 387, 109, 38-D2 (1992)

Virial and Jet-induced Velocities in Seyfert Galaxies. III. Galaxy Luminosity as Virial Parameter. *Mark Whittle.* 387, 121, 38-E1 (1992)

Properties of Swept-up Molecular Outflows. *Colin R. Masson & Lawrence M. Chernin.* 387, L47, 43-F1 (1992)

Systematic QSO Emission-Line Velocity Shifts and New Unbiased Redshifts. *David Tytler & Xiao-Ming Fan.* 79, 1, 12-B1 (1992)

What Caused an Unusually Broad He I 10830 Å Emission Line in a Solar Limb Flare? *J. Q. You & G. K. Oertel.* 389, L33, 66-E1 (1992)

Spectral Evolution of Accretion Disks of Dwarf Novae. III. Outburst Cycle of SS Cygni. *F. H. Cheng & D. N. C. Lin.* 389, 714, 70-C5 (1992)

The Broad Emission-Line Profiles and Profile Variability of the Seyfert 1 Galaxy Arakelian 120. *Kirk T. Korista.* 79, 285, 18-C7 (1992)

Time Series Observations of O Stars. I. *IUE* Observations of Variability in the Stellar Wind of ζ Puppis. *R. K. Prinja, L. A. Balona, C. T. Bolton, R. A. Crowe, M. S. Fieldus, A. W. Fullerton, D. R. Gies, I. D. Howarth, D. McDavid, & A. H. N. Reid.* 390, 266, 77-C6 (1992)

Propagating Absorption Enhancements in the Wind of the Extreme Of Supergiant HD 151804. *A. W. Fullerton, D. R. Gies, & C. T. Bolton.* 390, 650, 83-D1 (1992)

Line Profile Asymmetries in Chromospherically Active Stars. *Robert C. Dempsey, Bernard W. Bopp, Klaus G. Strassmeier, Arno F. Granados, Gregory W. Henry, & Douglas S. Hall.* 392, 187, 103-C5 (1992)

Hα Observations of Early-Type Stars. *S. Scuderi, G. Bonanno, R. Di Benedetto, D. Spadaro, & N. Panagia.* 392, 201, 103-D7 (1992)

On the Interpretation of the Spectrum of FU Orionis. *P. P. Petrov & G. H. Herbig.* 392, 209, 103-E1 (1992)

Twin Peaks: IC 4329A and Arakelian 120. *P. Marziani, M. Calvani, & J. W. Sulentic.* 393, 658, 124-A5 (1992)

Line Profile and Variability Data to Probe the Broad-Line Region Geometry: Of Disks and Nests. *F. Mannucci, M. Salvati, & R. M. Stanga.* 394, 98, 129-C6 (1992)

Physical Properties of Be Star Envelopes from Balmer and Fe II Emission Lines. *Arne Slettebak, George W. Collins II, & Ryland Truax.* 81, 335, 39-D13 (1992)

Near-Infrared Broad-Line Profiles in Low-Redshift QSOs. *Keith L. Thompson.* 395, 403, 147-C13 (1992)

Interplanetary Lyman-α Spectra as a Diagnostic of the Local Interstellar Plasma Density: The Baranov Two-Shocks Heliosphere Case. *R. Lallement, Y. G. Malama, E. Quemerais, J. L. Bertaux, & N. A. Zaitzev.* 396, 696, 166-A7 (1992)

Global O VI Line Emission from the Cygnus Loop Supernova Remnant and Direct Kinematic Measurement of the Associated Shock. *Andrew Rasmussen & Christopher Martin.* 396, L103, 167-E7 (1992)

Resolving the Forbidden-Line Emission Regions of Young Stellar Objects: DD Tauri. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 397, L107, 181-D7 (1992)

Absorption-Line Profiles in a Companion Spectrum of a Mass-losing Cool Supergiant. *Liliya L. Rodrigues & Erika Böhm-Vitense.* 401, 695, 231-B10 (1992)

Coordinated Spectral and Temporal Hα Observations of a Solar Flare. *J.-F. de La Beaujardière, Alan L. Kiplinger, & Richard C. Canfield.* 401, 761, 232-A5 (1992)

New Observations of 5 Minute Oscillations in the Opposite Flanks of Solar Fraunhofer Lines. I. The Effect of Varying the Spectral and Temporal Resolution. *L. Bertello, B. Caccin, P. Francia, & E. Pietropaolo.* 401, 768, 232-B1 (1992)

The Hydrogen Lyman-Alpha Emission of Capella. *Thomas R. Ayres, A. Brown, K. G. Gayley, & Jeffrey L. Linsky.* 402, 710, 11-D5 (1993)

Average Effects of Large-Scale Convection on Helioseismic Line Widths and Frequencies. *Eugene M. Lavely & Michael H. Ritzwoller.* 403, 810, 26-A6 (1993)

Colliding Wind Binary Systems: Monte Carlo Simulations of Line-Profile Variability. *Ian R. Stevens.* 404, 281, 31-D3 (1993)

The Magnetohydrodynamics of Umbral Flux Tubes. I. Theoretical Model. *Detlev Degenhardt & Bruce W. Lites.* 404, 383, 32-E9 (1993)

The Quasar Proximity Effect in an Equivalent-Width–limited Sample of the Lyman-Alpha Forest. *Victor V. Chernomordik & Leonid M. Ozernoy.* 404, L5, 33-D1 (1993)

Formation of Double-peaked Lines in Stochastic Winds of T Tauri Stars. *A. S. Mitskevich, A. Natta, & V. P. Grinin.* 404, 751, 38-C7 (1993)

GRIS Detections of the 511 keV Line from the Galactic Center Region in 1992. *M. Leventhal, S. D. Barthelmy, N. Gehrels, B. J. Teegarden, J. Tueller, & L. M. Bartlett.* 405, L25, 47-E1 (1993)

The IRC +10216 Circumstellar Envelope. III. Infrared Molecular Line Profiles. *J. J. Keady & S. T. Ridgway.* 406, 199, 57-E5 (1993)

A New Method for the Identification of Non-Gaussian Line Profiles in Elliptical Galaxies. *Roeland P. van der Marel & Marijn Franx.* 407, 525, 77-B5 (1993)

Relaxation of Molecular Velocities and Spectral Line Profiles of Astrophysical Masers. *Nels Anderson & William D. Watson.* 407, 620, 78-C10 (1993)

Metal-Line Blanketing and the Peculiar Hβ Line Profile in the DAO Star Feige 55. *P. Bergeron, F. Wesemael, R. Lamontagne, & P. Chayer.* 407, L85, 82-F1 (1993)

Centrifugally Driven Winds from Protostellar Disks. II. Forbidden-Line Emission in T Tauri Stars. *Pedro N. Safier.* 408, 148, 85-A1 (1993)

Dynamic Processes in Be Star Atmospheres. I. "Dimple" Formation in the He sci λ6678 Line of λ Eridani. *Myron A. Smith & Ronald S. Polidan.* 408, 323, 87-B8 (1993)

Circumstellar Material in Algol: A Study of the Balmer Line Profiles. *Mercedes T. Richards.* 86, 255, 17-D3 (1993)

A Search for Rapid Variability in the Broad Hα Profiles of Seyfert and Radio Galaxies. *Michael Eracleous & Jules P. Halpern.* 409, 584, 106-C1 (1993)

Evidence for a Very Broad Line Region in PG 1138+222. *Paolo Marziani & Jack W. Sulentic.* 409, 612, 106-E10 (1993)

Chromospheric Heating by Acoustic Shocks: A Confrontation of GHRS Observations of α Tauri (K5 III) with Ab Initio Calculations. *P. G. Judge & M. Cuntz.* 409, 776, 108-F13 (1993)

Features of the Fluorescent Iron Line from Highly Inclined Disks: Some Possible Examples for NGC 6814. *G. Bao.* 409, L41, 111-C1 (1993)

The Peculiar Balmer Line Profiles of OQ 208. *P. Marziani, J. W. Sulentic, M. Calvani, E. Perez, M. Moles, & M. V. Penston.* 410, 56, 112-G4 (1993)

Double-peaked Broad Line Emission from the LINER Nucleus of NGC 1097. *Thaisa Storchi-Bergmann, Jack A. Baldwin, & Andrew S. Wilson.* 410, L11, 117-G1 (1993)

Ultraviolet Line Diagnostics of Accretion Disk Winds in Cataclysmic Variables. *Peter Vitello & Isaac Shlosman.* 410, 815, 123-G11 (1993)

Asymmetries of Solar Oscillation Line Profiles. *T. L. Duvall, Jr., S. M. Jefferies, J. W. Harvey, Y. Osaki, & M. A. Pomerantz.* 410, 829, 124-A13 (1993)

The Inner-Disk and Stellar Properties of the Young Stellar Object WL 16. *John S. Carr, Alan T. Tokunaga, Joan Najita, Frank H. Shu, & Alfred E. Glassgold.* 411, L37, 134-A13 (1993)

Collisional Excitation of CO by H_2O: An Astrophysicist's Guide to Obtaining Rate Constants from Coherent Anti-Stokes Raman Line Shape Data. *Sheldon Green.* 412, 436, 147-E6 (1993)

Infrared CO Emission from Young Stars: High-Resolution Spectroscopy. *C. J. Chandler, J. E. Carlstrom, N. Z. Scoville, W. R. F. Dent, & T. R. Geballe.* 412, L71, 155-D13 (1993)

Statistics of QSO Broad Emission-Line Profiles. I. The C IV λ1549 Line and the λ1400 Feature. *Beverley J. Wills, M. S. Brotherton, D. Fang, Charles C. Steidel, & Wallace L. W. Sargent.* 415, 563, 194-G8 (1993)

^{13}CO and $C^{18}O$ Maps of N-Body Magnetohydrodynamic Simulations of Dark Clouds. *Lars G. Stenholm & Ralph E. Pudritz.* 416, 218, 203-F13 (1993)

On the Interpretation of the Ultraviolet Spectra of Symbiotic Stars and Recurrent Novae. I. *Steven N. Shore & Jason P. Aufdenberg.* 416, 355, 205-D10 (1993)

Formation of P Cygni Line Profiles in Relativistically Expanding Atmospheres. II. The Effect of the Continuum Frequency Shape and Limb Darkening of the Core. *Damien Hutsemékers.* 417, 97, 218-D12 (1993)

Time-Series Observations of O Stars. II. Optical Observations of ζ Ophiuchi. *A. H. N. Reid, C. T. Bolton, R. A. Crowe, M. S. Fieldus, A. W. Fullerton, D. R. Gies, I. D. Howarth, D. McDavid, R. K. Prinja, & K. C. Smith.* 417, 320, 221-E1 (1993)

Thermal Material in Dense Cores: A New Narrow-Line Probe and Technique of Temperature Determination. *G. A. Fuller & P. C. Myers.* 418, 273, 234-D9 (1993)

Evidence for Accretion Disk Precession in the Cataclysmic Binary AM Canum Venaticorum. *Joseph Patterson, Jules Halpern, & Anouk Shambrook.* 419, 803, 257-E13 (1993)

A Synoptic Study of Hα Line Profile Variability in the T Tauri Star SU Aurigae. *Mark S. Giampapa, Gibor S. Basri, Christopher M. Johns, & Catherine L. Imhoff.* 89, 321, 54-A8 (1993)

The Ultraviolet Emission Properties of Five Low-Redshift Active Galactic Nuclei at High Signal-to-Noise Ratio and Spectral Resolution. *Ari Laor, John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, Richard F. Green, & George F. Hartig.* 420, 110, 2-C12 (1994)

High-Resolution Spectroscopy of Balmer-dominated Shocks in the Large Magellanic Cloud. *R. Chris Smith, John C. Raymond, & J. Martin Laming.* 420, 286, 4-D7 (1994)

A Study of the Spectrum of HD 108, An Unusual Of Star. *Anne B. Underhill.* 420, 869, 13-F6 (1994)

Statistics of QSO Broad Emission-Line Profiles. II. The C IV λ1549, C III] λ1909, and Mg II λ2798 Lines. *M. S. Brotherton, Beverley J. Wills, Charles C. Steidel, & Wallace L. W. Sargent.* 423, 131, 47-F9 (1994)

Forbidden-Line Formation in Hydromagnetic Disk Winds. II. Line Profiles. *Rachid Ouyed & Ralph E. Pudritz.* 423, 753, 58-A3 (1994)

Multispectral Observations of Chromospheric Evaporation in the 1991 November 15 X-Class Solar Flare. *Jean-Pierre Wülser, Richard C. Canfield, Loren W. Acton, J. Leonard Culhane, Andrew Phillips, Andrzej Fludra, Taro Sakao, Satoshi Masuda, Takeo Kosugi, & Saku Tsuneta.* 424, 459, 67-E4 (1994)

Apparent Sizes and Spectral Line Profiles for Spherical ("Three-dimensional") Astrophysical Masers. *Robert T. Emmering & William D. Watson.* 424, 991, 77-B8 (1994)

An Optical Study of Compact Steep-Spectrum Radio Sources. I. The Spectroscopic Data. *Richard Gelderman & Mark Whittle.* 91, 491, 26-B1 (1994)

Low-Velocity Variability in the Stellar Wind of HD 152408 (O8: Iafpe). *Raman K. Prinja & A. W. Fullerton.* 426, 345, 100-D12 (1994)

Magnetospheric Accretion Models for T Tauri Stars. I. Balmer Line Profiles without Rotation. *Lee Hartmann, Robert Hewett, & Nuria Calvet.* 426, 669, 106-F13 (1994)

Evolution of Solitary Density Waves in Stellar Winds of Early-Type Stars: A Simple Explanation of Discrete Absorption Component Behavior. *Wayne L. Waldron, Larry Klein, & Bruce Altner.* 426, 725, 107-D10 (1994)

Line Strength and Self-broadening Coefficient of the Pure Rotational $S(1)$ Quadrupole Line in H_2. *Dennis C. Reuter & J. Marcos Sirota.* 428, L77, 143-A1 (1994)

The "Monochromatic Density Diagnostic" Technique: First Detection of Multiple Density Components in the Chromosphere of α Tauri. *P. G. Judge.* 430, 351, 163-E5 (1994)

The Broad Emission Line and Continuum Variations of Seyfert Galaxies. II. Broad-Line Region Structure and Kinematics. *Edward I. Rosenblatt, Matthew A. Malkan, Wallace L. W. Sargent, & Anthony C. S. Readhead.* 93, 73, 43-A1 (1994)

The Intermediate Line Region of QSOs. *M. S. Brotherton, Beverley J. Wills, Paul J. Francis, & Charles C. Steidel.* 430, 495, 167-G9 (1994)

Shocked Pure-rotational Emission from H_2 in Orion. *Parvinder S. Parmar, John H. Lacy, & Jeffrey M. Achtermann.* 430, 786, 171-F3 (1994)

Analytic Lyman-Alpha Wing Diagnostics and the Chromospheric Excitation Balance in Cool Dwarfs. *K. G. Gayley.* 431, 806, 188-F4 (1994)

Zeeman Enhancement of Lines in Extremely Active K Dwarfs. *Gibor Basri & Geoffrey W. Marcy.* 431, 844, 189-B11 (1994)

Emission-Line Studies of Young Stars. IV. The Optical Forbidden Lines. *Fred Hamann.* 93, 485, 49-D4 (1994)

An Atlas of Doppler Emission-Line Tomography of Cataclysmic Variable Stars. *Ronald H. Kaitchuck, Eric M. Schlegel, R. Kent Honeycutt, Keith Horne, T. R. Marsh, J. C. White II, & Cathy S. Mansperger.* 93, 519, 49-G3 (1994)

Dynamic Processes in Be Star Atmospheres. II. He I $2P$–nD Line Formation in λ Eridani (Outburst). *Myron A. Smith, Ivan Hubeny, Thierry Lanz, & Thomas Meylan.* 432, 392, 198-A10 (1994)

On the Stellar Kinematical Evidence for Massive Black Holes in Galactic Nuclei Expected with the *Hubble Space Telescope*. *Roeland P. van der Marel.* 432, L91, 206-F1 (1994)

The Formation of the Solar He II 1640.4 Å Emission Line. *Cathrine Wahlstrøm & Mats Carlsson.* 433, 417, 213-E1 (1994)

Emergence of Double-peaked Emission Lines in the Broad-Line Radio Galaxy Pictor A. *Jules P. Halpern & Michael Eracleous.* 433, L17, 214-F5 (1994)

Simulation of Variations of Absorption-Line Profiles in Clumpy Molecular Clouds. *Alan P. Marscher & Alan L. Stone.* 433, 705, 219-G2 (1994)

Modeling the Double-Trough Structure Observed in Broad Absorption Line QSOs Using Radiative Acceleration. *Nahum Arav & Mitchell C. Begelman.* 434, 479, 234-C8 (1994)

Variable Emission Lines as Evidence of Spiral Shocks in Accretion Disks around Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 434, 518, 234-G9 (1994)

Molecular Rotational Line Profiles from Oxygen-rich Red Giant Winds. *K. Justtanont, C. J. Skinner, & A. G. G. M. Tielens.* 435, 852, 257-G6 (1994)

A High-Resolution Survey of Interstellar Na I D_1 Lines. *Daniel E. Welty, L. M. Hobbs, & Varsha P. Kulkarni.* 436, 152, 263-C12 (1994)

On the Temperature and Velocity through the Photosphere of a Sunspot Penumbra. *J. C. del Toro Iniesta, T. D. Tarbell, & B. Ruiz Cobo.* 436, 400, 266-G8 (1994)

An Atlas of Ultraviolet P Cygni Profiles. *Theodore P. Snow, Henny J. G. L. M. Lamers, Douglas M. Lindholm, & Andrew P. Odell.* 95, 163, 66-C8 (1994)

Line Profile Variations from Atmospheric Eclipses: Constraints on the Wind Structure in Wolf-Rayet Stars. *L. H. Auer & G. Koenigsberger.* 436, 859, 277-E5 (1994)

Properties and Variability of the Stellar Wind from P Cygni. *S. Scuderi, G. Bonanno, D. Spadaro, N. Panagia, H. J. G. L. M. Lamers, & A. de Koter.* 437, 465, 289-E1 (1994)

A Multiline, Multiresolution VLA Study of the Ultracompact H II Region G29.96−0.02. *A. Afflerbach, E. Churchwell, P. Hofner, & S. Kurtz.* 437, 697, 295-C12 (1994)

Temperature Dependence of Nonthermal Motions in Solar Flare Plasmas Observed with the Flat Crystal Spectrometer on *SMM*. *Ester Antonucci & Maria Adele Dodero.* 438, 480, 8-C3 (1995)

Pictor A: A New Double-peaked Emission-Line Quasar. *J. W. Sulentic, P. Marziani, T. Zwitter, & M. Calvani.* 438, L1, 9-E1 (1995)

Elliptical Accretion Disks in Active Galactic Nuclei. *Michael Eracleous, Mario Livio, Jules P. Halpern, & Thaisa Storchi-Bergmann.* 438, 610, 12-E8 (1995)

Grains in Ionized Nebulae: Spectral Line Diagnostics. *J. Kingdon, G. J. Ferland, & W. A. Feibelman.* 439, 793, 35-E3 (1995)

Classical Rotational Broadening of Spectral Lines. *George W. Collins II & Ryland J. Truax.* 439, 860, 36-E3 (1995)

Infrared Zeeman Analysis of ε Eridani. *Jeff A. Valenti, Geoffrey W. Marcy, & Gibor Basri.* 439, 939, 37-E9 (1995)

Emission-Line Profiles from Self-gravitating Thin Disks. *V. Karas, A. Lanza, & D. Vokrouhlický.* 440, 108, 42-F4 (1995)

Velocity Profile of the Ionized Disk and the Mass of the Black Hole in M87. *Sandip K. Chakrabarti.* 441, 576, 70-A6 (1995)

Spectroscopic Studies of DB White Dwarfs: Confirmation and Modeling of New Forbidden Components of He I. *A. Beauchamp, F. Wesemael, P. Bergeron, & James Liebert.* 441, L85, 76-C4 (1995)

Large HCO^+ and HCN Abundances in the Translucent Cloud toward PKS 0528+134. *Michiel R. Hogerheijde, Eugène J. de Geus, Marco Spaans, Huib Jan van Langevelde, & Ewine F. van Dishoeck.* 441, L93, 76-D4 (1995)

The Transition Regions of Capella. *Jeffrey L. Linsky, Brian E. Wood, Philip Judge, Alexander Brown, Catherine Andrulis, & Thomas R. Ayres.* 442, 381, 82-C9 (1995)

Line Formation in Collapsing Cloud Cores with Rotation and Applications to B335 and IRAS 16293−2422. *Shudong Zhou.* 442, 685, 89-E11 (1995)

The Solar Lyα Line Profile. *Thomas N. Woods, Gary J. Rottman, O. R. White, Juan Fontenla, & E. H. Avrett.* 442, 898, 92-E4 (1995)

Effects of Prescattering Attenuation on Spectropolarimetric Line Profiles. *Kenneth Wood & J. E. Bjorkman.* 443, 348, 100-A3 (1995)

CO and OH Absorption toward the Low-Latitude Radio Source 2023+336. *Henry A. Kobulnicky, John M. Dickey, & Rachel L. Akeson.* 443, L45, 103-A9 (1995)

The Variability of the Double-peaked Balmer Lines in the Active Nucleus of NGC 1097. *Thaisa Storchi-Bergmann, Michael Eracleous, Mario Livio, Andrew S. Wilson, Alexei V. Filippenko, & Jules P. Halpern.* 443, 617, 106-D2 (1995)

Diffuse Band Profiles in the ρ Ophiuchi Cloud. *C. Gregory Seab & Theodore P. Snow, Jr.* 443, 698, 107-E1 (1995)

Evolution of Hα Emission Profiles in S-Type Mira Stars. *Andrew W. Woodsworth.* 444, 396, 119-A4 (1995)

On Spectral Line Formation and Measurement in Cepheids: Implications to Distance Determination. *C. N. Sabbey, D. D. Sasselov, M. S. Fieldus, J. B. Lester, K. A. Venn, & R. P. Butler.* 446, 250, 156-F2 (1995)

Infrared CO Emission from Young Stars: Accretion Disks and Neutral Winds. *C. J. Chandler, J. E. Carlstrom, & N. Z. Scoville.* 446, 793, 167-A7 (1995)

Hubble Space Telescope Sample of Radio-loud Quasars: Ultraviolet Spectra of the First 31 Quasars. *Beverley J. Wills, Keith L. Thompson, Mingsheng Han, H. Netzer, D. Wills, J. A. Baldwin, G. J. Ferland, I. W. A. Browne, & M. S. Brotherton.* 447, 139, 174-A11 (1995)

QSO Broad Emission Line Asymmetries: Evidence of Gravitational Redshift? *Michael R. Corbin.* 447, 496, 182-F2 (1995)

The *Hubble Space Telescope* Sample of Radio-loud Quasars: The Lyα/Hβ Ratio. *Hagai Netzer, M. S. Brotherton, Beverley J. Wills, Mingsheng Han, D. Wills, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 448, 27, 192-E10 (1995)

The Ultraviolet Emission Properties of 13 Quasars. *Ari Laor, John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, & Richard F. Green.* 99, 1, 34-C1 (1995)

The Line Profile Variability of SU Aurigae. *Christopher M. Johns & Gibor Basri.* 449, 341, 214-G3 (1995)

Gravitational Infall in the Dense Cores L1527 and L483. *P. C. Myers, R. Bachiller, P. Caselli, G. A. Fuller, D. Mardones, M. Tafalla, & D. J. Wilner.* 449, L65, 217-B1 (1995)

Bound-Bound Transitions in Strongly Magnetized Hydrogen Plasma. *George G. Pavlov & Alexander Y. Potekhin.* 450, 883, 243-B6 (1995)

Differential Emission Measure and Iron-to-Calcium Abundance in Solar Flare Plasmas. *Ester Antonucci & Renato Martin.* 451, 402, 251-D6 (1995)

Doppler Imaging of the Cool Spot Distribution on the Weak T Tauri Star V410 Tauri. *Artie P. Hatzes.* 451, 784, 258-A6 (1995)

Solar Lyman Series Line Profiles and Atomic Hydrogen Excitation Rates. *R. R. Meier.* 452, 462, 268-E1 (1995)

A Study of the Spectra of Seven Of Stars. II. Line Profiles and Equivalent Widths. *Anne B. Underhill.* 100, 461, 52-C13 (1995)

Periodic Variations in Ultraviolet Spectral Lines of the B0.5 Ib Star HD 64760: Evidence for Corotating Wind Streams Rooted in Surface Variations. *Stanley P. Owocki, Steven R. Cranmer, & Alexander W. Fullerton.* 453, L37, 289-G1 (1995)

The Iron Kα Line Profile in NGC 4151. *T. Yaqoob, R. Edelson, K. A. Weaver, R. S. Warwick, R. F. Mushotzky, P. J. Serlemitsos, & S. S. Holt.* 453, L81, 298-D8 (1995)

High-Density Amorphous Ice, the Frost on Interstellar Grains. *P. Jenniskens, D. F. Blake, M. A. Wilson, & A. Pohorille.* 455, 389, 323-D10 (1995)

LINE PROFILES

A Study of Solar Flare Energy Transport Based on Coordinated Hα and X-Ray Observations. *Richard C. Canfield, Dominic M. Zarro, Jean-Pierre Wülser, & Brian R. Dennis.* 367, 671, 21-E11 (1991)

Spectral Line Profiles and Luminosities of Astrophysical Water Masers. *Gerald E. Nedoluha & William D. Watson.* 367, L63, 22-C11 (1991)

The Line-emitting Regions of the Exceptional Seyfert Galaxy Markarian 359. *Sylvain Veilleux.* 368, 158, 25-A9 (1991)

The Interstellar D_I Line at High Resolution. *L. M. Hobbs & D. E. Welty.* 368, 426, 30-D1 (1991)

A Study of the Structure and Kinematics of the Narrow-Line Region in Seyfert Galaxies. I. Atlas of Line Profiles. *Sylvain Veilleux.* 75, 357, 5-F1 (1991)

A Study of the Structure and Kinematics of the Narrow-Line Region in Seyfert Galaxies. II. Analysis of the Line-Profile Parameters. *Sylvain Veilleux.* 75, 383, 6-A1 (1991)

Predicted Profiles of Ultraviolet Interstellar Absorption Lines. *D. E. Welty, L. M. Hobbs, & D. G. York.* 75, 425, 6-E5 (1991)

A Study of the Structure and Kinematics of the Narrow-Line Region in Seyfert Galaxies. III. Individual Objects. *Sylvain Veilleux.* 369, 331, 42-A1 (1991)

Mapping of Infrared Helium and Hydrogen Line Profiles in the Central Few Arcseconds of the Galaxy. *T. R. Geballe, K. Krisciunas, J. A. Bailey, & R. Wade.* 370, L73, 59-C8 (1991)

C IV Line Profile Correlations in NGC 4151. *R. P. Fahey, A. G. Michalitsianos, & D. Kazanas.* 371, 136, 61-F9 (1991)

The Spectral Signatures of Collapse and Outflow around Young Stars. *E. R. Keto.* 371, 163, 62-B3 (1991)

Episodic Outflows from High-Mass Protostars. *G. F. Mitchell, J.-P. Maillard, & T. I. Hasegawa.* 371, 342, 64-D1 (1991)

Spatial Structure of the Interstellar Gas toward the Globular Cluster M22. *B. Bates & M. G. Catney.* 371, L37, 66-E7 (1991)

Ultraviolet Variability of NGC 5548: Dynamics of the Continuum Production Region and Geometry of the Broad-Line Region. *J. H. Krolik, Keith Horne, T. R. Kallman, M. A. Malkan, R. A. Edelson, & G. A. Kriss.* 371, 541, 68-C6 (1991)

A Comparison of C IV and Hβ Broad Emission-Line Profiles in Low-Redshift Active Galactic Nuclei. *Michael R. Corbin.* 371, L51, 73-B1 (1991)

Broad Na D Emission in QSOs and the Profile of He I λ5876. *Keith L. Thompson.* 374, 496, 105-C7 (1991)

Cyclotron Resonant Scattering and Absorption. *Alice K. Harding & Joseph K. Daugherty.* 374, 687, 107-E8 (1991)

The Emission-Line Properties of Steep Radio Spectrum Quasars. *Michael R. Corbin.* 375, 503, 119-A11 (1991)

The Smoothness of CO Line Profiles in Orion: Implications for Clumpiness. *Jan A. Tauber, Paul F. Goldsmith, & Robert L. Dickman.* 375, 635, 120-E7 (1991)

Probing Shock Models of CH^+ Formation. *Isabel Hawkins & Nahide Craig.* 375, 642, 120-F1 (1991)

Coronal Dynamics of a Quiescent Active Region. *Julia L. R. Saba & Keith T. Strong.* 375, 789, 122-D9 (1991)

Line Profiles from a Disk around a Rotating Black Hole. *Ari Laor.* 376, 90, 126-B1 (1991)

Interstellar Scattering Effects on the Detection of Narrow-Band Signals. *James M. Cordes & T. Joseph Lazio.* 376, 123, 126-D10 (1991)

Mass Loss in the 96 Day Binary UU Cancri. *Joel A. Eaton, Douglas S. Hall, & R. Kent Honeycutt.* 376, 289, 128-E1 (1991)

Unique Broad-Line Profile Variations in the Radio Galaxy 3C 390.3. *Sylvain Veilleux & Wei Zheng.* 377, 89, 139-B7 (1991)

Characteristics of Intermediate-Degree Solar *p*-Mode Line Widths. *S. M. Jefferies, T. L. Duvall, Jr., J. W. Harvey, Y. Osaki, & M. A. Pomerantz.* 377, 330, 142-A11 (1991)

First Results from the Goddard High-Resolution Spectrograph: High-Resolution Observations of the 1942 Å Resonance Line of Hg II in the Chemically Peculiar B Star, χ Lupi. *David S. Leckrone, Glenn M. Wahlgren, & Sveneric G. Johansson.* 377, L37, 143-E1 (1991)

The Analysis of Apparent Optical Depth Profiles for Interstellar Absorption Lines. *Blair D. Savage & Kenneth R. Sembach.* 379, 245, 166-B5 (1991)

Echo Images of Broad-Line Regions in Active Galactic Nuclei. *William F. Welsh & Keith Horne.* 379, 586, 172-A1 (1991)

Metallic Line Profiles of the A0 V Star Vega. *Austin F. Gulliver, Saul J. Adelman, Charles R. Cowley, & J. Murray Fletcher.* 380, 223, 178-G1 (1991)

Inferring Chromospheric Flare Heating from Hydrogen-Line Wings. *K. G. Gayley & R. C. Canfield.* 380, 660, 186-D1 (1991)

The Systemic Redshift of the Quasar 1331+170. *R. F. Carswell, C. M. Mountain, D. J. Robertson, S. M. Beard, A. R. Glendinning, D. C. Laird, L. C. Lawrence, D. Montgomery, G. Pentland, D. A. Pickup, I. A. Smith, J. A. Bailey, A. Bridger, M. M. Casali, T. R. Geballe, P. Puxley, M. G. Smith, G. S. Wright, S. K. Ramsay, A. C. Baker, B. R. Espey, & M. J. Ward.* 381, L5, 194-B1 (1991)

3C 390.3: Modeling Variable Profile Humps. *Wei Zheng, Sylvain Veilleux, & Steven A. Grandi.* 381, 418, 196-A1 (1991)

Polarization Properties of Emission Lines from Relativistic Accretion Disks. *Kaiyou Chen & Douglas M. Eardley.* 382, 125, 201-F10 (1991)

Diffuse Band Profiles in the Spectrum of HD 29647: Evidence for a Molecular Origin? *Theodore P. Snow & C. G. Seab.* 382, 189, 202-E7 (1991)

Regularities of Stark Parameters along the Periodic Table. *J. Purić, M. Ćuk, M. S. Dimitrijević, & A. Lesage.* 382, 353, 204-E7 (1991)

Outflows Driven by Cosmic-Ray Pressure in Broad Absorption Line QSOs. *Mitchell C. Begelman, Martijn de Kool, & Marek Sikora.* 382, 416, 206-F9 (1991)

Emission-Line and Continuum Properties of 92 Bright QSOs: Luminosity Dependence and Differences between Radio-selected and Optically Selected Samples. *Charles C. Steidel & Wallace L. W. Sargent.* 382, 433, 207-A1 (1991)

Vector Magnetic Fields in Sunspots. I. Stokes Profile Analysis Using the Marshall Space Flight Center Magnetograph. *K. S. Balasubramaniam & E. A. West.* 382, 699, 210-C11 (1991)

Electric Field Strengths from the Solar 12 Micron Lines. *Edward S. Chang & William G. Schoenfeld.* 383, 450, 217-G9 (1991)

A Study of the Hα Line in X1735−444. *Alan P. Smale & Robin H. D. Corbet.* 383, 853, 224-G6 (1991)

LUMINOSITY FUNCTION

Multicomponent Models for the Dynamic Evolution of Globular Clusters. *Hyung Mok Lee, Gregory G. Fahlman, & Harvey B. Richer.* 366, 455, 8-E1 (1991)

The Joint Far-Infrared–Optical Luminosity Function for Spiral Galaxies and Data for the Abell 400 and Cancer Clusters. *Edvige Corbelli, Edwin E. Salpeter, & John M. Dickey.* 370, 49, 47-F4 (1991)

Star Formation in Taurus-Auriga: The High-Mass Stars. *Frederick M. Walter & William T. Boyd.* 370, 318, 51-C1 (1991)

Altered Luminosity Functions for Relativistically Beamed Objects. II. Distribution of Lorentz Factors and Parent Populations with Complex Luminosity Functions. *C. M. Urry & P. Padovani.* 371, 60, 60-G5 (1991)

The Effect of Anisotropic Emission from Thick Accretion Disks on the Luminosity Functions of Active Galactic Nuclei. *C. M. Urry, P. Marziani, & M. Calvani.* 371, 510, 67-G7 (1991)

On the Population of H I Dwarf Galaxies. *David H. Weinberg, Arpad Szomoru, P. Guhathakurta, & J. H. van Gorkom.* 372, L13, 79-B11 (1991)

A Redshift Survey of *IRAS* Galaxies. II. Methods for Determining Self-consistent Velocity and Density Fields. *Amos Yahil, Michael A. Strauss, Marc Davis, & John P. Huchra.* 372, 380, 80-E5 (1991)

Evolution of the Luminosity Function of Quasar Accretion Disks. *David M. Caditz, Vahé Petrosian, & Amri Wandel.* 372, L63, 85-C1 (1991)

The Luminosity Distribution of Globular Clusters in Three Giant Virgo Ellipticals. *William E. Harris, J. W. B. Allwright, Christopher J. Pritchet, & Sidney van den Bergh.* 76, 115, 25-D11 (1991)

The Properties of X-Ray–selected Active Galactic Nuclei. I. Luminosity Function, Cosmological Evolution, and Contribution to the Diffuse X-Ray Background. *Tommaso Maccacaro, Roberto Della Ceca, Isabella M. Gioia, Simon L. Morris, John T. Stocke, & Anna Wolter.* 374, 117, 99-D11 (1991)

Infrared Emission in Paired Galaxies. II. Luminosity Functions and Far-Infrared Properties. *Cong Xu & Jack W. Sulentic.* 374, 407, 104-C5 (1991)

The Complete Sample of 1 Jansky BL Lacertae Objects. I. Summary Properties. *M. Stickel, P. Padovani, C. M. Urry, J. W. Fried, & H. Kühr.* 374, 431, 104-E1 (1991)

The CO Luminosity Function of Galaxies. *Frances Verter.* 375, 95, 112-B11 (1991)

The Luminosity Function of Compact Groups of Galaxies. *Cláudia Mendes de Oliveira & Paul Hickson.* 380, 30, 176-D5 (1991)

Enrichment and Heating of the Intracluster Medium through Galactic Winds. *L. P. David, W. Forman, & C. Jones.* 380, 39, 176-E1 (1991)

The Stellar Content and Structure of the Globular Cluster NGC 5053. *Gregory G. Fahlman, Harvey B. Richer, & James Nemec.* 380, 124, 177-E11 (1991)

Tidally Triggered Galaxy Formation. I. Evolution of the Galaxy Luminosity Function. *Cedric Lacey & Joseph Silk.* 381, 14, 189-C1 (1991)

Globular Cluster Mass Functions. *Harvey B. Richer, Gregory G. Fahlman, Roberto Buonanno, Flavio Fusi Pecci, Leonard Searle, & Ian B. Thompson.* 381, 147, 190-G7 (1991)

Fanaroff-Riley I Galaxies as the Parent Population of BL Lacertae Objects. III. Radio Constraints. *C. M. Urry, P. Padovani, & M. Stickel.* 382, 501, 207-F13 (1991)

Evolution of Clusters of Galaxies. *N. Kaiser.* 383, 104, 213-C11 (1991)

Planetary Nebulae as Standard Candles. VII. A Test versus Hubble Type in the NGC 1023 Group. *Robin Ciardullo, George H. Jacoby, & William E. Harris.* 383, 487, 220-D1 (1991)

MAGNETIC FIELDS

Formulae for the Cyclotron Luminosity of Magnetized Plasma Slabs. *G. Chanmugam & Steven H. Langer.* 368, 580, 32-C11 (1991)

Polarimetric Mapping of Orion Using MILLIPOL: Magnetic Activity in BN/KL. *Robert W. Leach, Dan P. Clemens, Brian D. Kane, & Richard Barvainis.* 370, 257, 50-D1 (1991)

Solar Cycle Variation of the Interplanetary Magnetic Field Spiral. *Charles W. Smith & John W. Bieber.* 370, 435, 52-F4 (1991)

Current Sheet Formation and Rapid Reconnection in the Solar Corona. *A. Bhattacharjee & Xiogang Wang.* 372, 321, 78-A1 (1991)

Magnetic Confinement, Alfvén Wave Reflection, and the Origins of X-Ray and Mass-Loss "Dividing Lines" for Late-Type Giants and Supergiants. *R. Rosner, C.-H. An, Z. E. Musielak, R. L. Moore, & S. T. Suess.* 372, L91, 85-E5 (1991)

Transverse Conductivity of a Relativistic Plasma in Oblique Electric and Magnetic Fields. *Fulvio Melia & Marco Fatuzzo.* 373, 198, 88-D8 (1991)

The Expansion of the Crab Nebula. *M. F. Bietenholz, P. P. Kronberg, D. E. Hogg, & A. S. Wilson.* 373, L59, 97-D5 (1991)

Multipolar Magnetic Fields in Neutron Stars. *Julian H. Krolik.* 373, L69, 97-E4 (1991)

Suppression of Turbulent Transport by a Weak Magnetic Field. *Fausto Cattaneo & Samuel I. Vainshtein.* 376, L21, 130-C6 (1991)

Transient Particle Acceleration in Strongly Magnetized Neutron Stars. *Fulvio Melia & Marco Fatuzzo.* 376, 673, 134-F7 (1991)

Detection of Excess Rotation Measure Due to Intracluster Magnetic Fields in Clusters of Galaxies. *K.-T. Kim, Peter C. Tribble, & P. P. Kronberg.* 379, 80, 164-A5 (1991)

Turbulently Generated Magnetic Fields in Clusters of Galaxies. *Itzhak Goldman & Yoel Rephaeli.* 380, 344, 182-E8 (1991)

Radiative Widths and Splitting of Cyclotron Lines in Superstrong Magnetic Fields. *G. G. Pavlov, V. G. Bezchastnov, P. Mészáros, & S. G. Alexander.* 380, 541, 185-A1 (1991)

Avalanches and the Distribution of Solar Flares. *Edward T. Lu & Russell J. Hamilton.* 380, L89, 188-F5 (1991)

Magnetoacoustic Heating of the Solar Chromosphere. *Joseph M. Davila & S. M. Chitre.* 381, L31, 194-D12 (1991)

Existence of Scattering Atmospheres near Luminous, Magnetized Compact Objects. *Charles D. Dermer & Steven J. Sturner.* 382, L23, 205-C11 (1991)

Transient Particle Acceleration in Strongly Magnetized Neutron Stars. II. Effects Due to a Dipole Field Geometry. *Marco Fatuzzo & Fulvio Melia.* 382, 570, 208-E10 (1991)

Gamma-Ray Bursts from Sheared Alfvén Waves. *Fulvio Melia & Marco Fatuzzo.* 383, L57, 226-D1 (1991)

A Torsional Oscillation in the Rotation of the Solar Magnetic Field. *Herschel B. Snodgrass.* 383, L85, 226-F10 (1991)

Galaxy-driven Turbulence and the Growth of Intracluster Magnetic Fields. *David S. De Young.* 386, 464, 31-B8 (1992)

Where Have All the Cluster Halos Gone? *Jack O. Burns, Martin E. Sulkanen, Galen R. Gisler, & Rick A. Perley.* 388, L49, 59-B1 (1992)

X-Ray–emitting Filaments in the Cooling Flow Cluster A2029. *Craig L. Sarazin, Robert W. O'Connell, & Brian R. McNamara.* 389, L59, 73-C8 (1992)

The Braided Jets in the Spiral Galaxy NGC 4258. *Gerald Cecil, Andrew S. Wilson, & R. Brent Tully.* 390, 365, 79-G1 (1992)

A True-Field Magnetogram in a Solar Plage Region. *Douglas Rabin.* 390, L103, 85-D1 (1992)

Formation of Very Strongly Magnetized Neutron Stars: Implications for Gamma-Ray Bursts. *Robert C. Duncan & Christopher Thompson.* 392, L9, 106-B7 (1992)

Gamma-Ray Bursts as the Death Throes of Massive Binary Stars. *Ramesh Narayan, Bohdan Paczyński, & Tsvi Piran.* 395, L83, 153-G10 (1992)

X-Ray and Optical Emission-Line Filaments in the Cooling Flow Cluster 2A 0335+096. *Craig L. Sarazin, Robert W. O'Connell, & Brian R. McNamara.* 397, L31, 173-D10 (1992)

Three-dimensional Magnetic Field Configurations in Relativistic Magnetohydrodynamic Outflows. *Yu-Qing Lou.* 397, L67, 174-A10 (1992)

Kinematics of W3(OH): First Proper Motions of OH Masers from VLBI Measurements. *E. E. Bloemhof, M. J. Reid, & J. M. Moran.* 397, 500, 177-A12 (1992)

Gamma-Ray Bursts from Extragalactic Radio Pulsars. *Fulvio Melia & Marco Fatuzzo.* 398, L85, 194-B10 (1992)

Photoionization of the Hydrogen Atom in Strong Magnetic Fields. *Alexander Yu. Potekhin & George G. Pavlov.* 407, 330, 73-B11 (1993)

Cosmic-Ray Modulation, Merged Interaction Regions, and Multifractals. *L. F. Burlaga, J. Perko, & J. Pirraglia.* 407, 347, 73-D3 (1993)

Understanding Soft Gamma-Ray Repeaters in the Context of the Extragalactic Radio Pulsar Origin of Gamma-Ray Bursts. *Fulvio Melia & Marco Fatuzzo.* 408, L9, 88-F1 (1993)

Models for the Magnetic Field of M81. *David Moss, Axel Brandenburg, Karl Johan Donner, & Magnus Thomasson.* 409, 179, 99-B10 (1993)

Magnetic Field Power Density Spectra during "Scatter-free" Solar Particle Events. *L. C. Tan & G. M. Mason.* 409, L29, 104-E1 (1993)

The Discovery of Variable Polarization over the 13.9 Minute Spin Period of the Intermediate Polar RE 0751+14. *V. Piirola, P. Hakala, & G. V. Coyne, S.J.* 410, L107, 126-C3 (1993)

Turbulent Generation of Intracluster Magnetic Fields and Faraday Rotation Measurements. *Oleg Goldshmidt & Yoel Rephaeli.* 411, 518, 136-B1 (1993)

A Limitation on the Generation of Magnetic Fields. *Steven A. Balbus.* 413, L137, 169-C11 (1993)

Magnetic Fields in the Hydra A Cluster. *Gregory B. Taylor & Richard A. Perley.* 416, 554, 210-C3 (1993)

Finite-Velocity Effects on Atoms in Strong Magnetic Fields and Implications for Neutron Star Atmospheres. *G. G. Pavlov & P. Mészáros.* 416, 752, 212-F8 (1993)

Electron Impact Broadening Parameters Predictions from Regularities: Fe I, Fe II, Fe III, Fe IV, C IV, and Si IV. *J. Purić, M. H. Miller, & A. Lesage.* 416, 825, 213-F7 (1993)

Interstellar Magnetic Bubbles. *J. P. Vallée.* 419, 670, 256-A12 (1993)

Dynamics of the Magnetic Shearing Instability and Magnetohydrodynamic Turbulence in Accretion Disks. I. Vertical Magnetic Field. *W. Zhang, P. H. Diamond, & E. T. Vishniac.* 420, 705, 11-F2 (1994)

The Magnetic Fields, Ages, and Original Spin Periods of Millisecond Pulsars. *F. Camilo, S. E. Thorsett, & S. R. Kulkarni.* 421, L15, 21-E1 (1994)

Self-similar Evolution of Magnetized Plasmas. II. Nonequilibrium Solutions and Hubble's Expansion. *Wei-Hong Yang.* 425, 439, 87-B10 (1994)

Magnetic Fields in Young Supernova Remnants. *Yu-Qing Lou.* 428, L21, 134-D2 (1994)

OSSE Search for High-Energy X-Ray Emission from the Coma Cluster. *Yoel Rephaeli, Mel Ulmer, & Duane Gruber.* 429, 554, 152-E10 (1994)

Charged-Particle Motion in Multidimensional Magnetic Field Turbulence. *J. Giacalone & J. R. Jokipii.* 430, L137, 175-B10 (1994)

Evidence from Gravitational Lensing for a Nonthermal Pressure Support in the Cluster of Galaxies Abell 2218. *Abraham Loeb & Shude Mao.* 435, L109, 259-F10 (1994)

The Gravitomagnetic Dynamo Effect in Accretion Disks of Rotating Black Holes. *Ramon Khanna & Max Camenzind.* 435, L129, 260-B3 (1994)

On the Correlation of Solar Surface Magnetic Flux with Solar Neutrino Capture Rate. *David S. Oakley, Herschel B. Snodgrass, Roger K. Ulrich, & Toni L. VanDeKop.* 437, L63, 292-C7 (1994)

A Dynamical Model of Magnetic Clouds. *Tyan Yeh.* 438, 975, 17-E7 (1995)

On the Current Status of Maser Polarization Theory. *Moshe Elitzur.* 440, 345, 45-G13 (1995)

Photon-Splitting Limits to the Hardness of Emission in Strongly Magnetized Soft Gamma Repeaters. *Matthew G. Baring.* 440, L69, 57-G1 (1995)

Coronal Loop Formation Resulting from Photospheric Convection. *G. Van Hoven, Y. Mok, & Z. Mikić.* 440, L105, 58-D8 (1995)

The Polarization and Depolarization of Radio Emission from Supernova Remnant Cassiopeia A. *M. C. Anderson, J. W. Keohane, & L. Rudnick.* 441, 300, 63-D7 (1995)

A Numerical Study of Resonant Absorption in a Magnetohydrodynamic Cavity Driven by a Broadband Spectrum. *Andrew N. Wright & Graham J. Rickard.* 444, 458, 119-G13 (1995)

Constraints on Hydrostatic Models of Soft Gamma-Ray Repeaters. *M. Coleman Miller.* 448, L29, 199-F5 (1995)

General Relativistic Effects on the Induced Electric Field Exterior to Pulsars. *S. Sengupta.* 449, 224, 213-C6 (1995)

Bound-Bound Transitions in Strongly Magnetized Hydrogen Plasma. *George G. Pavlov & Alexander Y. Potekhin.* 450, 883, 243-B6 (1995)

A Numerical Study of Rayleigh-Taylor Instability in Magnetic Fluids. *Byung-Il Jun, Michael L. Norman, & James M. Stone.* 453, 332, 285-F9 (1995)

Detection of Inverse-Compton X-Rays from Lobes of the Radio Galaxy Fornax A. *H. Kaneda, M. Tashiro, Y. Ikebe, Y. Ishisaki, H. Kubo, K. Makishima, T. Ohashi, Y. Saito, H. Tabara, & T. Takahashi.* 453, L13, 289-D1 (1995)

Ohmic Decay of Magnetic Fields Generated by Currents in the Crusts of Neutron Stars. *C. J. Pethick & M. Sahrling.* 453, L29, 289-F2 (1995)

Extragalactic Magnetic Field and the Highest Energy Cosmic Rays. *Sangjin Lee, Angela V. Olinto, & Günter Sigl.* 455, L21, 324-E8 (1995)

Photon Splitting in Strongly Magnetized Cosmic Objects—Revisited. *Günter Wunner, Robert Sang, & Dagmar Berg.* 455, L51, 325-B8 (1995)

MAGNETOHYDRODYNAMICS: MHD

Quasi-static Evolution of Coronal Magnetic Fields. *D. W. Longcope & R. N. Sudan.* 384, 305, 4-F12 (1992)

The Theory of Magnetohydrodynamic Wave Generation by Localized Sources. III. Efficiency of Plasma Heating by Dissipation of Far-Field Waves. *William Collins.* 384, 319, 5-A1 (1992)

Magnetohydrodynamic Equilibria and Cusp Formation at an X-Type Neutral Line by Footpoint Shearing. *G. E. Vekstein & E. R. Priest.* 384, 333, 5-B3 (1992)

Linear Resistive Magnetohydrodynamic Computations of Resonant Absorption of Acoustic Oscillations in Sunspots. *Marcel Goossens & Stefaan Poedts.* 384, 348, 5-C8 (1992)

Microflare Heating of the Galactic Halo. *John C. Raymond.* 384, 502, 8-D1 (1992)

The Effects of Radiation Drag on Radial, Relativistic Hydromagnetic Winds. *Zhi-yun Li, Mitchell C. Begelman, & Tzihong Chiueh.* 384, 567, 9-C1 (1992)

The Practical Application of the Magnetic Virial Theorem. *J. A. Klimchuk, R. C. Canfield, & J. E. Rhoads.* 385, 327, 16-A1 (1992)

Three-dimensional Force-free Magnetic Fields and Flare Energy Buildup. *J. A. Klimchuk & P. A. Sturrock.* 385, 344, 16-B6 (1992)

Emergence of Magnetic Flux from the Convection Zone into the Solar Atmosphere. I. Linear and Nonlinear Adiabatic Evolution of the Convective-Parker Instability. *S. Nozawa, K. Shibata, R. Matsumoto, A. C. Sterling, T. Tajima, Y. Uchida, A. Ferrari, & R. Rosner.* 78, 267, 5-D5 (1992)

Prominence Sheets Supported by Constant-Current Force-free Fields. II. Imposition of Normal Photospheric Field Component and Prominence Surface Current. *C. Ridgway, T. Amari, & E. R. Priest.* 385, 718, 22-A10 (1992)

Cylindrically Symmetric Force-free Magnetic Fields. *Lisa J. Porter, James A. Klimchuk, & Peter A. Sturrock.* 385, 738, 22-C6 (1992)

Equilibrium of a Magnetic Flux Tube in a Compressible Flow. *Richard Kerswell & Stephen Childress.* 385, 746, 22-D1 (1992)

Magnetic Interchange Instability of Accretion Disks. *M. Kaisig, T. Tajima, & R. V. E. Lovelace.* 386, 83, 25-B7 (1992)

Accretion in a Kerr Black Hole Magnetosphere: Energy and Angular Momentum Transport between the Magnetic Field and the Matter. *Kouichi Hirotani, Masaaki Takahashi, Shin-ya Nitta, & Akira Tomimatsu.* 386, 455, 31-A11 (1992)

Inhibition of Electron Thermal Conduction by Electromagnetic Instabilities. *Amir Levinson & David Eichler.* 387, 212, 39-E5 (1992)

Large Electric Fields in Acoustic Waves and the Stimulation of Lightning Discharges. *W. Pilipp, T. W. Hartquist, & G. E. Morfill.* 387, 364, 41-D13 (1992)

Weighted Current Sheets Supported in Normal and Inverse Configurations: A Model for Prominence Observations. *P. Démoulin & T. G. Forbes.* 387, 394, 41-G5 (1992)

Energy Propagation into a Flare Kernel during a Solar Flare. *D. B. Melrose.* 387, 403, 42-A1 (1992)

Angular Momentum Transport in Magnetized Stellar Radiative Zones. I. Numerical Solutions to the Core Spin-up Model Problem. *P. Charbonneau & K. B. MacGregor.* 387, 639, 46-E11 (1992)

Proton Acceleration in Neutron Star Magnetospheres. *I. A. Smith, J. I. Katz, & P. H. Diamond.* 388, 148, 50-G7 (1992)

Structure of Sunspot Penumbrae: Fallen Magnetic Flux Tubes. *Donat G. Wentzel.* 388, 211, 51-E11 (1992)

A Test Suite for Magnetohydrodynamical Simulations. *James M. Stone, John F. Hawley, Charles R. Evans, & Michael L. Norman.* 388, 415, 55-E1 (1992)

Photon Bubbles: Overstability in a Magnetized Atmosphere. *Jonathan Arons.* 388, 561, 57-C1 (1992)

Alfvén Wave Transmission through the Solar Atmosphere. *Philippe L. Similon & Shahrokh Zargham.* 388, 644, 58-C1 (1992)

Magnetic Fields and Radiative Shocks in Protogalaxies and the Origin of Globular Clusters. *Paul R. Shapiro, Alejandro Clocchiatti, & Hyesung Kang.* 389, 269, 63-C11 (1992)

Effect of an Ensemble of Explosions on the Galactic Dynamo. I. General Formulation. *Katia Ferrière.* 389, 286, 63-E1 (1992)

Taylor Relaxation of a Gold-Hoyle Flux Tube. *G. J. Rickard.* 389, 413, 65-A10 (1992)

Magnetohydrodynamic Waves in Sharply and Smoothly Bounded Cylinders. *Bonnie Jean Shulman & Ellen G. Zweibel.* 389, 428, 65-C1 (1992)

Alfvénically Driven Slow Shocks in the Solar Chromosphere and Corona. *Joseph V. Hollweg.* 389, 731, 70-D10 (1992)

High-Energy Gamma-Ray Emission from Pion Decay in a Solar Flare Magnetic Loop. *Natalie Mandzhavidze & Reuven Ramaty.* 389, 739, 70-E6 (1992)

Steady Siphon Flows in Closed Coronal Structures: Comparison with Extreme-Ultraviolet Observations. *G. Peres, D. Spadaro, & G. Noci.* 389, 777, 71-A8 (1992)

Intrinsically Asymmetric Astrophysical Jets. *J. C. L. Wang, M. E. Sulkanen, & R. V. E. Lovelace.* 390, 46, 74-F1 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. II. Results and a Length Scale for Protostellar Cores. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 144, 75-G1 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. III. A Further Parameter Study and Magnetically Controlled Accretion Rate. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 166, 76-A11 (1992)

Solar Active Regions as a Percolation Phenomenon. *Donat G. Wentzel & Philip E. Seiden.* 390, 280, 77-D10 (1992)

Vortex Attraction and the Formation of Sunspots. *E. N. Parker.* 390, 290, 77-E8 (1992)

A Self-consistent Turbulent Model for Solar Coronal Heating. *J. Heyvaerts & E. R. Priest.* 390, 297, 77-F3 (1992)

On the Origin of Cosmological Magnetic Fields. *T. Tajima, S. Cable, K. Shibata, & R. M. Kulsrud.* 390, 309, 79-B1 (1992)

Switch Shocks in Molecular Clouds. I. Plane-parallel Magnetohydrodynamic Analysis. *Michael D. Smith.* 390, 447, 81-A1 (1992)

Nonresonant Resistive Dissipation of Compressible Magnetohydrodynamic Waves. *Francesco Califano, Claudio Chiuderi, & Giorgio Einaudi.* 390, 560, 82-C8 (1992)

Self-similar Magnetohydrodynamics. V. Gravitating Spheres and Spheroids. *B. C. Low.* 390, 567, 82-D1 (1992)

Magnetic Reconnection in Incompressible Fluids. *Edward E. DeLuca & Ian J. D. Craig.* 390, 679, 83-F7 (1992)

Effect of the Explosion of Supernovae and Superbubbles on the Galactic Dynamo. *Katia Ferrière.* 391, 188, 88-C13 (1992)

Ambipolar Diffusion and Star Formation: Formation and Contraction of Axisymmetric Cloud Cores. I. Formulation of the Problem and Method of Solution. *Robert A. Fiedler & Telemachos Ch. Mouschovias.* 391, 199, 88-D12 (1992)

Energy Buildup in Sheared Force-free Magnetic Fields. *Richard Wolfson & Boon Chye Low.* 391, 353, 90-C6 (1992)

The Influence of the Large-Scale Interplanetary Shock Structure on a Low-Energy Particle Event. *A. M. Heras, B. Sanahuja, Z. K. Smith, T. Detman, & M. Dryer.* 391, 359, 90-C13 (1992)

The Conversion of p-Modes to Slow Modes and the Absorption of Acoustic Waves by Sunspots. *H. C. Spruit & T. J. Bogdan.* 391, L109, 100-B7 (1992)

On Neutralized Currents in the Solar Corona. *Ladye Kathryn Wilkinson, A. Gordon Emslie, & G. Allen Gary.* 392, L39, 106-E7 (1992)

Large-Scale Rotational Perturbations of a Friedmann Universe with Collisionless Matter and Primordial Magnetic Fields. *Anton Rebhan.* 392, 385, 107-B6 (1992)

Self-similar Evolution of Magnetized Plasmas. I. Quasi-static Solution. *Wei-Hong Yang.* 392, 465, 108-B1 (1992)

Initiation of Bipolar Flows by Magnetic Field Twisting in Protostellar Nebulae. *William I. Newman, Alice L. Newman, & Richard V. E. Lovelace.* 392, 622, 110-A1 (1992)

The Nonexponential Evolution of Pulsar Magnetic Fields. *Shigeto Wakatsuki, Atsushi Hikita, Naohiro Sato, & Naoki Itoh.* 392, 628, 110-A10 (1992)

Two-dimensional Slow Shock Reconnection. *Y. C. Whang.* 392, 637, 110-B9 (1992)

Dynamo Action in Stratified Convection with Overshoot. *Åke Nordlund, Axel Brandenburg, Richard L. Jennings, Michel Rieutord, Juha Ruokolainen, Robert F. Stein, & Ilkka Tuominen.* 392, 647, 110-C6 (1992)

Is the Oort A-Value a Universal Growth Rate Limit for Accretion Disk Shear Instabilities? *Steven A. Balbus & John F. Hawley.* 392, 662, 110-D12 (1992)

A Regularization Method for Extrapolation of Solar Potential Magnetic Fields. *G. Allen Gary & Z. E. Musielak.* 392, 722, 111-C1 (1992)

ZEUS-2D: A Radiation Magnetohydrodynamics Code for Astrophysical Flows in Two Space Dimensions. I. The Hydrodynamic Algorithms and Tests. *James M. Stone & Michael L. Norman.* 80, 753, 33-G3 (1992)

ZEUS-2D: A Radiation Magnetohydrodynamics Code for Astrophysical Flows in Two Space Dimensions. II. The Magnetohydrodynamic Algorithms and Tests. *James M. Stone & Michael L. Norman.* 80, 791, 34-C5 (1992)

ZEUS-2D: A Radiation Magnetohydrodynamics Code for Astrophysical Flows in Two Space Dimensions. III. The Radiation Hydrodynamic Algorithms and Tests. *James M. Stone, Dimitri Mihalas, & Michael L. Norman.* 80, 819, 34-E11 (1992)

Nonlinear Restrictions on Dynamo Action. *Samuel I. Vainshtein & Fausto Cattaneo.* 393, 165, 116-B5 (1992)

Fast Dynamic Reconnection at X-Type Neutral Points. *I. J. D. Craig & P. G. Watson.* 393, 385, 118-G11 (1992)

Coronal Loops: Current-based Heating Processes. *P. Beaufumé, B. Coppi, & L. Golub.* 393, 396, 119-A11 (1992)

Swinging Spiral Waves and Alfvén Turbulence in Accretion Disks. *M. Tagger, R. Pellat, & F. V. Coroniti.* 393, 708, 124-F1 (1992)

Stochastic Gyroresonant Electron Acceleration in a Low-Beta Plasma. I. Interaction with Parallel Transverse Cold Plasma Waves. *Jürgen Steinacker & James A. Miller.* 393, 764, 125-C10 (1992)

Fast Plasmoid Formation in Double Arcades. *J. M. Finn, P. N. Guzdar, & J. Chen.* 393, 800, 125-G7 (1992)

Giant Molecular Cloud Formation through the Parker Instability in a Skewed Magnetic Field. *Tomoyuki Hanawa, Ryoji Matsumoto, & Kazunari Shibata.* 393, L71, 127-E1 (1992)

Hydromagnetic Disk Winds in Young Stellar Objects and Active Galactic Nuclei. *Guy Pelletier & Ralph E. Pudritz.* 394, 117, 129-D13 (1992)

Dissipation of Magnetic Energy in the Solar Corona. *Allen H. Boozer.* 394, 357, 132-D4 (1992)

Electromagnetically Driven Relativistic Jets: A Class of Self-similar Solutions. *Zhi-Yun Li, Tzihong Chiueh, & Mitchell C. Begelman.* 394, 459, 135-B1 (1992)

The Formation of Magnetic Cavities in Comets. *Z. Klopman, A. Eviatar, & R. Goldstein.* 394, 652, 137-E10 (1992)

Development of Magnetohydrodynamic Turbulence in Coronal Loops. *Daniel O. Gómez & Constantino Ferro Fontán.* 394, 662, 137-F8 (1992)

Effect of Magnetic Helicity upon Rectilinear Propagation of Charged Particles in Random Magnetic Fields. *James A. Earl.* 395, 185, 142-E1 (1992)

The Velocity-Distance Relation for Galaxies on a Bubble. *Gregory D. Bothun, Margaret J. Geller, Michael J. Kurtz, John P. Huchra, & Rudolph E. Schild.* 395, 347, 146-E5 (1992)

Hydrodynamics of the Hot Component of the Galactic Halo. II. Radiative and Dynamical Instabilities. *A. Ferrara & G. Einaudi.* 395, 475, 148-D9 (1992)

Magnetized Stimulated Scattering in Pulsar Winds. *Mark W. Sincell & Julian H. Krolik.* 395, 553, 149-F7 (1992)

On the Process of Resistive Heating Instability and the Formation of Coronal Loop Structures. *Yu-Qing Lou.* 395, 682, 151-F13 (1992)

Enhanced Damping of Alfvén Waves in the Solar Corona by a Turbulent Wave Spectrum. *Robert G. Kleva & J. F. Drake.* 395, 697, 152-A5 (1992)

The Thermal and Plasma-physical Evolution of Laminar Current Sheets Formed in the Solar Atmosphere by Emerging Flux. *T. N. LaRosa.* 396, 289, 158-F3 (1992)

Incompressible Disturbances in Nonuniform Media: Formation of Small Scales. *Francesco Malara, Pierluigi Veltri, Claudio Chiuderi, & Giorgio Einaudi.* 396, 297, 158-F13 (1992)

The Influence of a Vertical Magnetic Field on Oscillations in an Isothermal Stratified Atmosphere. *S. S. Hasan & J. Christensen-Dalsgaard.* 396, 311, 159-A1 (1992)

Multiple Periodicities in the Solar Magnetic Field: Possible Origin in a Multiple-Mode Solar Dynamo. *D. W. Boyer & E. H. Levy.* 396, 340, 159-C6 (1992)

The Spectrum of Random Magnetic Fields in the Mean Field Dynamo Theory of the Galactic Magnetic Field. *Russell M. Kulsrud & Stephen W. Anderson.* 396, 606, 165-A1 (1992)

An Axisymmetric Magnetohydrodynamic Model for the Crab Pulsar Wind Bubble. *Mitchell C. Begelman & Zhi-yun Li.* 397, 187, 170-C11 (1992)

Steady and Nonsteady Siphon Flow in Hot Coronal Loops. *T. D. Robb & P. S. Cally.* 397, 329, 172-A1 (1992)

The Galactic Center Wind. *Roger A. Chevalier.* 397, L39, 173-E12 (1992)

A New Way to Convert Alfvén Waves into Heat in Solar Coronal Holes: Intermittent Magnetic Levitation. *R. L. Moore, R. Hammer, Z. E. Musielak, S. T. Suess, & C.-H. An.* 397, L55, 173-G5 (1992)

Three-dimensional Magnetic Field Configurations in Relativistic Magnetohydrodynamic Outflows. *Yu-Qing Lou.* 397, L67, 174-A10 (1992)

Local Magnetohydrodynamic Instabilities and the Wave-driven Dynamo in Accretion Disks. *Ethan T. Vishniac & Patrick Diamond.* 398, 561, 191-B5 (1992)

Reconnection of Stressed Magnetic Fields. *A. B. Hassam.* 399, 159, 197-B10 (1992)

Implications of $^3P_2$ Superfluidity in the Interior of Neutron Stars. *H. F. Chau, K. S. Cheng, & K. Y. Ding.* 399, 213, 197-G9 (1992)
Stochastic Gyroresonant Electron Acceleration in a Low-Beta Plasma. II. Implications of Thermal Effects in a Solar Flare Plasma. *James A. Miller & Jürgen Steinacker.* 399, 284, 198-F12 (1992)
Helioseismology Data and the Solar Dynamo. *P. R. Wilson.* 399, 294, 198-G11 (1992)
Three-dimensional Structures of Magnetostatic Atmospheres. IV. Magnetic Structures over a Solar Active Region. *B. C. Low.* 399, 300, 199-A6 (1992)
Spatial Stability of the Magnetized Slab Jet. *Philip E. Hardee, Michael A. Cooper, Michael L. Norman, & James M. Stone.* 399, 478, 203-G11 (1992)
Diagnostics of Electron-heated Solar Flare Models. III. Effects of Tapered Loop Geometry and Preheating. *A. Gordon Emslie, Peng Li, & John T. Mariska.* 399, 714, 206-G7 (1992)
Nonlinear Dissipation of Surface Alfvén Waves in the Solar Corona. *M. S. Ruderman.* 399, 724, 207-A5 (1992)
Formation of the Dark Bays in the Crab Optical Synchrotron Nebula: Is the Crab Pulsar Wind Bubble Interacting with Its Progenitor's Wind? *Zhi-Yun Li & Mitchell C. Begelman.* 400, 186, 211-C1 (1992)
A Parameter Study of the Two-Fluid Solar Wind. *Ørnulf Sandbæk, Egil Leer, & Thomas E. Holzer.* 400, 362, 213-D8 (1992)
Magnetohydrodynamic Waves in a Solar Prominence. *R. Oliver, J. L. Ballester, A. W. Hood, & E. R. Priest.* 400, 369, 213-E1 (1992)
On the Amplification of Large-Scale Magnetic Fields in Spiral Galaxies by Galactic Winds. *S. J. Spencer & L. E. Cram.* 400, 484, 216-C12 (1992)
A Powerful Local Shear Instability in Weakly Magnetized Disks. III. Long-Term Evolution in a Shearing Sheet. *John F. Hawley & Steven A. Balbus.* 400, 595, 217-F12 (1992)
A Powerful Local Shear Instability in Weakly Magnetized Disks. IV. Nonaxisymmetric Perturbations. *Steven A. Balbus & John F. Hawley.* 400, 610, 218-A1 (1992)
Magnetohydrodynamic Wave Damping by Cosmic-Ray Viscosity. *Ahmed Boulares & Gregor Morfill.* 400, 622, 218-B6 (1992)
Magnetohydrodynamic Models for Extragalactic Jets. I. General Method Based on Conservation Laws. *Paola Pietrini & Guidetta Torricelli-Ciamponi.* 401, 60, 221-G1 (1992)
Fast Dynamos, Cosmic Rays, and the Galactic Magnetic Field. *E. N. Parker.* 401, 137, 222-F7 (1992)
Forced Reconnection, Current Sheets, and Coronal Heating. *Xiaogang Wang & A. Bhattacharjee.* 401, 371, 225-F1 (1992)
High-Energy Particle Acceleration by Explosive Electromagnetic Interaction in an Accretion Disk. *C. A. Haswell, T. Tajima, & J.-I. Sakai.* 401, 495, 228-G5 (1992)
The Evolution of Compact Steep Spectrum Sources. *David S. De Young.* 402, 95, 2-C6 (1993)
Siphon Flows in Isolated Magnetic Flux Tubes. V. Radiative Flows with Variable Ionization. *Benjamin Montesinos & John H. Thomas.* 402, 314, 5-A13 (1993)
An Instability Associated with a Magnetosphere-Disk Interaction. *H. C. Spruit & Ronald E. Taam.* 402, 593, 10-A5 (1993)
Solar p-Modes in a Vertical Magnetic Field: Trapped and Damped π-Modes. *P. S. Cally & T. J. Bogdan.* 402, 721, 11-E3 (1993)
Nonlinear Waves and Solitons in Molecular Clouds. *Fred C. Adams & Marco Fatuzzo.* 403, 142, 15-F13 (1993)
Theory of Jets from Young Stars. *R. V. E. Lovelace, M. M. Romanova, & J. Contopoulos.* 403, 158, 16-A1 (1993)
Wiggled Structure of Herbig-Haro Objects: Helical Kink Instability of Jets from Young Stellar Objects. *Yasushi Todo, Yutaka Uchida, Tetsuya Sato, & Robert Rosner.* 403, 164, 16-A9 (1993)
Parker Instability in a Realistic Gravitational Field. *Ahmet T. Giz & Frank H. Shu.* 404, 185, 30-C3 (1993)
A Three-dimensional Magnetohydrodynamic Formalism for Coronal Helmet Streamers. *P. Cuperman, C. Bruma, T. Detman, & M. Dryer.* 404, 356, 32-C7 (1993)
Wave Generation in a Sunspot. *Jeongwoo W. Lee.* 404, 372, 32-D11 (1993)
The Magnetohydrodynamics of Umbral Flux Tubes. I. Theoretical Model. *Detlev Degenhardt & Bruce W. Lites.* 404, 383, 32-E9 (1993)
On the Generation of "Strong" Magnetic Fields. *S. I. Vainshtein, E. N. Parker, & R. Rosner.* 404, 773, 38-E5 (1993)
A New Class of Exact, Nonlinear Solutions to the Grad-Shafranov Equation. *George Roumeliotis.* 404, 781, 38-F1 (1993)
A Numerical Simulation of Two-dimensional Radiative Equilibrium in Magnetostatic Flux Tubes. I. The Model. *V. J. Pizzo, K. B. MacGregor, & P. B. Kunasz.* 404, 788, 38-F10 (1993)
Linear Theory of Fast Reconnection at an X-Type Neutral Point. *I. J. D. Craig & A. N. McClymont.* 405, 207, 43-F5 (1993)
Normal Incidence X-Ray Telescope Power Spectra of X-Ray Emission from Solar Active Regions. I. Observations. *Daniel O. Gómez, Petrus C. H. Martens, & Leon Golub.* 405, 767, 52-E9 (1993)
Normal Incidence X-Ray Telescope Power Spectra of X-Ray Emission from Solar Active Regions. II. Theory. *Daniel O. Gómez, Petrus C. H. Martens, & Leon Golub.* 405, 773, 52-F3 (1993)
Magnetohydrodynamic Models for Extragalactic Jets. II. Multistep Structures. *Guidetta Torricelli-Ciamponi & Paola Pietrini.* 406, 36, 55-E1 (1993)
Switch Shocks in Molecular Clouds. II. Implications. *Michael D. Smith.* 406, 520, 64-C7 (1993)
Parametric Instabilities of Circularly Polarized Alfvén Waves in High-β Plasmas. *Hiromitsu Hamabata.* 406, 563, 64-G5 (1993)
Nonlinear Plasma Mechanisms of Pulsar Eclipse in Binary Systems. *M. Gedalin & D. Eichler.* 406, 629, 65-F4 (1993)
Resistive Dissipation and Magnetic Field Topology in the Stellar Corona. *E. N. Parker.* 407, 342, 73-C11 (1993)
Can Equipartition Fields Produce the Tilts of Bipolar Magnetic Regions? *Sydney D'Silva.* 407, 385, 73-G3 (1993)
A Siphon-Flow Model of the Photospheric Evershed Flow in a Sunspot. *John H. Thomas & Benjamin Montesinos.* 407, 398, 74-A3 (1993)
Turbulent Magnetohydrodynamic Dynamo for Accretion Disks Using the Cross-Helicity Effect. *Akira Yoshizawa & Nobumitsu Yokoi.* 407, 540, 77-C8 (1993)
On the Nonlinear Instability of a Thermal Field. *Miguel H. Ibáñez S., Antonio Parravano, & César A. Mendoza B.* 407, 611, 78-B13 (1993)
A Detailed Study of Sheared Alfvén Waves and Their Possible Application to Gamma-Ray Bursts. *Marco Fatuzzo & Fulvio Melia.* 407, 680, 79-A8 (1993)
Centrifugally Driven Winds from Protostellar Disks. I. Wind Model and Thermal Structure. *Pedro N. Safier.* 408, 115, 84-E6 (1993)
Centrifugally Driven Winds from Protostellar Disks. II. Forbidden-Line Emission in T Tauri Stars. *Pedro N. Safier.* 408, 148, 85-A1 (1993)
Magnetic Field Decay from the Core of Neutron Stars: Effects of Interpinning of $^3P_2$ Neutron Superfluid and $^1S_0$ Proton Superconducting Fluid. *K. Y. Ding, K. S. Cheng, & H. F. Chau.* 408, 167, 85-B11 (1993)
Neutron Star Dynamos and the Origins of Pulsar Magnetism. *Christopher Thompson & Robert C. Duncan.* 408, 194, 85-E4 (1993)
On the Thermal Stability of a Radiating Plasma Subject to Nonlocal Thermal Conduction. I. Linear Analysis. *E. Chun & R. Rosner.* 408, 678, 93-F1 (1993)
Three-dimensional Structures of Magnetostatic Atmospheres. V. Coupled Electric Current Systems. *B. C. Low.* 408, 689, 93-G1 (1993)
Three-dimensional Structures of Magnetostatic Atmospheres. VI. Examples of Coupled Electric Current Systems. *B. C. Low.* 408, 693, 93-G7 (1993)
A Solar Dynamo Surface Wave at the Interface between Convection and Nonuniform Rotation. *E. N. Parker.* 408, 707, 94-A9 (1993)
Models for the Magnetic Field of M81. *David Moss, Axel Brandenburg, Karl Johan Donner, & Magnus Thomasson.* 409, 179, 99-B10 (1993)
Magnetic Diffusion Due to Supernova Explosions and Superbubbles in the Galactic Disk. *Katia Ferrière.* 409, 248, 100-C1 (1993)
Detection of Magnetohydrodynamic Shocks in the L1551 Outflow. *M. Barsony, N. Z. Scoville, & C. J. Chandler.* 409, 275, 100-E4 (1993)
Particle Dynamics in Spherical Wave Fields of Rotating Magnets: Acceleration Boundary, Plasma Border, and $1/r_0^2$ Law of Asymptotic Energy. *K. O. Thielheim.* 409, 333, 101-C1 (1993)
The Cutoff Frequency for Fast-Mode Magnetohydrodynamic Waves in an Isothermal Atmosphere with a Uniform Horizontal Magnetic Field. *B. A. Stark & Z. E. Musielak.* 409, 450, 102-E5 (1993)
Large-Scale Explosions and Superbubbles in the Galactic Disk and Halo. I. Magnetohydrodynamic Simulations. *Shin Mineshige, Kazunari Shibata, & Paul R. Shapiro.* 409, 663, 107-C1 (1993)
Numerical Solution of Wave Equations for the Stability of the Inner Cometo-Sheath. *Krishna M. Srivastava, Bruce T. Tsurutani, & Bruce E. Goldstein.* 409, 782, 108-G7 (1993)
Force-free Magnetic Fields with Singular Current-Density Surfaces. *B. C. Low.* 409, 798, 109-A12 (1993)
A Similarity Solution to the Kinematic $\alpha^2\omega$ Dynamo Equation with Time-dependent Coefficients. *Chung-Ming Ko.* 410, 128, 113-F8 (1993)

The Structure of Protostellar Accretion Disks and the Origin of Bipolar Flows. *Mark Wardle & Arieh Königl.* 410, 218, 114-G6 (1993)

A Model of Nonthermal Radiation from Accreting X-Ray Pulsars. *P. P. Leung, K. S. Cheng, & P. C. W. Fung.* 410, 309, 115-G12 (1993)

The Free Energies of Partially Open Coronal Magnetic Fields. *B. C. Low & D. F. Smith.* 410, 412, 117-B10 (1993)

Magnetohydrodynamic Flows in Be Stars: Variable Energy Flux and Heat Input Distribution. *María Elena Iglesias & Adela E. Ringuelet.* 411, 342, 131-E3 (1993)

The Morphology of Flare Phenomena, Magnetic Fields, and Electric Currents in Active Regions. I. Introduction and Methods. *Richard C. Canfield, J.-F. de La Beaujardière, Yuhong Fan, K. D. Leka, A. N. McClymont, Thomas R. Metcalf, Donald L. Mickey, Jean-Pierre Wülser, & Bruce W. Lites.* 411, 362, 131-G1 (1993)

The Morphology of Flare Phenomena, Magnetic Fields, and Electric Currents in Active Regions. II. NOAA Active Region 5747 (1989 October). *K. D. Leka, Richard C. Canfield, A. N. McClymont, J.-F. de La Beaujardière, Yuhong Fan, & F. Tang.* 411, 370, 131-G12 (1993)

The Morphology of Flare Phenomena, Magnetic Fields, and Electric Currents in Active Regions. III. NOAA Active Region 6233 (1990 August). *J.-F. de La Beaujardière, Richard C. Canfield, & K. D. Leka.* 411, 378, 132-A10 (1993)

The Dynamics of Magnetic Flux Rings. *E. E. DeLuca, G. H. Fisher, & B. M. Patten.* 411, 383, 132-B4 (1993)

Turbulent Generation of Intracluster Magnetic Fields and Faraday Rotation Measurements. *Oleg Goldshmidt & Yoel Rephaeli.* 411, 518, 136-B1 (1993)

Is It Justified to Assume that "Everywhere in the Sun's Photosphere-Corona Domain the Electric Conductivity Is High"?; or, What Drives the Solar Upper Atmosphere? *Uri Feldman.* 411, 896, 141-A5 (1993)

A Turbulent Model of Time Variability in X-Ray Binary Pulsars. *Masahiro Hoshino & Toshiaki Takeshima.* 411, L79, 142-D9 (1993)

Magnetohydrodynamic Wave Propagation in One-dimensional Nonhomogeneous, Self-gravitating Clouds. *Marco Fatuzzo & Fred C. Adams.* 412, 146, 143-G10 (1993)

On the Structure of Solar and Stellar Coronae: Loops and Loop Heat Transport. *Christof Litwin & Robert Rosner.* 412, 375, 146-F13 (1993)

Oscillatory Instability of Radiative Shocks with Transverse Magnetic Field: Linear Analysis and Nonlinear Simulations. *G. Tóth & B. T. Draine.* 413, 176, 158-C8 (1993)

Formation, Levitation, and Stability of Prominences in the Magnetized Solar Atmosphere. *J. F. Drake, Y. Mok, & G. Van Hoven.* 413, 416, 161-D9 (1993)

A Numerical Simulation of Two-dimensional Radiative Equilibrium in Magnetostatic Flux Tubes. II. Computational Results. *V. J. Pizzo, K. B. MacGregor, & P. B. Kunasz.* 413, 764, 166-A1 (1993)

Energy Transport to the Solar Corona by Magnetic Kink Waves. *Arnab Rai Choudhuri, Mausumi Dikpati, & Dipankar Banerjee.* 413, 811, 166-E1 (1993)

A Limitation on the Generation of Magnetic Fields. *Steven A. Balbus.* 413, L137, 169-C11 (1993)

Three-dimensional Magnetohydrodynamics of the Emerging Magnetic Flux in the Solar Atmosphere. *R. Matsumoto, T. Tajima, K. Shibata, & M. Kaisig.* 414, 357, 174-D8 (1993)

Anomalous Resistivity and the Evolution of Magnetic Field Topology. *E. N. Parker.* 414, 389, 174-G5 (1993)

Alfvénic Fluctuations in a Relativistic Wind with a Spiral Magnetic Field and Random Magnetic Field Structures in the Crab Nebula. *Yu-Qing Lou.* 414, 656, 179-D2 (1993)

Long-Term Containment of Energetic Particles in Coronal Loops. *Yun-Tung Lau, Theodore G. Northrop, & John M. Finn.* 414, 908, 182-E10 (1993)

Focusing of Alfvénic Wave Power in the Context of Gamma-Ray Burst Emissivity. *Marco Fatuzzo & Fulvio Melia.* 414, L89, 185-F7 (1993)

Electromagnetically Driven Relativistic Jets: A Class of Self-consistent Numerical Solutions. *Zhi-Yun Li.* 415, 118, 186-E4 (1993)

Propagation of Hydrodynamic Waves in Optically Thin Plasmas. *Miguel H. Ibáñez S., & Orlando B. Escalona T.* 415, 335, 189-B7 (1993)

Ion Acceleration in Impulsive Solar Flares. *Jürgen Steinacker, Uwe Jaekel, & Reinhard Schlickeiser.* 415, 342, 189-C1 (1993)

Coronal Heating by the Resonant Absorption of Alfvén Waves: Importance of the Global Mode and Scaling Laws. *Richard S. Steinolfson & Joseph M. Davila.* 415, 354, 189-D1 (1993)

Ambipolar Diffusion and Star Formation: Formation and Contraction of Axisymmetric Cloud Cores. II. Results. *Robert A. Fiedler & Telemachos Ch. Mouschovias.* 415, 680, 196-C7 (1993)

The Crab Nebula's Cosmic-Ray Acceleration Zone Revealed. *P. P. Kronberg, H. Lesch, P. F. Ortiz, & M. F. Bietenholz.* 416, 251, 204-B13 (1993)

A Class of Three-dimensional Isothermal Laminated Equilibria and Their Stability. *Y. P. Chou, B. C. Low, & A. Bhattacharjee.* 416, 379, 205-F12 (1993)

A Linear Solution for Magnetic Reconnection Driven by Converging or Diverging Footpoint Motions. *George Roumeliotis & Ronald L. Moore.* 416, 386, 205-G7 (1993)

Magnetically Confined Plasma Columns with Helical Symmetry. *L. J. Palumbo & A. M. Platzeck.* 416, 656, 211-E8 (1993)

The Magnetohydrodynamics of Umbral Flux Tubes. II. Spectroscopic Properties. *Detlev Degenhardt & Bruce W. Lites.* 416, 875, 214-C11 (1993)

Collapse of Magnetized Molecular Cloud Cores. I. Semianalytical Solution. *Daniele Galli & Frank H. Shu.* 417, 220, 220-C1 (1993)

Collapse of Magnetized Molecular Cloud Cores. II. Numerical Results. *Daniele Galli & Frank H. Shu.* 417, 243, 220-D13 (1993)

Catastrophic Evolution of a Force-free Flux Rope: A Model for Eruptive Flares. *P. A. Isenberg, T. G. Forbes, & P. Démoulin.* 417, 368, 222-B7 (1993)

Magnetic Reconnection at Stressed X-Type Neutral Points. *L. Ofman, P. J. Morrison, & R. S. Steinolfson.* 417, 748, 228-F9 (1993)

Angular Momentum Transport in Magnetized Stellar Radiative Zones. II. The Solar Spin-down. *P. Charbonneau & K. B. MacGregor.* 417, 762, 228-G13 (1993)

On the Problem of Magnetic Coronal Heating by Turbulent Relaxation. *G. E. Vekstein, E. R. Priest, & C. D. C. Steele.* 417, 781, 229-B6 (1993)

Three-dimensional Propagation of Transverse Magnetohydrodynamic Perturbations in Relativistic Winds. *Yu-Qing Lou.* 418, 709, 241-C12 (1993)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. I. Basic Physics and Formulation of the Problem. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 418, 774, 242-B13 (1993)

A Mechanism for Bulk Energization in the Impulsive Phase of Solar Flares: MHD Turbulent Cascade. *T. N. LaRosa & R. L. Moore.* 418, 912, 244-A2 (1993)

Equilibrium Morphology of Slender Untwisted Flux Loops. *David Garren, James Chen, & Peter Cargill.* 418, 919, 244-A12 (1993)

Stokes Profile Analysis and Vector Magnetic Fields. VI. Fine Scale Structure of a Sunspot. *B. W. Lites, D. F. Elmore, P. Seagraves, & A. P. Skumanich.* 418, 928, 244-B10 (1993)

Magnetic Confinement of Jets. *David Eichler.* 419, 111, 247-E2 (1993)

An Application of the Narrow-Jet Model: The M87 Jet. *Theodoros Koupelis.* 419, 117, 247-E10 (1993)

Forbidden Line Formation in Hydromagnetic Disk Winds. I. Oblique Shocks. *Rachid Ouyed & Ralph E. Pudritz.* 419, 255, 249-C13 (1993)

The Propagation of Sound Waves in a Randomly Magnetized Medium. I. General Considerations. *M. P. Ryutova & E. R. Priest.* 419, 349, 250-E6 (1993)

The Propagation of Sound Waves in a Randomly Magnetized Medium. II. The Interaction of an Unsteady Wave Packet with an Ensemble of Magnetic Flux Tubes. *M. P. Ryutova & E. R. Priest.* 419, 371, 250-G2 (1993)

Energy Requirements for Opening the Solar Corona. *Richard Wolfson.* 419, 382, 251-A1 (1993)

A Possible Mechanism for Enhanced Absorption of p-Modes in Sunspot and Plage Regions. *Barry J. LaBonte & Margarita Ryutova.* 419, 388, 251-A9 (1993)

Generation of Electric Currents in Two-dimensional Magnetic Nulls. *Juan M. Fontenla.* 419, 837, 258-A11 (1993)

Proton and Electron Mean Free Paths: The Palmer Consensus Revisited. *John W. Bieber, William H. Matthaeus, Charles W. Smith, Wolfgang Wanner, May-Britt Kallenrode, & Gerd Wibberenz.* 420, 294, 4-E5 (1994)

Current Sheets and Reconnection Driven by Footpoint Motion in Two-dimensional Coronal Loops with X-Type Neutral Lines. *Xiaogang Wang & A. Bhattacharjee.* 420, 415, 6-A9 (1994)

The Magnetic Field of Solar Prominences. *S. K. Antiochos, R. B. Dahlburg, & J. A. Klimchuk.* 420, L41, 7-F1 (1994)

Dynamics of the Magnetic Shearing Instability and Magnetohydrodynamic Turbulence in Accretion Disks. I. Vertical Magnetic Field. *W. Zhang, P. H. Diamond, & E. T. Vishniac.* 420, 705, 11-F2 (1994)

Local Shear Instabilities in Weakly Ionized, Weakly Magnetized Disks. *Omer M. Blaes & Steven A. Balbus.* 421, 163, 18-A12 (1994)
Enhanced Cosmic-Ray Acceleration Rates in Highly Inclined Astrophysical Shocks. *R. Lieu, J. J. Quenby, B. Drolias, & K. Naidu.* 421, 211, 18-E11 (1994)
Magnetic Shaping of Planetary Nebulae and Other Stellar Wind Bubbles. *Roger A. Chevalier & Ding Luo.* 421, 225, 18-G1 (1994)
The Flow in the Cometosheath of Comet Halley. *M. C. Damas, K. R. Flammer, D. A. Mendis, & K. Altwegg.* 421, 355, 20-D1 (1994)
Coronal Heating by the Resonant Absorption of Alfvén Waves: The Effect of Viscous Stress Tensor. *L. Ofman, J. M. Davila, & R. S. Steinolfson.* 421, 360, 20-D8 (1994)
The Effects of Kelvin-Helmholtz Instability on Resonance Absorption Layers in Coronal Loops. *Judith T. Karpen, Russell B. Dahlburg, & Joseph M. Davila.* 421, 372, 20-E10 (1994)
The Dynamics of Charged Particles in Turbulent Astrophysical Plasmas. *Rüdiger Dung & Vahé Petrosian.* 421, 550, 25-A6 (1994)
Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. II. Numerical Method of Solution. *Scott A. Morton, Telemachos Ch. Mouschovias, & Glenn E. Ciolek.* 421, 561, 25-B6 (1994)
Two Populations and Models of Gamma-Ray Bursts. *J. I. Katz.* 422, 248, 33-B12 (1994)
Some Implications of the Nanoflare Concept. *Peter J. Cargill.* 422, 381, 34-G2 (1994)
Forces on Magnetic Flux Tubes Moving in Inhomogeneous Flows. *F. Moreno-Insertis, A. Ferriz-Mas, & M. Schüssler.* 422, 652, 40-A5 (1994)
Magnetogravitational Instability of Self-gravitating Dusty Plasma. *R. K. Chhajlani & A. K. Parihar.* 422, 746, 41-B6 (1994)
Interactions between Nested Sunspots. I. The Formation and Breakup of a Delta-Type Sunspot. *V. Gaizauskas, K. L. Harvey, & M. Proulx.* 422, 883, 42-G6 (1994)
A Theoretical Review of Diffusive Shock Acceleration. *Frank C. Jones.* 90, 561, 10-F10 (1994)
Transport of Solar Energetic Particles. *Wolfgang Dröge.* 90, 567, 10-G3 (1994)
Turbulent Acceleration in Solar Flares. *D. B. Melrose.* 90, 623, 11-E1 (1994)
Weightiness of the Dispersive Rate in Stochastic Acceleration Processes. *J. Pérez-Peraza & A. Gallegos-Cruz.* 90, 669, 12-B1 (1994)
Particle Orbits, Trapping, and Acceleration in a Filamentary Current Sheet Model. *Bernhard Kliem.* 90, 719, 12-F6 (1994)
Acceleration from Field-Aligned Potential Drops. *Gerhard Haerendel.* 90, 765, 13-C5 (1994)
Electrodynamics of Disk-accreting Magnetic Neutron Stars. *M. Coleman Miller, Frederick K. Lamb, & Russell J. Hamilton.* 90, 833, 14-B4 (1994)
Particle Acceleration and Nonthermal Energy Release as an Effect of Magnetoactive Disk Accretion onto Gravitating Center. *N. R. Ikhsanov & L. A. Pustil'nik.* 90, 959, 15-F12 (1994)
Effect of Advected Fields on Accretion Disk Dynamos. *Arun V. Mangalam & K. Subramanian.* 90, 963, 15-G3 (1994)
Time-dependent Simulation of Cosmic-Ray Shocks, Including Alfvén Transport. *T. W. Jones.* 90, 969, 15-G10 (1994)
Oblique Magnetohydrodynamic Cosmic-Ray–modified Shocks: Two-Fluid Numerical Simulations. *Adam Frank, T. W. Jones, & Dongsu Ryu.* 90, 975, 16-A4 (1994)
Plasma Mechanisms for Variability in Active Galactic Nuclei. *Vinod Krishan & Paul J. Wiita.* 423, 172, 48-B13 (1994)
A Necessary Condition for the Stability of a Class of Three-dimensional Laminated Equilibria. *A. W. Longbottom, J. P. Melville, & A. W. Hood.* 423, 496, 52-C11 (1994)
Dynamical Properties of the Chromosphere In and Out of the Solar Magnetic Network. *Karine Bocchialini, Jean-Claude Vial, & Serge Koutchmy.* 423, L67, 54-B8 (1994)
A Numerical Study of the Sudden Eruption of Sheared Magnetic Fields. *George Roumeliotis, Peter A. Sturrock, & Spiro K. Antiochos.* 423, 847, 59-D1 (1994)
Oscillations and Evolution of Curved Current-carrying Loops in the Solar Corona. *Peter J. Cargill, James Chen, & David A. Garren.* 423, 854, 59-D10 (1994)
Magnetic Activity in Thick Accretion Disks and Associated Observable Phenomena. II. Flux Storage. *Sydney D'Silva & Sandip K. Chakrabarti.* 424, 149, 63-G6 (1994)
Physics and Evolution of Constant Opening Angle Jets Using a Quasi–One-dimensional Magnetohydrodynamic Model. *Theodoros Koupelis.* 424, 645, 72-G12 (1994)
Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. III. Typical Axisymmetric Solutions. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 425, 142, 82-A6 (1994)
Numerical Study of Two-Fluid C-Type Shock Waves. *Gábor Tóth.* 425, 171, 82-C11 (1994)
New Description of Charged Particle Propagation in Random Magnetic Fields. *James A. Earl.* 425, 331, 84-D7 (1994)
A New Path for the Electron Bulk Energization in Solar Flares: Fermi Acceleration by Magnetohydrodynamic Turbulence in Reconnection Outflows. *T. N. LaRosa, R. L. Moore, & S. N. Shore.* 425, 856, 92-D8 (1994)
An Upper Limit to the Electrodynamic Power Output from a Thin Accretion Disk around a Black Hole. *Seok Jae Park & Ethan T. Vishniac.* 426, 131, 97-F11 (1994)
Asymptotic Domination of Cold Relativistic MHD Winds by Kinetic Energy Flux. *Mitchell C. Begelman & Zhi-Yun Li.* 426, 269, 99-D9 (1994)
General Analytic Results for Nonlinear Waves and Solitons in Molecular Clouds. *Fred C. Adams, Marco Fatuzzo, & Richard Watkins.* 426, 629, 106-C5 (1994)
Spontaneous Reconnection of Line-tied Flux Tubes. *D. W. Longcope & H. R. Strauss.* 426, 742, 107-F5 (1994)
Are Cosmic Rays Effective for Ionization of Protoplanetary Disks? *Arkady Z. Dolginov & Tomasz F. Stepinski.* 427, 377, 114-E3 (1994)
A Converging Flux Model of an X-Ray Bright Point and an Associated Canceling Magnetic Feature. *E. R. Priest, C. E. Parnell, & S. F. Martin.* 427, 459, 115-E9 (1994)
Three-dimensional Force-free Looplike Magnetohydrodynamic Equilibria. *John M. Finn, Parvez N. Guzdar, & Daniel Usikov.* 427, 475, 115-G1 (1994)
Magnetic Energy Dissipation via Reconnective Relaxation in Astrophysical Jets. *G. E. Vekstein, E. R. Priest, & C. D. C. Steele.* 92, 111, 32-F13 (1994)
Structure and Evolution of Magnetically Supported Molecular Clouds: Evidence for Ambipolar Diffusion in the Barnard 1 Cloud. *R. M. Crutcher, Telemachos Ch. Mouschovias, T. H. Troland, & Glenn E. Ciolek.* 427, 839, 123-A13 (1994)
On Dirac Equations for Linear Magnetoacoustic Waves Propagating in an Isothermal Atmosphere. *R. Alicki, Z. E. Musielak, J. Sikorski, & D. Makowiec.* 427, 919, 124-A13 (1994)
Eigenfunction Solution of Boltzmann's Equation for the Case of a Focusing Magnetic Field with Finite Helicity. *H. L. Pauls & R. A. Burger.* 427, 927, 124-B9 (1994)
The Formation of Sharp Structures by Ambipolar Diffusion. *Axel Brandenburg & Ellen G. Zweibel.* 427, L91, 127-A11 (1994)
Gravitational Instabilities in a Proto–Planetary Disk Including the Effects of Magnetic Fields. *Hyerim Noh, Ethan T. Vishniac, & William D. Cochran.* 428, 275, 131-E9 (1994)
Nonlinear Evolution of the Coronal Magnetic Field under Reconnective Relaxation. *R. Wolfson, G. E. Vekstein, & E. R. Priest.* 428, 345, 132-D11 (1994)
Magnetically Driven Jets and Winds: Exact Solutions. *J. Contopoulos & R. V. E. Lovelace.* 429, 139, 145-G7 (1994)
Multifractal Models of Small-Scale Solar Magnetic Fields. *A. C. Cadavid, J. K. Lawrence, A. A. Ruzmaikin, & A. Kayleng-Knight.* 429, 391, 149-A2 (1994)
Generation of Radiation in Solar Corona and Interplanetary Space by Energetic Electrons. *C. S. Wu, Peter H. Yoon, & G. C. Zhou.* 429, 406, 149-B8 (1994)
The Evolution of Cosmic-Ray–mediated Magnetohydrodynamic Shocks: A Two-Fluid Approach. *Byung-Il Jun, David A. Clarke, & Michael L. Norman.* 429, 748, 155-A3 (1994)
Magnetocentrifugally Driven Flows from Young Stars and Disks. I. A Generalized Model. *Frank Shu, Joan Najita, Eve Ostriker, Frank Wilkin, Steven Ruden, & Susana Lizano.* 429, 781, 155-D5 (1994)
Magnetocentrifugally Driven Flows from Young Stars and Disks. II. Formulation of the Dynamical Problem. *Frank H. Shu, Joan Najita, Steven P. Ruden, & Susana Lizano.* 429, 797, 155-E9 (1994)
Magnetocentrifugally Driven Flows from Young Stars and Disks. III. Numerical Solution of the Sub-Alfvénic Region. *Joan R. Najita & Frank H. Shu.* 429, 808, 155-F9 (1994)

Magnetostatic Structures of the Solar Corona. I. A Model Based on the Cauchy Boundary Value Problem. *J. R. Hundhausen & B. C. Low.* 429, 876, 156-E7 (1994)
Stellar Winds with Non-WKB Alfvén Waves. I. Wind Models for Solar Coronal Conditions. *K. B. MacGregor & P. Charbonneau.* 430, 387, 164-A9 (1994)
Dynamo Generation of a Magnetic Field in the White Dwarf GD 358. *J. Andrew Markiel, John H. Thomas, & H. M. Van Horn.* 430, 834, 172-C7 (1994)
Disruption of Coronal Magnetic Field Arcades. *Zoran Mikić & Jon A. Linker.* 430, 898, 173-B6 (1994)
Magnetic Structure of Pulsar Winds. *F. Curtis Michel.* 431, 397, 181-A6 (1994)
Stochastic Reacceleration of Cosmic Rays in the Interstellar Medium. *E. S. Seo & V. S. Ptuskin.* 431, 705, 187-C10 (1994)
The Relativistic Rotation Transformation and Pulsar Electrodynamics. *S. Kichenassamy & R. A. Krikorian.* 431, 715, 187-D8 (1994)
Stable Space Charge Configurations near the Force-free Surface of Rotating Magnets. *K. O. Thielheim & H. Wolfsteller.* 431, 718, 187-D13 (1994)
Asymptotic Forms for the Energy of Force-free Magnetic Field Configurations of Translational Symmetry. *P. A. Sturrock, S. K. Antiochos, J. A. Klimchuk, & G. Roumeliotis.* 431, 870, 189-D14 (1994)
Force-free Fields in Thin Coronal Loops. *A. Gordon Emslie & L. K. Wilkinson.* 431, 873, 189-E5 (1994)
Parasitic Instabilities in Magnetized, Differentially Rotating Disks. *Jeremy Goodman & Guohong Xu.* 432, 213, 195-G7 (1994)
Magnetically Driven Relativistic Jets and Winds: Exact Solutions. *J. Contopoulos.* 432, 508, 202-C7 (1994)
Toward a Theory of Interstellar Turbulence. I. Weak Alfvénic Turbulence. *S. Sridhar & P. Goldreich.* 432, 612, 203-E11 (1994)
Shock Propagation and the Generation of Magnetohydrodynamic Wave Fields in Inhomogeneous Molecular Clouds. *Mark S. Miesch & Ellen G. Zweibel.* 432, 622, 203-F9 (1994)
Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. I. Axisymmetric Solutions. *Shantanu Basu & Telemachos Ch. Mouschovias.* 432, 720, 205-A6 (1994)
Stability Criteria for Massive Current Sheets in Two-dimensional Potential Magnetic Fields. *J. J. Aly, S. Colombi, & T. Lepeltier.* 432, 793, 205-G9 (1994)
Gravitomagnetics in Stationary Media. *E. Woyk.* 433, 357, 212-F11 (1994)
Three-dimensional Simulation Study of the Magnetohydrodynamic Relaxation Process in the Solar Corona. I. Spontaneous Generation of the Taylor-Heyvaerts-Priest State. *K. Kusano, Y. Suzuki, H. Kubo, T. Miyoshi, & K. Nishikawa.* 433, 361, 212-G3 (1994)
Numerical Simulations of Magnetic Accretion Disks. *James M. Stone & Michael L. Norman.* 433, 746, 220-D1 (1994)
Shock Interactions with Magnetized Interstellar Clouds. I. Steady Shocks Hitting Nonradiative Clouds. *Mordecai-Mark Mac Low, Christopher F. McKee, Richard I. Klein, James M. Stone, & Michael L. Norman.* 433, 757, 220-E2 (1994)
Long-Term Evolution of Crustal Neutron Star Magnetic Fields. *V. A. Urpin, G. Chanmugam, & Yeming Sang.* 433, 780, 220-G5 (1994)
On Nonlinear Radial Adiabatic Oscillations in Magnetic Polytropes. *M. K. Das, O. J. Mollikutty, & R. K. Tavakol.* 433, 786, 220-G13 (1994)
Waves and Instabilities of a Toroidal Magnetic Flux Tube in a Rotating Star. *A. Ferriz-Mas & M. Schüssler.* 433, 852, 221-F10 (1994)
Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. I. Emerging Bipolar Magnetic Regions. *E. N. Parker.* 433, 867, 222-A1 (1994)
Steady State Magnetic Reconnection in Planar Geometries. *I. J. D. Craig & S. M. Henton.* 434, 192, 228-B1 (1994)
On the Effects of a Weak Magnetic Field on Turbulent Transport. *Fausto Cattaneo.* 434, 200, 228-B12 (1994)
On the Global Stability of Magnetized Accretion Disks. I. Axisymmetric Modes. *Charles Curry, Ralph E. Pudritz, & Peter G. Sutherland.* 434, 206, 228-C7 (1994)
Coalescence of Two Current Loops with a Kink Instability Simulated by a Three-dimensional Electromagnetic Particle Code. *Ken-Ichi Nishikawa, Jun-ichi Sakai, Jie Zhao, Torsten Neubert, & Oscar Buneman.* 434, 363, 230-D7 (1994)
Disk-driven Hydromagnetic Winds as a Key Ingredient of Active Galactic Nuclei Unification Schemes. *Arieh Königl & John F. Kartje.* 434, 446, 233-G9 (1994)
Dynamo Generation of Magnetic Fields in Accretion Disks. *Arun V. Mangalam & K. Subramanian.* 434, 509, 234-F10 (1994)
Transition to Turbulence in Solar Surges. *Russell B. Dahlburg & Judith T. Karpen.* 434, 766, 238-D1 (1994)
The Study of Coronal Plasma Structures and Fluctuations with Faraday Rotation Measurements. *Takayuki Sakurai & Steven R. Spangler.* 434, 773, 238-E6 (1994)
A Thermal/Nonthermal Model for Solar Hard X-Ray Bursts. *Stephen G. Benka & Gordon D. Holman.* 435, 469, 249-G11 (1994)
The Possible Role of MHD Waves in Heating the Solar Corona. *Lisa J. Porter, James A. Klimchuk, & Peter A. Sturrock.* 435, 482, 250-B1 (1994)
The Possible Role of High-Frequency Waves in Heating Solar Coronal Loops. *Lisa J. Porter, James A. Klimchuk, & Peter A. Sturrock.* 435, 502, 250-C10 (1994)
Acoustic Mode Mixing in Sunspots. *Sydney D'Silva.* 435, 881, 258-C6 (1994)
The Gravitomagnetic Dynamo Effect in Accretion Disks of Rotating Black Holes. *Ramon Khanna & Max Camenzind.* 435, L129, 260-B3 (1994)
Equilibrium Structure of Solar Magnetic Flux Tubes: Energy Transport with Multistream Radiative Transfer. *S. S. Hasan & W. Kalkofen.* 436, 355, 266-B7 (1994)
Multiple Scattering and Resonant Absorption of *p*-Modes by Fibril Sunspots. *R. Keppens, T. J. Bogdan, & M. Goossens.* 436, 372, 266-E2 (1994)
On the Relation between Coronal Heating, Flux Tube Divergence, and the Solar Wind Proton Flux and Flow Speed. *Ørnulf Sandbæk, Egil Leer, & Viggo H. Hansteen.* 436, 390, 266-F9 (1994)
Interactions between Magnetohydrodynamical Shocks and Denser Clouds. *Wenlong Dai & Paul R. Woodward.* 436, 776, 276-B13 (1994)
Dynamics of Emerging Active Region Flux Loops. *Y. Fan, G. H. Fisher, & A. N. McClymont.* 436, 907, 278-B13 (1994)
What is the Condition for Fast Magnetic Reconnection? *T. Yokoyama & K. Shibata.* 436, L197, 282-E7 (1994)
Evolution and Statistics of Current Sheets in Coronal Magnetic Loops. *D. W. Longcope & R. N. Sudan.* 437, 491, 289-G8 (1994)
Umbral Oscillations in Sunspots: Absorption of *p*-Modes and Active Region Heating by Mode Conversion. *P. S. Cally, T. J. Bogdan, & E. G. Zweibel.* 437, 505, 290-A11 (1994)
The Form of Ideal Current Layers in Line-tied Magnetic Fields. *D. W. Longcope & H. R. Strauss.* 437, 851, 297-C10 (1994)
Collapse and Fragmentation of Magnetized Cylindrical Clouds. *Kohji Tomisaka.* 438, 226, 4-E3 (1995)
Time-Distance Helioseismology in the Vicinity of Sunspots. *Sydney D'Silva & Thomas L. Duvall, Jr.* 438, 454, 7-G1 (1995)
Comparisons between Theory and Observation of Active Region Tilts. *G. H. Fisher, Y. Fan, & R. F. Howard.* 438, 463, 8-A1 (1995)
Evolution of Magnetized Protoplanetary Disks. *Mauricio Reyes-Ruiz & Tomasz F. Stepinski.* 438, 750, 14-E10 (1995)
Toward a Theory of Interstellar Turbulence. II. Strong Alfvénic Turbulence. *P. Goldreich & S. Sridhar.* 438, 763, 14-F12 (1995)
Physics of Magnetospheric Emission in Soft Gamma-Ray Repeaters. *Fulvio Melia & Marco Fatuzzo.* 438, 904, 16-E7 (1995)
A Dynamical Model of Magnetic Clouds. *Tyan Yeh.* 438, 975, 17-E7 (1995)
The Wall of Reconnection-driven Magnetohydrodynamic Turbulence in a Large Solar Flare. *R. L. Moore, T. N. LaRosa, & L. E. Orwig.* 438, 985, 17-F6 (1995)
Is the Solar Chromospheric Magnetic Field Force-free? *Thomas R. Metcalf, Litao Jiao, Alexander N. McClymont, Richard C. Canfield, & Han Uitenbroek.* 439, 474, 27-E11 (1995)
Relativistic, Hot Stellar Winds with Anisotropic Pressure. *Elgouja G. Tsikarishvili, Andria D. Rogava, & David G. Tsiklauri.* 439, 822, 36-A1 (1995)
Cooling of Solar Flare Plasmas. I. Theoretical Considerations. *Peter J. Cargill, John T. Mariska, & Spiro K. Antiochos.* 439, 1034, 39-A3 (1995)
Magnetohydrodynamic Simulations of Outflows from Accretion Disks. *G. V. Ustyugova, A. V. Koldoba, M. M. Romanova, V. M. Chechetkin, & R. V. E. Lovelace.* 439, L39, 40-C3 (1995)
Nonequilibrium in Sheared Axisymmetric Force-free Magnetic Fields. *J. J. Aly.* 439, L63, 40-F13 (1995)
Self-trapping of Superfluid Vortices and the Origin of Pulsar Glitches. *Yuko Mochizuki & Takeo Izuyama.* 440, 263, 44-G2 (1995)
The Bright Knots at the Tops of Soft X-Ray Loops: Quantitative Results from *Yohkoh*. *G. A. Doschek, K. T. Strong, & S. Tsuneta.* 440, 370, 46-C7 (1995)

Magnetic Merging in Colliding Flux Tubes. *Ellen G. Zweibel & James E. Rhoads.* 440, 407, 46-G3 (1995)

Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. II. The Origin of Enhanced Solar Irradiance. *E. N. Parker.* 440, 415, 47-A1 (1995)

Alfvén Waves in Interstellar Gasdynamics. *Christopher F. McKee & Ellen G. Zweibel.* 440, 686, 52-F2 (1995)

Local Three-dimensional Magnetohydrodynamic Simulations of Accretion Disks. *John F. Hawley, Charles F. Gammie, & Steven A. Balbus.* 440, 742, 53-D4 (1995)

Testing the DC-Electric Field Model in a Solar Flare Observed by *Yohkoh* and the *Compton Gamma-Ray Observatory*. *D. M. Zarro, J. T. Mariska, & B. R. Dennis.* 440, 888, 55-D8 (1995)

Coronal Loop Formation Resulting from Photospheric Convection. *G. Van Hoven, Y. Mok, & Z. Mikić.* 440, L105, 58-D8 (1995)

Pair Cascades in Extragalactic Jets. I. Gamma Rays. *R. D. Blandford & A. Levinson.* 441, 79, 60-D11 (1995)

Propagation of Galactic Cosmic Rays under Diffusive Reacceleration. *U. Heinbach & M. Simon.* 441, 209, 62-C4 (1995)

Time-dependent Simulation of Oblique MHD Cosmic-Ray Shocks Using the Two-Fluid Model. *Adam Frank, T. W. Jones, & Dongsu Ryu.* 441, 629, 70-F11 (1995)

Emerging Flux Tubes in the Solar Convection Zone. I. Asymmetry, Tilt, and Emergence Latitude. *P. Caligari, F. Moreno-Insertis, & M. Schüssler.* 441, 886, 74-B12 (1995)

Magnetoconvection Dynamics in a Stratified Layer. I. Two-dimensional Simulations and Visualization. *Steven R. Lantz & R. N. Sudan.* 441, 903, 74-D4 (1995)

Magnetoconvection Dynamics in a Stratified Layer. II. A Low-Order Model of the Tilting Instability. *Steven R. Lantz.* 441, 925, 74-F2 (1995)

A Solar Flare Triggering Mechanism Based on the Woltjer-Taylor Minimum Energy Principle. *K. Kusano, Y. Suzuki, & K. Nishikawa.* 441, 942, 74-G9 (1995)

Observations of Magnetic Fields in Diffuse Clouds. *P. C. Myers, A. A. Goodman, R. Güsten, & C. Heiles.* 442, 177, 79-E11 (1995)

On Magnetic Turbulence in Interstellar Clouds. *P. C. Myers & V. K. Khersonsky.* 442, 186, 79-F9 (1995)

Numerical Magnetohydrodynamics in Astrophysics: Algorithm and Tests for One-dimensional Flow. *Dongsu Ryu & T. W. Jones.* 442, 228, 80-C5 (1995)

Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. III. Extended Updrafts. *E. N. Parker.* 442, 405, 82-E8 (1995)

Incorporation of Ambipolar Diffusion into the ZEUS Magnetohydrodynamics Code. *Mordecai-Mark Mac Low, Michael L. Norman, Arieh Königl, & Mark Wardle.* 442, 726, 90-B10 (1995)

Brunt-Väisälä Growth Rate and the Radial Emergence of Equipartition Fields. *Sydney D'Silva.* 443, 444, 101-B11 (1995)

Heating of the Solar Middle Chromosphere by Large-Scale Electric Currents. *Michael L. Goodman.* 443, 450, 101-C7 (1995)

Asymptotic Analysis of Force-free Magnetic Fields of Cylindrical Symmetry. *P. A. Sturrock, S. K. Antiochos, & G. Roumeliotis.* 443, 804, 109-A1 (1995)

Shear-induced Opening of the Coronal Magnetic Field. *Richard Wolfson.* 443, 810, 109-A11 (1995)

Magnetostatic Structures of the Solar Corona. II. The Magnetic Topology of Quiescent Prominences. *B. C. Low & J. R. Hundhausen.* 443, 818, 109-B9 (1995)

Coronal Heating in Flare Stars: Resonant MHD Absorption? *D. J. Mullan & M. Johnson.* 444, 350, 118-C12 (1995)

A Numerical Study of Resonant Absorption in a Magnetohydrodynamic Cavity Driven by a Broadband Spectrum. *Andrew N. Wright & Graham J. Rickard.* 444, 458, 119-G13 (1995)

Coronal Heating by the Resonant Absorption of Alfvén Waves: Wavenumber Scaling Laws. *L. Ofman, J. M. Davila, & R. S. Steinolfson.* 444, 471, 120-B1 (1995)

Magnetohydrodynamic Disk-Wind Connection: Self-similar Solutions. *Zhi-Yun Li.* 444, 848, 128-B11 (1995)

Hydromagnetic Waves and the Linewidth-Size Relation in Interstellar Molecular Clouds. *Telemachos Ch. Mouschovias & Dimitrios Psaltis.* 444, L105, 131-A8 (1995)

Vacuum Zero-Point Field Pressure Instability in Astrophysical Plasmas and the Formation of Cosmic Voids. *Alfonso Rueda, Bernhard Haisch, & Daniel C. Cole.* 445, 7, 132-D10 (1995)

Magnetic Interchange Instability in Accretion Disks. *Stephen H. Lubow & Hendrik C. Spruit.* 445, 337, 137-B9 (1995)

Three Low-Energy Particle Events: Modeling the Influence of the Parent Interplanetary Shock. *A. M. Heras, B. Sanahuja, D. Lario, Z. K. Smith, T. Detman, & M. Dryer.* 445, 497, 139-D4 (1995)

Equilibrium in the Oblique Rotating Outer Pulsar Magnetosphere. *Geoffrey Endean.* 445, 762, 145-F7 (1995)

Magnetic Viscosity by Localized Shear Flow Instability in Magnetized Accretion Disks. *R. Matsumoto & T. Tajima.* 445, 767, 145-G1 (1995)

Force-free Self-similar Magnetically Driven Relativistic Jets. *J. Contopoulos.* 446, 67, 154-B9 (1995)

The Electrical Current Structure Associated with Solar Flare Electrons Accelerated by Large-Scale Electric Fields. *A. Gordon Emslie & Jean-Claude Hénoux.* 446, 371, 158-D1 (1995)

Photospheric Magnetic Field Evolution and Eruptive Flares. *T. G. Forbes & E. R. Priest.* 446, 377, 158-D10 (1995)

Alfvén Turbulence Dissipation in Proton Injection and Acceleration in Solar Flares. *Dean F. Smith & James A. Miller.* 446, 390, 158-E12 (1995)

The Dynamics of Flux Tubes in a High-β Plasma. I. A General Description. *Ethan T. Vishniac.* 446, 724, 166-B1 (1995)

Dynamo-generated Turbulence and Large-Scale Magnetic Fields in a Keplerian Shear Flow. *Axel Brandenburg, Åke Nordlund, Robert F. Stein, & Ulf Torkelsson.* 446, 741, 166-C7 (1995)

Superfluid Core Rotation in Pulsars. I. Vortex Cluster Dynamics. *Armen D. Sedrakian & David M. Sedrakian.* 447, 305, 176-F1 (1995)

Constraints on Energy Storage and Release Models for Astrophysical Transients and Solar Flares. *Edward T. Lu.* 447, 416, 178-B8 (1995)

Anisotropic Modal Energy Transfer in Interstellar Turbulence. *David Montgomery & William H. Matthaeus.* 447, 706, 185-F10 (1995)

Magnetocentrifugally Driven Flows from Young Stars and Disks. IV. The Accretion Funnel and Dead Zone. *Eve C. Ostriker & Frank H. Shu.* 447, 813, 187-B11 (1995)

Magnetohydrodynamic Waves in a Bounded Inhomogeneous Medium with Prominence-Corona Properties. *R. Oliver & J. L. Ballester.* 448, 444, 198-C8 (1995)

Flux Retraction and Recycling: Negative Buoyancy–induced Oscillations as an Alternative to Parker's Thermal Relaxation Oscillations. *Sydney D'Silva.* 448, 459, 198-D12 (1995)

Effects of Pressure and Resistivity on the Ambipolar Diffusion Singularity: Too Little, Too Late. *Axel Brandenburg & Ellen G. Zweibel.* 448, 734, 204-G12 (1995)

On the Generation of Flux-Tube Waves in Stellar Convection Zones. II. Improved Treatment of Longitudinal Tube Wave Generation. *Z. E. Musielak, R. Rosner, H. P. Gail, & P. Ulmschneider.* 448, 865, 206-G7 (1995)

Magnetic Buoyancy, Vorticity, and Three-dimensional Flux-Tube Formation. *P. C. Matthews, D. W. Hughes, & M. R. E. Proctor.* 448, 938, 207-G11 (1995)

Nonlinear Energy Transfer in Solar Magnetic Loops. *Daniel O. Gómez, Edward E. DeLuca, & Alexander N. McClymont.* 448, 954, 208-B8 (1995)

Destabilization of Strongly Magnetized Jets. *Philip E. Hardee & David A. Clarke.* 449, 119, 211-G4 (1995)

Self-Consistency Constraints on the Dynamo Mechanism. *A. Bhattacharjee & Y. Yuan.* 449, 739, 223-A6 (1995)

Magnetohydrodynamic Stellar Winds: A New Class of Solutions. *Néstor O. Rotstein & Constantino Ferro Fontán.* 449, 745, 223-B1 (1995)

Magnetohydrodynamic Stellar Wind Solutions in Curved Magnetic Fields. *Néstor O. Rotstein & Constantino Ferro Fontán.* 449, 764, 223-C9 (1995)

One-dimensional Merging of Magnetic Fields with Cooling. *Victoria L. Dorman & Russell M. Kulsrud.* 449, 777, 223-D11 (1995)

Structure of a Fluid Disk around a Magnetized Compact Object in the Presence of a Self-consistent Toroidal Magnetic Field. *D. Banerjee, J. R. Bhatt, A. C. Das, & A. R. Prasanna.* 449, 789, 223-E12 (1995)

Exact Solutions for Steady State Incompressible Magnetic Reconnection. *I. J. D. Craig & S. M. Henton.* 450, 280, 231-G9 (1995)

The Role of Magnetic Reconnection in Chromospheric Eruptions. *Judith T. Karpen, Spiro K. Antiochos, & C. Richard DeVore.* 450, 422, 233-G3 (1995)

A Model of Nonlinear Dynamo Action in Lenticular Galaxies. *Matthew R. Walker & Carlo F. Barenghi.* 450, 540, 238-B12 (1995)

Effects of Weak-to-Moderate Vertical Magnetic Fields on Solar *f*- and *p*-Modes. *P. S. Cally.* 451, 372, 251-A8 (1995)

The Effects on Mass Flows on the Dissipation of Alfvén Waves in the Upper Layers of the Solar Atmosphere. *Margarita P. Ryutova & Shadia R. Habbal.* 451, 381, 251-B7 (1995)

Current Paths in the Corona and Energy Release in Solar Flares. *D. B. Melrose.* 451, 391, 251-C6 (1995)

Emission and Dynamics of a Heavy Three-dimensional Magnetized Jet. *Philip E. Hardee & David A. Clarke.* 451, L25, 252-D11 (1995)

Parity Nonconservation and Neutrino Transport in Magnetic Fields. *Alexander Vilenkin.* 451, 700, 256-G4 (1995)

The Influence of a Vertical Magnetic Field on Oscillations in an Isothermal Stratified Atmosphere. II. *Dipankar Banerjee, S. S. Hasan, & J. Christensen-Dalsgaard.* 451, 825, 258-E11 (1995)

Triggered Magnetic Energy Release in Solar Flares. *Y. Q. Hu, X. Li, & G. X. Ai.* 451, 843, 258-G4 (1995)

Hot-Plasma Ejections Associated with Compact-Loop Solar Flares. *K. Shibata, S. Masuda, M. Shimojo, H. Hara, T. Yokoyama, S. Tsuneta, T. Kosugi, & Y. Ogawara.* 451, L83, 261-B2 (1995)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. II. A Parameter Study. *Shantanu Basu & Telemachos Ch. Mouschovias.* 452, 386, 267-D7 (1995)

Galactic Cosmic-Ray Mediation of a Spherical Solar Wind Flow. II. The Steady State Hydromagnetic Approximation. *J. A. le Roux & V. S. Ptuskin.* 452, 423, 267-G11 (1995)

Klein-Gordon Equation and the Local Critical Frequency for Alfvén Waves Propagating in an Isothermal Atmosphere. *Z. E. Musielak & R. L. Moore.* 452, 434, 268-A11 (1995)

Mass Flux and Terminal Velocities of Magnetically Driven Jets from Accretion Disks. *Takahiro Kudoh & Kazunari Shibata.* 452, L41, 270-B1 (1995)

Numerical Magnetohydrodynamics in Astrophysics: Algorithm and Tests for Multidimensional Flow. *Dongsu Ryu, T. W. Jones, & Adam Frank.* 452, 785, 275-D7 (1995)

"Explosion" and Intensification of Magnetic Flux Tubes. *F. Moreno-Insertis, P. Caligari, & M. Schüssler.* 452, 894, 277-A11 (1995)

Maxwell's Equations in the Einstein Universe and Chronometric Cosmology. *I. E. Segal & Z. Zhou.* 100, 307, 50-D1 (1995)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. III. Effect of the Initial Mass-to-Flux Ratio. *Shantanu Basu & Telemachos Ch. Mouschovias.* 453, 271, 284-G9 (1995)

A Numerical Study of Rayleigh-Taylor Instability in Magnetic Fluids. *Byung-Il Jun, Michael L. Norman, & James M. Stone.* 453, 332, 285-F9 (1995)

General Local Stability Criteria for Stratified, Weakly Magnetized Rotating Systems. *Steven A. Balbus.* 453, 380, 286-C13 (1995)

Dynamo Generation of Magnetic Fields in White Dwarfs. *John H. Thomas, J. Andrew Markiel, & H. M. Van Horn.* 453, 403, 286-F3 (1995)

Coronal Loop Oscillations Driven by Footpoint Motions: Analytical Results for a Model Problem. *David Berghmans & Peter De Bruyne.* 453, 495, 287-G10 (1995)

On the Global Stability of Magnetized Accretion Disks. II. Vertical and Azimuthal Magnetic Fields. *Charles Curry & Ralph E. Pudritz.* 453, 697, 293-D6 (1995)

Pitch Angle Diffusion Coefficient in an Extended Quasi-linear Theory. *C. K. Ng & D. V. Reames.* 453, 890, 296-C3 (1995)

Jacket Modes: Solar Acoustic Oscillations Confined to Regions Surrounding Sunspots and Plage. *T. J. Bogdan & P. S. Cally.* 453, 919, 296-F1 (1995)

The Corrugation Instability in Slow Magnetosonic Shock Waves. *James M. Stone & Mark Edelman.* 454, 182, 301-G7 (1995)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. IV. Effect of Ultraviolet Ionization and Magnetically Controlled Infall Rate. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 454, 194, 302-A10 (1995)

Quadrupolar Force-free Magnetic Fields with Singular Current Density Surfaces. *Y. Q. Hu.* 454, 480, 305-G12 (1995)

Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. V. Coriolis Force and the Centrifugal Potential Barrier. *E. N. Parker.* 454, 927, 314-E10 (1995)

Scaling Law of Solar Coronal Loops Obtained with *Yohkoh*. *Ryouhei Kano & Saku Tsuneta.* 454, 934, 314-F7 (1995)

Radiation Pressure–driven Magnetic Disk Winds in Broad Absorption Line Quasi-stellar Objects. *Martijn de Kool & Mitchell C. Begelman.* 455, 448, 328-B3 (1995)

The Damping of Compressional Alfvén Waves near Magnetic Cusp Configurations. *R. A. Scheper & A. B. Hassam.* 455, 693, 331-D11 (1995)

Magnetocentrifugally Driven Flows from Young Stars and Disks. V. Asymptotic Collimation into Jets. *Frank H. Shu, Joan Najita, Eve C. Ostriker, & Hsien Shang.* 455, L155, 334-C6 (1995)

An Exact Solution for Steady State Magnetic Reconnection in Three Dimensions. *I. J. D. Craig, R. B. Fabling, S. M. Henton, & G. J. Rickard.* 455, L197, 335-A11 (1995)

MASERS

Radiative Transfer in Astronomical Masers. III. Filamentary Masers. *Moshe Elitzur, Christopher F. McKee, & David J. Hollenbach.* 367, 333, 16-B10 (1991)

Spectral Line Profiles and Luminosities of Astrophysical Water Masers. *Gerald E. Nedoluha & William D. Watson.* 367, L63, 22-C11 (1991)

Excitation of Millimeter and Submillimeter Water Masers. *David A. Neufeld & Gary J. Melnick.* 368, 215, 25-F11 (1991)

Saturation of the Synchrotron Megamaser. *André R. Crusius-Wätzel.* 368, 390, 30-A1 (1991)

Circular Polarization in 1612 MHz OH Maser Emission from OH/IR Stars. *Philip J. Zell & John D. Fix.* 369, 506, 44-A9 (1991)

Polarization of Astronomical Maser Radiation. *Moshe Elitzur.* 370, 407, 52-C12 (1991)

The Cyclotron Maser Instability: Application to Low-Density Magnetoplasmas. *H. P. Ladreiter.* 370, 419, 52-D12 (1991)

Fluctuations in Astronomical Masers. *Moshe Elitzur.* 370, L45, 53-F6 (1991)

New OH Main-Line Detections of OH/IR Stars. *Dale F. Dickinson & B. E. Turner.* 75, 1323, 23-A9 (1991)

Solar and Stellar Radio Spikes: Limits on the Saturation of the Electron-Cyclotron Maser. *Donat G. Wentzel & Markus J. Aschwanden.* 372, 688, 84-C1 (1991)

VLBI Observations of Interstellar Ammonia Masers. *Preethi Pratap, Karl M. Menten, Mark J. Reid, James M. Moran, & C. Malcolm Walmsley.* 373, L13, 91-B12 (1991)

Collisional Pumping of H_2O Masers in Star-forming Regions. *Nikolaos D. Kylafis & Colin A. Norman.* 373, 525, 94-D13 (1991)

Variability of Interstellar Hydroxyl Masers. *Andrew W. Clegg & James M. Cordes.* 374, 150, 99-G11 (1991)

NGC 7538 IRS 1: Subarcsecond Resolution Recombination Line and $^{15}NH_3$ Maser Observations. *R. A. Gaume, K. J. Johnston, H. A. Nguyen, T. L. Wilson, H. R. Dickel, W. M. Goss, & M. C. H. Wright.* 376, 608, 133-G12 (1991)

321 GHz Submillimeter Water Masers around Evolved Stars. *Karl M. Menten & Gary J. Melnick.* 377, 647, 147-F8 (1991)

Kinematical Models of Maser Shells Formed by Aspherical Stellar Outflows (U Orionis; OH 231.8+4.2; Orion-IRc2). *P. F. Bowers.* 76, 1099, 40-G9 (1991)

Pumping the Interstellar (6,3) Ammonia Maser. *Ronald D. Brown & Dinah M. Cragg.* 378, 445, 156-D10 (1991)

Excitation of the Hydroxyl Maser in OH/IR Stars. *Dale F. Dickinson.* 379, L29, 169-C11 (1991)

The Discovery of a New, Very Strong, and Widespread Interstellar Methanol Maser Line. *Karl M. Menten.* 380, L75, 188-E1 (1991)

Molecular Line Survey of Sagittarius B2(M) from 330 to 355 GHz and Comparison with Sagittarius B2(N). *E. C. Sutton, P. A. Jaminet, W. C. Danchi, & Geoffrey A. Blake.* 77, 255, 47-F1 (1991)

The Zeeman Effect in Astrophysical Water Masers and the Observation of Strong Magnetic Fields in Regions of Star Formation. *Gerald E. Nedoluha & William D. Watson.* 384, 185, 3-C5 (1992)

The Distribution of the 6_2–6_1 and 5_2–5_1 *E*-Type Methanol Masers in OMC-1. *K. J. Johnston, R. Gaume, S. Stolovy, T. L. Wilson, C. M. Walmsley, & K. M. Menten.* 385, 232, 14-G3 (1992)

Positions of the Radio Recombination Line Masers in MWC 349. *P. Planesas, J. Martín-Pintado, & E. Serabyn.* 386, L23, 29-D1 (1992)

A Survey of CS $J = 7 \rightarrow 6$ in Regions of Massive Star Formation. *René Plume, D. T. Jaffe, & Neal J. Evans II.* 78, 505, 9-F5 (1992)

Are the NGC 7538 Formaldehyde Masers Really Unusual? *Preethi Pratap, Lewis E. Snyder, & Wolfgang Batrla.* 387, 241, 40-A1 (1992)

Time Variations in Millimeter-Wave Radio Recombination Lines from the Be Star MWC 349A. *M. A. Gordon.* 387, 701, 47-D5 (1992)

Radiative Instabilities and 1000 Second Fluctuations in Astrophysical Masers. *Gerardo A. Scappaticci & William D. Watson.* 387, L73, 48-C10 (1992)

Probing the Circumstellar Environments of Very Young Low-Mass Stars Using Water Masers. *S. Terebey, S. N. Vogel, & P. C. Myers.* 390, 181, 76-C1 (1992)

1612 MHz OH Maser Emission from Axisymmetric Circumstellar Envelopes: Miras. *Alan J. Collison & John D. Fix.* 390, 191, 76-C13 (1992)
Discovery of Bipolar OH Maser Emission from the High-Latitude Supergiant Star HD 101584. *P. te Lintel Hekkert, J. M. Chapman, & A. A. Zijlstra.* 390, L23, 78-D9 (1992)
Location of the Dust Formation Region for Mira Variables. *P. F. Bowers.* 390, L27, 78-E1 (1992)
VLA Observations of 1612 and 1665 MHz OH Masers Associated with IRC +10420. *G. E. Nedoluha & P. F. Bowers.* 392, 249, 104-A9 (1992)
The Powering Sources of the Molecular Outflows in the AFGL 437, AFGL 5142, and AFGL 5157 Regions. *José M. Torrelles, José F. Gómez, Guillem Anglada, Robert Estalella, Rainer Mauersberger, & Carlos Eiroa.* 392, 616, 109-G9 (1992)
Distance and Kinematics of the W49N H_2O Maser Outflow. *C. R. Gwinn, J. M. Moran, & M. J. Reid.* 393, 149, 116-A1 (1992)
Water Masers in W49N—The Youngest Stellar Jet? *Mordecai-Mark Mac Low & Moshe Elitzur.* 393, L33, 120-E6 (1992)
Problems with the Standard Theory of Three-dimensional Masers. *David A. Neufeld.* 393, L37, 120-F1 (1992)
Planar H_2O Masers in Star-forming Regions. *Moshe Elitzur, David J. Hollenbach, & Christopher F. McKee.* 394, 221, 130-F10 (1992)
OH/IR Star Color Mimics. *B. M. Lewis.* 396, 251, 158-B13 (1992)
Mid-Infrared Imaging of Orion BN/KL: Astrometry of IRc2 and the SiO Maser. *Daniel Y. Gezari.* 396, L43, 160-G8 (1992)
Interstellar Scattering toward the Galactic Center as Probed by OH/IR Stars. *Huib Jan van Langevelde, Dale A. Frail, James M. Cordes, & Philip J. Diamond.* 396, 686, 165-G9 (1992)
IRAS 14070+0525: An OH Gigamaser at $z = 0.265$. *Willem A. Baan, James Rhoads, Karl Fisher, Daniel R. Altschuler, & Aubrey Haschick.* 396, L99, 167-E1 (1992)
The Detection of a New, Nonmasing Transition of Methanol at 28.3 GHz. *V. I. Slysh, S. V. Kalenskii, & I. E. Val'tts.* 397, L43, 173-F3 (1992)
On the Nature of the Bipolar Molecular Outflow in AFGL 437. *J. F. Gómez, J. M. Torrelles, R. Estalella, G. Anglada, L. Verdes-Montenegro, & P. T. P. Ho.* 397, 492, 177-A1 (1992)
Kinematics of W3(OH): First Proper Motions of OH Masers from VLBI Measurements. *E. E. Bloemhof, M. J. Reid, & J. M. Moran.* 397, 500, 177-A12 (1992)
OH/IR Stars in the Magellanic Clouds. *P. R. Wood, J. B. Whiteoak, S. M. G. Hughes, M. S. Bessell, F. F. Gardner, & A. R. Hyland.* 397, 552, 177-G5 (1992)
Variation in the Near-Infrared Surface Brightness Distribution of the Bipolar Nebula OH 231.8+4.2. *Joel H. Kastner, David A. Weintraub, B. Zuckerman, E. E. Becklin, I. McLean, & I. Gatley.* 398, 552, 191-A8 (1992)
Modeling SiO Maser Emission from Late-Type Stars. *Philip Lockett & Moshe Elitzur.* 399, 704, 206-F9 (1992)
Interacting H_2O Masers in Star-forming Regions. *Nikolaos D. Kylafis & Konstantinos G. Pavlakis.* 400, 344, 213-B12 (1992)
Rapid Time Variations and Radiative Instabilities of Astrophysical Masers. *Gerardo A. Scappaticci & William D. Watson.* 400, 351, 213-C7 (1992)
VLBI Observations of the 6.7 GHz Methanol Masers toward W3(OH). *K. M. Menten, M. J. Reid, P. Pratap, J. M. Moran, & T. L. Wilson.* 401, L39, 227-F1 (1992)
High-Excitation ^{29}SiO and ^{30}SiO Maser Emission. *J. Cernicharo & V. Bujarrabal.* 401, L109, 233-E5 (1992)
OH and H_2O Masers in Sagittarius B1: Evidence for Ongoing Star Formation. *David M. Mehringer, Patrick Palmer, & W. M. Goss.* 402, L69, 13-A1 (1993)
Evidence for the Cospatial Origin of SiO Masers in Different Rotational Transitions. *G. C. McIntosh & C. Read Predmore.* 404, L71, 40-E11 (1993)
Near-Infrared Imaging of the Becklin-Neugebauer–IRc2 Region in Orion with Subarcsecond Resolution. *C. Dougados, P. Léna, S. T. Ridgway, J. C. Christou, & R. G. Probst.* 406, 112, 56-E5 (1993)
Microarcsecond Proper Motions of Extragalactic Water Vapor Masers in M33. *L. J. Greenhill, J. M. Moran, M. J. Reid, K. M. Menten, & H. Hirabayashi.* 406, 482, 63-F13 (1993)
Diagonalization of the Velocity Variance/Covariance Matrix as a Diagnostic of Maser Proper Motions. *E. E. Bloemhof.* 406, L75, 68-E9 (1993)
High-Excitation SiO Maser Emission in VY Canis Majoris: Detection of the $v = 4$ $J = 5$–4 Transition. *J. Cernicharo, V. Bujarrabal, & J. L. Santarén.* 407, L33, 75-D6 (1993)
Relaxation of Molecular Velocities and Spectral Line Profiles of Astrophysical Masers. *Nels Anderson & William D. Watson.* 407, 620, 78-C10 (1993)
Synthesis Images of 6.7 GHz Methanol Masers. *R. P. Norris, J. B. Whiteoak, J. L. Caswell, M. H. Wieringa, & R. G. Gough.* 412, 222, 144-G8 (1993)
Pumping of Main Line OH Masers in the Circumstellar Envelopes of Type I Mira Variables. *Alan J. Collison & Gerald E. Nedoluha.* 413, 735, 165-E10 (1993)
The Detection of a New Methanol Maser Transition at 9.9 GHz. *V. I. Slysh, S. V. Kalenskii, & I. E. Val'tts.* 413, L133, 169-C6 (1993)
Infrared Coronal Emission Lines and the Possibility of Their Laser Emission in Seyfert Nuclei. *Matthew A. Greenhouse, Uri Feldman, Howard A. Smith, Marcel Klapisch, Anand K. Bhatia, & Avi Bar-Shalom.* 88, 23, 40-C11 (1993)
A Masing [Fe XI] Line. *G. J. Ferland.* 88, 49, 40-F13 (1993)
Polarization of Astronomical Maser Radiation. II. Polarization Modes and Unsaturated Growth. *Moshe Elitzur.* 416, 256, 204-C7 (1993)
Discovery of Interstellar Water Lines at 437, 439, and 471 GHz: Strong Case for Water Maser Formation behind C-Type Shocks. *Gary J. Melnick, Karl M. Menten, Thomas G. Phillips, & Todd Hunter.* 416, L37, 207-E13 (1993)
High-Resolution Centimeter Radio Continuum and Ammonia Maser Observations of the W51 Region of Star Formation. *R. A. Gaume, K. J. Johnston, & T. L. Wilson.* 417, 645, 227-D1 (1993)
Simulated Ratio Recombination Line Emission at 1.3 Centimeters toward MWC 349. *J. Martín-Pintado, R. Gaume, R. Bachiller, K. Johnston, & P. Planesas.* 418, L79, 245-E2 (1993)
Stimulated Raman Scattering as an Explanation for the Extreme High-Velocity Features of Water Maser Emission. *Shuji Deguchi.* 420, 551, 9-D11 (1994)
The Nature of the Radio Recombination Line Emission from MWC 349A. *M. A. Gordon.* 421, 314, 19-G7 (1994)
Pumping of Main Line OH Masers in the Circumstellar Envelopes of OH/Infrared Stars. *Alan J. Collison & Gerald E. Nedoluha.* 422, 193, 32-E1 (1994)
The Angular Structure and Intraday Variability of a Water Vapor Maser in IC 10. *A. L. Argon, L. J. Greenhill, J. M. Moran, M. J. Reid, K. M. Menten, C. Henkel, & M. Inoue.* 422, 586, 39-B7 (1994)
On the Theory of Astronomical Masers in Three Dimensions. *Moshe Elitzur.* 422, 751, 41-B13 (1994)
Intensity-dependent Circular Polarization and Circumstellar Magnetic Fields from the Observation of SiO Masers. *Gerald E. Nedoluha & William D. Watson.* 423, 394, 51-A11 (1994)
Star Formation in the Galactic Center Dust Ridge. *D. C. Lis, K. M. Menten, E. Serabyn, & R. Zylka.* 423, L39, 53-F1 (1994)
The Spatial Size of the SiO Masers in R Leonis Derived from Lunar Occultations. *J. Cernicharo, W. Brunswig, G. Paubert, & S. Liechti.* 423, L143, 61-C13 (1994)
The H_2O Masers in IC 10SE. *Willem A. Baan & Aubrey Haschick.* 424, L33, 69-E1 (1994)
Basic Theory for Polarized, Astrophysical Maser Radiation in a Magnetic Field. *William D. Watson.* 424, L37, 69-E8 (1994)
The W3 IRS 5 Cluster: Radio Continuum and Water Maser Observations. *M. J. Claussen, R. A. Gaume, K. J. Johnston, & T. L. Wilson.* 424, L41, 69-E13 (1994)
Modeling of the Hydrogen Maser Disk in MWC 349. *Victor O. Ponomarev, Howard A. Smith, & Vladimir S. Strelnitski.* 424, 976, 77-A1 (1994)
Apparent Sizes and Spectral Line Profiles for Spherical ("Three-dimensional") Astrophysical Masers. *Robert T. Emmering & William D. Watson.* 424, 991, 77-B8 (1994)
Shock-excited Maser Emission from the Supernova Remnant W28. *D. A. Frail, W. M. Goss, & V. I. Slysh.* 424, L111, 79-C8 (1994)
Anisotropic Scattering of OH/IR Stars toward the Galactic Center. *Dale A. Frail, Philip J. Diamond, James M. Cordes, & Huib Jan Van Langevelde.* 427, L43, 117-F6 (1994)
Radio Continuum, Ammonia, and Water Maser Observations of Bright, Unassociated *IRAS* Point Sources. *Mari Paz Miralles, Luis F. Rodríguez, & Eugenio Scalise.* 92, 173, 33-F3 (1994)
VLA Positions and Distributions of H_2O Masers Associated with 15 Mira and Semiregular Variables. *P. F. Bowers & K. J. Johnston.* 92, 189, 33-G8 (1994)
A Protostellar Jet Model for the Water Masers in W49N. *Mordecai-Mark Mac Low, Moshe Elitzur, James M. Stone, & Arieh Königl.* 427, 914, 124-A7 (1994)

Circular and Linear Polarization of the SiO Masers in VY Canis Majoris. *G. C. McIntosh, C. Read Predmore, & Nimesh A. Patel.* 428, L29, 134-E1 (1994)

Discovery of $^{14}NH_3(3, 3)$ Maser Emission in the Interstellar Medium. *Jeffrey G. Mangum & Alwyn Wootten.* 428, L33, 134-E8 (1994)

Physical Structure of H_2O Masers in W49N. *C. R. Gwinn.* 429, 253, 147-C3 (1994)

Observation of a Ring Structure in SiO Maser Emission from Late-Type Stars. *P. J. Diamond, A. J. Kemball, W. Junor, A. Zensus, J. Benson, & V. Dhawan.* 430, L61, 166-A10 (1994)

Observations of the Acceleration Regions of OH/IR Stars. *John D. Fix & Mark G. Mulhern.* 430, 824, 172-B5 (1994)

Detection of Formaldehyde Maser Emission near the Ultracompact H II Region G29.96−0.02. *Preethi Pratap, Karl M. Menten, & Lewis E. Snyder.* 430, L129, 175-A13 (1994)

Water Masers Associated with Low-Mass Stars: A 13 Month Monitoring Survey. *Bruce A. Wilking, Mark J. Claussen, Priscilla J. Benson, Philip C. Myers, Susan Terebey, & Alwyn Wootten.* 431, L119, 192-B1 (1994)

Scattered Halos around H_2O Masers. *C. R. Gwinn.* 431, L123, 192-B7 (1994)

Evidence from Masers for a Rapidly Rotating Disk at the Nucleus of NGC 4258. *William D. Watson & Bradley K. Wallin.* 432, L35, 199-E8 (1994)

Laser Action in Far-Infrared Astrophysical Sources. *Jianfang Peng & Anil K. Pradhan.* 432, L123, 207-B7 (1994)

Pump Cycles and Population Flow Networks in Astrophysical Masers: An Application to Class II Methanol Masers with Different Saturation Degrees. *A. M. Sobolev & S. Deguchi.* 433, 719, 220-A6 (1994)

New Formaldehyde Masers in Sagittarius B2. *David M. Mehringer, W. M. Goss, & Patrick Palmer.* 434, 237, 228-F6 (1994)

Water Maser Emission from X-Ray–heated Circumnuclear Gas in Active Galaxies. *David A. Neufeld, Philip R. Maloney, & Sarah Conger.* 436, L127, 281-A13 (1994)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. I. The $7° < |B| < 8°$ Strips. *H. Izumiura, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, N. Ukita, & I. Yamamura.* 437, 419, 288-G11 (1994)

The Masering Torus in NGC 4258. *Aubrey D. Haschick, Willem A. Baan, & Eric W. Peng.* 437, L35, 291-F6 (1994)

The Discovery of Five New H_2O Megamasers in Active Galaxies. *J. A. Braatz, A. S. Wilson, & C. Henkel.* 437, L99, 299-A8 (1994)

Shock-excited NH_3 (3,3) Masers in the NGC 6334 Star-forming Region. *Kathleen E. Kraemer & James M. Jackson.* 439, L9, 29-F7 (1995)

On the Current Status of Maser Polarization Theory. *Moshe Elitzur.* 440, 345, 45-G13 (1995)

Detection of a Subparsec Diameter Disk in the Nucleus of NGC 4258. *L. J. Greenhill, D. R. Jiang, J. M. Moran, M. J. Reid, K. Y. Lo, & M. J. Claussen.* 440, 619, 51-F8 (1995)

HCN Emission from Bright Carbon Stars: The Ground State Masers and Peculiar Broad Features. *Hideyuki Izumiura, Nobuharu Ukita, & Takashi Tsuji.* 440, 728, 53-C1 (1995)

A Nonlocal Calculation of Circumstellar OH Maser Emission. *Alan J. Collison & Gerald E. Nedoluha.* 442, 311, 81-D6 (1995)

Detection of a Series of Methanol Maser Lines at 1.9 Millimeter Wavelength. *V. I. Slysh, S. V. Kalenskii, & I. E. Val'tts.* 442, 668, 89-C7 (1995)

Time Variations of H_2O Maser Emission at W31A and W75S. *E. E. Lekht, E. Mendoza-Torres, & R. L. Sorochenko.* 443, 222, 98-B8 (1995)

Synchrotron Emission from the H_2O Maser Source in W3(OH). *M. J. Reid, A. L. Argon, C. R. Masson, K. M. Menten, & J. M. Moran.* 443, 238, 98-D3 (1995)

Instabilities and the Transport of Polarized Astrophysical Maser Radiation. *Bradley K. Wallin & William D. Watson.* 445, 465, 139-A4 (1995)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. II. The $4° < |b| < 5°$ Strips. *H. Izumiura, R. Catchpole, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, K. Sekiguchi, N. Ukita, & I. Yamamura.* 98, 271, 25-E14 (1995)

What is Powering the Orion Kleinmann-Low Infrared Nebula? *Karl M. Menten & Mark J. Reid.* 445, L157, 152-A12 (1995)

Molecular Oxygen: A New Astrophysical Maser? *P. Bergman.* 445, L167, 152-D1 (1995)

The Mass Accretion Rate through the Masing Molecular Disk in the Active Galaxy NGC 4258. *David A. Neufeld & Philip R. Maloney.* 447, L17, 180-E11 (1995)

A Stringent Constraint on Alternatives to a Massive Black Hole at the Center of NGC 4258. *Eyal Maoz.* 447, L91, 190-F1 (1995)

A Circumstellar H_2O Maser Associated with the Circumnuclear Molecular Disk at the Galactic Center? *Deborah A. Levine, Donald F. Figer, Mark Morris, & Ian S. McLean.* 447, L101, 190-G7 (1995)

Newly Discovered Galactic H_2O Masers Associated with Outflows. *Delin Xiang & B. E. Turner.* 99, 121, 35-F10 (1995)

Radiative Instabilities in Three-dimensional Astrophysical Masers. *Gerardo A. Scappaticci & William D. Watson.* 448, 862, 206-G1 (1995)

Anomalously Excited OH and Competition between Maser Transitions toward Centaurus A. *Huib Jan van Langevelde, Ewine F. van Dishoeck, Maartje N. Sevenster, & Frank P. Israel.* 448, L123, 209-F2 (1995)

Interferometric Observations of the SiO Masers and Dust Shell of VX Sagittarii. *L. J. Greenhill, F. Colomer, J. M. Moran, D. C. Backer, W. C. Danchi, & M. Bester.* 449, 365, 215-B7 (1995)

Ammonia Maser in a Molecular Outflow toward W51. *Q. Zhang & Paul T. P. Ho.* 450, L63, 244-G1 (1995)

Discovery of Strong Vibrationally Excited Water Masers at 658 GHz toward Evolved Stars. *Karl M. Menten & Ken Young.* 450, L67, 244-G8 (1995)

Search for 6 Centimeter Formaldehyde Masers in 22 Galactic Star-forming Regions. *David M. Mehringer, W. M. Goss, & Patrick Palmer.* 452, 304, 266-C8 (1995)

An H_2O Maser near Sagittarius A East: Evidence for Active Massive Star Formation near the Galactic Center. *Farhad Yusef-Zadeh & David M. Mehringer.* 452, L37, 270-A4 (1995)

Dust Grains and the Luminosity of Circumnuclear Water Masers in Active Galaxies. *Alan J. Collison & William D. Watson.* 452, L103, 279-G3 (1995)

Thermal Jets and H_2O Masers: The Case of HH 80–81. *Y. Gómez, L. F. Rodríguez, & J. Martí.* 453, 268, 284-G3 (1995)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. III. Kinematics of the Bulge Stars. *H. Izumiura, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, N. Ukita, & I. Yamamura.* 453, 837, 295-D7 (1995)

Vibrational Ground-State SiO $J = 1–0$ Emission in Orion IRc2 Imaged with the VLA. *Claire J. Chandler & Christopher G. De Pree.* 455, L67, 325-E13 (1995)

The H_2O Megamasers in NGC 2639—Evidence for an Accretion Disk in a LINER Nucleus. *A. S. Wilson, J. A. Braatz, & C. Henkel.* 455, L127, 333-F12 (1995)

Spiral Structure in the Circumnuclear Disk at the Center of NGC 4258. *Eyal Maoz.* 455, L131, 333-G4 (1995)

SiO Emission from a 1000 AU Disk in Orion KL. *M. C. H. Wright, R. L. Plambeck, L. G. Mundy, & L. W. Looney.* 455, L185, 334-G3 (1995)

MASS-LUMINOSITY RELATION

Radius-Luminosity and Mass-Luminosity Relationships for Active Galactic Nuclei. *Anuradha P. Koratkar & C. Martin Gaskell.* 370, L61, 59-B1 (1991)

METEOROIDS

Large Electric Fields in Acoustic Waves and the Stimulation of Lightning Discharges. *W. Pilipp, T. W. Hartquist, & G. E. Morfill.* 387, 364, 41-D13 (1992)

Zodiacal Emission. III. Dust near the Asteroid Belt. *William T. Reach.* 392, 289, 104-E7 (1992)

SiC Particles from Asymptotic Giant Branch Stars: Mg Burning and the *s*-Process. *Lawrence E. Brown & Donald D. Clayton.* 392, L79, 113-E1 (1992)

^{26}Al and Time Scales of the Solar Nebula. *Kurt Lifman.* 398, L111, 194-F1 (1992)

Nonequilibrium Iron Oxide Formation in Some Low-Mass Post–Asymptotic Giant Branch Stars. *Frans J. M. Rietmeijer.* 400, L39, 214-E6 (1992)

s-Process Ba Isotopic Compositions in Presolar SiC from the Murchison Meteorite. *C. A. Prombo, F. A. Podosek, S. Amari, & R. S. Lewis.* 410, 393, 117-A1 (1993)

Carbon Stars and Isotopic Ba Anomalies in Meteoritic SiC Grains. *R. Gallino, C. M. Raiteri, & M. Busso.* 410, 400, 117-A10 (1993)

Origin of the Hydrocarbon Component of Carbonaceous Chondrites: The Star-Meteorite Connection. *Wei Lee & Thomas J. Wdowiak.* 417, L49, 223-D8 (1993)

The Puzzle of Silicon, Titanium, and Magnesium Anomalies in Meteoritic Silicon Carbide Grains. *Roberto Gallino, Claudia M. Raiteri, Maurizio Busso, & Francesca Matteucci.* 430, 858, 172-E13 (1994)

Carbon, Nitrogen, Magnesium, Silicon, and Titanium Isotopic Compositions of Single Interstellar Silicon Carbide Grains from the Murchison

Carbonaceous Chondrite. *Peter Hoppe, Sachiko Amari, Ernst Zinner, Trevor Ireland, & Roy S. Lewis.* 430, 870, 172-F12 (1994)

Isotopically Normal Zirconium in Murchison Hibonite 13-13: Implications for a Link between the *e*- and *r*-Processes. *Trevor R. Ireland.* 434, L79, 242-A1 (1994)

METEORS, METEOROIDS

Interstellar Grains within Interstellar Grains. *Thomas J. Bernatowicz, Sachiko Amari, Ernst K. Zinner, & Roy S. Lewis.* 373, L73, 97-E10 (1991)

^{26}Al and ^{16}O in the Early Solar System: Clues from Meteoritic Al_2O_3. *Edward Anders, Alois Virag, Ernst Zinner, & Roy S. Lewis.* 373, L77, 97-F6 (1991)

Isotopically Anomalous Ti in Presolar SiC from the Murchison Meteorite. *Trevor R. Ireland, Ernst K. Zinner, & Sachiko Amari.* 376, L53, 137-D7 (1991)

s-Process Ba, Nd, and Sm in Presolar SiC from the Murchison Meteorite. *Ernst Zinner, Sachiko Amari, & Roy S. Lewis.* 382, L47, 205-E11 (1991)

Isotopically Distinct Reservoirs in the Solar Nebula: Isotope Anomalies in Vigarano Meteorite Inclusions. *R. D. Loss, G. W. Lugmair, A. M. Davis, & G. J. MacPherson.* 436, L193, 282-D13 (1994)

On the Value of GEMS (Glass with Embedded Metal and Sulphides). *P. G. Martin.* 445, L63, 141-C8 (1995)

Carbon and Nitrogen Isotopes in Type II Supernova Diamonds. *Donald D. Clayton, Bradley S. Meyer, Chris I. Sanderson, Sara S. Russell, & C. T. Pillinger.* 447, 894, 188-C2 (1995)

Interpretation of ^{26}Al in Meteoritic Inclusions. *Donald D. Clayton & Liping Jin.* 451, L87, 261-B12 (1995)

Facts and Artifacts in Interstellar Diamond Spectra. *H. Mutschke, J. Dorschner, Th. Henning, C. Jäger, & U. Ott.* 454, L157, 316-G8 (1995)

METHODS: ANALYTICAL

A Topological/Geometrical Approach to the Study of Astrophysical Maps. *Fred C. Adams.* 387, 572, 45-G1 (1992)

On the Error Estimates of Correlation Functions. *H. J. Mo, Y. P. Jing, & G. Börner.* 392, 452, 107-G13 (1992)

The Potential Energy Tensors for Subsystems. *R. Caimmi & L. Secco.* 395, 119, 141-E11 (1992)

Stability of Scale-invariant Nonlinear Gravitational Clustering. *Laddawan Ruamsuwan & J. N. Fry.* 396, 416, 162-F1 (1992)

Confusion Noise and Source Clustering. *X. Barcons.* 396, 460, 163-B11 (1992)

First-Order Fermi Acceleration in Spherically Symmetric Flows: Solutions Including Quadratic Losses. *Peter A. Becker.* 397, 88, 169-B6 (1992)

Methods of Periodicity Analysis: Relationship between the Rayleigh Analysis and a Maximum Likelihood Method. *T. Bai.* 397, 584, 178-C6 (1992)

Angle-dependent Green's Functions for Relativistic Compton Reflection. *Xin-Min Hua & Richard E. Lingenfelter.* 397, 591, 178-D1 (1992)

A New Method for the Detection of a Periodic Signal of Unknown Shape and Period. *P. C. Gregory & Thomas J. Loredo.* 398, 146, 183-F11 (1992)

Interpolation, Realization, and Reconstruction of Noisy, Irregularly Sampled Data. *George B. Rybicki & William H. Press.* 398, 169, 184-A7 (1992)

Void Probability Function in the Southern Sky Redshift Survey. *Marc Lachièze-Rey, Luiz Nicolaci da Costa, & Sophie Maurogordato.* 399, 10, 195-B13 (1992)

An Efficient Method for the Calculation of Mean Extinction. I. The Analyticity of the Complex Extinction Efficiency of Homogeneous Spheres. *Zhang-fan Xing & J. Mayo Greenberg.* 399, 164, 197-C3 (1992)

Rational Function Approximations for Fermi-Dirac Integrals. *H. M. Antia.* 84, 101, 2-D9 (1993)

Variability of the Occurrence Frequency of Solar Flares as a Function of Peak Hard X-Ray Rate. *T. Bai.* 404, 805, 39-A1 (1993)

Solving the Bernoulli-Zel'dovich Equation. *M. Lachièze-Rey.* 407, 1, 69-B1 (1993)

Equidistribution of Energy and Other Quantities in Oscillating Systems. *Charles L. Wolff.* 414, 892, 182-D4 (1993)

Elliptic Mass Distributions versus Elliptic Potentials in Gravitational Lenses. *Aggeliki Kassiola & Israel Kovner.* 417, 450, 225-A1 (1993)

Applying the Zel'dovich Approximation to General Relativity. *K. M. Croudace, J. Parry, D. S. Salopek, & J. M. Stewart.* 423, 22, 46-D1 (1994)

An Iterative Method of Imaging. *L. W. Kebede.* 423, 878, 59-F11 (1994)

Stability against Phase Mixing of Collisionless Self-gravitating Matter. *Jens Hjorth.* 424, 106, 63-C11 (1994)

Green's Formula and Variational Principles for Cosmic-Ray Transport with Application to Rotating and Shearing Flows. *G. M. Webb, J. R. Jokipii, & G. E. Morfill.* 424, 158, 64-A1 (1994)

Gravitational Lens Inversion Using the Maximum Entropy Method. *Sylvanie Wallington, Ramesh Narayan, & Christopher S. Kochanek.* 426, 60, 96-G3 (1994)

Perturbative Growth of Cosmological Clustering. I. Formalism. *Somnath Bharadwaj.* 428, 419, 135-D4 (1994)

The Stability of Perfect Elliptic Disks. I. The Maximum Streaming Case. *Stephen E. Levine & Linda S. Sparke.* 428, 493, 136-D1 (1994)

Determining Structure in Molecular Clouds. *Jonathan P. Williams, Eugène J. de Geus, & Leo Blitz.* 428, 693, 139-A1 (1994)

Large Eddy Simulation of Turbulence: A Subgrid Scale Model Including Shear, Vorticity, Rotation, and Buoyancy. *V. M. Canuto.* 428, 729, 139-C13 (1994)

Multifractal Models of Small-Scale Solar Magnetic Fields. *A. C. Cadavid, J. K. Lawrence, A. A. Ruzmaikin, & A. Kayleng-Knight.* 429, 391, 149-A2 (1994)

The Evolution of Cosmic-Ray–mediated Magnetohydrodynamic Shocks: A Two-Fluid Approach. *Byung-Il Jun, David A. Clarke, & Michael L. Norman.* 429, 748, 155-A3 (1994)

On the Accurate Determination of the Clustering Hierarchy of Galaxies. *Péter Boschán, István Szapudi, & Alexander S. Szalay.* 93, 65, 42-G6 (1994)

On Determining the Spectrum of Primordial Inhomogeneity from the *COBE* DMR Sky Maps: Method. *Krzysztof M. Górski.* 430, L85, 174-D1 (1994)

Topological Analysis of Chaotic Orbits: Revisiting Hyperion. *Patricia T. Boyd, Gabriel B. Mindlin, Robert Gilmore, & Hernán G. Solari.* 431, 425, 181-C12 (1994)

The Analysis of Star Catalogs. I. An Intercomparison among the FK3, the FK4, and the FK5. *B. Bucciarelli, M. G. Lattanzi, & L. G. Taff.* 433, 831, 221-D13 (1994)

The Analysis of Star Catalogs. II. An Intercomparison among the GC, the N30, and the FK5 (B1950.0/FK4). *L. G. Taff & B. Bucciarelli.* 433, 845, 221-F1 (1994)

Is There Any Scaling in the Cluster Distribution? *Stefano Borgani, Vicent J. Martínez, Miguel A. Pérez, & Riccardo Valdarnini.* 435, 37, 243-F10 (1994)

Formal Results Regarding Metric Space Techniques for the Study of Astrophysical Maps. *Fred C. Adams & Jennifer J. Wiseman.* 435, 693, 255-E12 (1994)

A Quantitative Analysis of *IRAS* Maps of Molecular Clouds. *Jennifer J. Wiseman & Fred C. Adams.* 435, 708, 255-G3 (1994)

Weakly Nonlinear Gaussian Fluctuations and the Edgeworth Expansion. *Roman Juszkiewicz, David H. Weinberg, Piotr Amsterdamski, Michał Chodorowski, & François Bouchet.* 442, 39, 77-F10 (1995)

Nonperiodic Variations in Astrophysical Systems: Investigating Frequency Evolution. *Patricia T. Boyd, Patricia H. Carter, Robert Gilmore, & Joseph F. Dolan.* 445, 861, 147-A12 (1995)

Fokker-Planck Equations of Stochastic Acceleration: Green's Functions and Boundary Conditions. *Brian T. Park & Vahé Petrosian.* 446, 699, 165-F10 (1995)

Tomography/Power Spectrum Techniques for Removal of Fixed Pattern Noise from *Hubble Space Telescope* Spectra. *Cheng-Hsuan Lyu, Frederick C. Bruhweiler, & Andrew M. Smith.* 447, 880, 188-A10 (1995)

Astronomical Time Series Analysis. I. A Search for Periodicity Using Information Entropy. *Pablo M. Cincotta, Mariano Méndez, & Josué A. Núñez.* 449, 231, 213-D2 (1995)

The Intercomparison of Star Catalogs. III. Comparing the AGK3, the AGK3U, the ACRS (Part 1), and the PPM to the General Catalog. *D. Daou, J. E. Morrison, & L. G. Taff.* 451, 768, 257-F12 (1995)

Multidimensional Green's Functions and the Statistics of Diffusive Shock Acceleration. *G. M. Webb, G. P. Zank, C. M. Ko, & D. J. Donohue.* 453, 178, 283-F1 (1995)

Real-Space Cosmic Fields from Redshift-Space Distributions: A Green's Function Approach. *Max Tegmark & B. C. Bromley.* 453, 533, 291-C1 (1995)

An Intercomparison among Star Catalogs. IV. An Extension of the Theory. *J. E. Morrison & L. G. Taff.* 454, 361, 304-C4 (1995)

METHODS: DATA ANALYSIS

A Topological/Geometrical Approach to the Study of Astrophysical Maps. *Fred C. Adams.* 387, 572, 45-G1 (1992)

On the Ultimate Accuracy of Solar Oscillation Frequency Measurements. *K. G. Libbrecht.* 387, 712, 47-E7 (1992)

Interpolation, Realization, and Reconstruction of Noisy, Irregularly Sampled Data. *George B. Rybicki & William H. Press.* 398, 169, 184-A7 (1992)

The X-Ray Variability of NGC 6814: Power Spectrum. *C. Done, G. M. Madejski, R. F. Mushotzky, T. J. Turner, K. Koyama, & H. Kunieda.* 400, 138, 210-F1 (1992)

Two-dimensional Stochastic Processes in Astronomy. *B. Bucciarelli, M. G. Lattanzi, & L. G. Taff.* 84, 91, 2-C11 (1993)

A Method to Distinguish Two Gamma-Ray Bursts with Similar Time Profiles. *Joachim Wambsganss.* 406, 29, 55-D6 (1993)

Hierarchical Structure Analysis of Interstellar Clouds Using Nonorthogonal Wavelets. *William D. Langer, Robert W. Wilson, & Charles H. Anderson.* 408, L45, 89-C7 (1993)

The Quasi-periodic Oscillations and Very Low Frequency Noise of Scorpius X-1 as Transient Chaos: A Dripping Handrail? *Jeffrey D. Scargle, Thomas Steiman-Cameron, Karl Young, David L. Donoho, James P. Crutchfield, & James Imamura.* 411, L91, 142-E13 (1993)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. II. Data Calibration and Absorption-Line Selection. *Donald P. Schneider, George F. Hartig, Buell T. Jannuzi, Sofia Kirhakos, David H. Saxe, Ray J. Weymann, John N. Bahcall, Jacqueline Bergeron, Alec Boksenberg, W. L. W. Sargent, Blair D. Savage, David A. Turnshek, & Arthur M. Wolfe.* 87, 45, 27-E9 (1993)

Scattered Light in the Echelle Modes of the Goddard High Resolution Spectrograph aboard the *Hubble Space Telescope*. II. Analysis of In-Flight Spectroscopic Observations. *Jason A. Cardelli, Dennis C. Ebbets, & Blair D. Savage.* 413, 401, 161-C5 (1993)

Restoration of Astronomical Images by Iterative Blind Deconvolution. *Stuart M. Jefferies & Julian C. Christou.* 415, 862, 198-F9 (1993)

Observing Stellar Coronae with the Goddard High Resolution Spectrograph. I. The dMe Star AU Microscopii. *S. P. Maran, R. D. Robinson, S. N. Shore, J. W. Brosius, K. G. Carpenter, B. E. Woodgate, J. L. Linsky, A. Brown, P. B. Byrne, M. R. Kundu, S. White, J. C. Brandt, R. A. Shine, & F. M. Walter.* 421, 800, 28-B10 (1994)

Solar Tomography. *Joseph M. Davila.* 423, 871, 59-F1 (1994)

The Variance of Correlation Function Estimates. *Gary M. Bernstein.* 424, 569, 71-F12 (1994)

Analysis Procedures for *ROSAT* XRT/PSPC Observations of Extended Objects and the Diffuse Background. *S. L. Snowden, D. McCammon, D. N. Burrows, & J. A. Mendenhall.* 424, 714, 73-F7 (1994)

Stellar Spectral Classification Using Automated Schemes. *R. K. Gulati, Ranjan Gupta, Pradeep Gothoskar, & Shyam Khobragade.* 426, 340, 100-D5 (1994)

Signal Detection amid Noise with Known Statistics. *A. F. Zepka, J. M. Cordes, & I. Wasserman.* 427, 438, 115-C10 (1994)

Statistical Bias in Distance and Peculiar Velocity Estimation. I. The "Calibration" Problem. *Jeffrey A. Willick.* 92, 1, 31-B1 (1994)

Imaging Spectroscopy with High Spatial Resolution. *Naoshi Baba, Susumu Kuwamura, Noriaki Miura, & Yuji Norimoto.* 431, L111, 192-A1 (1994)

Is a Data Set Distributed as a Power Law? A Test, with Application to Gamma-Ray Burst Brightnesses. *Ralph A. M. J. Wijers & Lori M. Lubin.* 432, 207, 195-F13 (1994)

Wiener Filtering of the *COBE* Differential Microwave Radiometer Data. *Emory F. Bunn, Karl B. Fisher, Yehuda Hoffman, Ofer Lahav, Joseph Silk, & Saleem Zaroubi.* 432, L75, 206-D1 (1994)

On the Analysis of Para-Ammonia Observations. *T. B. H. Kuiper.* 433, 712, 219-G11 (1994)

Stellar Photometry Including Saturated Images: Results on M67 with WFPC2. *Ronald L. Gilliland.* 435, L63, 252-E9 (1994)

Formal Results Regarding Metric Space Techniques for the Study of Astrophysical Maps. *Fred C. Adams & Jennifer J. Wiseman.* 435, 693, 255-E12 (1994)

A Quantitative Analysis of *IRAS* Maps of Molecular Clouds. *Jennifer J. Wiseman & Fred C. Adams.* 435, 708, 255-G3 (1994)

Statistical Uncertainties in Temperature Diagnostics for Hot Coronal Plasma Using the *ASCA* SIS. *Douglas A. Swartz, S. L. O'Dell, M. E. Sulkanen, & A. F. Tennant, Jr.* 435, L149, 260-D11 (1994)

Application of Cubic Splines to the Spectral Analysis of Unequally Spaced Data. *C. Akerlof, C. Alcock, R. Allsman, T. Axelrod, D. P. Bennett, K. H. Cook, K. Freeman, K. Griest, S. Marshall, H.-S. Park, S. Perlmutter, B. Peterson, P. Quinn, J. Reimann, A. Rodgers, C. W. Stubbs, & W. Sutherland.* 436, 787, 276-D9 (1994)

On the Nature of Gamma-Ray Burst Time Dilations. *Ralph A. M. J. Wijers & Bohdan Paczyński.* 437, L107, 299-B8 (1994)

BATSE Observations of Gamma-Ray Burst Spectra. II. Peak Energy Evolution in Bright, Long Bursts. *L. A. Ford, D. L. Band, J. L. Matteson, M. S. Briggs, G. N. Pendleton, R. D. Preece, W. S. Paciesas, B. J. Teegarden, D. M. Palmer, B. E. Schaefer, T. L. Cline, G. J. Fishman, C. Kouveliotou, C. A. Meegan, R. B. Wilson, & J. P. Lestrade.* 439, 307, 25-D6 (1995)

Inferring the Spatial and Energy Distribution of Gamma-Ray Burst Sources. I. Methodology. *Thomas J. Loredo & Ira M. Wasserman.* 96, 261, 5-A11 (1995)

Constraints on the Gamma-Ray Burst Luminosity Function from *Pioneer Venus Orbiter* and BATSE Observations. *Andrew Ulmer, Ralph A. M. J. Wijers, & Edward E. Fenimore.* 440, L9, 48-C1 (1995)

Noise Correlations in Cosmic Microwave Background Experiments. *Scott Dodelson, Arthur Kosowsky, & Steven T. Myers.* 440, L37, 57-B8 (1995)

Uncertainties for Two-dimensional Models of Solar Rotation from Helioseismic Eigenfrequency Splitting. *Christopher R. Genovese, Philip B. Stark, & Michael J. Thompson.* 443, 843, 109-D13 (1995)

Wavelet Transform Analysis of the Small-Scale X-Ray Structure of the Cluster Abell 1367. *S. A. Grebenev, W. Forman, C. Jones, & S. Murray.* 445, 607, 143-D12 (1995)

Stellar Variability in the Central Populations of 47 Tucanae from WF/PC Observations with the *Hubble Space Telescope*. I. Project Overview, Reduction Techniques, and First Results. *Ronald L. Gilliland, Peter D. Edmonds, Larry Petro, Abhijit Saha, & Michael M. Shara.* 447, 191, 174-G5 (1995)

Tomography/Power Spectrum Techniques for Removal of Fixed Pattern Noise from *Hubble Space Telescope* Spectra. *Cheng-Hsuan Lyu, Frederick C. Bruhweiler, & Andrew M. Smith.* 447, 880, 188-A10 (1995)

Solution to the Bivariate Integral Inversion Problem: The Determination of Emission Measures Differential in Temperature and Density. *Veronika Hubeny & Philip G. Judge.* 448, L61, 200-C13 (1995)

A Comparison of Active Region Temperatures and Emission Measures Observed in Soft X-Rays and Microwaves and Implications for Coronal Heating. *J. A. Klimchuk & D. E. Gary.* 448, 925, 207-F6 (1995)

Dead-Time Modifications to Fast Fourier Transform Power Spectra. *W. Zhang, K. Jahoda, J. H. Swank, E. H. Morgan, & A. B. Giles.* 449, 930, 225-E9 (1995)

Zeeman Effect Observations of H I Emission Profiles. II. Results of an Attempt to Confirm Previous Claims of Field Detections. *Gerrit L. Verschuur.* 451, 645, 256-B6 (1995)

Automated Source Classification Using a Kohonen Network. *P. H. Mähönen & P. J. Hakala.* 452, L77, 270-G1 (1995)

The X-Ray Emission of 3C 58 Revisited. *David J. Helfand, Robert H. Becker, & Richard L. White.* 453, 741, 294-A12 (1995)

Galactic Gamma-Ray Burst Models: Constraints on the Intrinsic Luminosity Function. *Jon Hakkila, Charles A. Meegan, Geoffrey N. Pendleton, John M. Horack, Michael S. Briggs, William S. Paciesas, & A. Gordon Emslie.* 454, 134, 301-B3 (1995)

A Method for Extracting Maximum Resolution Power Spectra from Galaxy Surveys. *Max Tegmark.* 455, 429, 327-G1 (1995)

The Second EGRET Catalog of High-Energy Gamma-Ray Sources. *D. J. Thompson, D. L. Bertsch, B. L. Dingus, J. A. Esposito, A. Etienne, C. E. Fichtel, D. P. Friedlander, R. C. Hartman, S. D. Hunter, D. J. Kendig, J. R. Mattox, L. M. McDonald, C. von Montigny, R. Mukherjee, P. V. Ramanamurthy, P. Sreekumar, J. M. Fierro, Y. C. Lin, P. F. Michelson, P. L. Nolan, S. K. Shriver, T. D. Willis, G. Kanbach, H. A. Mayer-Hasselwander, M. Merck, H.-D. Radecke, D. A. Kniffen, & E. J. Schneid.* 101, 259, 57-B11 (1995)

METHODS: LABORATORY

Laboratory Measurement of Rotational Spectrum of the ^{18}OH Radical Using a Tunable Far-Infrared Spectrometer. *Isamu Morino, Hitoshi Odashima, Fusakazu Matsushima, Shozo Tsunekawa, & Kojiro Takagi.* 442, 907, 92-F3 (1995)

On the Value of GEMS (Glass with Embedded Metal and Sulphides). *P. G. Martin.* 445, L63, 141-C8 (1995)

Interpretation of Anomalous Ultraviolet Transitions of Fe II Observed in Laboratory Fourier Transform Spectra and Stellar *HST* and *IUE* Spectra. *Sveneric Johansson, Tomas Brage, David S. Leckrone, Gillian Nave, & Glenn M. Wahlgren.* 446, 361, 158-C1 (1995)

Correlation between the Spectral Index and the Degree of Crystallization of Carbon and Graphite Grains. *C. Koike, S. Kimura, C. Kaito, H. Suto, H. Shibai, T. Nagata, T. Tanabe, & Y. Saito.* 446, 902, 168-F1 (1995)

On the Electronic Structure of Small Carbon Grains of Astrophysical Interest. *V. Mennella, L. Colangeli, E. Bussoletti, G. Monaco, P. Palumbo, & A. Rotundi.* 100, 149, 47-G9 (1995)

Fine-Structure Branching in N_2 c_4' $^1\Sigma_u^+$ (0). *D. E. Shemansky, I. Kanik, & J. M. Ajello.* 452, 480, 268-F13 (1995)

The Millimeter/Submillimeter Spectrum and Rotational Rest Frequencies of $MgCH_3(\tilde{X}\ ^2A_1)$. *M. A. Anderson & L. M. Ziurys.* 452, L157, 280-G7 (1995)

Facts and Artifacts in Interstellar Diamond Spectra. *H. Mutschke, J. Dorschner, Th. Henning, C. Jäger, & U. Ott.* 454, L157, 316-G8 (1995)

High-Density Amorphous Ice, the Frost on Interstellar Grains. *P. Jenniskens, D. F. Blake, M. A. Wilson, & A. Pohorille.* 455, 389, 323-D10 (1995)

Far-Ultraviolet Emission Cross Sections of Ne II and Ne III Excited by Electron Impact. *Geoffrey K. James, Isik Kanik, & Joseph M. Ajello.* 455, 769, 332-D13 (1995)

High-Resolution Electron-Impact Study of the Far-Ultraviolet Emission Spectrum of Molecular Hydrogen. *Xianming Liu, Syed M. Ahmed, Rosalie A. Multari, Geoffrey K. James, & Joseph M. Ajello.* 101, 375, 59-A3 (1995)

METHODS: MISCELLANEOUS

Diagonalization of the Velocity Variance/Covariance Matrix as a Diagnostic of Maser Proper Motions. *E. E. Bloemhof.* 406, L75, 68-E9 (1993)

METHODS: NUMERICAL

Relaxation-driven Binary Mergers. *Sergio Gelato, David F. Chernoff, & Ira Wasserman.* 384, 15, 1-C1 (1992)

Ambiguities in the Identification of Giant Molecular Cloud Complexes from Longitude-Velocity Diagrams. *David S. Adler & William W. Roberts, Jr.* 384, 95, 2-B12 (1992)

The Inverse Planckian Transform and Temperature Spectra. *Luis Salas.* 385, 288, 15-D12 (1992)

The Time Delay of Gravitational Lens 0957+561. I. Methodology and Analysis of Optical Photometric Data. *William H. Press, George B. Rybicki, & Jacqueline N. Hewitt.* 385, 404, 18-C4 (1992)

The Time Delay of Gravitational Lens 0957+561. II. Analysis of Radio Data and Combined Optical-Radio Analysis. *William H. Press, George B. Rybicki, & Jacqueline N. Hewitt.* 385, 416, 18-D4 (1992)

Numerical Simulations of Hydrodynamical Jets Crossing a Galactic Halo/Intracluster Medium Interface. *Paul J. Wiita & Michael L. Norman.* 385, 478, 19-B7 (1992)

Gravitational Clustering of Galaxies: Comparison between Thermodynamic Theory and *N*-Body Simulations. III. Velocity Distributions for Different Mass Components. *Shogo Inagaki, Makoto Itoh, & William C. Saslaw.* 386, 9, 24-B10 (1992)

Caustic-induced Features in Microlensing Magnification Probability Distributions. *Kevin P. Rauch, Shude Mao, Joachim Wambsganss, & Bohdan Paczyński.* 386, 30, 24-D10 (1992)

A Self-consistent Field Method for Galactic Dynamics. *Lars Hernquist & Jeremiah P. Ostriker.* 386, 375, 30-B6 (1992)

Optical and Radio Variability in Blazars. *Beth R. Hufnagel & Joel N. Bregman.* 386, 473, 31-C5 (1992)

On the Sensitivity of the *N*-Body Problem to Small Changes in Initial Conditions. II. *Henry E. Kandrup & Haywood Smith, Jr.* 386, 635, 33-C1 (1992)

A Hydrodynamic Approach to Cosmology: Methodology. *Renyue Cen.* 78, 341, 7-B1 (1992)

The Topology of Large-Scale Structure. VI. Slices of the Universe. *Changbom Park, J. Richard Gott III, Adrian L. Melott, & I. D. Karachentsev.* 387, 1, 37-A11 (1992)

Instabilities in Astrophysical Jets. I. Linear Analysis of Body and Surface Waves. *Jun-Hui Zhao, Jack O. Burns, Philip E. Hardee, & Michael L. Norman.* 387, 69, 37-G7 (1992)

Instabilities in Astrophysical Jets. II. Numerical Simulations of Slab Jets. *Jun-Hui Zhao, Jack O. Burns, Michael L. Norman, & Martin E. Sulkanen.* 387, 83, 38-B1 (1992)

Large-Scale Structure in Isocurvature Baryon Models. *Tatsushi Suginohara & Yasushi Suto.* 387, 431, 44-B1 (1992)

A Topological/Geometrical Approach to the Study of Astrophysical Maps. *Fred C. Adams.* 387, 572, 45-G1 (1992)

Angular Momentum Transport in Magnetized Stellar Radiative Zones. I. Numerical Solutions to the Core Spin-up Model Problem. *P. Charbonneau & K. B. MacGregor.* 387, 639, 46-E11 (1992)

Wavelet Analysis of Subclustering: An Illustration, Abell 754. *Eric Escalera & Alain Mazure.* 388, 23, 49-C12 (1992)

Time Variability Studies with Photon-counting Imaging Detectors. I. A Maximum Likelihood Technique. *S. Sciortino & G. Micela.* 388, 595, 57-E11 (1992)

The GDDSYN Light Curve Synthesis Method. *Paul D. Hendry & Stefan W. Mochnacki.* 388, 603, 57-F7 (1992)

Clustering of Galaxy Clusters. I. Is the Spatial Cluster-Cluster Correlation Function Enhanced Significantly by Contaminations? *Yi-Peng Jing, Manolis Plionis, & Riccardo Valdarnini.* 389, 499, 67-F3 (1992)

Three-dimensional Hydrodynamical Simulations of Colliding Stars. III. Collisions and Tidal Captures of Unequal-Mass Main-Sequence Stars. *W. Benz & J. G. Hills.* 389, 546, 68-C8 (1992)

Cooling and the Longevity of Polar Rings. *Neal Katz & Hans-Walter Rix.* 389, L55, 73-C3 (1992)

The Three-dimensional Interaction of a Supernova Remnant with an Interstellar Cloud. *James M. Stone & Michael L. Norman.* 390, L17, 78-C11 (1992)

Cluster Correlations from *N*-Point Correlation Amplitudes. *I. Szapudi, A. S. Szalay, & P. Boschán.* 390, 350, 79-E7 (1992)

Application of the Improved Hartle Method for the Construction of General Relativistic Rotating Neutron Star Models. *F. Weber & N. K. Glendenning.* 390, 541, 82-B1 (1992)

Ambipolar Diffusion and Star Formation: Formation and Contraction of Axisymmetric Cloud Cores. I. Formulation of the Problem and Method of Solution. *Robert A. Fiedler & Telemachos Ch. Mouschovias.* 391, 199, 88-D12 (1992)

The Rate of Gravitational Galaxy Clustering. *William C. Saslaw.* 391, 423, 93-B4 (1992)

Tracing Large-Scale Fluctuations Back in Time. *Adi Nusser & Avishai Dekel.* 391, 443, 93-D4 (1992)

Statistics of Pencil Beams in Voronoi Foams. *Mark U. SubbaRao & Alexander S. Szalay.* 391, 483, 93-G12 (1992)

A General Analytical Solution to the Problem of Malmquist Bias Due to Lognormal Distance Errors. *Stephen D. Landy & Alexander S. Szalay.* 391, 494, 94-A11 (1992)

Dissipational Galaxy Formation. II. Effects of Star Formation. *Neal Katz.* 391, 502, 94-B7 (1992)

Time Series Analysis in Astronomy: An Application to Quasar Variability Studies. *R. Vio, S. Cristiani, O. Lessi, & A. Provenzale.* 391, 518, 94-D5 (1992)

On the Error Estimates of Correlation Functions. *H. J. Mo, Y. P. Jing, & G. Börner.* 392, 452, 107-G13 (1992)

Catalog-to-Catalog Reductions: Results for the FK, N30, and GC Catalogs. *L. G. Taff, B. Bucciarelli, & M. G. Lattanzi.* 392, 746, 111-E9 (1992)

Adiabatic Properties of Pulsating DA White Dwarfs. III. A Finite-Element Code for Solving Nonradial Pulsation Equations. *P. Brassard, C. Pelletier, G. Fontaine, & F. Wesemael.* 80, 725, 33-D11 (1992)

ZEUS-2D: A Radiation Magnetohydrodynamics Code for Astrophysical Flows in Two Space Dimensions. I. The Hydrodynamic Algorithms and Tests. *James M. Stone & Michael L. Norman.* 80, 753, 33-G3 (1992)

ZEUS-2D: A Radiation Magnetohydrodynamics Code for Astrophysical Flows in Two Space Dimensions. II. The Magnetohydrodynamic Algorithms and Tests. *James M. Stone & Michael L. Norman.* 80, 791, 34-C5 (1992)

ZEUS-2D: A Radiation Magnetohydrodynamics Code for Astrophysical Flows in Two Space Dimensions. III. The Radiation Hydrodynamic Algorithms and Tests. *James M. Stone, Dimitri Mihalas, & Michael L. Norman.* 80, 819, 34-E11 (1992)

Statistical Methods for Investigating Periodicities in Double-Galaxy Redshifts. *W. J. Cocke.* 393, 59, 114-G1 (1992)

The Void Spectrum in Two-dimensional Numerical Simulations of Gravitational Clustering. *Guinevere Kauffmann & Adrian L. Melott.* 393, 415, 121-B1 (1992)

The Three-Point Function in an Ensemble of Numerical Simulations. *J. N. Fry, Adrian L. Melott, & Sergei F. Shandarin.* 393, 431, 121-C5 (1992)

Percolation Analysis of Nonlinear Structures in Scale-free Two-dimensional Simulations. *Kurt G. Dominik & Sergei F. Shandarin.* 393, 450, 121-E1 (1992)

Transformations of Galaxies. I. Mergers of Equal-Mass Stellar Disks. *Joshua E. Barnes.* 393, 484, 121-G9 (1992)

Off-Center Nuclei in Galaxies. *R. H. Miller & B. F. Smith.* 393, 508, 122-B7 (1992)

Three-dimensional Hydrodynamic Simulations of Narrow-Angle–Tail Radio Sources. I. The Begelman, Rees, and Blandford Model. *Dinshaw S. Balsara & Michael L. Norman.* 393, 631, 123-F3 (1992)

Predicting Wolf's Sunspot Numbers with and without the Assumption of Periodicity. *Patricia B. Cerrito.* 393, 795, 125-G1 (1992)

Large-Scale Radial Velocity Correlations as a Test of Gaussian Initial Conditions. *Stephen D. Landy & Alexander S. Szalay.* 394, 25, 128-D1 (1992)

Higher Order Correlations of *IRAS* Galaxies. *Avery Meiksin, Istvan Szapudi, & Alexander Szalay.* 394, 87, 129-B6 (1992)

The Mass Function of Galaxy Halos in a Cold Dark Matter Universe. *T. G. Brainerd & J. V. Villumsen.* 394, 409, 134-D5 (1992)

Multifractal Properties of Cosmological *N*-Body Simulations. *Riccardo Valdarnini, Stefano Borgani, & Antonello Provenzale.* 394, 422, 134-E7 (1992)

The Angular Three-Point Function of Galaxy Clusters. *Stefano Borgani, Yi-Peng Jing, & Manolis Plionis.* 395, 339, 146-D5 (1992)

Properties of Galactic Halos in Spatially Flat Universes Dominated by Cold Dark Matter: Effects of Nonvanishing Cosmological Constant. *Tatsushi Suginohara & Yasushi Suto.* 396, 395, 162-C11 (1992)

Stability of Scale-invariant Nonlinear Gravitational Clustering. *Laddawan Ruamsuwan & J. N. Fry.* 396, 416, 162-F1 (1992)

Confusion Noise and Source Clustering. *X. Barcons.* 396, 460, 163-B11 (1992)

Linear Regression in Astronomy. II. *Eric D. Feigelson & Gutti Jogesh Babu.* 397, 55, 168-F9 (1992)

Two-dimensional Viscous Accretion Disk Models. I. On Meridional Circulations in Radiative Regions. *W. Kley & D. N. C. Lin.* 397, 600, 178-D13 (1992)

Clustering of Galaxy Clusters. II. Rare Events in the Cluster Distribution. *Manolis Plionis, Riccardo Valdarnini, & Yi-Peng Jing.* 398, 12, 182-C1 (1992)

A New Method for the Detection of a Periodic Signal of Unknown Shape and Period. *P. C. Gregory & Thomas J. Loredo.* 398, 146, 183-F11 (1992)

Interpolation, Realization, and Reconstruction of Noisy, Irregularly Sampled Data. *George B. Rybicki & William H. Press.* 398, 169, 184-A7 (1992)

Mass Segregation, Relaxation, and the Coulomb Logarithm in *N*-Body Systems. *Haywood Smith, Jr.* 398, 519, 190-E10 (1992)

Determining the Nuclear Equation of State from Neutron-Star Masses and Radii. *Lee Lindblom.* 398, 569, 191-C1 (1992)

Galaxy Clusters and Cold Dark Matter: A Low-Density Unbiased Universe? *Neta A. Bahcall & Renyue Cen.* 398, L81, 194-B6 (1992)

Mass Transfer and Loss in Interacting Disk Galaxies. *J. F. Wallin & B. V. Stuart.* 399, 29, 195-D10 (1992)

An Efficient Method for the Calculation of Mean Extinction. I. The Analyticity of the Complex Extinction Efficiency of Homogeneous Spheres. *Zhang-fan Xing & J. Mayo Greenberg.* 399, 164, 197-C3 (1992)

Filamentary and Hierarchical Pictures: Kinetic Energy Criterion. *Anatoly A. Klypin & Adrian L. Melott.* 399, 397, 203-A1 (1992)

Dark Halos Formed via Dissipationless Collapse. I. Shapes and Alignment of Angular Momentum. *Michael S. Warren, Peter J. Quinn, John K. Salmon, & Wojciech H. Zurek.* 399, 405, 203-A11 (1992)

On the Sensitivity of the *N*-Body Problem to Small Changes in Initial Conditions. III. *Henry E. Kandrup, Haywood Smith, Jr., & David E. Willmes.* 399, 627, 205-F9 (1992)

Diagnostics of Electron-heated Solar Flare Models. III. Effects of Tapered Loop Geometry and Preheating. *A. Gordon Emslie, Peng Li, & John T. Mariska.* 399, 714, 206-G7 (1992)

Bar-Spheroid Interaction in Galaxies. *Lars Hernquist & Martin D. Weinberg.* 400, 80, 210-A6 (1992)

Models of Star Formation in Interacting and Merging Disk Galaxies. *J. Christopher Mihos, Douglas O. Richstone, & Gregory D. Bothun.* 400, 153, 210-G4 (1992)

A Parameter Study of the Two-Fluid Solar Wind. *Ørnulf Sandbæk, Egil Leer, & Thomas E. Holzer.* 400, 362, 213-D8 (1992)

The Scaling Analysis as a Tool to Compare *N*-Body Simulations with Observations: Application to a Low-Bias Cold Dark Matter Model. *G. Yepes, R. Domínguez-Tenreiro, & H. M. P. Couchman.* 401, 40, 221-E3 (1992)

Enhancement of Diffusive Transport in Oscillatory Flows. *E. Knobloch & W. J. Merryfield.* 401, 196, 223-E3 (1992)

A Simple Multifractal Model of Nonlinear Gravitational Clustering. *Antonello Provenzale, Piero Galeotti, Giuseppe Murante, & Barbara Villone.* 401, 455, 228-D1 (1992)

LensClean: An Algorithm for Inverting Extended, Gravitationally Lensed Images with Application to the Radio Ring Lens PKS 1830−211. *Christopher S. Kochanek & Ramesh Narayan.* 401, 461, 228-D8 (1992)

Detection of Correlation among Galaxies within Clusters from Their Two-dimensional Number Density Profiles. *Eduard Salvador-Solé, Manuel Sanromà, & Guillermo González-Casado.* 402, 398, 7-E5 (1993)

Discreteness Noise versus Force Errors in *N*-Body Simulations. *Lars Hernquist, Piet Hut, & Jun Makino.* 402, L85, 13-C1 (1993)

Dynamical Evolution of Gaseous Disks in Halo Potentials. I. Massless Rings in Static, Spheroidal Halos. *Dimitris M. Christodoulou & Joel E. Tohline.* 403, 110, 15-D5 (1993)

Wiggled Structure of Herbig-Haro Objects: Helical Kink Instability of Jets from Young Stellar Objects. *Yasushi Todo, Yutaka Uchida, Tetsuya Sato, & Robert Rosner.* 403, 164, 16-A9 (1993)

Two-dimensional Stochastic Processes in Astronomy. *B. Bucciarelli, M. G. Lattanzi, & L. G. Taff.* 84, 91, 2-C11 (1993)

Gravitational Clustering of Galaxies: Comparison between Thermodynamic Theory and *N*-Body Simulations. IV. The Effects of Continuous Mass Spectra. *Makoto Itoh, Shogo Inagaki, & William C. Saslaw.* 403, 476, 21-E1 (1993)

An Efficient Method to Compute Microlensed Light Curves for Point Sources. *Hans J. Witt.* 403, 530, 22-B11 (1993)

Dependence of the Interstellar Propagation of Ultraheavy Cosmic-Ray Nuclei on Various Parameters. *Robert R. Clinton & C. Jake Waddington.* 403, 644, 23-F1 (1993)

Multifractal Analysis of Cluster Distribution in Two Dimensions. *Stefano Borgani, Manolis Plionis, & Riccardo Valdarnini.* 404, 21, 28-C11 (1993)

Orbital Deflections in *N*-Body Systems. *Siqin Huang, John Dubinski, & R. G. Carlberg.* 404, 73, 29-A1 (1993)

Three-Point Correlation Functions and the Hierarchical Clustering *Ansatz* in Low-Density Cold Dark Matter Universes. *Yasushi Suto.* 404, L1, 33-C7 (1993)

Smoothed Particle Hydrodynamics near a Black Hole. *Pablo Laguna, Warner A. Miller, & Wojciech H. Zurek.* 404, 678, 37-D3 (1993)

Relativistic Frequency-dependent Transfer in Spherical Flows. I. Method and Numerical Tests. *Luciano Nobili, Roberto Turolla, & Luca Zampieri.* 404, 686, 37-D12 (1993)

Numerical Simulations of Two-dimensional and Three-dimensional Wind Accretion Flows of an Isothermal Gas. *Takanori Ishii, Takuya Matsuda, Eiji Shima, Mario Livio, Ulrich Anzer, & Gerhard Börner.* 404, 706, 37-F9 (1993)

Some Cautionary Remarks about Smoothed Particle Hydrodynamics. *Lars Hernquist.* 404, 717, 37-G7 (1993)

Large-Eddy Simulations of Compressible Convection on Massively Parallel Computers. *Xin Xie & Juri Toomre.* 405, 747, 52-D1 (1993)

A Method to Distinguish Two Gamma-Ray Bursts with Similar Time Profiles. *Joachim Wambsganss.* 406, 29, 55-D6 (1993)

Clusters and Groups of Galaxies as Cosmological Probes. *Haruhiko Ueda, Makoto Itoh, & Yasushi Suto.* 408, 3, 83-B5 (1993)

Higher Order Statistics of the Galaxy Distribution Using Generating Functions. *István Szapudi & Alexander S. Szalay.* 408, 43, 83-E13 (1993)

Softening in *N*-Body Simulations of Collisionless Systems. *Charles C. Dyer & Peter S. S. Ip.* 409, 60, 97-F7 (1993)

Tests of Smoothing Methods for Topological Study of Galaxy Redshift Surveys. *Adrian L. Melott & Kurt G. Dominik.* 86, 1, 14-B1 (1993)

Nonlinear Properties and Time Evolution of Gravitational Galaxy Clustering. *William C. Saslaw & Ravi K. Sheth.* 409, 504, 105-B13 (1993)

Structure of Merger Remnants. II. Progenitors with Rotating Bulges. *Lars Hernquist.* 409, 548, 105-F12 (1993)

The Interacting System NGC 7753–7752 (Arp 86). II. *N*-Body Modeling. *Heikki Salo & Eija Laurikainen.* 410, 586, 121-A6 (1993)

Tidal Disruptions by Supermassive Black Holes: Hydrodynamic Evolution of Stars on a Schwarzschild Background. *Pablo Laguna, Warner A. Miller, Wojciech H. Zurek, & Melvyn B. Davies.* 410, L83, 125-G9 (1993)

N-Body Realizations of Compound Galaxies. *Lars Hernquist.* 86, 389, 19-F7 (1993)

The Formation of Protostellar Disks. I. 1 $M_{\odot}$. *Harold W. Yorke, Peter Bodenheimer, & Gregory Laughlin.* 411, 274, 130-E13 (1993)

Encounters between Binaries and Neutron Stars. *M. B. Davies, W. Benz, & J. G. Hills.* 411, 285, 130-F13 (1993)

The Cluster-Cluster Correlation in Hybrid Models. *Y. P. Jing, H. J. Mo, G. Börner, & L. Z. Fang.* 411, 450, 135-C1 (1993)

The Two-Point Correlation Function in Pancake Models and the Fair Sample Hypothesis. *Thomas Buchert & Vicent J. Martínez.* 411, 485, 135-F1 (1993)

Data Analysis of the Cosmic Background Radiation Anisotropy Experiments. *Juan Betancort-Rijo.* 411, 534, 136-C8 (1993)

Spatial and Temporal Distributed Acceleration of Cosmic Rays by Supernova Remnants: Three-dimensional Simulations. *G. A. Medina Tanco & R. Opher.* 411, 690, 138-C8 (1993)

Bias and Variance of Angular Correlation Functions. *Stephen D. Landy & Alexander S. Szalay.* 412, 64, 142-G6 (1993)

Studies of Galaxy Clustering through the Use of Binary Tree Hierarchies. I. Multipoint Correlation Functions. *Gregory J. Ruffa & David H. Porter.* 87, 179, 29-D11 (1993)

The Three-Point Correlation Function in an Ensemble of Three-dimensional Simulations. *J. N. Fry, A. L. Melott, & S. F. Shandarin.* 412, 504, 149-G12 (1993)

An Implicit Method for Two-dimensional Hydrodynamics. *Eli Livne.* 412, 634, 151-F4 (1993)

Spectrum Formation in Supernovae: Numerical Techniques. *Ronald G. Eastman & Philip A. Pinto.* 412, 731, 152-G12 (1993)

Percolation Technique for Galaxy Clustering. *Anatoly Klypin & Sergei F. Shandarin.* 413, 48, 156-F3 (1993)

The Angular Momentum Behavior in the Dissipationless Collapse of Triaxial Systems. *Anna Curir, Antonaldo Diaferio, & Fernando de Felice.* 413, 70, 157-A6 (1993)

Numerical Simulations of Protostellar Jets with Nonequilibrium Cooling. I. Method and Two-dimensional Results. *James M. Stone & Michael L. Norman.* 413, 198, 158-E6 (1993)

Nonlinear Inversion for Solar Oscillation Frequencies. *Yeming Gu.* 413, 422, 161-E4 (1993)

Simulations of the Ca XIX Spectral Emission from a Flaring Solar Coronal Loop. II. Impulsive Heating by Accelerated Electrons. *E. Antonucci, M. A. Dodero, R. Martin, G. Peres, F. Reale, & S. Serio.* 413, 786, 166-B11 (1993)

A Cosmological Hydrodynamic Code Based on the Total Variation Diminishing Scheme. *Dongsu Ryu, Jeremiah P. Ostriker, Hyesung Kang, & Renyue Cen.* 414, 1, 170-B1 (1993)

An $O(N \log N)$ Integration Scheme for Collisional Stellar Systems. *Stephen L. W. McMillan & Sverre J. Aarseth.* 414, 200, 172-E1 (1993)

Amplification of Cluster Correlations: The Effect of Sharp Clipping. *István Szapudi & Alexander S. Szalay.* 414, 493, 177-C12 (1993)

Improving the Reconstruction of the Velocity Potential and Primordial Density Fluctuations by Choice of Smoothing Windows. *Adrian L. Melott.* 414, L73, 185-D8 (1993)

On the Exponential Instability of N-Body Systems. *Jeremy Goodman, Douglas C. Heggie, & Piet Hut.* 415, 715, 196-F11 (1993)

Structure Formation with Cold plus Hot Dark Matter. *Anatoly Klypin, Jon Holtzman, Joel Primack, & Enikő Regős.* 416, 1, 201-B1 (1993)

Simulations of Compact Groups of Galaxies: The Effect of the Dark Matter Distribution. *Paul W. Bode, Haldan N. Cohn, & Phyllis M. Lugger.* 416, 17, 201-C5 (1993)

Ballistic Models for Radio Jets in Colliding Galaxies: 3C 278 (NGC 4782/4783). *Kirk D. Borne & Luis Colina.* 416, 157, 203-A8 (1993)

A Hydrodynamic Approach to Cosmology: Nonlinear Effects on Cosmic Backgrounds in the Cold Dark Matter Model. *Roberto Scaramella, Renyue Cen, & Jeremiah P. Ostriker.* 416, 399, 208-B9 (1993)

Structure of Merger Remnants. III. Phase-Space Constraints. *Lars Hernquist, David N. Spergel, & Jeremy S. Heyl.* 416, 415, 208-E4 (1993)

Smoothed Nonparametric Estimation of the Luminosity Function for Flux-limited Samples. *David Caditz & Vahé Petrosian.* 416, 450, 209-A1 (1993)

Structure Function Analysis of High Radio Frequency Variability in the Metsähovi Monitoring Sample of Active Galactic Nuclei. *M. Lainela & E. Valtaoja.* 416, 485, 209-C12 (1993)

Using the Schrödinger Equation to Simulate Collisionless Matter. *Lawrence M. Widrow & Nick Kaiser.* 416, L71, 216-D6 (1993)

The Piecewise-Linear Predictor-Corrector Code: A Lagrangian-Remap Method for Astrophysical Flows. *Eric A. Lufkin & John F. Hawley.* 88, 569, 47-F9 (1993)

A Simulation Atlas of Tidal Features in Galaxies. *Sethanne Howard, William C. Keel, Gene Byrd, & Jordan Burkey.* 417, 502, 225-E8 (1993)

Smoothed Particle Hydrodynamics Confronts Theory: Formation of Standing Shocks in Accretion Disks and Winds around Black Holes. *Sandip K. Chakrabarti & Diego Molteni.* 417, 671, 227-F7 (1993)

Numerical Simulations of Shock-driven Accretion. *M. Różyczka & H. C. Spruit.* 417, 677, 227-G1 (1993)

Resonance Scattering by Mercurian Sodium. *Donald M. Hunten & Lloyd V. Wallace.* 417, 757, 228-G6 (1993)

Velocity Fields and Alignments of Clusters in Gravitational Instability Scenarios. *Michiel van Haarlem & Rien van de Weygaert.* 418, 544, 239-C1 (1993)

Linear Evolution of the Gravitational Potential: A New Approximation for the Nonlinear Evolution of Large-Scale Structure. *Tereasa G. Brainerd, Robert J. Scherrer, & Jens V. Villumsen.* 418, 570, 239-E6 (1993)

An Improved Numerical Method for Nonadiabatic Nonradial Oscillations: An Application to White Dwarf Stars. *Umin Lee & P. A. Bradley.* 418, 855, 243-C1 (1993)

Ion Thermalization in the Inner Coma of a Comet. *P. Puhl, T. E. Cravens, & J. Lindgren.* 418, 899, 243-G1 (1993)

A Morphology-Cosmology Connection for X-Ray Clusters. *August E. Evrard, Joseph J. Mohr, Daniel G. Fabricant, & Margaret J. Geller.* 419, L9, 252-B13 (1993)

Correlation Functions from the Perseus-Pisces Redshift Survey. *S. A. Bonometto, A. Iovino, L. Guzzo, R. Giovanelli, & M. Haynes.* 419, 451, 253-D4 (1993)

Flame Modeling in Supernovae. *A. Khokhlov.* 419, L77, 259-E1 (1993)

Protostellar Hydrodynamics: Constructing and Testing a Spatially and Temporally Second-Order Accurate Method. II. Cartesian Coordinates. *Elizabeth A. Myhill & Alan P. Boss.* 89, 345, 54-C12 (1993)

Higher Order Godunov Schemes for Isothermal Hydrodynamics. *Dinshaw S. Balsara.* 420, 197, 3-D1 (1994)

Scale Dependence of Three-Point Correlation Functions: Model Predictions and Redshift-Space Contamination. *Takahiko Matsubara & Yasushi Suto.* 420, 497, 8-G2 (1994)

Departure from Hierarchical Clustering Relations for Two-, Three-, and Four-Point Correlation Functions: Analysis of Cosmological N-Body Simulations. *Yasushi Suto & Takahiko Matsubara.* 420, 504, 8-G11 (1994)

The Minimal Power Spectrum: Higher Order Contributions. *J. N. Fry.* 421, 21, 16-C11 (1994)

Penetration below a Convection Zone. *Neal E. Hurlburt, Juri Toomre, Josep M. Massaguer, & Jean-Paul Zahn.* 421, 245, 19-A12 (1994)

A New Method of Spectral Analysis of Unevenly Spaced Astrophysical Data. I. The Single-Period Case. *F. Barone, L. Milano, & G. Russo.* 421, 284, 19-E1 (1994)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. II. Numerical Method of Solution. *Scott A. Morton, Telemachos Ch. Mouschovias, & Glenn E. Ciolek.* 421, 561, 25-B6 (1994)

A New Radiation Hydrodynamics Code and Application to the Calculation of Type Ia Supernovae Light Curves and Continuum Spectra. *Xiao-he Zhang & Peter Sutherland.* 422, 719, 40-G1 (1994)

Oblique Magnetohydrodynamic Cosmic-Ray–modified Shocks: Two-Fluid Numerical Simulations. *Adam Frank, T. W. Jones, & Dongsu Ryu.* 90, 975, 16-A4 (1994)

Peculiar Velocity Effect on Galaxy Correlation Functions in Nonlinear Clustering Regime. *Takahiko Matsubara.* 424, 30, 62-D4 (1994)

On Jet Response to a Driving Frequency and the Jets in 3C 449. *Philip E. Hardee, Michael A. Cooper, & David A. Clarke.* 424, 126, 63-E7 (1994)

Test Problems for Radiation and Radiation-Hydrodynamics Codes. *Lisa Ensman.* 424, 275, 65-C9 (1994)

The Variance of Correlation Function Estimates. *Gary M. Bernstein.* 424, 569, 71-F12 (1994)

Self-Gravity and Dissipation in Polar Rings. *John Dubinski & Dimitris M. Christodoulou.* 424, 615, 72-E3 (1994)

Close Encounters of the Third-Body Kind. *M. B. Davies, W. Benz, & J. G. Hills.* 424, 870, 75-E8 (1994)

Redshift Distortions of Galaxy Correlation Functions. *J. N. Fry & Enrique Gaztañaga.* 425, 1, 80-B1 (1994)

Dark Matter in Hierarchical Cluster Evolution. *Mark J. Henriksen.* 425, 35, 80-E8 (1994)

Numerical Study of Two-Fluid C-Type Shock Waves. *Gábor Tóth.* 425, 171, 82-C11 (1994)

New Description of Charged Particle Propagation in Random Magnetic Fields. *James A. Earl.* 425, 331, 84-D7 (1994)

The Effects of Incomplete Sky Coverage on the Analysis of Large Angular Scale Microwave Background Anisotropy. *Emory Bunn, Yehuda Hoffman, & Joseph Silk.* 425, 359, 86-B8 (1994)

The Three-Point Function as a Probe of Models for Large-Scale Structure. *Joshua A. Frieman & Enrique Gaztañaga.* 425, 392, 86-E8 (1994)

Instabilities of Counterrotating Stellar Disks. *J. A. Sellwood & David Merritt.* 425, 530, 88-C5 (1994)

VLA Stereoscopy of Solar Active Regions. I. Method and Tests. *Markus J. Aschwanden & T. S. Bastian.* 426, 425, 101-E2 (1994)

VLA Stereoscopy of Solar Active Regions. II. Altitude, Relative Motion, and Center-to-Limb Darkening of 20 Centimeter Emission. *Markus J. Aschwanden & T. S. Bastian.* 426, 434, 101-E13 (1994)

Structure of Merger Remnants. IV. Isophotal Shapes. *Jeremy S. Heyl, Lars Hernquist, & David N. Spergel.* 427, 165, 112-B1 (1994)

The Distribution of *IRAS* Galaxies on Linear and Nonlinear Scales. *Ravi K. Sheth, H. J. Mo, & William C. Saslaw.* 427, 562, 119-F11 (1994)

Mass Segregation, Relaxation, and the Coulomb Logarithm in N-Body Systems (Again). *R. T. Farouki & E. E. Salpeter.* 427, 676, 121-B5 (1994)

Star Cluster Evolution with Primordial Binaries. III. Effect of the Galactic Tidal Field. *Steve McMillan & Piet Hut.* 427, 793, 122-E3 (1994)

A Test of the Adhesion Approximation for Gravitational Clustering. *Adrian L. Melott, Sergei F. Shandarin, & David H. Weinberg.* 428, 28, 128-E6 (1994)

The Zero-Point of the Cluster-Cluster Correlation Function: A Key Test of Cosmological Power Spectra. *Anatoly Klypin & George Rhee.* 428, 399, 135-B9 (1994)

X-Ray Clusters from a High-Resolution Hydrodynamic PPM Simulation of the Cold Dark Matter Universe. *Greg L. Bryan, Renyue Cen, Michael L. Norman, Jeremiah P. Ostriker, & James M. Stone.* 428, 405, 135-C1 (1994)

The Stability of Perfect Elliptic Disks. I. The Maximum Streaming Case. *Stephen E. Levine & Linda S. Sparke.* 428, 493, 136-D1 (1994)

Luminosity Variations of 3C 345: Is There Any Evidence of Low-dimensional Chaos? *A. Provenzale, R. Vio, & S. Cristiani.* 428, 591, 137-E9 (1994)

Large Eddy Simulation of Turbulence: A Subgrid Scale Model Including Shear, Vorticity, Rotation, and Buoyancy. *V. M. Canuto.* 428, 729, 139-C13 (1994)

X-Ray Clusters in a Cold Dark Matter + Λ Universe: A Direct, Large-Scale, High-Resolution, Hydrodynamic Simulation. *Renyue Cen & Jeremiah P. Ostriker.* 429, 4, 144-C6 (1994)

A Calculation of the Full Neutrino Phase Space in Cold + Hot Dark Matter Models. *Chung-Pei Ma & Edmund Bertschinger.* 429, 22, 144-D12 (1994)

Multifractal Models of Small-Scale Solar Magnetic Fields. *A. C. Cadavid, J. K. Lawrence, A. A. Ruzmaikin, & A. Kayleng-Knight.* 429, 391, 149-A2 (1994)

Cross-Correlation of Point Series Using a New Method. *Richard B. Stothers.* 429, 415, 149-C5 (1994)

Nonlinear Hydrodynamics of Cosmological Sheets. I. Numerical Techniques and Tests. *Wenbo Y. Anninos & Michael L. Norman.* 429, 434, 151-B10 (1994)

The Fraction of Matter in Voids. *Jaan Einasto, Enn Saar, Maret Einasto, Wolfram Freudling, & Mirt Gramann.* 429, 465, 151-E2 (1994)

The Evolution of Cosmic-Ray–mediated Magnetohydrodynamic Shocks: A Two-Fluid Approach. *Byung-Il Jun, David A. Clarke, & Michael L. Norman.* 429, 748, 155-A3 (1994)

A Comparison of Cosmological Hydrodynamic Codes. *Hyesung Kang, Jeremiah P. Ostriker, Renyue Cen, Dongsu Ryu, Lars Hernquist, August E. Evrard, Greg L. Bryan, & Michael L. Norman.* 430, 83, 160-A12 (1994)

High-Resolution Simulations of Compressible Convection Using the Piecewise-parabolic Method. *David H. Porter & Paul R. Woodward.* 93, 309, 45-G1 (1994)

The Evolution of Voids in the Adhesion Approximation. *Varun Sahni, B. S. Sathyaprakash, & Sergei F. Shandarin.* 431, 20, 176-D10 (1994)

The Structure and Evolution of Lyman-Alpha Forest Clouds in the Minihalo Model. *Avery Meiksin.* 431, 109, 177-E3 (1994)

On the Evolution of Clustering and the Biased Galaxy Formation Scenario. *Tereasa G. Brainerd & Jens V. Villumsen.* 431, 477, 184-E1 (1994)

Large-Scale Structure after *COBE*: Peculiar Velocities and Correlations of Cold Dark Matter Halos. *Wojciech H. Zurek, Peter J. Quinn, John K. Salmon, & Michael S. Warren.* 431, 559, 185-E1 (1994)

Power Spectrum, Correlation Function, and Tests for Luminosity Bias in the CfA Redshift Survey. *Changbom Park, Michael S. Vogeley, Margaret J. Geller, & John P. Huchra.* 431, 569, 185-F1 (1994)

The Effect of Dissipation on the Shapes of Dark Halos. *John Dubinski.* 431, 617, 186-C3 (1994)

Origin of Cluster-Cluster Correlation Functions in Biased Structure Formation Scenarios. *Takuya Watanabe, Takahiko Matsubara, & Yasushi Suto.* 432, 17, 193-D7 (1994)

Collapse of Primordial Gas Clouds and the Formation of Quasar Black Holes. *Abraham Loeb & Frederic A. Rasio.* 432, 52, 193-G8 (1994)

Diagnostics of Dust Content in Spiral Galaxies: Numerical Simulations of Radiative Transfer. *Y. I. Byun, K. C. Freeman, & N. D. Kylafis.* 432, 114, 194-F1 (1994)

An Implementation of a Tree Code on a SIMD Parallel Computer. *Kevin M. Olson & John E. Dorband.* 94, 117, 53-D5 (1994)

Velocity Bias in Clusters. *R. G. Carlberg.* 433, 468, 216-G1 (1994)

The Dynamical Evolution of Poor Clusters of Galaxies: Growth and Properties of the First-ranked Galaxy. *Paul W. Bode, Robert C. Berrington, Haldan N. Cohn, & Phyllis M. Lugger.* 433, 479, 217-A2 (1994)

A Numerical Simulation of a Variable Velocity Jet. *S. Biro & A. C. Raga.* 434, 221, 228-D11 (1994)

Numerical Study of Rotating Core Collapse in Supernova Explosions. *Shoichi Yamada & Katsuhiko Sato.* 434, 268, 229-B6 (1994)

The Cosmological Dependence of Cluster Density Profiles. *Mary M. Crone, August E. Evrard, & Douglas O. Richstone.* 434, 402, 233-C9 (1994)

A Spectrum Synthesis Program for Binary Stars. *Albert P. Linnell & Ivan Hubeny.* 434, 738, 238-A4 (1994)

A Three-dimensional Hydrodynamics Code for Modeling Sources of Gravitational Radiation. *Scott C. Smith, Joan M. Centrella, & Sean P. Clancy.* 94, 789, 62-G3 (1994)

Searches for Millisecond Pulsations in Low-Mass X-Ray Binaries. II. *B. A. Vaughan, M. van der Klis, K. S. Wood, J. P. Norris, P. Hertz, P. F. Michelson, J. van Paradijs, W. H. G. Lewin, K. Mitsuda, & W. Penninx.* 435, 362, 248-D1 (1994)

The Cosmological Mass Distribution from Cayley Trees with Disorder. *A. Cavaliere & N. Menci.* 435, 528, 253-D3 (1994)

Hierarchical Numerical Cosmology with Hydrodynamics: Methods and Code Tests. *Peter Anninos, Michael L. Norman, & David A. Clarke.* 436, 11, 261-D3 (1994)

Simulation of Interactions of an Orbiting Compact Star with an Accretion Disk by Smoothed Particle Hydrodynamics. *Diego Molteni, G. Gerardi, & Sandip K. Chakrabarti.* 436, 249, 264-F1 (1994)

Slingshot Ejections from Clusters of Three and Four Black Holes. *M. J. Valtonen, S. Mikkola, P. Heinämäki, & H. Valtonen.* 95, 69, 65-B1 (1994)

Cold Dark Matter. I. The Formation of Dark Halos. *James M. Gelb & Edmund Bertschinger.* 436, 467, 272-A5 (1994)

On the Peculiar Velocity Field of a CDM Universe. *Tereasa G. Brainerd & Jens V. Villumsen.* 436, 528, 272-F11 (1994)

Reconstruction of Initial Cosmological Density Fluctuations by the Pseudospectral Method. *Naoteru Gouda.* 436, 542, 273-A1 (1994)

Merging Rates inside Large-Scale Structures. *Nicola Menci & Riccardo Valdarnini.* 436, 559, 273-C1 (1994)

Interactions between Magnetohydrodynamical Shocks and Denser Clouds. *Wenlong Dai & Paul R. Woodward.* 436, 776, 276-B13 (1994)

Application of Cubic Splines to the Spectral Analysis of Unequally Spaced Data. *C. Akerlof, C. Alcock, R. Allsman, T. Axelrod, D. P. Bennett, K. H. Cook, K. Freeman, K. Griest, S. Marshall, H.-S. Park, S. Perlmutter, B. Peterson, P. Quinn, J. Reimann, A. Rodgers, C. W. Stubbs, & W. Sutherland.* 436, 787, 276-D9 (1994)

Synthesizing the Observed Distribution of Galaxies. *Ravi K. Sheth & William C. Saslaw.* 437, 35, 283-F3 (1994)

Correlations in Cosmic Density Fields. *B. C. Bromley.* 437, 541, 293-C1 (1994)

Star-forming Galaxy Models: Blending Star Formation into TREESPH. *J. Christopher Mihos & Lars Hernquist.* 437, 611, 294-B9 (1994)

Non-LTE Effects on the Strength of the Lyman Edge in Quasar Accretion Disks. *H. Störzer, P. H. Hauschildt, & F. Allard.* 437, L91, 298-G8 (1994)

Gasdynamical Approach to a Face-on View of the Milky Way. *Keiichi Wada, Yoshiaki Taniguchi, Asao Habe, & Tetsuo Hasegawa.* 437, L123, 299-D8 (1994)

High-Order Correlations of Rich Galaxy Clusters. *Alberto Cappi & Sophie Maurogordato.* 438, 507, 11-C1 (1995)

Smoothed Particle Interpolation. *Pablo Laguna.* 439, 814, 35-G2 (1995)

Non-LTE Line-blanketed Model Atmospheres of Hot Stars. I. Hybrid Complete Linearization/Accelerated Lambda Iteration Method. *I. Hubeny & T. Lanz.* 439, 875, 36-F8 (1995)

A Comparison of Two Algorithms for Simulating Collisionless Systems. *Shunsuke Hozumi & Lars Hernquist.* 440, 60, 42-A10 (1995)

Reverberation Mapping by Regularized Linear Inversion. *Julian H. Krolik & Christine Done.* 440, 166, 43-D13 (1995)

A Method of Smoothed Particle Hydrodynamics Using Spheroidal Kernels. *Michael S. Fulbright, Willy Benz, & Melvyn B. Davies.* 440, 254, 44-F4 (1995)

A Count Probability Cookbook: Spurious Effects and the Scaling Model. *S. Colombi, F. R. Bouchet, & R. Schaeffer.* 96, 401, 7-F13 (1995)

Convergence Properties of Finite-Difference Hydrodynamics Schemes in the Presence of Shocks. *Paul A. Kimoto & David F. Chernoff.* 96, 627, 10-D9 (1995)

Scale Invariance and Self-Similar Behavior of Dark Matter Halos. *F. Moutarde, J.-M. Alimi, F. R. Bouchet, & R. Pellat.* 441, 10, 59-D1 (1995)

Simulation of the Instability of Mach 2 and Mach 4 Gaseous Jets in Two and Three Dimensions. *Gene M. Bassett & Paul R. Woodward.* 441, 582, 70-B1 (1995)

Emerging Flux Tubes in the Solar Convection Zone. I. Asymmetry, Tilt, and Emergence Latitude. *P. Caligari, F. Moreno-Insertis, & M. Schüssler.* 441, 886, 74-B12 (1995)

Weakly Nonlinear Gaussian Fluctuations and the Edgeworth Expansion. *Roman Juszkiewicz, David H. Weinberg, Piotr Amsterdamski, Michał Chodorowski, & François Bouchet.* 442, 39, 77-F10 (1995)

Physically Detached "Compact Groups." *Lars Hernquist, Neal Katz, & David H. Weinberg.* 442, 57, 78-A3 (1995)

Femtolensing: Beyond the Semiclassical Approximation. *Andrew Ulmer & Jeremy Goodman.* 442, 67, 78-B4 (1995)

Numerical Magnetohydrodynamics in Astrophysics: Algorithm and Tests for One-dimensional Flow. *Dongsu Ryu & T. W. Jones.* 442, 228, 80-C5 (1995)

Hydrodynamic Simulations of Galaxy Formation. I. Dissipation and the Maximum Mass of Galaxies. *Anne A. Thoul & David H. Weinberg.* 442, 480, 86-E5 (1995)

The Settling of Warped Disks in Oblate Dark Halos. *John Dubinski & Konrad Kuijken.* 442, 492, 86-F7 (1995)

Incorporation of Ambipolar Diffusion into the ZEUS Magnetohydrodynamics Code. *Mordecai-Mark Mac Low, Michael L. Norman, Arieh Königl, & Mark Wardle.* 442, 726, 90-B10 (1995)

Window Functions for Cosmic Microwave Background Experiments. *Martin White & Mark Srednicki.* 443, 6, 95-C9 (1995)

Computing Supernova Collapse to Neutron Stars and Black Holes. *Thomas W. Baumgarte, Stuart L. Shapiro, & Saul A. Teukolsky.* 443, 717, 107-F13 (1995)

A First Map of the Cosmic Microwave Background at 0.5° Resolution. *Martin White & Emory F. Bunn.* 443, L53, 111-D1 (1995)

Softened Lagrangian Hydrodynamics for Cosmology. *Nickolay Y. Gnedin.* 97, 231, 15-B1 (1995)

Testing the Accuracy of Redshift-Space Group-finding Algorithms. *James J. Frederic.* 97, 259, 15-D3 (1995)

Assessing the Accuracy of Masses and Spatial Correlations of Galaxy Groups. *James J. Frederic.* 97, 275, 15-E8 (1995)

Competition of Supermassive Black Holes and Galactic Spheroids in the Destruction of Globular Clusters. *Jane C. Charlton & Pablo Laguna.* 444, 193, 116-A11 (1995)

Comparing Models of Rapidly Rotating Relativistic Stars Constructed by Two Numerical Methods. *Nikolaos Stergioulas & John L. Friedman.* 444, 306, 117-F1 (1995)

Can Standard Cosmological Models Explain the Observed Abell Cluster Bulk Flow? *Michael A. Strauss, Renyue Cen, Jeremiah P. Ostriker, Tod R. Lauer, & Marc Postman.* 444, 507, 123-D8 (1995)

Higher Order Correlation Functions for Quasars. *M. J. Pons-Borderia & S. A. Bonometto.* 444, 548, 124-A2 (1995)

Neural Network Prediction of Solar Activity. *R. A. Calvo, H. A. Ceccatto, & R. D. Piacentini.* 444, 916, 129-A8 (1995)

Radio Jet Propagation and Wide-Angle Tailed Radio Sources in Merging Galaxy Cluster Environments. *Chris Loken, Kurt Roettiger, Jack O. Burns, & Michael Norman.* 445, 80, 133-D11 (1995)

Numerical Simulations of Stratified Compressible Convection with Internal Heating and Disklike Variable Gravity. *W. Cabot, K. W. Thompson, & J. B. Pollack.* 98, 315, 26-C4 (1995)

A New Parallel *N*-Body Gravity Solver: TPM. *Guohong Xu.* 98, 355, 26-F12 (1995)

Implicit General Relativistic Hydrodynamic Methods for Modeling the Late-Time Explosion Mechanism in Core Collapse Supernovae. *F. Douglas Swesty.* 445, 811, 146-D4 (1995)

Models of Galaxies with Central Black Holes: Simulation Methods. *Steinn Sigurdsson, Lars Hernquist, & Gerald D. Quinlan.* 446, 75, 154-C6 (1995)

An Axisymmetric Distribution Function for the Galactic Bulge. *Konrad Kuijken.* 446, 194, 155-G8 (1995)

A Parallel Self-consistent Field Code. *Lars Hernquist, Steinn Sigurdsson, & Greg L. Bryan.* 446, 717, 166-A4 (1995)

Cosmological Constraints from Observed Cluster X-Ray Morphologies. *Joseph J. Mohr, August E. Evrard, Daniel G. Fabricant, & Margaret J. Geller.* 447, 8, 172-C12 (1995)

Precessing Jets and Point-Symmetric Nebulae. *J. A. Cliffe, A. Frank, M. Livio, & T. W. Jones.* 447, L49, 181-C10 (1995)

Destabilization of Compressible Convection by Radiation: Quantitative Evaluation. *Q. Q. Cheng, Murshed Hossain, & D. J. Mullan.* 447, 789, 186-G6 (1995)

Diffusive Shock Acceleration Simulations: Comparison with Particle Methods and Bow Shock Measurements. *Hyesung Kang & T. W. Jones.* 447, 944, 188-G13 (1995)

Two-dimensional Decomposition of Bulge and Disk. *Y. I. Byun & K. C. Freeman.* 448, 563, 202-D12 (1995)

Modeling Line Profiles of Protostellar Collapse in B335 with the Monte Carlo Method. *Minho Choi, Neal J. Evans II, Erik M. Gregersen, & Yangsheng Wang.* 448, 742, 204-A9 (1995)

Numerical Techniques for Three-dimensional Smoothed Particle Hydrodynamics Simulations: Applications to Accretion Disks. *James C. Simpson.* 448, 822, 206-C1 (1995)

Astronomical Time Series Analysis. I. A Search for Periodicity Using Information Entropy. *Pablo M. Cincotta, Mariano Méndez, & Josué A. Núñez.* 449, 231, 213-D2 (1995)

Comparison of *N*-Body Simulations to Statistical Observations of Galaxy Pairs. *Roger E. Bartlett & Jane C. Charlton.* 449, 497, 219-F4 (1995)

Nuclear Rings and Mass Inflow in Hydrodynamic Simulations of Barred Galaxies. *B. Glenn Piner, James M. Stone, & Peter J. Teuben.* 449, 508, 219-G5 (1995)

Numerical Analysis of the Dynamic Stability of Radiative Shocks. *Russell Strickland & John M. Blondin.* 449, 727, 222-G5 (1995)

Exact and Approximate Radiative Transfer in Differentially Moving Media. *Wei-Wei Yin & Guy S. Miller.* 449, 826, 224-B8 (1995)

Dynamics and Interactions of Binaries and Neutron Stars in Globular Clusters. *Steinn Sigurdsson & E. S. Phinney.* 99, 609, 43-D7 (1995)

Nonlinear Hydrodynamics of Cosmological Sheets. II. Fragmentation and the Gravitational, Cooling, and Thin-Shell Instabilities. *Wenbo Y. Anninos, Michael L. Norman, & Peter Anninos.* 450, 1, 228-B1 (1995)

The Role of Magnetic Reconnection in Chromospheric Eruptions. *Judith T. Karpen, Spiro K. Antiochos, & C. Richard DeVore.* 450, 422, 233-G3 (1995)

Iteration Profiles in Radiative Transfer Problems. I. From Vectorial to Scalar Coupling. *L. Crivellari & E. Simonneau.* 451, 328, 250-D6 (1995)

A Linear Moving Adaptive Particle-Mesh *N*-Body Algorithm. *Ue-Li Pen.* 100, 269, 49-F1 (1995)

Matter Distribution for Power Spectra with Broken Scale Invariance. *Luca Amendola, Stefan Gottlöber, Jan Peter Mücket, & Volker Müller.* 451, 444, 253-D10 (1995)

Mergers of Dissipationless Systems: Clues about the Fundamental Plane. *H. V. Capelato, R. R. de Carvalho, & R. G. Carlberg.* 451, 525, 254-E1 (1995)

The Optimal *N*-Body Method for Stability Studies of Galaxies. *David J. D. Earn & J. A. Sellwood.* 451, 533, 254-E12 (1995)

Sequential Star Formation in OB Associations: The Role of Molecular Cloud Turbulence. *Bruce G. Elmegreen, Toshiya Kimura, & Makoto Tosa.* 451, 675, 256-E1 (1995)

Some Remarks about Nova Spectroscopy and Photometry. *Shlomi Pistinner, Giora Shaviv, Peter H. Hauschildt, & Sumner Starrfield.* 451, 724, 257-B12 (1995)

Stable and Unstable Accretion Flows with Angular Momentum near a Point Mass. *Dongsu Ryu, Garry L. Brown, Jeremiah P. Ostriker, & Abraham Loeb.* 452, 364, 267-B7 (1995)

Automated Source Classification Using a Kohonen Network. *P. H. Mähönen & P. J. Hakala.* 452, L77, 270-G1 (1995)

Microscopic Instabilities of Nuclear Flames in Type Ia Supernovae. *J. C. Niemeyer & W. Hillebrandt.* 452, 779, 275-C12 (1995)

Numerical Magnetohydrodynamics in Astrophysics: Algorithm and Tests for Multidimensional Flow. *Dongsu Ryu, T. W. Jones, & Adam Frank.* 452, 785, 275-D7 (1995)

Hydra: An Adaptive-Mesh Implementation of P^3M-SPH. *H. M. P. Couchman, P. A. Thomas, & F. R. Pearce.* 452, 797, 275-E11 (1995)

A Numerical Study of Rayleigh-Taylor Instability in Magnetic Fluids. *Byung-Il Jun, Michael L. Norman, & James M. Stone.* 453, 332, 285-F9 (1995)

Cosmological Simulations Using Special Purpose Computers: Implementing P^3M on GRAPE. *Philippe P. Brieu, F. J. Summers, & Jeremiah P. Ostriker.* 453, 566, 291-F6 (1995)

Galaxy Tracers and Velocity Bias. *F. J. Summers, Marc Davis, & August E. Evrard.* 454, 1, 299-C1 (1995)

Action Principle Solutions for Galaxy Motions within 3000 Kilometers per Second. *Edward J. Shaya, P. J. E. Peebles, & R. Brent Tully.* 454, 15, 299-D4 (1995)

Comparison of Three Numerical Treatments of Charged Particle Transport. *J. A. Earl, D. Ruffolo, H. L. Pauls, & J. W. Bieber.* 454, 749, 312-A13 (1995)

A Novel Iterative Scheme for the Very Fast and Accurate Solution of Non-LTE Radiative Transfer Problems. *J. Trujillo Bueno & P. Fabiani Bendicho.* 455, 646, 330-G6 (1995)

Genetic Algorithms in Astronomy and Astrophysics. *P. Charbonneau.* 101, 309, 58-B5 (1995)

METHODS: OBSERVATIONAL

Ten New BL Lacertae Objects Discovered by an Efficient X-Ray/Radio/Optical Technique. *Jonathan F. Schachter, John T. Stocke, Eric Perlman, Martin Elvis, Ron Remillard, Arno Granados, Jane Luu, John P. Huchra, Roberta Humphreys, C. Megan Urry, & John Wallin.* 412, 541, 150-D9 (1993)

Radio Dispersion as a Diagnostic of Gamma-Ray Burst Distances. *David M. Palmer.* 417, L25, 223-A9 (1993)

The On-Orbit Performance of WFPC2. *John T. Trauger, Gilda E. Ballester, Christopher J. Burrows, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, John S. Gallagher III, Richard E. Griffiths, J. Jeff Hester, John G. Hoessel, Jon A. Holtzman, John E. Krist, Jeremy R. Mould, Paul A. Scowen, Karl R. Stapelfeldt, Alan M. Watson, & James A. Westphal.* 435, L3, 251-B5 (1994)

Adaptive Optics Experiments Using Sodium Laser Guide Stars. *M. Lloyd-Hart, J. R. P. Angel, B. Jacobsen, D. Wittman, R. Dekany, D. McCarthy, E. Kibblewhite, W. Wild, B. Carter, & J. Beletic.* 439, 455, 27-D2 (1995)

Adaptive Optics Imaging of Proto–Planetary Nebulae: Frosty Leo and the Red Rectangle. *F. Roddier, C. Roddier, J. E. Graves, & M. J. Northcott.* 443, 249, 98-E7 (1995)

Naked-Eye Observable Microlensing Events. *Wesley N. Colley & J. Richard Gott III.* 452, 82, 263-C4 (1995)

Detection of a Faint Optical Jet in 3C 120. *Jens Hjorth, Marianne Vestergaard, Anton N. Sørensen, & Frank Grundahl.* 452, L17, 269-E3 (1995)

Optimization and Performance of Adaptive Optics for Imaging Extrasolar Planets. *Steven M. Stahl & David G. Sandler.* 454, L153, 316-F13 (1995)

The Canada-France Redshift Survey. IV. Spectroscopic Selection Effects and 0300+00 Field Spectroscopic Data. *Francois Hammer, David Crampton, Olivier Le Fèvre, & Simon J. Lilly.* 455, 88, 319-D10 (1995)

METHODS: STATISTICAL

Time Variability Studies with Photon-counting Imaging Detectors. I. A Maximum Likelihood Technique. *S. Sciortino & G. Micela.* 388, 595, 57-E11 (1992)

Transient Periodicities in X-Ray–active Red Dwarfs: First Results from Mount Cuba and Interpretation with an Oscillating Loop Model. *D. J. Mullan, R. B. Herr, & S. Bhattacharyya.* 391, 265, 89-C1 (1992)

A Simple Test of Independence for Truncated Data with Applications to Redshift Surveys. *Bradley Efron & Vahé Petrosian.* 399, 345, 202-C1 (1992)

COBE Differential Microwave Radiometers: Preliminary Systematic Error Analysis. *A. Kogut, G. F. Smoot, C. L. Bennett, E. L. Wright, J. Aymon, G. De Amici, G. Hinshaw, P. D. Jackson, E. Kaita, P. Keegstra, C. Lineweaver, K. Loewenstein, L. Rokke, L. Tenorio, N. W. Boggess, E. S. Cheng, S. Gulkis, M. G. Hauser, M. A. Janssen, T. Kelsall, J. C. Mather, S. Meyer, S. H. Moseley, T. L. Murdock, R. A. Shafer, R. F. Silverberg, R. Weiss, & D. T. Wilkinson.* 401, 1, 221-B1 (1992)

Non-Gaussian Signatures from Gaussian Initial Fluctuations: Evolution of Skewness and Kurtosis from Cosmological Simulations in the Highly Nonlinear Regime. *Ofer Lahav, Makoto Itoh, Shogo Inagaki, & Yasushi Suto.* 402, 387, 7-D7 (1993)

Gravitational Radiation, Inspiraling Binaries, and Cosmology. *David F. Chernoff & Lee Samuel Finn.* 411, L5, 133-D8 (1993)

Can Extra Power Explain Periodicity on Large Scales? *Shan Luo & Ethan T. Vishniac.* 415, 450, 193-D9 (1993)

Toward Better Ways to Measure the Galaxy Correlation Function. *A. J. S. Hamilton.* 417, 19, 217-C11 (1993)

"Sample Variance" in Small-Scale Cosmic Microwave Background Anisotropy Experiments. *Douglas Scott, Mark Srednicki, & Martin White.* 421, L5, 21-D1 (1994)

A Maximum Entropy Method When Prior Information Consists of Inexact Constraints. *R. Lieu & R. B. Hicks.* 422, 845, 42-D1 (1994)

Wiener Reconstruction of All-Sky Galaxy Surveys in Spherical Harmonics. *O. Lahav, K. B. Fisher, Y. Hoffman, C. A. Scharf, & S. Zaroubi.* 423, L93, 60-C13 (1994)

Power-Spectrum Analysis of Three-dimensional Redshift Surveys. *Hume A. Feldman, Nick Kaiser, & John A. Peacock.* 426, 23, 96-D2 (1994)

Orientation Modeling of Radio Galaxy and Quasar Properties: Evidence for a Unified Model. *Matthew L. Lister, J. B. Hutchings, & Ann C. Gower.* 427, 125, 111-D13 (1994)

Signal Detection amid Noise with Known Statistics. *A. F. Zepka, J. M. Cordes, & I. Wasserman.* 427, 438, 115-C10 (1994)

Statistical Bias in Distance and Peculiar Velocity Estimation. I. The "Calibration" Problem. *Jeffrey A. Willick.* 92, 1, 31-B1 (1994)

Bookmakers' Odds for the Sky Distribution of Gamma-Ray Bursts. *D. Syer & P. Saha.* 427, 714, 121-E11 (1994)

Cross-Correlation of Point Series Using a New Method. *Richard B. Stothers.* 429, 415, 149-C5 (1994)

Conspicuous Tangential Alignment of Faint Blue and Red Objects in Cluster 0024+1654. *Aggeliki Kassiola, Israel Kovner, Bernard Fort, & Yannick Mellier.* 429, L9, 150-B9 (1994)

Bias Properties of Extragalactic Distance Indicators. I. The Hubble Constant Does Not Increase Outward. *Allan Sandage.* 430, 1, 159-B1 (1994)

Bias Properties of Extragalactic Distance Indicators. II. Bias Corrections to Tully-Fisher Distances for Field Galaxies. *Allan Sandage.* 430, 13, 159-C1 (1994)

Bias Properties of Extragalactic Distance Indicators. III. Analysis of Tully-Fisher Distances for the Mathewson-Ford-Buchhorn Sample of 1355 Galaxies. *Martin Federspiel, Allan Sandage, & G. A. Tammann.* 430, 29, 159-D5 (1994)

Redshift Data and Statistical Inference. *William I. Newman, Martha P. Haynes, & Yervant Terzian.* 431, 147, 178-A6 (1994)

Statistics of Cosmological Gamma-Ray Bursts: Source Evolution, Cosmological Geometry, and Relativistic Beaming. *Insu Yi.* 431, 543, 185-C10 (1994)

Is a Data Set Distributed as a Power Law? A Test, with Application to Gamma-Ray Burst Brightnesses. *Ralph A. M. J. Wijers & Lori M. Lubin.* 432, 207, 195-F13 (1994)

Constraints on the Fraction of Repeating Gamma-Ray Burst Sources from BATSE Measurements. *Tod E. Strohmayer, Edward E. Fenimore, & Juan A. Miralles.* 432, 665, 204-C8 (1994)

Wiener Filtering of the *COBE* Differential Microwave Radiometer Data. *Emory F. Bunn, Karl B. Fisher, Yehuda Hoffman, Ofer Lahav, Joseph Silk, & Saleem Zaroubi.* 432, L75, 206-D1 (1994)

BATSE Gamma-Ray Burst Line Search. II. Bayesian Consistency Methodology. *D. L. Band, L. A. Ford, J. L. Matteson, M. Briggs, W. Paciesas, G. Pendleton, R. Preece, D. Palmer, B. Teegarden, & B. Schaefer.* 434, 560, 235-E8 (1994)

Hot Gas in the Interstellar Medium: A Reanalysis of O VI Absorption Data. *R. L. Shelton & D. P. Cox.* 434, 599, 236-B2 (1994)

Optimal Galaxy Distance Estimators. *M. A. Hendry & J. F. L. Simmons.* 435, 515, 253-C1 (1994)

Can We Identify Lensed Gamma-Ray Bursts? *Michael A. Nowak & Scott A. Grossman.* 435, 557, 253-G4 (1994)

On Periodicity Tests and Flux Limit Calculations for Gamma-Ray Pulsars. *O. C. de Jager.* 436, 239, 264-E1 (1994)

Correlated Noise in the *COBE* DMR Sky Maps. *C. H. Lineweaver, G. F. Smoot, C. L. Bennett, E. L. Wright, L. Tenorio, A. Kogut, P. B. Keegstra, G. Hinshaw, & A. J. Banday.* 436, 452, 271-F11 (1994)

Two-Sample Discrimination of Poisson Means. *M. Lampton.* 436, 784, 276-D2 (1994)

Application of Cubic Splines to the Spectral Analysis of Unequally Spaced Data. *C. Akerlof, C. Alcock, R. Allsman, T. Axelrod, D. P. Bennett, K. H. Cook, K. Freeman, K. Griest, S. Marshall, H.-S. Park, S. Perlmutter, B. Peterson, P. Quinn, J. Reimann, A. Rodgers, C. W. Stubbs, & W. Sutherland.* 436, 787, 276-D9 (1994)

Statistics and Topology of the *COBE* Differential Microwave Radiometer First-Year Sky Maps. *G. F. Smoot, L. Tenorio, A. J. Banday, A. Kogut, E. L. Wright, G. Hinshaw, & C. L. Bennett.* 437, 1, 283-C1 (1994)

On the Nature of Gamma-Ray Burst Time Dilations. *Ralph A. M. J. Wijers & Bohdan Paczyński.* 437, L107, 299-B8 (1994)

The Fundamental Plane Correlations for Globular Clusters. *S. Djorgovski.* 438, L29, 10-B3 (1995)

The Width of the Gamma-Ray Burst Luminosity Function. *Andrew Ulmer & Ralph A. M. J. Wijers.* 439, 303, 25-C13 (1995)

Young Oxygen-rich Supernova Remnants. I. Observations of Three Southern Remnants. *Ralph S. Sutherland & Michael A. Dopita.* 439, 365, 26-B12 (1995)

Inferring the Spatial and Energy Distribution of Gamma-Ray Burst Sources. I. Methodology. *Thomas J. Loredo & Ira M. Wasserman.* 96, 261, 5-A11 (1995)

Gaussian Statistics of the Cosmic Microwave Background: Correlation of Temperature Extrema in the *COBE* DMR Two-Year Sky Maps. *A. Kogut, A. J. Banday, C. L. Bennett, G. Hinshaw, P. M. Lubin, & G. F. Smoot.* 439, L29, 40-B1 (1995)

Estimating the Cramér-Rao Bound for Restored Astronomical Observations. *T. S. Zaccheo, R. A. Gonsalves, S. M. Ebstein, & P. Nisenson.* 439, L43, 40-C11 (1995)

Constraints on the Gamma-Ray Burst Luminosity Function from *Pioneer Venus Orbiter* and BATSE Observations. *Andrew Ulmer, Ralph A. M. J. Wijers, & Edward E. Fenimore.* 440, L9, 48-C1 (1995)

Analytic Error Estimates. *Andrew Gould.* 440, 510, 50-C10 (1995)

A Count Probability Cookbook: Spurious Effects and the Scaling Model. *S. Colombi, F. R. Bouchet, & R. Schaeffer.* 96, 401, 7-F13 (1995)

Combinatorics and Companion Galaxies: Paradox Lost. *William I. Newman & Yervant Terzian.* 441, 505, 69-A8 (1995)

Repeating Sources of Classical Gamma-Ray Bursts. *V. C. Wang & R. E. Lingenfelter.* 441, 747, 72-C1 (1995)

Bayesian Approaches to Testing the Nature of Primordial Density Fluctuation. *Shan Luo & Ethan Vishniac.* 443, 469, 104-D1 (1995)

The Spatial Distribution of Blue Compact Galaxies in the Second Byurakan Survey. *Simon A. Pustil'nik, Andrei V. Ugryumov, Valentin A. Lipovetsky, Trinh X. Thuan, & Natalia G. Guseva.* 443, 499, 104-F11 (1995)

Uncertainties for Two-dimensional Models of Solar Rotation from Helioseismic Eigenfrequency Splitting. *Christopher R. Genovese, Philip B. Stark, & Michael J. Thompson.* 443, 843, 109-D13 (1995)

Higher Order Statistics from the APM Galaxy Survey. *István Szapudi, Gavin B. Dalton, George Efstathiou, & Alexander S. Szalay.* 444, 520, 123-E10 (1995)

Another Look at the *UBV* Variability of T Tauri Stars. *Pedro N. Safier.* 444, 818, 127-F12 (1995)

BATSE Gamma-Ray Burst Line Search. III. Line Detectability. *D. L. Band, L. A. Ford, J. L. Matteson, M. S. Briggs, W. S. Paciesas, G. N. Pendleton, R. D. Preece, D. M. Palmer, B. J. Teegarden, & B. E. Schaefer.* 447, 289, 176-D4 (1995)

Probability Distribution of the Hubble Constant and the Age of the Universe Inferred from Local Observations. *Takahiro T. Nakamura & Yasushi Suto.* 447, L65, 190-B8 (1995)

Testing Isotropy versus Clustering of Gamma-Ray Bursts. *Bradley Efron & Vahé Petrosian.* 449, 216, 213-B9 (1995)

A Simple Test for Non-Gaussianity in Cosmic Microwave Background Radiation Measurements. *Paul Graham, Neil Turok, P. M. Lubin, & J. A. Schuster.* 449, 404, 218-C9 (1995)

Statistics of Microlensing Optical Depth. *Cheongho Han & Andrew Gould.* 449, 521, 220-A7 (1995)

The *COBE* Normalization of CMB Anisotropies. *Martin White & Emory F. Bunn.* 450, 477, 237-C1 (1995)

Matched Filter Source Detection Applied to the *ROSAT* PSPC and the Determination of the Number-Flux Relation. *A. Vikhlinin, W. Forman, C. Jones, & S. Murray.* 451, 542, 254-F10 (1995)

Bias Properties of Extragalactic Distance Indicators. IV. Demonstration of the Population Incompleteness Bias Inherent in the Tully-Fisher Method Applied to Clusters. *Allan Sandage, G. A. Tammann, & Martin Federspiel.* 452, 1, 262-C2 (1995)

The Slope of the BATSE Number-Flux Distribution. *David Caditz.* 452, 140, 264-A4 (1995)

Diagrammatic Methods in Statistics and Biasing in the Large-Scale Structure of the Universe. *Takahiko Matsubara.* 101, 1, 53-B1 (1995)

The Underlying Distribution of Optical to X-Ray Spectral Index for Quasars in the Presence of Detection Thresholds. *Y. Avni, D. M. Worrall, & W. A. Morgan, Jr.* 454, 673, 311-A1 (1995)

MINOR PLANETS

Collision and Tidal Interaction between Planetesimals. *Sei-ichiro Watanabe & Shoken M. Miyama.* 391, 318, 89-G11 (1992)

Zodiacal Emission. III. Dust near the Asteroid Belt. *William T. Reach.* 392, 289, 104-E7 (1992)

The Size Distribution of the Earth-approaching Asteroids. *D. L. Rabinowitz.* 407, 412, 74-B7 (1993)

On the Nature of the Polarization Opposition Effect Exhibited by Saturn's Rings. *Michael I. Mishchenko.* 411, 351, 131-F1 (1993)

Restoration of Astronomical Images by Iterative Blind Deconvolution. *Stuart M. Jefferies & Julian C. Christou.* 415, 862, 198-F9 (1993)

MISCELLANEOUS

Centennial Challenge Essay: Quo Vadis, Astronomia? *George W. Collins II.* 449, 399, 218-C1 (1995)

MOLECULAR DATA

Temperature Dependence of Infrared Bands Produced by Polycyclic Aromatic Hydrocarbons. *L. Colangeli, V. Mennella, & E. Bussoletti.* 385, 577, 20-C10 (1992)

Accurate Far-Infrared Rotational Frequencies of Carbon Monoxide. *Thomas D. Varberg & Kenneth M. Evenson.* 385, 763, 22-E8 (1992)

The Rotational Spectrum of the Carbon Chain Radical HCCCO. *A. L. Cooksy, J. K. G. Watson, C. A. Gottlieb, & P. Thaddeus.* 386, L27, 29-D7 (1992)

The Comet-Tail (A–X) System of CO^+: Precise Molecular Constants of Its $X\ ^2\Sigma^+$, $A\ ^2\Pi_i$, and $B\ ^2\Sigma^+$ States. *C. Haridass, C. V. V. Prasad, & S. Paddi Reddy.* 388, 669, 58-E1 (1992)

Thermal Emission Spectra from Polycyclic Aromatic Hydrocarbon Molecules of Astrophysical Interest. *V. Mennella, L. Colangeli, & E. Bussoletti.* 391, L45, 92-D1 (1992)

Submillimeter Spectrum of Low-Temperature Hydrogen: The Pure Translational Band of H_2 and the $R(0)$ Line of HD. *E. H. Wishnow, I. Ozier, & H. P. Gush.* 392, L43, 106-F1 (1992)

Improved Laboratory Rest Frequency Measurements and Pressure Shift and Broadening Parameters for the $J = 2 \leftarrow 1$ and $J = 3 \leftarrow 2$ Rotational Transitions of CO. *S. P. Belov, M. Yu. Tretyakov, & R. D. Suenram.* 393, 848, 126-D9 (1992)

Contribution of Polycyclic Aromatic Hydrocarbon Molecules to the Interstellar Extinction Curve. *C. Joblin, A. Léger, & P. Martin.* 393, L79, 127-F1 (1992)

Polycyclic Aromatic Hydrocarbons and Molecular Equilibria in Carbon-rich Stars. *Isabelle Cherchneff & John R. Barker.* 394, 703, 138-C4 (1992)

The Ultraviolet and Visible Spectrum of the Polycyclic Aromatic Hydrocarbon $C_{10}H_8^+$: Possible Contributions to the Diffuse Interstellar Bands and to the Ultraviolet–Visible Extinction. *F. Salama & L. J. Allamandola.* 395, 301, 143-G9 (1992)

High-Resolution Photoabsorption Cross Sections of $E^1\Pi$–$X^1\Sigma^+$ Vibrational Bands of ^{12}CO and ^{13}CO. *G. Stark, P. L. Smith, K. Ito, & K. Yoshino.* 395, 705, 152-B5 (1992)

Radiative Lifetimes of the CN ($A^2\Pi_i$) Electronic State. *Richang Lu, Yuhui Huang, & Joshua B. Halpern.* 395, 710, 152-C1 (1992)

Raman and Infrared Spectra of Polycyclic Aromatic Hydrocarbon Molecules of Possible Astrophysical Interest. *L. Colangeli, V. Mennella, G. A. Baratta, E. Bussoletti, & G. Strazzulla.* 396, 369, 159-F5 (1992)

An Extension of the High-Resolution Millimeter- and Submillimeter-Wave Spectrum of Methanol to High Angular Momentum Quantum Numbers.

Todd Anderson, Eric Herbst, & Frank C. De Lucia. 82, 405, 55-A9 (1992)

Laboratory Measurement of the Rotational Spectrum of HCCS. *J. M. Vrtilek, C. A. Gottlieb, E. W. Gottlieb, W. Wang, & P. Thaddeus.* 398, L73, 188-C7 (1992)

Theoretical Vibration-Rotation Spectrum of Si_2C. *W. Gabriel, G. Chambaud, P. Rosmus, A. Spielfiedel, & N. Feautrier.* 398, 706, 192-G7 (1992)

Microwave Spectra and Electric Dipole Moments for Low-J Levels of Interstellar Radicals: SO, C_2S, C_3S, c-HC_3, CH_2CC, and c-C_3H_2. *F. J. Lovas, R. D. Suenram, T. Ogata, & S. Yamamoto.* 399, 325, 199-D7 (1992)

Laboratory Measurement of the Millimeter and Submillimeter Wave Spectrum of $C_2H_3^+$. *M. Bogey, M. Cordonnier, C. Demuynck, & J. L. Destombes.* 399, L103, 201-E3 (1992)

Far-Infrared Spectral Studies of Phase Changes in Water Ice Induced by Proton Irradiation. *Mala H. Moore & Reggie L. Hudson.* 401, 353, 225-D5 (1992)

The Millimeter-Wave Spectrum of the MgH and MgD Radicals. *L. M. Ziurys, W. L. Barclay, Jr., & M. A. Anderson.* 402, L21, 6-D8 (1993)

Laboratory Detection of HNCCC and DNCCC by Pulsed Discharge Nozzle Fourier-Transform Microwave Spectroscopy. *Yasuhiro Hirahara, Yasuhiro Ohshima, & Yasuki Endo.* 403, L83, 27-F1 (1993)

Laboratory Spectroscopy of MgNC: The First Radioastronomical Identification of Mg-bearing Molecule. *Kentarou Kawaguchi, Eriko Kagi, Tsuneo Hirano, Shuro Takano, & Shuji Saito.* 406, L39, 61-B1 (1993)

Improved Collisional Excitation Rates for Interstellar Water. *Sheldon Green, Sergio Maluendes, & A. D. McLean.* 85, 181, 8-E9 (1993)

Rotational Spectra of the $X\ ^2\Sigma^+$ States of CaH and CaD. *C. I. Frum, J. J. Oh, E. A. Cohen, & H. M. Pickett.* 408, L61, 89-F1 (1993)

The Millimeter-Wave Spectrum of CaH ($X\ ^2\Sigma^+$). *W. L. Barclay, Jr., M. A. Anderson, & L. M. Ziurys.* 408, L65, 89-F8 (1993)

Laboratory Detection of a New Free Radical C_4S ($^3\Sigma^-$). *Yasuhiro Hirahara, Yasuhiro Ohshima, & Yasuki Endo.* 408, L113, 95-F13 (1993)

On the Carrier of the Band at 700 Nanometers in the Iron Hydride Spectrum. *John G. Phillips & Sumner P. Davis.* 409, 860, 109-G9 (1993)

Laboratory Detection of C_5S by Pulsed–Discharge-Nozzle Fourier Transform Microwave Spectroscopy. *Yasuko Kasai, Kinichi Obi, Yasuhiro Ohshima, Yasuhiro Hirahara, Yasuki Endo, Kentarou Kawaguchi, & Akinori Murakami.* 410, L45, 118-D11 (1993)

Laboratory Measurements of the Millimeter-Wave Spectra of Calcium Isocyanide. *Timothy C. Steimle, Shuji Saito, & Shuro Takano.* 410, L49, 118-C2 (1993)

Laboratory Submillimeter-Wave Observation of the $N = 1$–0 Transition of the ND($^3\Sigma^-$) Radical. *Shuji Saito & Masahiro Goto.* 410, L53, 118-C7 (1993)

High-Resolution Absorption Cross Section Measurements of Carbon Monoxide at 20 K between 96.7 and 98.8 Nanometers. *G. Stark, K. Yoshino, P. L. Smith, J. R. Esmond, K. Ito, & M. H. Stevens.* 410, 837, 124-B8 (1993)

Laboratory Spectra of Polycyclic Aromatic Hydrocarbon Ions and the Interstellar Extinction Curve. *Wei Lee & Thomas J. Wdowiak.* 410, L127, 126-E5 (1993)

Mid- and Far-Infrared Spectroscopy of Ices: Optical Constants and Integrated Absorbances. *D. M. Hudgins, S. A. Sandford, L. J. Allamandola, & A. G. G. M. Tielens.* 86, 713, 23-E13 (1993)

The Meinel System ($A^2\Pi_i$–$X^2\Sigma^+$) of $^{14}N_2^+$, $^{14}N^{15}N^+$, and $^{15}N_2^+$. *A. Bernard, M. Larzilliere, C. Effantin, & A. J. Ross.* 413, 829, 166-F7 (1993)

Infrared Frequencies and Intensities for Astrophysically Important Polycyclic Aromatic Hydrocarbon Cations. *Jan Szczepanski & Martin Vala.* 414, 646, 179-C4 (1993)

Rotational Frequencies of Transition Metal Hydrides for Astrophysical Searches in the Far-Infrared. *John M. Brown, Stuart P. Beaton, & Kenneth M. Evenson.* 414, L125, 186-C6 (1993)

The Millimeter-Wave Spectrum of AlOH. *A. J. Apponi, W. L. Barclay, Jr., & L. M. Ziurys.* 414, L129, 186-C11 (1993)

Detection of Interstellar $^{12}C^{15}N$. *A. H. Saleck, R. Simon, N. Schneider, & G. Winnewisser.* 414, L133, 186-D3 (1993)

Calculated Rotational Constants of Interstellar Species: Hydrogenated Derivatives of HCN and HC_3N. *A. Arnau, E. Silla, & I. Tuñon.* 88, 595, 48-A11 (1993)

New Observations of the Optical Spectrum of SiO^+ and the Prediction of Its Rotational Spectrum. *L. Zhang, R. Cameron, R. A. Holt, T. J. Scholl, & S. D. Rosner.* 418, 307, 234-G5 (1993)

A High-Resolution ^{13}C Isotope Study in the Vacuum Ultraviolet of Spectra of CO($A \rightarrow X$), C I, and C II. *C. Haridass & K. P. Huber.* 420, 433, 6-C1 (1994)

Detection of a New Molecular Ion HC_3NH^+ in TMC-1. *Kentarou Kawaguchi, Yasuko Kasai, Shin-ichi Ishikawa, Masatoshi Ohishi, Norio Kaifu, & Takayoshi Amano.* 420, L95, 15-F12 (1994)

Interstellar Carbon Chemistry: Reaction Rates of Neutral Atomic Carbon with Organic Molecules. *D. C. Clary, N. Haider, D. Husain, & M. Kabir.* 422, 416, 35-C6 (1994)

The Millimeter-Wave Spectrum of the CaF Radical ($X\ ^2\Sigma^+$). *M. A. Anderson, M. D. Allen, & L. M. Ziurys.* 424, 503, 68-A13 (1994)

Laboratory Measurements of Rotational Transitions of Lithium Hydride in the Far-Infrared. *M. Bellini, P. de Natale, M. Inguscio, E. Fink, D. Galli, & F. Palla.* 424, 507, 68-B4 (1994)

Calculation of $^{12}C^{16}O$ and $^{13}C^{16}O$ $X\ ^1\Sigma^+$ Rovibrational Intensities for $v \leq 20$ and $J \leq 150$. *D. Goorvitch & C. Chackerian, Jr.* 91, 483, 25-B1 (1994)

On the Carrier of the Band at 700 Nanometers in the Iron Hydride Spectrum of Phillips and Davis: Evidence Favoring Calcium Hydride. *Walter J. Balfour & Lennart Klynning.* 424, 1049, 78-A1 (1994)

Millimeter and Submillimeter Rest Frequencies for the MgF Radical. *M. A. Anderson, M. D. Allen, & L. M. Ziurys.* 425, L53, 85-G9 (1994)

The Influence of H_2O Line Blanketing on the Spectra of Cool Dwarf Stars. *F. Allard, P. H. Hauschildt, S. Miller, & J. Tennyson.* 426, L39, 103-E7 (1994)

Fourier Transform Spectroscopy of the Swan ($d\ ^3\Pi_g$–$a\ ^3\Pi_u$) System of the Jet-cooled C_2 Molecule. *C. V. V. Prasad & P. F. Bernath.* 426, 812, 108-E9 (1994)

Accurate Determination of Predissociation Rates and Transition Frequencies for Carbon Monoxide. *W. Ubachs, K. S. E. Eikema, P. F. Levelt, W. Hogervorst, M. Drabbels, W. L. Meerts, & J. J. ter Meulen.* 427, L55, 117-G10 (1994)

Rovibrational Intensities of the Minor Isotopes of the CO $X\ ^1\Sigma^+$ State for $v \leq 20$ and $J \leq 150$. *D. Goorvitch & C. Chackerian, Jr.* 92, 311, 35-C1 (1994)

Discovery of $^{14}NH_3(3, 3)$ Maser Emission in the Interstellar Medium. *Jeffrey G. Mangum & Alwyn Wootten.* 428, L33, 134-E8 (1994)

Line Strength and Self-broadening Coefficient of the Pure Rotational $S(1)$ Quadrupole Line in H_2. *Dennis C. Reuter & J. Marcos Sirota.* 428, L77, 143-A1 (1994)

The Millimeter and Submillimeter Rotational Spectrum of the MgCN Radical ($X\ ^2\Sigma^+$). *M. A. Anderson, T. C. Steimle, & L. M. Ziurys.* 429, L41, 150-F1 (1994)

Electric Dipole Moment of C_3S. *R. D. Suenram & F. J. Lovas.* 429, L89, 158-D7 (1994)

Continuous Absorption by He_2^+ and H_2^+ in Cool White Dwarfs. *P. C. Stancil.* 430, 360, 163-F3 (1994)

A Millimeter-Wave Study and Astronomical Search for the HCCCS Radical. *M. C. McCarthy, J. M. Vrtilek, E. W. Gottlieb, F.-M. Tao, C. A. Gottlieb, & P. Thaddeus.* 431, L127, 192-B13 (1994)

High-Resolution Oscillator Strength Measurements for the $A(v')$–$X(0)$ Bands of Carbon Monoxide with $11 \leq v' \leq 14$. *Peter L. Smith, G. Stark, K. Yoshino, & K. Ito.* 431, L143, 192-D11 (1994)

Highly Unsaturated Hydrocarbons as Potential Carriers of Some Diffuse Interstellar Bands. *P. Freivogel, J. Fulara, & J. P. Maier.* 431, L151, 192-E7 (1994)

The Submillimeter-Wave Spectrum of Propionitrile (C_2H_5CN). *J. C. Pearson, K. V. L. N. Sastry, Eric Herbst, & F. C. De Lucia.* 93, 589, 51-A6 (1994)

Excitation of Interstellar Hydrogen Chloride. *David A. Neufeld & Sheldon Green.* 432, 158, 195-B11 (1994)

The C_4H Radical and the Diffuse Interstellar Bands: An Ab Initio Study. *M. Kolbuszewski.* 432, L63, 200-A13 (1994)

Intersystem Transitions of Interstellar Carbon Monoxide toward ζ Ophiuchi. *S. R. Federman, Jason A. Cardelli, Yaron Sheffer, David L. Lambert, & D. C. Morton.* 432, L139, 207-D5 (1994)

Theoretical Oscillator Strengths for Infrared Electronic Transitions of Si_2 and SiC. *Fouad L. Sefyani & Joël Schamps.* 434, 816, 239-B11 (1994)

Interstellar CN Rotational Spectra: $^{12}C^{15}N$. *A. H. Saleck, R. Simon, & G. Winnewisser.* 436, 176, 263-E11 (1994)

Ab Initio Rotational Constants of the Nitriles Derived from Cyanodiacetylene (HC_4CN). *Raúl Moreno, Estanislao Silla, Iñaki Tuñon, & Arturo Arnau.* 437, 532, 290-D9 (1994)

Homologous Series of Diffuse Interstellar Bands. *James K. G. Watson.* 437, 678, 295-B1 (1994)

Low-Temperature Rosseland Opacities. *D. R. Alexander & J. W. Ferguson.* 437, 879, 297-F8 (1994)

Infrared CO Line List for the $X\ ^1\Sigma^+$ State. *D. Goorvitch.* 95, 535, 71-F1 (1994)

Precise Laboratory Measurements of Methanol Rotational Transition Frequencies in the 5 to 13 GHz Region. *S. M. Breckenridge & S. G. Kukolich.* 438, 504, 8-E11 (1995)

High-Resolution Absorption Cross Section Measurements of Supersonic Jet-cooled Carbon Monoxide between 92.5 and 97.4 Nanometers. *K. Yoshino, G. Stark, J. R. Esmond, P. L. Smith, K. Ito, & T. Matsui.* 438, 1013, 18-A13 (1995)

Laboratory Detection and Millimeter Spectrum of the MgCCH Radical. *M. A. Anderson & L. M. Ziurys.* 439, L25, 30-B5 (1995)

Theoretical Determination of the Electronic Ground State of the MgC Molecule. *Clarissa O. da Silva, Edilson C. da Silva, & Marco Antonio Chaer Nascimento.* 439, 1044, 39-B3 (1995)

Rototranslational Collision-induced Absorption by H_2–H_2 Pairs at Temperatures from 600 to 7000 K. *Chunguang Zheng & Aleksandra Borysow.* 441, 960, 75-B6 (1995)

Laboratory Measurement of Rotational Spectrum of the ^{18}OH Radical Using a Tunable Far-Infrared Spectrometer. *Isamu Morino, Hitoshi Odashima, Fusakazu Matsushima, Shozo Tsunekawa, & Kojiro Takagi.* 442, 907, 92-F3 (1995)

The Millimeter/Submillimeter Rotational Spectrum of CaCCH($X\ ^2\Sigma^+$). *M. A. Anderson & L. M. Ziurys.* 444, L57, 122-B1 (1995)

Model Atmospheres for M (Sub)Dwarf Stars. I. The Base Model Grid. *France Allard & Peter H. Hauschildt.* 445, 433, 138-E2 (1995)

Laboratory Millimeter-Wave Spectrum of Chromium Monochloride. *Tomoko Oike, Toshiaki Okabayashi, & Mitsutoshi Tanimoto.* 445, L67, 141-D1 (1995)

Microwave Spectrum of the NS Radical in the $^2\Pi_r$ Ground Electronic State. *Sang K. Lee, Hiroyuki Ozeki, & Shuji Saito.* 98, 351, 26-F5 (1995)

Assignment of Omitted Ultraviolet Systems of Zirconium Oxide. *M. Afaf.* 447, 980, 189-D2 (1995)

Microwave Spectra of the Isotopomers of HCS^+ and Its Substitution Structure. *Jian Tang & Shuji Saito.* 451, L93, 261-C7 (1995)

Laboratory Submillimeter-Wave Spectroscopy of the CH_2 ($^3B_1$) Radical. *Hiroyuki Ozeki & Shuji Saito.* 451, L97, 261-C13 (1995)

Electron Excitation Function of the N_2 Second Positive System. *D. E. Shemansky, J. M. Ajello, & I. Kanik.* 452, 472, 268-F1 (1995)

Fine-Structure Branching in N_2 $c_4'\ ^1\Sigma_u^+$ (0). *D. E. Shemansky, I. Kanik, & J. M. Ajello.* 452, 480, 268-F13 (1995)

Laboratory Measurement of the $J = 1$–0 Transition of AlH near 387 GHz. *Masahiro Goto & Shuji Saito.* 452, L147, 280-F1 (1995)

The Millimeter/Submillimeter Spectrum and Rotational Rest Frequencies of $MgCH_3$($\tilde{X}\ ^2A_1$). *M. A. Anderson & L. M. Ziurys.* 452, L157, 280-G7 (1995)

Infrared Absorption and Emission Spectra of SiO. *J. M. Campbell, D. Klapstein, M. Dulick, P. F. Bernath, & L. Wallace.* 101, 237, 55-G10 (1995)

A High-Temperature Partition Function for H_3^+. *Liesl Neale & Jonathan Tennyson.* 454, L169, 317-B3 (1995)

High-Density Amorphous Ice, the Frost on Interstellar Grains. *P. Jenniskens, D. F. Blake, M. A. Wilson, & A. Pohorille.* 455, 389, 323-D10 (1995)

Radio-astronomical Spectroscopy of the Hyperfine Structure of N_2H^+. *P. Caselli, P. C. Myers, & P. Thaddeus.* 455, L77, 325-G1 (1995)

Analytic Temperature Dependences for a Complete Set of Rate Coefficients for Collisional Excitation and Dissociation of H_2 Molecules by H Atoms. *P. G. Martin & M. E. Mandy.* 455, L89, 326-A9 (1995)

Microwave Spectra, Hyperfine Structure, and Electric Dipole Moments for Conformers I and II of Glycine. *F. J. Lovas, Y. Kawashima, J.-U. Grabow, R. D. Suenram, G. T. Fraser, & E. Hirota.* 455, L201, 335-B3 (1995)

MOLECULAR PROCESSES

The *In Situ* Formation of Large Molecules in Dense Interstellar Clouds. *Eric Herbst.* 366, 133, 2-F4 (1991)

CO Fundamental Bands in Late-Type Stars. II. Spectrum Simulations for F–K Stars. *Gunter Wiedemann & Thomas R. Ayres.* 366, 277, 4-D9 (1991)

Nitrogen Abundance in Comet Halley. *Susan Wyckoff, Stephen C. Tegler, & Lisa Engel.* 367, 641, 21-C1 (1991)

Search for H_2-He Alloy Formation at Low Pressures and Cosmic Snowballs. *M. Leventhal & A. P. Mills, Jr.* 368, 178, 25-C7 (1991)

Ammonia Abundances in Four Comets. *Susan Wyckoff, Stephen C. Tegler, & Lisa Engel.* 368, 279, 26-E5 (1991)

The Millimeter-Wave Spectrum of Highly Vibrationally Excited SiO. *R. Mollaaghababa, C. A. Gottlieb, J. M. Vrtilek, & P. Thaddeus.* 368, L19, 28-D1 (1991)

New Ultraviolet Spectroscopic Features Found in Comet Brorsen-Metcalf (1989o). *C. R. O'Dell, Christopher O. Miller, Anita L. Cochran, William D. Cochran, Chet B. Opal, & Edwin S. Barker.* 368, 616, 32-G1 (1991)

Astronomical Detection of H_2CCC. *J. Cernicharo, C. A. Gottlieb, M. Guélin, T. C. Killian, G. Paubert, P. Thaddeus, & J. M. Vrtilek.* 368, L39, 35-C7 (1991)

Astronomical Detection of H_2CCCC. *J. Cernicharo, C. A. Gottlieb, M. Guélin, T. C. Killian, P. Thaddeus, & J. M. Vrtilek.* 368, L43, 35-C11 (1991)

The Formation of Oxygen-containing Organic Molecules in the Orion Compact Ridge. *T. J. Millar, Eric Herbst, & S. B. Charnley.* 369, 147, 37-F11 (1991)

Electron Densities and the Excitation of CN in Molecular Clouds. *John H. Black & Ewine F. van Dishoeck.* 369, L9, 40-B5 (1991)

High-Resolution Absorption Cross Sections of Carbon Monoxide Bands at 295 K between 91.7 and 100.4 Nanometers. *G. Stark, K. Yoshino, Peter L. Smith, K. Ito, & W. H. Parkinson.* 369, 574, 44-G13 (1991)

Far-Infrared Fourier Transform Spectroscopy of $^{12}C^{18}O$. *P. De Natale, M. Inguscio, C. Rois Orza, & L. R. Zink.* 370, L53, 53-G5 (1991)

Theoretical Vibrations of Carbon Chains C_3, C_4, C_5, C_6, C_7, C_8, and C_9. *Joe Kurtz & Ludwik Adamowicz.* 370, 784, 58-C5 (1991)

The Ultraviolet Continuum and the Fluorescent H_2 Lines in Low-Excitation Herbig-Haro Objects. *K.-H. Böhm, D. M. Scott, & J. Solf.* 371, 248, 63-C1 (1991)

Cross Sections for Production of H($2p$, $2s$, $1s$) by Electron Collisional Dissociation of H_2. *J. M. Ajello, D. E. Shemansky, & G. K. James.* 371, 422, 65-D5 (1991)

Laboratory Detection of HC_9N Using a Fourier Transform Microwave Spectrometer. *Minoru Iida, Yasuhiro Ohshima, & Yasuki Endo.* 371, L45, 66-F7 (1991)

Molecular Hydrogen Formation by Excited Atom Radiative Association. *William B. Latter & John H. Black.* 372, 161, 76-A4 (1991)

Detection of Low-J Pure-Rotational Emission from H_2 in the Orion Bar Region: Evidence for Small-Scale Clumpiness. *Parvinder S. Parmar, John H. Lacy, & Jeffrey M. Achtermann.* 372, L25, 79-D1 (1991)

The Gas-Phase Chemistry of Organic Molecules in Interstellar Clouds with Dynamical Mixing. *J.-P. Chièze, G. Pineau des Forêts, & Eric Herbst.* 373, 110, 87-D4 (1991)

The Formation of Molecules in Protostellar Winds. *A. E. Glassgold, G. A. Mamon, & P. J. Huggins.* 373, 254, 89-B7 (1991)

Synthetic Profile Analysis of the Observed (0,0) Swan Band of Comet Halley. *K. S. Krishna Swamy.* 373, 266, 89-C7 (1991)

The SiH Vibrational Stretch as an Indicator of the Chemical State of Interstellar Grains. *Marla H. Moore, Toshihiko Tanabé, & Joseph A. Nuth.* 373, L31, 91-D7 (1991)

Calculations Concerning the Reaction $C + H_3^+ \rightarrow CH^+ + H_2$. *D. Talbi, D. J. DeFrees, D. A. Egolf, & Eric Herbst.* 374, 390, 103-A1 (1991)

Infrared Fluorescence of H_2 in NGC 6240: A Starburst Origin for the H_2 Luminosity. *Masuo Tanaka, Tetsuo Hasegawa, & Ian Gatley.* 374, 516, 105-E9 (1991)

A Molecular Line Survey of Sagittarius B2 and Orion–KL from 70 to 115 GHz. II. Analysis of the Data. *B. E. Turner.* 76, 617, 33-D1 (1991)

Formaldehyde in Envelopes of Interstellar Dark Clouds. *S. R. Federman & M. Allen.* 375, 157, 113-A1 (1991)

Probing Shock Models of CH^+ Formation. *Isabel Hawkins & Nahide Craig.* 375, 642, 120-F1 (1991)

Association of CH_3^+ and H_2: Conflicting Results. *David R. Bates.* 375, 833, 123-A5 (1991)

Theoretical Study of the Spectroscopy of FeH^+. *Stephen R. Langhoff & Charles W. Bauschlicher, Jr.* 375, 843, 123-B1 (1991)

Collisional Excitation of Formaldehyde in "Hot" Interstellar Molecular Regions. *Sheldon Green.* 76, 979, 38-E3 (1991)

Can Phase Space Theory Reproduce Experimental Neutral Product Branching Ratios for Dissociative Recombination Reactions? *E. T. Galloway & Eric Herbst.* 376, 531, 133-A8 (1991)

Observations and Chemistry of Interstellar Refractory Elements. *B. E. Turner.* 376, 573, 133-E1 (1991)

Large Molecule Production by Mass-losing Carbon Stars: The Primary Source of Interstellar Polycyclic Aromatic Hydrocarbons? *William B. Latter.* 377, 187, 140-C5 (1991)

Partially Dissociative Jump Shocks in Molecular Hydrogen. *C. A. Chang & P. G. Martin.* 378, 202, 153-E1 (1991)

Pumping the Interstellar (6,3) Ammonia Maser. *Ronald D. Brown & Dinah M. Cragg.* 378, 445, 156-D10 (1991)

Sulfur-bearing Ions in the Ionosphere of Comet Halley. *M. L. Marconi, D. A. Mendis, D. L. Mitchell, R. P. Lin, A. Korth, & H. Réme.* 378, 756, 161-F7 (1991)

SiS in Outflow Regions: More High-Temperature Silicon Chemistry. *L. M. Ziurys.* 379, 260, 166-C7 (1991)

Millimeter- and Submillimeter-Wave Spectrum of Highly Excited States of Water. *J. C. Pearson, Todd Anderson, Eric Herbst, Frank C. De Lucia, & Paul Helminger.* 379, L41, 169-D12 (1991)

Observations of Solar Wind Ion Charge Exchange in the Comet Halley Coma. *S. A. Fuselier, E. G. Shelley, B. E. Goldstein, R. Goldstein, M. Neugebauer, W.-H. Ip, H. Balsiger, & H. Rème.* 379, 734, 173-G8 (1991)

Interstellar Photodissociation and Photoionization Rates. *W. G. Roberge, D. Jones, S. Lepp, & A. Dalgarno.* 77, 287, 48-B1 (1991)

A Table of Astronomically Important Ro-vibrational Transitions for the H_3^+ Molecular Ion. *Lancelot Kao, Takeshi Oka, Steven Miller, & Jonathan Tennyson.* 77, 317, 48-E1 (1991)

Molecules and Chains in a Strong Magnetic Field: Statistical Treatment. *Andrew M. Abrahams & Stuart L. Shapiro.* 382, 233, 203-B5 (1991)

Laboratory Infrared Spectra of CH_2D^+ and $HCCD^+$ and Predicted Microwave Transitions. *Matthias Rösslein, Mary-Frances Jagod, Charles M. Gabrys, & Takeshi Oka.* 382, L51, 205-F1 (1991)

The Formation and Role of Water Dimers in a Cometary Atmosphere, with Application to Comet P/Halley. *J. F. Crifo & Z. Slanina.* 383, 351, 216-F1 (1991)

Comet P/Halley: Spatial Distributions and Scale Lengths for C_2, CN, NH_2, and H_2O. *Uwe Fink, Michael R. Combi, & Michael A. DiSanti.* 383, 356, 216-F9 (1991)

New Photoionization Models of Intergalactic Clouds. *Megan Donahue & J. Michael Shull.* 383, 511, 220-F1 (1991)

NH_3 and NH_2 in the Coma of Comet Brorsen-Metcalf. *Stephen C. Tegler, Luke F. Burke, Susan Wyckoff, Maria Womack, Uwe Fink, & Michael DiSanti.* 384, 292, 4-E6 (1992)

Structure, Chemistry, and Clumping in the NGC 2071 (North) Molecular Cloud. *Paul F. Goldsmith, Michael Margulis, Ronald L. Snell, & Y. Fukui.* 385, 522, 19-F3 (1992)

Accurate Far-Infrared Rotational Frequencies of Carbon Monoxide. *Thomas D. Varberg & Kenneth M. Evenson.* 385, 763, 22-E8 (1992)

An Extended Search for Extragalactic O_2. *H. S. Liszt.* 386, 139, 25-G9 (1992)

The Contribution of Methanol to the 3.4 Micron Emission Feature in Comets. *Dennis C. Reuter.* 386, 330, 28-C11 (1992)

The Rotational Spectrum of the Carbon Chain Radical HCCCO. *A. L. Cooksy, J. K. G. Watson, C. A. Gottlieb, & P. Thaddeus.* 386, L27, 29-D7 (1992)

Radiative Shocks and Hydrogen Molecules in Pregalactic Gas: The Effects of Postshock Radiation. *Hyesung Kang & Paul R. Shapiro.* 386, 432, 30-F13 (1992)

The Effect of Electron Collisions on Rotational Populations of Cometary Water. *Xingfa Xie & Michael J. Mumma.* 386, 720, 34-C4 (1992)

A Survey of N_2H^+ in Dense Clouds: Implications for Interstellar Nitrogen and Ion-Molecule Chemistry. *M. Womack, L. M. Ziurys, & S. Wyckoff.* 387, 417, 42-B6 (1992)

Detection of SiN in IRC +10216. *B. E. Turner.* 388, L35, 52-D1 (1992)

Near-Ultraviolet Spectroscopy of Comet Austin (1989c1). *Jacobus H. Valk, C. R. O'Dell, Anita L. Cochran, William D. Cochran, Chet B. Opal, & Edwin S. Barker.* 388, 621, 58-A1 (1992)

Orion B (NGC 2024). III. BIMA SO $J_K = 2_2 \rightarrow 1_1$ Observations: Evidence for Peculiar Sulfur Chemistry. *Peter J. Barnes & Richard M. Crutcher.* 389, 325, 64-A5 (1992)

Near-Infrared Observations of the Proto–Planetary Nebula AFGL 618. *William B. Latter, Philip R. Maloney, Douglas M. Kelly, John H. Black, G. H. Rieke, & M. J. Rieke.* 389, 347, 64-C3 (1992)

Formaldehyde Reactions in Dark Clouds. *A. D. Sen, V. G. Anicich, & S. R. Federman.* 391, 141, 87-F10 (1992)

Cometary Gas-Phase Chemistry Taking into Account Homogeneous and Ion-induced Water Recondensation. *J. F. Crifo.* 391, 336, 90-B1 (1992)

The Molecular-Metallic Transition of Hydrogen and the Structure of Jupiter and Saturn. *Gilles Chabrier, Didier Saumon, William B. Hubbard, & Jonathan I. Lunine.* 391, 817, 98-B1 (1992)

The Role of the Molecular-metallic Transition of Hydrogen in the Evolution of Jupiter, Saturn, and Brown Dwarfs. *Didier Saumon, William B. Hubbard, Gilles Chabrier, & Hugh M. Van Horn.* 391, 827, 98-B13 (1992)

Electron Energy Loss Spectra of Polycyclic Aromatic Hydrocarbons. *John W. Keller, M. A. Coplan, & R. Goruganthu.* 391, 872, 98-G1 (1992)

A Survey of CCS, HC_3N, HC_5N, and NH_3 toward Dark Cloud Cores and Their Production Chemistry. *Hiroko Suzuki, Satoshi Yamamoto, Masatoshi Ohishi, Norio Kaifu, Shin-ichi Ishikawa, Yasuhiro Hirahara, & Shuro Takano.* 392, 551, 109-B4 (1992)

Estimates of N_2 Abundances in Dense Molecular Clouds. *M. Womack, L. M. Ziurys, & S. Wyckoff.* 393, 188, 116-D6 (1992)

Problems with the Standard Theory of Three-dimensional Masers. *David A. Neufeld.* 393, L37, 120-F1 (1992)

SO and SO_2 in Mass-Loss Envelopes of Red Giants: Probes of Nonequilibrium Circumstellar Chemistry and Mass-Loss Rates. *Raghvendra Sahai & Peter G. Wannier.* 394, 320, 132-A3 (1992)

Mapping Observations of Sulfur-containing Carbon-Chain Molecules in Taurus Molecular Cloud 1 (TMC-1). *Yasuhiro Hirahara, Hiroko Suzuki, Satoshi Yamamoto, Kentarou Kawaguchi, Norio Kaifu, Masatoshi Ohishi, Shuro Takano, Shin-ichi Ishikawa, & Akimasa Masuda.* 394, 539, 136-B1 (1992)

Polycyclic Aromatic Hydrocarbons and Molecular Equilibria in Carbon-rich Stars. *Isabelle Cherchneff & John R. Barker.* 394, 703, 138-C4 (1992)

Protonated Acetylene: An Important Circumstellar and Interstellar Ion. *A. E. Glassgold, A. Omont, & M. Guélin.* 396, 115, 156-E5 (1992)

Extremely High Velocity CO Emission from NGC 2071. *Lawrence M. Chernin & Colin R. Masson.* 396, L35, 160-F8 (1992)

Carbon Monoxide in SN 1987A. *Weihong Liu, A. Dalgarno, & S. Lepp.* 396, 679, 165-G1 (1992)

Simultaneous Visible and Near-Infrared Spectrophotometry of Comet Austin $1989c_1$. *Stephen C. Tegler, Humberto Campins, Stephen Larson, Marvin Kleine, Douglas Kelly, & Marcia Rieke.* 396, 711, 166-B9 (1992)

Detection of Interstellar SO^+: A Diagnostic of Dissociative Shock Chemistry. *B. E. Turner.* 396, L107, 167-F1 (1992)

Models of Gas-Grain Chemistry in Dense Interstellar Clouds with Complex Organic Molecules. *Tatsuhiko I. Hasegawa, Eric Herbst, & Chun Ming Leung.* 82, 167, 51-D13 (1992)

An Extension of the High-Resolution Millimeter- and Submillimeter-Wave Spectrum of Methanol to High Angular Momentum Quantum Numbers. *Todd Anderson, Eric Herbst, & Frank C. De Lucia.* 82, 405, 55-A9 (1992)

Calculations of Ion-Molecule Deuterium Fractionation Reactions Involving HD. *Sergio A. Maluendes, A. D. McLean, & Eric Herbst.* 397, 477, 176-F10 (1992)

Comet Outbursts and Polymers of HCN. *Terrence W. Rettig, Stephen C. Tegler, Daniel J. Pasto, & Michael J. Mumma.* 398, 293, 185-D5 (1992)

Laboratory Measurement of the Rotational Spectrum of HCCS. *J. M. Vrtilek, C. A. Gottlieb, E. W. Gottlieb, W. Wang, & P. Thaddeus.* 398, L73, 188-C7 (1992)

Theoretical Vibration-Rotation Spectrum of Si_2C. *W. Gabriel, G. Chambaud, P. Rosmus, A. Spielfiedel, & N. Feautrier.* 398, 706, 192-G7 (1992)

Tests of Shock Chemistry in IC 443G. *B. E. Turner, Kin-Wing Chan, S. Green, & D. A. Lubowich.* 399, 114, 196-E12 (1992)

On the Molecular Complexity of the Hot Cores in Orion A: Grain Surface Chemistry as "The Last Refuge of the Scoundrel." *S. B. Charnley, A. G. G. M. Tielens, & T. J. Millar.* 399, L71, 201-A8 (1992)

Interstellar H_3O^+ and Its Relation to the O_2 and H_2O Abundances. *T. G. Phillips, Ewine F. van Dishoeck, & Jocelyn Keene.* 399, 533, 204-E1 (1992)

Mid-Infrared Rotational Line Emission from Interstellar Molecular Hydrogen. *Michael G. Burton, D. J. Hollenbach, & A. G. G. M. Tielens.* 399, 563, 204-G7 (1992)

Modeling SiO Maser Emission from Late-Type Stars. *Philip Lockett & Moshe Elitzur.* 399, 704, 206-F9 (1992)

Polycyclic Aromatic Hydrocarbon Formation in Carbon-rich Stellar Envelopes. *Isabelle Cherchneff, John R. Barker, & Alexander G. G. M. Tielens.* 401, 269, 224-D1 (1992)

Observational Constraints on Solar Nebula Nitrogen Chemistry: N_2/NH_3. *Maria Womack, Susan Wyckoff, & L. M. Ziurys.* 401, 728, 231-E6 (1992)

CO (J = 1–0) Line Emission from Giant Molecular Clouds. *Mark G. Wolfire, David Hollenbach, & A. G. G. M. Tielens.* 402, 195, 3-E1 (1993)

Molecular Line Emission from Circumstellar Disks. *Steven V. W. Beckwith & Anneila I. Sargent.* 402, 280, 4-E9 (1993)

Line-resolved Spectroscopy of the Jovian H_3^+ Auroral Emission at 3.5 Micrometers. *Pierre Drossart, Jean-Pierre Maillard, John Caldwell, & Jan Rosenqvist.* 402, L25, 6-E1 (1993)

Observations of SO and SiO in the Outflow from NGC 2071. *Lawrence Chernin & Colin Masson.* 403, L21, 20-C6 (1993)

Laboratory Detection of HNCCC and DNCCC by Pulsed Discharge Nozzle Fourier-Transform Microwave Spectroscopy. *Yasuhiro Hirahara, Yasuhiro Ohshima, & Yasuki Endo.* 403, L83, 27-F1 (1993)

The Abundance of Ammonia in Comet P/Halley Derived from Ultraviolet Spectrophotometry of NH by *ASTRON* and *IUE*. *P. D. Feldman, K. B. Fournier, V. P. Grinin, & A. M. Zvereva.* 404, 348, 32-B11 (1993)

Transition Rates for ZrO from a Laboratory Absorption Spectrum. *J. E. Littleton, Sumner P. Davis, & Mei Song.* 404, 412, 33-A1 (1993)

Far-Infrared Investigations of a Methanol Clathrate Hydrate: Implications for Astronomical Observations. *Reggie L. Hudson & Marla H. Moore.* 404, L29, 33-G1 (1993)

A Survey of Bimolecular Ion-Molecule Reactions for Use in Modeling the Chemistry of Planetary Atmospheres, Cometary Comae, and Interstellar Clouds: 1993 Supplement. *V. G. Anicich.* 84, 215, 4-C11 (1993)

On the Nature of the Molecular Cores in High-Latitude Cirrus Clouds. III. ^{13}CO Observations and Tests of CO Chemistry Models. *B. E. Turner.* 405, 229, 44-A3 (1993)

Structure and Chemistry of Orion S. *Joseph P. McMullin, Lee G. Mundy, & Geoffrey A. Blake.* 405, 599, 50-E5 (1993)

Rate Coefficients for Momentum Transfer, Charge Transfer, and Radiative Association Processes in Collisions of H^+ with He below 10^5 K. *M. Kimura, N. F. Lane, A. Dalgarno, & R. G. Dixson.* 405, 801, 53-A11 (1993)

Improved Collisional Excitation Rates for Interstellar Water. *Sheldon Green, Sergio Maluendes, & A. D. McLean.* 85, 181, 8-E9 (1993)

Interstellar Deuterium in Cold Dense Clouds. *Michael Opendak.* 406, 548, 64-E12 (1993)

The Ultraviolet Spectrum of Annealed Hydrogenated Amorphous Carbon Grains. *A. Blanco, E. Bussoletti, L. Colangeli, S. Fonti, V. Mennella, & J. R. Stephens.* 406, 739, 67-B12 (1993)

Warm Neutral Halos around Molecular Clouds. V. OH (1665 and 1667 MHz) Observations. *Peter G. Wannier, B-G Andersson, S. R. Federman, B. M. Lewis, Y. P. Viala, & E. Shaya.* 407, 163, 71-B1 (1993)

Ion Abundances and Implications for Photochemistry in Comets Halley (1986 III) and Bradfield (1987 XXIX). *Barry L. Lutz, Maria Womack, & R. Mark Wagner.* 407, 402, 74-A9 (1993)

The Abundance Distribution of C_4H in IRC +10216. *Aditya Dayal & John H. Bieging.* 407, L37, 75-E1 (1993)

Relaxation of Molecular Velocities and Spectral Line Profiles of Astrophysical Masers. *Nels Anderson & William D. Watson.* 407, 620, 78-C10 (1993)

Electron Excitation of the $H_2a\ ^3\Sigma_g^+ \rightarrow b\ ^3\Sigma_u^+$) Continuum in the Vacuum Ultraviolet. *J. M. Ajello & D. E. Shemansky.* 407, 820, 80-F1 (1993)

Theoretical Infrared Spectra of Some Model Polycyclic Aromatic Hydrocarbons: Effect of Ionization. *D. J. De Frees, M. D. Miller, D. Talbi, F. Pauzat, & Y. Ellinger.* 408, 530, 91-G5 (1993)

Chemical Differentiation between Star-forming Regions: The Orion Hot Core and Compact Ridge. *P. Caselli, T. I. Hasegawa, & Eric Herbst.* 408, 548, 92-A11 (1993)

The OH Distribution in Cometary Atmospheres: A Collisional Monte Carlo Model for Heavy Species. *Michael R. Combi, Brent J. Bos, & William H. Smyth.* 408, 668, 93-E1 (1993)

Detection of H_3^+ Infrared Emission Lines in Saturn. *T. R. Geballe, M.-F. Jagod, & T. Oka.* 408, L109, 95-F7 (1993)

Laboratory Detection of a New Free Radical C_4S ($^3\Sigma^-$). *Yasuhiro Hirahara, Yasuhiro Ohshima, & Yasuki Endo.* 408, L113, 95-F13 (1993)

Collisional Excitation of H_2 Molecules by H Atoms. *M. E. Mandy & P. G. Martin.* 86, 199, 16-E1 (1993)

P/Halley: Effects of Time-dependent Production Rates on Spatial Emission Profiles. *Michael R. Combi & Uwe Fink.* 409, 790, 109-A1 (1993)

H_2 in Interstellar and Extragalactic Ices: Infrared Characteristics, Ultraviolet Production, and Implications. *Scott A. Sandford & Louis J. Allamandola.* 409, L65, 111-F1 (1993)

The Formation of Cyanopolyyne Molecules in IRC +10216. *Isabelle Cherchneff, Alfred E. Glassgold, & Gary A. Mamon.* 410, 188, 114-D12 (1993)

Laboratory Detection of C_5S by Pulsed–Discharge-Nozzle Fourier Transform Microwave Spectroscopy. *Yasuko Kasai, Kinichi Obi, Yasuhiro Ohshima, Yasuhiro Hirahara, Yasuki Endo, Kentarou Kawaguchi, & Akinori Murakami.* 410, L45, 118-D11 (1993)

The H to H_2 Transition in Galaxies: Totally Molecular Galaxies. *B. G. Elmegreen.* 411, 170, 129-C3 (1993)

On the Nature of the Molecular Cores in High-Latitude Cirrus Clouds. V. NH_3 and Its Chemistry. *B. E. Turner.* 411, 219, 129-G13 (1993)

Collisional Excitation of CO by H_2O: An Astrophysicist's Guide to Obtaining Rate Constants from Coherent Anti-Stokes Raman Line Shape Data. *Sheldon Green.* 412, 436, 147-E6 (1993)

A Study of Circumstellar Envelopes around Bright Carbon Stars. II. Molecular Abundances. *H. Olofsson, K. Eriksson, B. Gustafsson, & U. Carlström.* 87, 305, 31-A5 (1993)

Emission of HeH^+ in Nebulae. *C. Cecchi-Pestellini & A. Dalgarno.* 413, 611, 164-B5 (1993)

Pumping of Main Line OH Masers in the Circumstellar Envelopes of Type I Mira Variables. *Alan J. Collison & Gerald E. Nedoluha.* 413, 735, 165-E10 (1993)

Analysis of Hydrogen Hα Observations of the Coma of Comet P/Halley. *William H. Smyth, M. L. Marconi, Frank Scherb, & Fred L. Roesler.* 413, 756, 165-G6 (1993)

Polycyclic Aromatic Hydrocarbons in the Atmospheres of Titan and Jupiter. *Carl Sagan, B. N. Khare, W. R. Thompson, G. D. McDonald, Michael R. Wing, Jeffrey L. Bada, Tuan Vo-Dinh, & E. T. Arakawa.* 414, 399, 175-A3 (1993)

The Radiative Association of He^+ and He and H^+ and H. *P. C. Stancil, J. F. Babb, & A. Dalgarno.* 414, 672, 179-E8 (1993)

Molecular Line Emission Models of Herbig-Haro Objects. II. HCO^+ Emission. *Mark G. Wolfire & Arieh Königl.* 415, 204, 187-E6 (1993)

Theoretical Modeling of the Infrared Fluorescence from Interstellar Polycyclic Aromatic Hydrocarbons. *W. A. Schutte, A. G. G. M. Tielens, & L. J. Allamandola.* 415, 397, 189-G12 (1993)

Polarization of Astronomical Maser Radiation. II. Polarization Modes and Unsaturated Growth. *Moshe Elitzur.* 416, 256, 204-C7 (1993)

Refrigeration of the 18.3 GHz C_3H_2 Transition in Dark Cloud G1.6−0.25. *T. B. H. Kuiper, J. B. Whiteoak, R.-S. Peng, W. L Peters III, & J. E. Reynolds.* 416, L33, 207-E7 (1993)

Discovery of Interstellar Water Lines at 437, 439, and 471 GHz: Strong Case for Water Maser Formation behind C-Type Shocks. *Gary J. Melnick, Karl M. Menten, Thomas G. Phillips, & Todd Hunter.* 416, L37, 207-E13 (1993)

Detection of the Interstellar NH_2 Radical. *Ewine F. van Dishoeck, David J. Jansen, Peter Schilke, & T. G. Phillips.* 416, L83, 216-E10 (1993)

Bistability in Dark Cloud Chemistry. *J. Le Bourlot, G. Pineau des Forêts, E. Roueff, & P. Schilke.* 416, L87, 216-F1 (1993)

Calculations Concerning Interstellar Isomeric Abundance Ratios for C_3H and C_3H_2. *Sergio A. Maluendes, A. D. McLean, & Eric Herbst.* 417, 181, 219-F3 (1993)

Condensation and Vaporization Studies of CH_3OH and NH_3 Ices: Major Implications for Astrochemistry. *Scott A. Sandford & Louis J. Allamandola.* 417, 815, 229-E7 (1993)

Radiative Cooling of Warm Molecular Gas. *David A. Neufeld & Michael J. Kaufman.* 418, 263, 234-C11 (1993)

Formaldehyde as a Probe of Physical Conditions in Dense Molecular Clouds. *Jeffrey G. Mangum & Alwyn Wootten.* 89, 123, 50-E5 (1993)

The Formation of Carbon Chain Molecules in IRC +10216. *Isabelle Cherchneff & Alfred E. Glassgold.* 419, L41, 252-F9 (1993)

Detection of the Carbon Monoxide Ion (CO^+) in the Interstellar Medium and a Planetary Nebula. *William B. Latter, Christopher K. Walker, & Philip R. Maloney.* 419, L97, 259-F14 (1993)

Radio Observations of D I and Fractionation. *Carl Heiles, Peter R. McCullough, & Alfred E. Glassgold.* 89, 271, 53-C11 (1993)

Detection of Water Vapor in T Tauri Stars. *H. Shiba, S. Sato, T. Yamashita, Y. Kobayashi, & H. Takami.* 89, 299, 53-F1 (1993)

Size Effects on Dissociation Rates of Polycyclic Aromatic Hydrocarbon Cations: Laboratory Studies and Astrophysical Implications. *H. W. Jochims, E. Rühl, H. Baumgärtel, S. Tobita, & S. Leach.* 420, 307, 4-F6 (1994)

Observations of 13.5 Micron Rotation-Vibration Lines of SiS in IRC +10216. *R. J. Boyle, J. J. Keady, D. E. Jennings, K. L. Hirsch, & G. R. Wiedemann.* 420, 863, 13-E12 (1994)

The Production of Condensed Phase CO in Quiescent Molecular Clouds. *P. Caselli, T. I. Hasegawa, & Eric Herbst.* 421, 206, 18-E5 (1994)

High-Resolution Images of Shocked Molecular Clumps in the Supernova Remnant IC 443. *Jan A. Tauber, Ronald L. Snell, Robert L. Dickman, & L. M. Ziurys.* 421, 570, 25-C4 (1994)

Detection of CO Cameron Band Emission in Comet P/Hartley 2 (1991 XV) with the *Hubble Space Telescope*. *H. A. Weaver, P. D. Feldman, J. B. McPhate, M. F. A'Hearn, C. Arpigny, & T. E. Smith.* 422, 374, 34-F7 (1994)

Interstellar Carbon Chemistry: Reaction Rates of Neutral Atomic Carbon with Organic Molecules. *D. C. Clary, N. Haider, D. Husain, & M. Kabir.* 422, 416, 35-C6 (1994)

The Trend of Production Rates with Heliocentric Distance for Comet P/Halley. *Uwe Fink.* 423, 461, 51-G12 (1994)

A Molecular Jet from LkHα 234. *George F. Mitchell & Henry E. Matthews.* 423, L55, 53-G8 (1994)

Structure and Chemistry in the Northwestern Condensation of the Serpens Molecular Cloud Core. *Joseph P. McMullin, Lee G. Mundy, Bruce A. Wilking, T. Hezel, & Geoff A. Blake.* 424, 222, 64-F1 (1994)

The Photodissociation of Circumstellar HCN and SiS. *J. Wirsich.* 424, 370, 66-D14 (1994)

A Non-LTE Model for the Jovian Methane Infrared Emissions at High Spectral Resolution. *Rangasayi N. Halthore, J. E. Allen, Jr., & Philip L. DeCola.* 424, L61, 70-A4 (1994)

Chemical Transitions for Interstellar C_2 and CN in Cloud Envelopes. *S. R. Federman, C. J. Strom, D. L. Lambert, Jason A. Cardelli, V. V. Smith, & C. L. Joseph.* 424, 772, 74-D7 (1994)

Dissociative Recombination of H_3^+ Molecular Ions in Hydrogen Plasmas between 20 K and 4000 K. *I. F. Schneider, O. Dulieu, A. Giusti-Suzor, & E. Roueff.* 424, 983, 77-A10 (1994)

Molecules in the Postrecombination Universe and Microwave Background Anisotropies. *Roberto Maoli, Francesco Melchiorri, & Danilo Tosti.* 425, 372, 86-C12 (1994)

A Statistical Equilibrium Analysis of Interstellar CO toward ζ Ophiuchi as Recorded by the Goddard High Resolution Spectrograph. *Cheng-Hsuan Lyu, Andrew M. Smith, & Frederick C. Bruhweiler.* 426, 254, 99-C7 (1994)

Detection of a New Interstellar Molecule, H_2CN. *Masatoshi Ohishi, Douglas McGonagle, William M. Irvine, Satoshi Yamamoto, & Shuji Saito.* 427, L51, 117-G5 (1994)

Rovibrational Intensities of the Minor Isotopes of the CO $X\ ^1\Sigma^+$ State for $v \leq 20$ and $J \leq 150$. *D. Goorvitch & C. Chackerian, Jr.* 92, 311, 35-C1 (1994)

Molecular Hydrogen Emission in Galaxies: Determination of Excitation Mechanism. *Hideaki Mouri.* 427, 777, 122-C12 (1994)

The Photoelectric Heating Mechanism for Very Small Graphitic Grains and Polycyclic Aromatic Hydrocarbons. *E. L. O. Bakes & A. G. G. M. Tielens.* 427, 822, 122-G8 (1994)

Rotational Excitation of H_2 in Collision with H. *Y. Sun & A. Dalgarno.* 427, 1053, 125-F9 (1994)

Discovery of $^{14}NH_3(3, 3)$ Maser Emission in the Interstellar Medium. *Jeffrey G. Mangum & Alwyn Wootten.* 428, L33, 134-E8 (1994)

Silicon Monoxide in SN 1987A. *Weihong Liu & A. Dalgarno.* 428, 769, 139-G5 (1994)

Induced Nucleation of Carbon Dust in Red Giant Stars. *Brian J. Cadwell, Hai Wang, Eric D. Feigelson, & Michael Frenklach.* 429, 285, 147-E10 (1994)

Overtone Emission from Interstellar Polycyclic Aromatic Hydrocarbons. *W. W. Duley.* 429, L91, 158-D11 (1994)

Continuous Absorption by He_2^+ and H_2^+ in Cool White Dwarfs. *P. C. Stancil.* 430, 360, 163-F3 (1994)

High-Resolution Fourier Transform Spectroscopy of the Meinel System of OH. *Mark C. Abrams, Sumner P. Davis, M. L. P. Rao, Rolf Engleman, Jr., & James W. Brault.* 93, 351, 46-C10 (1994)

Interstellar SO^+. *B. E. Turner.* 430, 727, 170-G9 (1994)

The Nature of CO and H_2O Ices in the Corona Australis Molecular Cloud. *Masuo Tanaka, Tetsuya Nagata, Shuji Sato, & Tetsuo Yamamoto.* 430, 779, 171-E8 (1994)

CH_3C_2H as a Temperature Probe in Dense Giant Molecular Cloud Cores. *Edwin A. Bergin, Paul F. Goldsmith, Ronald L. Snell, & Hans Ungerechts.* 431, 674, 187-A3 (1994)

A Millimeter-Wave Study and Astronomical Search for the HCCCS Radical. *M. C. McCarthy, J. M. Vrtilek, E. W. Gottlieb, F.-M. Tao, C. A. Gottlieb, & P. Thaddeus.* 431, L127, 192-B13 (1994)

3 Millimeter $J = 1$–0 HCO^+ Emission from the Diffuse Cloud toward ζ Ophiuchi. *Harvey S. Liszt & Robert Lucas.* 431, L131, 192-C5 (1994)

Interpretation of the 4141 Inverse Centimeters (2.415 Microns) Interstellar Infrared Absorption Feature. *V. Buch & J. P. Devlin.* 431, L135, 192-C11 (1994)

Excitation of Interstellar Hydrogen Chloride. *David A. Neufeld & Sheldon Green.* 432, 158, 195-B11 (1994)

Radiative Excitation of Molecules near Powerful Compact Radio Sources. *Philip R. Maloney, Mitchell C. Begelman, & Martin J. Rees.* 432, 606, 203-E3 (1994)

The CO/SiO Radiative Instability in Cool Star Atmospheres Revisited. *M. Cuntz & D. O. Muchmore.* 433, 303, 212-B3 (1994)

Pre- and Postperihelion Abundances of Gas and Dust in Comet Halley. *Maria Womack, Barry L. Lutz, & R. Mark Wagner.* 433, 886, 222-B11 (1994)

Vibrational Excitation in the Products of Electron-Ion Recombination: A Test of Theory for Ions of Interstellar Significance. *Nigel G. Adams & Lucia M. Babcock.* 434, 184, 228-A1 (1994)

Collisional Excitation of Interstellar Sulfur Monoxide. *Sheldon Green.* 434, 188, 228-A8 (1994)

Theoretical Oscillator Strengths for Infrared Electronic Transitions of Si_2 and SiC. *Fouad L. Sefyani & Joël Schamps.* 434, 816, 239-B11 (1994)

H_2-rich Interstellar Grain Mantles: An Equilibrium Description. *Richard W. Dissly, Mark Allen, & Vincent G. Anicich.* 435, 685, 255-E1 (1994)

Molecular Rotational Line Profiles from Oxygen-rich Red Giant Winds. *K. Justtanont, C. J. Skinner, & A. G. G. M. Tielens.* 435, 852, 257-G6 (1994)

Electron Energy Deposition in Carbon Monoxide Gas. *Weihong Liu & G. A. Victor.* 435, 909, 258-F3 (1994)

Associative Ionization Processes within Interstellar Clouds. *Simon Petrie & Diethard K. Bohme.* 436, 411, 267-A8 (1994)

A Compilation of Electronic Transitions in the CO Molecule and the Interpretation of Some Puzzling Interstellar Absorption Features. *Donald C. Morton & Louis Noreau.* 95, 301, 67-F11 (1994)

High-Velocity Sulfur Monoxide Emission from Protostellar Outflows. *Lawrence M. Chernin, Colin R. Masson, & Gary A. Fuller.* 436, 741, 275-F3 (1994)

The Cometary Fluorescence Spectrum of Cyanogen: A Model. *Marvin Kleine, Susan Wyckoff, Peter A. Wehinger, & Bruce A. Peterson.* 436, 885, 278-A1 (1994)

Water Maser Emission from X-Ray–heated Circumnuclear Gas in Active Galaxies. *David A. Neufeld, Philip R. Maloney, & Sarah Conger.* 436, L127, 281-A13 (1994)

HCN and CO in the Nucleus of NGC 1068. *A. Sternberg, R. Genzel, & L. Tacconi.* 436, L131, 281-B7 (1994)

A Molecular Outflow Driven by an Optical Jet. *George F. Mitchell, Tatsuhiko I. Hasegawa, William R. F. Dent, & Henry E. Matthews.* 436, L177, 282-A11 (1994)

Photon-dominated Regions around Cool Stars: The Effects of the Color Temperature of the Radiation Field. *Marco Spaans, A. G. G. M. Tielens, Ewine F. van Dishoeck, & E. L. O. Bakes.* 437, 270, 286-G7 (1994)

The Near-Infrared Structure and Spectra of the Bipolar Nebulae M2-9 and AFGL 2688: The Role of Ultraviolet Pumping and Shocks in Molecular Hydrogen Excitation. *Joseph L. Hora & William B. Latter.* 437, 281, 287-A8 (1994)

Observations of Molecular Envelopes of Late-Type Stars: CRL 618, CRL 2688, CRL 3068, and CIT 6. *Sadafumi Fukasaku, Yasuhiro Hirahara, Akimasa Masuda, Kentarou Kawaguchi, Shin-ichi Ishikawa, Norio Kaifu, & William M. Irvine.* 437, 410, 288-F13 (1994)

Time-dependent Fluorescent H_2 Emission. *O. Goldshmidt & A. Sternberg.* 439, 256, 24-F3 (1995)

The Distribution of HCN, $H^{13}CN$, and CN in IRC +10216. *Aditya Dayal & John H. Bieging.* 439, 996, 38-D7 (1995)

The Carbon Isotope Abundance Ratio in Comet Halley. *Marvin Kleine, Susan Wyckoff, Peter A. Wehinger, & Bruce A. Peterson.* 439, 1021, 38-F13 (1995)

Theoretical Determination of the Electronic Ground State of the MgC Molecule. *Clarissa O. da Silva, Edilson C. da Silva, & Marco Antonio Chaer Nascimento.* 439, 1044, 39-B3 (1995)

Observations and Analysis of O(^1D) and NH_2 Line Profiles for the Coma of Comet P/Halley. *William H. Smyth, Michael R. Combi, Fred L. Roesler, & Frank Scherb.* 440, 349, 46-A6 (1995)

Turbulent Diffusion and Its Effects on the Chemistry of Molecular Clouds. *Taoling Xie, Mark Allen, & William D. Langer.* 440, 674, 52-E1 (1995)

Gas-Phase Chemistry in Dense Interstellar Clouds Including Grain Surface Molecular Depletion and Desorption. *E. A. Bergin, W. D. Langer, & P. F. Goldsmith.* 441, 222, 62-D7 (1995)

Hydrogen Chloride in OMC-1. *Peter Schilke, T. G. Phillips, & Ning Wang.* 441, 334, 64-A1 (1995)

Rototranslational Collision-induced Absorption by H_2–H_2 Pairs at Temperatures from 600 to 7000 K. *Chunguang Zheng & Aleksandra Borysow.* 441, 960, 75-B6 (1995)

Large HCO^+ and HCN Abundances in the Translucent Cloud toward PKS 0528+134. *Michiel R. Hogerheijde, Eugène J. de Geus, Marco Spaans, Huib Jan van Langevelde, & Ewine F. van Dishoeck.* 441, L93, 76-D4 (1995)

The Relationship of Dense Gas to Star Formation in the Monoceros OB1 Dark Cloud. *Grace A. Wolf-Chase, Christopher K. Walker, & Charles J. Lada.* 442, 197, 79-G9 (1995)

A Nonlocal Calculation of Circumstellar OH Maser Emission. *Alan J. Collison & Gerald E. Nedoluha.* 442, 311, 81-D6 (1995)

3.4 Micron Emission from Ultraviolet Excitation of Alkanes. *G. P. Pinho & W. W. Duley.* 442, L41, 85-C1 (1995)

Detection of a Series of Methanol Maser Lines at 1.9 Millimeter Wavelength. *V. I. Slysh, S. V. Kalenskii, & I. E. Val'tts.* 442, 668, 89-C7 (1995)

A New Method for Determining the CO to H_2 Conversion Factor for Translucent Clouds. *Loris Magnani & Joseph S. Onello.* 443, 169, 97-D9 (1995)

Ammonia Formation from the Reactions of H Atoms with N Atoms Trapped in a Solid N_2 Matrix at 10–30 K. *Kenzo Hiraoka, Akihiro Yamashita, Yasunori Yachi, Kazuo Aruga, Tetsuya Sato, & Hachizo Muto.* 443, 363, 100-B7 (1995)

The Importance of Classes of Neutral-Neutral Reactions in the Production of Complex Interstellar Molecules. *R. P. A. Bettens, H.-H. Lee, & Eric Herbst.* 443, 664, 107-A12 (1995)

Laboratory Studies of 3.3 Micron Emission from Naphthalene Induced by 193 and 248 Nanometer Excitation. *Richard M. Williams & Stephen R. Leone.* 443, 675, 107-B13 (1995)

New Model Atmospheres for Very Cool White Dwarfs with Mixed H/He and Pure He Compositions. *P. Bergeron, D. Saumon, & F. Wesemael.* 443, 764, 108-D1 (1995)

A New Desorption Mechanism for Condensed Phase Interstellar CO. *Fedor Dzegilenko & Eric Herbst.* 443, L81, 112-A11 (1995)

Capture Calculations for the Rates of Important Neutral-Neutral Reactions in Dense Interstellar Clouds: $C + C_2H_2$ and $CN + C_2H_2$. *Qing Liao & Eric Herbst.* 444, 694, 125-G12 (1995)

The Physics and Chemistry of Small Molecular Clouds in the Galactic Plane. III. NH_3. *B. E. Turner.* 444, 708, 126-B4 (1995)

Delayed Detonation Models for Normal and Subluminous Type Ia Supernovae: Absolute Brightness, Light Curves, and Molecule Formation. *P. Höflich, A. M. Khokhlov, & J. C. Wheeler.* 444, 831, 128-A1 (1995)

Collisional Excitation of H_2 Molecules by H Atoms. *S. Lepp, V. Buch, & A. Dalgarno.* 98, 345, 26-E8 (1995)

Molecular Oxygen: A New Astrophysical Maser? *P. Bergman.* 445, L167, 152-D1 (1995)

Infrared Response of H_2 to X-Rays. *R. Gredel & A. Dalgarno.* 446, 852, 167-G7 (1995)

The Dense Gas Component of Outflows in the Monoceros OB1 Dark Cloud. *Grace A. Wolf-Chase & Christopher K. Walker.* 447, 244, 175-F4 (1995)

High-Resolution Ultraviolet Spectroscopy of Jupiter's Aurora with the *Hubble Space Telescope*. *Y. H. Kim, J. J. Caldwell, & J. L. Fox.* 447, 906, 188-D3 (1995)

Interstellar Alcohols. *S. B. Charnley, M. E. Kress, A. G. G. M. Tielens, & T. J. Millar.* 448, 232, 195-D1 (1995)

Anomalously Excited OH and Competition between Maser Transitions toward Centaurus A. *Huib Jan van Langevelde, Ewine F. van Dishoeck, Maartje N. Sevenster, & Frank P. Israel.* 448, L123, 209-F2 (1995)

The H_2 Excitation by Formation Pumping in the Merging Galaxy NGC 6240? *Hideaki Mouri & Yoshiaki Taniguchi.* 449, 134, 212-A8 (1995)

The 11 Micron Emissions of Carbon Stars. *J. H. Goebel, P. Cheeseman, & F. Gerbault.* 449, 246, 213-E9 (1995)

The Physics and Chemistry of Translucent Molecular Clouds. IV. HCO^+ and N_2H^+. *B. E. Turner.* 449, 635, 221-D12 (1995)

Solid Carbonyl Sulphide (OCS) in W33A. *M. E. Palumbo, A. G. G. M. Tielens, & A. T. Tokunaga.* 449, 674, 222-A10 (1995)

Chemistry in Dense Photon-dominated Regions. *A. Sternberg & A. Dalgarno.* 99, 565, 43-A3 (1995)

The Formation of Condensates on Dust in Interstellar Clouds. *W. W. Duley & R. G. Smith.* 450, 179, 230-D13 (1995)

The Oscillator Strengths of the C_2 Phillips System. *P. Erman & A. Iwamae.* 450, L31, 236-A3 (1995)

Thermal Balance in Dense Molecular Clouds: Radiative Cooling Rates and Emission-Line Luminosities. *David A. Neufeld, Stephen Lepp, & Gary J. Melnick.* 100, 132, 47-F2 (1995)

R_V-dependent Interstellar Photodestruction Rates. *Cesare Cecchi-Pestellini, Santi Aiello, & Bruno Barsella.* 100, 187, 48-E2 (1995)

Collisional Excitation of Interstellar Sulfur Dioxide. *Sheldon Green.* 100, 213, 49-A9 (1995)

The Radiative Association of C and S, C^+ and S, Si and O, and Si^+ and O. *C. M. Andreazza, P. D. Singh, & G. C. Sanzovo.* 451, 889, 259-D7 (1995)

Fine-Structure Branching in N_2 $c'_4\,{}^1\Sigma_u^+$ (0). *D. E. Shemansky, I. Kanik, & J. M. Ajello.* 452, 480, 268-F13 (1995)

Molecular H_2 Emission in HH 47A: *Hubble Space Telescope* GHRS and FOC Observations. *Salvador Curiel, John C. Raymond, Mark Wolfire, Patrick Hartigan, Jon Morse, Richard D. Schwartz, & Peter Nisenson.* 453, 322, 285-E10 (1995)

Organic Compounds Produced by Photolysis of Realistic Interstellar and Cometary Ice Analogs Containing Methanol. *Max P. Bernstein, Scott A. Sandford, Louis J. Allamandola, Sherwood Chang, & Maureen A. Scharberg.* 454, 327, 303-G1 (1995)

The Oxygen Temperature of SN 1987A. *Weihong Liu & A. Dalgarno.* 454, 472, 305-G1 (1995)

Can Gas-Phase Radical/Neutral Reactions Account for Observed Abundances of Propynal within Dense Interstellar Clouds? *Simon Petrie.* 454, L165, 317-A9 (1995)

Hydrogen Molecules in SN 1987A. *Michael Culhane & Richard McCray.* 455, 335, 322-F7 (1995)

Analytic Temperature Dependences for a Complete Set of Rate Coefficients for Collisional Excitation and Dissociation of H_2 Molecules by H Atoms. *P. G. Martin & M. E. Mandy.* 455, L89, 326-A9 (1995)

Photon Heating of Envelopes around Young Stellar Objects: An Explanation for CO $J = 6$–5. *Marco Spaans, Michiel R. Hogerheijde, Lee G. Mundy, & Ewine F. van Dishoeck.* 455, L167, 334-D12 (1995)

High-Resolution Electron-Impact Study of the Far-Ultraviolet Emission Spectrum of Molecular Hydrogen. *Xianming Liu, Syed M. Ahmed, Rosalie A. Multari, Geoffrey K. James, & Joseph M. Ajello.* 101, 375, 59-A3 (1995)

MOON

Testing Einstein's Theory of Gravity by Analyzing Lunar Laser Ranging Data. *J. Müller, M. Schneider, M. Soffel, & H. Ruder.* 382, L101, 211-E12 (1991)

Cosmic Acceleration of Earth and the Moon by Dark Matter. *Kenneth L. Nordtvedt.* 437, 529, 290-D2 (1994)

Theoretical Overview and Modeling of the Sodium and Potassium Atmospheres of the Moon. *William H. Smyth & M. L. Marconi.* 443, 371, 100-C4 (1995)

Fractionation of Xe, Kr, and Ar in the Solar Corpuscular Radiation Deduced by Closed System Etching of Lunar Soils. *Rainer Wieler & Heinrich Baur.* 453, 987, 297-E7 (1995)

Ultraviolet Albedo of the Moon with the Hopkins Ultraviolet Telescope. *Richard C. Henry, Paul D. Feldman, Jeffrey W. Kruk, Arthur F. Davidsen, & Samuel T. Durrance.* 454, L69, 308-E11 (1995)

NEBULAE: ABUNDANCES

Far-Infrared Lines from G45.13+0.14 A and K3-50 A: Density Fluctuations in Compact H II Regions. *Sean W. J. Colgan, J. P. Simpson, Robert H. Rubin, Edwin F. Erickson, M. R. Haas, & Jürgen Wolf.* 366, 172, 3-B13 (1991)

Abundances of Hydrogen Sulfide in Star-forming Regions. *Y. C. Minh, L. M. Ziurys, W. M. Irvine, & D. McGonagle.* 366, 192, 3-D9 (1991)

Nitrogen Recombination Lines and Abundance in Nova Shells. *Vladimir Escalante & Alexander Dalgarno.* 369, 213, 38-E7 (1991)

Observations of ^{12}CO and ^{13}CO $J = 9–8$ in Galactic Molecular Clouds. *R. T. Boreiko & A. L. Betz.* 369, 382, 42-E1 (1991)

Molecular Hydrogen in the Vicinity of NGC 7538 IRS 1 and IRS 2: Temperature and Ortho-to-Para Ratio. *Susan Hoban, Dennis C. Reuter, Michael J. Mumma, & Alex D. Storrs.* 370, 228, 50-A10 (1991)

The Ionization Structure of Planetary Nebulae. X. NGC 2392. *Timothy Barker.* 371, 217, 62-G5 (1991)

The Young Supernova Remnants N132D and 1E 0102.2−7219: Limits on the Presence of Rapidly Moving Sulfur. *Barry M. Lasker & David A. Golimowski.* 371, 568, 68-E8 (1991)

Ne V in Planetary Nebulae. *F. P. Keenan, V. M. Burke, & K. M. Aggarwal.* 371, 636, 69-D13 (1991)

Nitrogen Abundances in Carbon-rich Stars That Are Progenitors to Planetary Nebulae. *M. Jura.* 372, 208, 76-E7 (1991)

CS Multitransitional Studies of Density Distribution in Star-forming Regions. I. The NGC 2071 Region. *Shudong Zhou, Neal J. Evans II, Rolf Güsten, Lee G. Mundy, & Marc L. Kutner.* 372, 518, 82-C1 (1991)

Nitric Oxide in Star-forming Regions: Further Evidence for Interstellar N-O Bonds. *L. M. Ziurys, D. McGonagle, Y. Minh, & W. M. Irvine.* 373, 535, 94-E11 (1991)

Axisymmetric Model of the Ionized Gas in the Orion Nebula. *R. H. Rubin, J. P. Simpson, M. R. Haas, & E. F. Erickson.* 374, 564, 106-B12 (1991)

Physical Conditions in the Orion Nebula and an Assessment of Its Helium Abundance. *Jack A. Baldwin, Gary J. Ferland, P. G. Martin, Michael R. Corbin, Stephen A. Cota, Bradley M. Peterson, & Arne Slettebak.* 374, 580, 106-D1 (1991)

Theoretical H II Region Models: The Effects of Stellar Atmosphere Models. *I. N. Evans.* 76, 985, 38-E13 (1991)

Photoionization Modeling of Magellanic Cloud Planetary Nebulae. II. *M. A. Dopita & S. J. Meatheringham.* 377, 480, 145-F6 (1991)

A Grain-heated, Dusty Planetary Nebula in M22. *Kazimierz J. Borkowski & J. Patrick Harrington.* 379, 168, 165-B1 (1991)

H II Region Abundances: Model Oxygen Line Ratios. *Stacy S. McGaugh.* 380, 140, 177-G1 (1991)

The 0.46–1.3 Micron Spectrum of the Planetary Nebula BD +30°3639. *Richard J. Rudy, Ross D. Cohen, George S. Rossano, Peter Erwin, R. C. Puetter, & David K. Lynch.* 380, 151, 178-A1 (1991)

CO $J = 3–2$ and $J = 2–1$ Observations of NGC 7027. *P. A. Jaminet, W. C. Danchi, E. C. Sutton, A. P. G. Russell, Göran Sandell, J. H. Bieging, & D. Wilner.* 380, 461, 184-A4 (1991)

Core Masses and Abundances of Low-Excitation Planetary Nebulae in the Magellanic Clouds. *James B. Kaler & George H. Jacoby.* 382, 134, 201-G7 (1991)

NEBULAE: CRAB NEBULA

Faraday Rotation and Physical Conditions in the Crab Nebula. *M. F. Bietenholz & P. P. Kronberg.* 368, 231, 26-A1 (1991)

Observation of a Pulsar Wind: CCD Polarimetry of the Crab Nebula. *F. C. Michel, P. A. Scowen, R. J. Dufour, & J. J. Hester.* 368, 463, 30-G1 (1991)

Hard X-Ray Variability of NGC 4151. *F. Perotti, P. Maggioli, E. Quadrini, A. Bazzano, P. Ubertini, L. Bassani, J. B. Stephen, A. J. Court, A. J. Dean, N. A. Dipper, & R. A. Lewis.* 373, 75, 87-A1 (1991)

The Expansion of the Crab Nebula. *M. F. Bietenholz, P. P. Kronberg, D. E. Hogg, & A. S. Wilson.* 373, L59, 97-D5 (1991)

Gamma-Ray Observations of the Crab Nebula at TeV Energies. *G. Vacanti, M. F. Cawley, E. Colombo, D. J. Fegan, A. M. Hillas, P. W. Kwok, M. J. Lang, R. C. Lamb, D. A. Lewis, D. J. Macomb, K. S. O'Flaherty, P. T. Reynolds, & T. C. Weekes.* 377, 467, 145-E4 (1991)

Locating Very High Energy Gamma-Ray Sources with Arcminute Accuracy. *C. W. Akerlof, M. F. Cawley, M. Chantell, D. J. Fegan, K. Harris, A. M. Hillas, D. G. Jennings, R. C. Lamb, M. A. Lawrence, M. J. Lang, D. A. Lewis, D. I. Meyer, G. Mohanty, K. S. O'Flaherty, M. Punch, P. T. Reynolds, M. S. Schubnell, T. C. Weekes, & T. Whitaker.* 377, L97, 150-E6 (1991)

A Model of Unpulsed Very High Energy Gamma Rays from the Crab Nebula and Pulsar. *P. W. Kwok, K. S. Cheng, & M. M. Lau.* 379, 653, 172-G1 (1991)

NEBULAE: GENERAL

Relative Populations for Levels in the $3d^2$ Ground Configuration of Fe VII. *F. P. Keenan & P. H. Norrington.* 368, 486, 31-B7 (1991)

Bok Globules and Small Molecular Clouds: Deep *IRAS* Photometry and ^{12}CO Spectroscopy. *Dan P. Clemens, João Lin Yun, & Mark H. Heyer.* 75, 877, 13-E1 (1991)

HH 5, HH 6, and Their Exciting Stars. *Martin Cohen, Burton F. Jones, & Mark Hereld.* 371, 237, 63-B1 (1991)

Spectra of Two Very Old Supernovae: SN 1986J and SN 1980K. *Bruno Leibundgut, Robert P. Kirshner, Philip A. Pinto, Michael P. Rupen, R. Chris Smith, James E. Gunn, & Donald P. Schneider.* 372, 531, 82-D1 (1991)

Size and Density Distribution of Very Small Dust Grains in the Barnard 5 Cloud. *Dariusz C. Lis & Chun Ming Leung.* 372, L107, 85-F9 (1991)

Fragmentation of Elongated Cylindrical Clouds. III. Formation of Binary and Multiple Systems. *Ian Bonnell, Hugo Martel, Pierre Bastien, Jean-Pierre Arcoragi, & Willy Benz.* 377, 553, 146-E5 (1991)

Fragmentation of Elongated Cylindrical Clouds. I. Isothermal Clouds. *Pierre Bastien, Jean-Pierre Arcoragi, Willy Benz, Ian Bonnell, & Hugo Martel.* 378, 255, 154-B5 (1991)

Radiation Transport in Dust in Disk Geometry. I. Application to Externally Heated Interstellar Clouds. *George F. Spagna, Jr., Chun Ming Leung, & Michael P. Egan.* 379, 232, 166-A5 (1991)

Fragmentation of Elongated Cylindrical Clouds. II. Polytropic Clouds. *Jean-Pierre Arcoragi, Ian Bonnell, Hugo Martel, Willy Benz, & Pierre Bastien.* 380, 476, 184-B7 (1991)

N III Line Emission in Planetary Nebulae: Not Bowen Fluorescence. *S. O. Kastner & A. K. Bhatia.* 381, L59, 199-D7 (1991)

Molecular Line Emission Models of Herbig-Haro Objects. I. H_2 Emission. *Mark G. Wolfire & Arieh Königl.* 383, 205, 214-E9 (1991)

NEBULAE: H II REGIONS

Abundances in H II Regions at the Edge of the Galaxy. *Michel Fich & Mariabeth Silkey.* 366, 107, 2-D1 (1991)

Far-Infrared Lines from G45.13+0.14 A and K3-50 A: Density Fluctuations in Compact H II Regions. *Sean W. J. Colgan, J. P. Simpson, Robert H. Rubin, Edwin F. Erickson, M. R. Haas, & Jürgen Wolf.* 366, 172, 3-B13 (1991)

H II Regions in M82: High-Resolution Millimeter Continuum Observations. *J. E. Carlstrom & Philipp P. Kronberg.* 366, 422, 8-B1 (1991)

Superbubble Blowout in the Giant H II Region NGC 2363? *Jean-René Roy, J. Boulesteix, Gilles Joncas, & B. Grundseth.* 367, 141, 13-F8 (1991)

Ultraviolet Interstellar Lines in the Spectrum of π Scorpii Recorded at 2 Kilometers per Second Resolution. *Charles L. Joseph & Edward B. Jenkins.* 368, 201, 25-E9 (1991)

Bow Shock Models of Ultracompact H II Regions. *Mordecai-Mark Mac Low, Dave Van Buren, Douglas O. S. Wood, & Ed Churchwell.* 369, 395, 42-F1 (1991)

Radio Recombination Lines from Diffuse Interstellar Gas in the Galaxy. *J. C. Cersosimo & J. S. Onello.* 370, 225, 50-A5 (1991)

Molecular Hydrogen in the Vicinity of NGC 7538 IRS 1 and IRS 2: Temperature and Ortho-to-Para Ratio. *Susan Hoban, Dennis C. Reuter, Michael J. Mumma, & Alex D. Storrs.* 370, 228, 50-A10 (1991)

IRAS 23545+6508, a Dissociating Star: Prototype for a New Observational Class? *P. E. Dewdney, R. S. Roger, C. R. Purton, & W. H. McCutcheon.* 370, 243, 50-C1 (1991)

Polarimetric Mapping of Orion Using MILLIPOL: Magnetic Activity in BN/KL. *Robert W. Leach, Dan P. Clemens, Brian D. Kane, & Richard Barvainis.* 370, 257, 50-D1 (1991)

A Search for Embedded Young Stellar Objects in and near the IC 1396 Complex. *Richard D. Schwartz, Armen L. Gyulbudaghian, & Bruce A. Wilking.* 370, 263, 50-D9 (1991)

A Study of Star Formation in the Disks of Sa Galaxies. *Nelson Caldwell, Robert Kennicutt, Andrew C. Phillips, & Robert A. Schommer.* 370, 526, 54-G12 (1991)

An X-Ray Image of the Violent Interstellar Medium in 30 Doradus. *Q. Wang & D. J. Helfand.* 370, 541, 55-B9 (1991)

A Large Supershell H II Region Complex in the Large Magellanic Cloud and the Interstellar Environment of SN 1987A. *Frederick C. Bruhweiler, Michelle A. Fitzurka, & Theodore R. Gull.* 370, 551, 55-C9 (1991)

Protostellar Condensations in the Core of NGC 2024. *D. C. Lis, J. E. Carlstrom, & T. G. Phillips.* 370, 583, 55-F5 (1991)

High Chemical Abundances in Virgo Spiral Galaxies? *Gregory A. Shields, Evan D. Skillman, & Robert C. Kennicutt, Jr.* 371, 82, 61-B1 (1991)

Far-Infrared Properties of NGC 6822. *John S. Gallagher III, Deidre A. Hunter, Fred C. Gillett, & Walter L. Rice.* 371, 142, 61-G1 (1991)

The Infrared Properties of Compact Galactic Radio Sources: The Young and the Restless. *Richard L. White, Robert H. Becker, & David J. Helfand.* 371, 148, 62-A1 (1991)

The Spectral Signatures of Collapse and Outflow around Young Stars. *E. R. Keto.* 371, 163, 62-B3 (1991)

Multifrequency VLA Observations of Radio Continuum from IRAS 16293−2422. *R. Estalella, G. Anglada, L. F. Rodríguez, & G. Garay.* 371, 626, 69-C12 (1991)

VLBI Observations of Interstellar Ammonia Masers. *Preethi Pratap, Karl M. Menten, Mark J. Reid, James M. Moran, & C. Malcolm Walmsley.* 373, L13, 91-B12 (1991)

He II Emission in Extragalactic H II Regions. *Donald R. Garnett, Robert C. Kennicutt, Jr., You-Hua Chu, & Evan D. Skillman.* 373, 458, 93-E14 (1991)

The Hydrodynamics of Relict Cosmological H II Regions and the Formation of Objects at High Redshift. *Piero Madau & Avery Meiksin.* 374, 6, 98-B7 (1991)

Infrared Images of M17. *Charles J. Lada, D. L. DePoy, K. M. Merrill, & Ian Gatley.* 374, 533, 105-G1 (1991)

Physical Conditions in the Orion Nebula and an Assessment of Its Helium Abundance. *Jack A. Baldwin, Gary J. Ferland, P. G. Martin, Michael R. Corbin, Stephen A. Cota, Bradley M. Peterson, & Arne Slettebak.* 374, 580, 106-D1 (1991)

Near-Infrared Emission of Neutral Carbon from Photon-dominated Regions. *V. Escalante, A. Sternberg, & A. Dalgarno.* 375, 630, 120-E1 (1991)

Theoretical H II Region Models: The Effects of Stellar Atmosphere Models. *I. N. Evans.* 76, 985, 38-E13 (1991)

The Dissipation of Magnetohydrodynamic Turbulence Responsible for Interstellar Scintillation and the Heating of the Interstellar Medium. *Steven R. Spangler.* 376, 540, 133-B5 (1991)

NGC 7538 IRS 1: Subarcsecond Resolution Recombination Line and $^{15}NH_3$ Maser Observations. *R. A. Gaume, K. J. Johnston, H. A. Nguyen, T. L. Wilson, H. R. Dickel, W. M. Goss, & M. C. H. Wright.* 376, 608, 133-G12 (1991)

The Origin of the Quasi-stellar Object Absorption Lines. *S. M. Viegas & R. B. Gruenwald.* 377, 39, 138-E5 (1991)

Ultraviolet and Optical Spectroscopy of the R Aquarii Symmetrical Jet. *J. M. Hollis, R. J. Oliversen, M. Kafatos, A. G. Michalitsianos, & R. M. Wagner.* 377, 227, 140-F11 (1991)

Two Micron Spectroscopy of Infrared Sources in NGC 2071. *D. M. Walther, T. R. Geballe, & E. I. Robson.* 377, 246, 141-A9 (1991)

The Dense Molecular Envelope around the Compact H II Region G5.89−0.39 (W28 A2). *Yolanda Gómez, Luis F. Rodríguez, Guido Garay, & James M. Moran.* 377, 519, 146-B9 (1991)

A Statistical Study of the Correlation of Galactic Supernova Remnants and Spiral Arms. *Zongwei Li, J. Craig Wheeler, Frank N. Bash, & W. H. Jefferys.* 378, 93, 152-B9 (1991)

First Results from the Faint Object Camera: High-Resolution Observations of the Central Object R136 in the 30 Doradus Nebula. *G. Weigelt, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 378, L21, 157-C7 (1991)

Synthesis Imaging of the DR 21(OH) Cluster. I. Dust Continuum and $C^{18}O$ Emission. *Jeffrey G. Mangum, Alwyn Wootten, & Lee G. Mundy.* 378, 576, 159-E3 (1991)

SiS in Outflow Regions: More High-Temperature Silicon Chemistry. *L. M. Ziurys.* 379, 260, 166-C7 (1991)

A Catalog of Bright-rimmed Clouds with *IRAS* Point Sources: Candidates for Star Formation by Radiation-driven Implosion. I. The Northern Hemisphere. *Koji Sugitani, Yasuo Fukui, & Katsuo Ogura.* 77, 59, 44-B1 (1991)

IUE Observations of NGC 1068: The Extremely Luminous Starburst Knots. *F. C. Bruhweiler, K. Q. Truong, & B. Altner.* 379, 596, 172-B1 (1991)

IUE Observations of NGC 1068: The Extended High-Ionization Emission Region. *K. Q. Truong & F. C. Bruhweiler.* 379, 609, 172-C1 (1991)

H II Region Abundances: Model Oxygen Line Ratios. *Stacy S. McGaugh.* 380, 140, 177-G1 (1991)

The Upper Bound to the Primordial Abundance of Helium and the Consistency of the Hot Big Bang Model. *Keith A. Olive, Gary Steigman, & Terry P. Walker.* 380, L1, 181-B1 (1991)

The Discovery of a New, Very Strong, and Widespread Interstellar Methanol Maser Line. *Karl M. Menten.* 380, L75, 188-E1 (1991)

H II Regions in Seven Dwarf Irregular Galaxies. *Nicolas V. Strobel, Paul Hodge, & Robert C. Kennicutt, Jr.* 383, 148, 213-G3 (1991)

Two Planetary Nebulae in the Direction of the Galactic Center. *A. Gutiérrez-Moreno, H. Moreno, & G. Cortés.* 383, 174, 214-C1 (1991)

Gravitational Fragmentation: A Comparison with W49A. *Eric R. Keto, John C. Lattanzio, & Joe J. Monaghan.* 383, 639, 222-B12 (1991)

High-Resolution Spectroscopy of Partially Ionized Gas around H II Regions. *Joseph S. Onello, J. A. Phillips, & Yervant Terzian.* 383, 693, 222-G6 (1991)

A Model for the Infrared Emission from an OB Star Cluster Environment. *D. Leisawitz.* 77, 451, 51-B1 (1991)

NEBULAE: INDIVIDUAL

Messier Number: M17

Infrared Images of M17. *Charles J. Lada, D. L. DePoy, K. M. Merrill, & Ian Gatley.* 374, 533, 105-G1 (1991)

NGC Number: NGC 1977

Parsec-Scale Penetration of Ultraviolet Photons into Molecular Clouds: [C II] 158 Micron Mapping of W3, NGC 1977, and NGC 2023. *J. E. Howe, D. T. Jaffe, R. Genzel, & G. J. Stacey.* 373, 158, 88-A5 (1991)

NGC Number: NGC 2023

Parsec-Scale Penetration of Ultraviolet Photons into Molecular Clouds: [C II] 158 Micron Mapping of W3, NGC 1977, and NGC 2023. *J. E. Howe, D. T. Jaffe, R. Genzel, & G. J. Stacey.* 373, 158, 88-A5 (1991)

NGC Number: NGC 2024

Protostellar Condensations in the Core of NGC 2024. *D. C. Lis, J. E. Carlstrom, & T. G. Phillips.* 370, 583, 55-F5 (1991)

NGC Number: NGC 2071

CS Multitransitional Studies of Density Distribution in Star-forming Regions. I. The NGC 2071 Region. *Shudong Zhou, Neal J. Evans II, Rolf Güsten, Lee G. Mundy, & Marc L. Kutner.* 372, 518, 82-C1 (1991)

NGC Number: NGC 2245

Emission from Dust in Visual Reflection Nebulae at Infrared and Submillimeter Wavelengths. *Sean C. Casey.* 371, 183, 62-D1 (1991)

NGC Number: NGC 2247

Emission from Dust in Visual Reflection Nebulae at Infrared and Submillimeter Wavelengths. *Sean C. Casey.* 371, 183, 62-D1 (1991)

NGC Number: NGC 2363

Superbubble Blowout in the Giant H II Region NGC 2363? *Jean-René Roy, J. Boulesteix, Gilles Joncas, & B. Grundseth.* 367, 141, 13-F8 (1991)

NGC Number: NGC 2392

The Ionization Structure of Planetary Nebulae. X. NGC 2392. *Timothy Barker.* 371, 217, 62-G5 (1991)

NGC Number: NGC 2440

Neutral Oxygen in Planetary Nebulae: Probing Radiative Transfer and Nebular Structure. *Michael G. Richer, Marshall L. McCall, & Peter G. Martin.* 377, 210, 140-E1 (1991)

NGC Number: NGC 3918

Neutral Oxygen in Planetary Nebulae: Probing Radiative Transfer and Nebular Structure. *Michael G. Richer, Marshall L. McCall, & Peter G. Martin.* 377, 210, 140-E1 (1991)

NGC Number: NGC 6302

NGC 6302: Ionized by a Very Hot Star or by a Wind? *N. J. Lame & G. J. Ferland.* 367, 208, 14-F1 (1991)

NGC Number: NGC 6572

Near-Infrared Spectroscopy of the Planetary Nebula NGC 6572. *Richard J. Rudy, George S. Rossano, Peter Erwin, & R. C. Puetter.* 368, 468, 30-G13 (1991)

NGC Number: NGC 6751

The Multiple-Shell Structure of the Planetary Nebula NGC 6751. *You-Hua Chu, Arturo Manchado, George H. Jacoby, & Karen B. Kwitter.* 376, 150, 126-F13 (1991)

NGC Number: NGC 7023

Emission from Dust in Visual Reflection Nebulae at Infrared and Submillimeter Wavelengths. *Sean C. Casey.* 371, 183, 62-D1 (1991)

NGC Number: NGC 7027

Emission Features in the Spectrum of NGC 7027 near 3.3 Microns at Very High Resolution. *R. P. Lowe, J. M. Moorhead, W. H. Wehlau, & J.-P. Maillard.* 368, 195, 25-E1 (1991)

Relative Populations for Levels in the $3d^2$ Ground Configuration of Fe VII. *F. P. Keenan & P. H. Norrington.* 368, 486, 31-B7 (1991)

The Spectrum of NGC 7027 from 3080 to 2630 Wavenumbers (3.25–3.80 Microns): Detection of New Atomic and Molecular Hydrogen Lines and New Constraints on the Chemical Sidegroups on Polycyclic Aromatic Hydrocarbons. *Scott A. Sandford.* 376, 599, 133-G1 (1991)

The Molecular Envelope of NGC 7027. *John H. Bieging, David Wilner, & Harley A. Thronson, Jr.* 379, 271, 166-D9 (1991)

CO $J = 3–2$ and $J = 2–1$ Observations of NGC 7027. *P. A. Jaminet, W. C. Danchi, E. C. Sutton, A. P. G. Russell, Göran Sandell, J. H. Bieging, & D. Wilner.* 380, 461, 184-A4 (1991)

NGC Number: NGC 7538

Molecular Hydrogen in the Vicinity of NGC 7538 IRS 1 and IRS 2: Temperature and Ortho-to-Para Ratio. *Susan Hoban, Dennis C. Reuter, Michael J. Mumma, & Alex D. Storrs.* 370, 228, 50-A10 (1991)

The Spectral Signatures of Collapse and Outflow around Young Stars. *E. R. Keto.* 371, 163, 62-B3 (1991)

NGC 7538 IRS 1: Subarcsecond Resolution Recombination Line and $^{15}NH_3$ Maser Observations. *R. A. Gaume, K. J. Johnston, H. A. Nguyen, T. L. Wilson, H. R. Dickel, W. M. Goss, & M. C. H. Wright.* 376, 608, 133-G12 (1991)

Name: R Aquarii

First Results from the Faint Object Camera: Imaging the Core of R Aquarii. *F. Paresce, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 369, L67, 46-B7 (1991)

Narrow-Band Imaging of the Inner R Aquarii Nebula: Further Evidence for Shock Excitation. *Denis Burgarella & Francesco Paresce.* 370, 590, 55-G1 (1991)

Ultraviolet and Optical Spectroscopy of the R Aquarii Symmetrical Jet. *J. M. Hollis, R. J. Oliversen, M. Kafatos, A. G. Michalitsianos, & R. M. Wagner.* 377, 227, 140-F11 (1991)

Name: Barnard 5

Anatomy of the Barnard 5 Core. *G. A. Fuller, P. C. Myers, W. J. Welch, P. F. Goldsmith, W. D. Langer, B. G. Campbell, S. Guilloteau, & R. W. Wilson.* 376, 135, 126-E10 (1991)

Name: Cassiopeia A

New Clues to the Cassiopeia A Supernova Progenitor. *Robert A. Fesen & Robert H. Becker.* 371, 621, 69-C4 (1991)

VLA Observations of 21 Centimeter H I Absorption toward Cassiopeia A. *John H. Bieging, W. Miller Goss, & Eric M. Wilcots.* 75, 999, 16-F5 (1991)

Relativistic Electron Populations in Cassiopeia A. *M. Anderson, L. Rudnick, P. Leppik, R. Perley, & R. Braun.* 373, 146, 87-G4 (1991)

Name: Cygnus Loop

The H_2 Line Profiles in the Cygnus Loop: Evidence for J-Shocks with Magnetic Precursors. *James R. Graham, Gillian S. Wright, & T. R. Geballe.* 372, L21, 79-C7 (1991)

Far-Ultraviolet Mapping of the Cygnus Loop with the *Voyager 2* Ultraviolet Spectrometer. *William P. Blair, Knox S. Long, Olaf Vancura, & J. B. Holberg.* 374, 202, 100-E5 (1991)

A Kinematic and Proper-Motion Survey of the Cygnus Loop. *Peter Shull, Jr., & Hans Hippelein.* 383, 714, 223-B3 (1991)

Name: 30 Doradus

An X-Ray Image of the Violent Interstellar Medium in 30 Doradus. *Q. Wang & D. J. Helfand.* 370, 541, 55-B9 (1991)

Name: Kepler's Supernova

A Detailed Optical Study of Kepler's Supernova Remnant. *William P. Blair, Knox S. Long, & Olaf Vancura.* 366, 484, 9-A1 (1991)

Changes in the Optical Remnant of Kepler's Supernova during the Period 1942–1989. *Rino Bandiera & Sidney van den Bergh.* 374, 186, 100-C11 (1991)

Name: Monoceros R2

The Structure and Kinematics of Bipolar Outflows: Observations and Models of the Monoceros R2 Outflow. *Barry A. Meyers-Rice & Charles J. Lada.* 368, 445, 30-E10 (1991)

Name: ρ Ophiuchi

Direct VLBI Detection of the Magnetosphere Surrounding the Young Star S1 in ρ Ophiuchi. *Philippe André, Robert B. Phillips, Jean-François Lestrade, & Karl-Ludwig Klein.* 376, 630, 134-B12 (1991)

A Rich Cluster of Radio Stars in the ρ Ophiuchi Cloud Cores. *James A. Leous, Eric D. Feigelson, Philippe André, & Thierry Montmerle.* 379, 683, 173-B10 (1991)

Name: Orion A

Infrared Dust and Millimeter-Wave Carbon Monoxide Emission in the Orion Region. *John Bally, William D. Langer, & Weihong Liu.* 383, 645, 222-C6 (1991)

Name: Orion B

Protostellar Condensations in the Core of NGC 2024. *D. C. Lis, J. E. Carlstrom, & T. G. Phillips.* 370, 583, 55-F5 (1991)

A 2.2 Micron Survey in the L1630 Molecular Cloud. *Elizabeth A. Lada, D. L. DePoy, Neal J. Evans II, & Ian Gatley.* 371, 171, 62-C1 (1991)

Infrared Dust and Millimeter-Wave Carbon Monoxide Emission in the Orion Region. *John Bally, William D. Langer, & Weihong Liu.* 383, 645, 222-C6 (1991)

Name: Puppis A

An Infrared Analysis of Puppis A. *Richard G. Arendt, Eli Dwek. & Robert Petre.* 368, 474, 31-A7 (1991)

The O VII Soft X-Ray Spectrum and Its Application to Hot Plasmas in Astrophysics. *A. H. Gabriel, F. Bely-Dubau, P. Faucher, & L. W. Acton.* 378, 438, 156-D1 (1991)

Name: Red Rectangle

X Marks the Spot: Distribution and Excitation of Unidentified Molecules in the Red Rectangle. *Gary D. Schmidt & Adolf N. Witt.* 383, 698, 222-G12 (1991)

Name: Sagittarius B2

High-Density Gas in the Core of the Sagittarius B2 Molecular Cloud. *Dariusz C. Lis & Paul F. Goldsmith.* 369, 157, 37-G11 (1991)

A Molecular Line Survey of Sagittarius B2 and Orion–KL from 70 to 115 GHz. II. Analysis of the Data. *B. E. Turner.* 76, 617, 33-D1 (1991)

Millimeter Continuum Observations of Galactic Center Giant Molecular Cloud Cores. *D. C. Lis, J. E. Carlstrom, & Jocelyn Keene.* 380, 429, 183-E7 (1991)

Molecular Line Survey of Sagittarius B2(M) from 330 to 355 GHz and Comparison with Sagittarius B2(N). *E. C. Sutton, P. A. Jaminet, W. C. Danchi, & Geoffrey A. Blake.* 77, 255, 47-F1 (1991)

Name: Sagittarius C

Millimeter Continuum Observations of Galactic Center Giant Molecular Cloud Cores. *D. C. Lis, J. E. Carlstrom, & Jocelyn Keene.* 380, 429, 183-E7 (1991)

Name: Sagittarius D

Millimeter Continuum Observations of Galactic Center Giant Molecular Cloud Cores. *D. C. Lis, J. E. Carlstrom, & Jocelyn Keene.* 380, 429, 183-E7 (1991)

Name: Taurus Dark Cloud

Two Micron Morphology of Candidate Protostars. *Motohide Tamura, Ian Gatley, William Waller, & Michael W. Werner.* 374, L25, 103-E7 (1991)

Name: Vela Supernova Remnant

Variable Interstellar Absorption toward HD 72127A. II. 1981–1988. *L. M. Hobbs, R. Ferlet, D. E. Welty, & G. Wallerstein.* 378, 586, 159-F1 (1991)

Evidence for a Thermally Unstable Shock Wave in the Vela Supernova Remnant. *John C. Raymond, George Wallerstein, & Bruce Balick.* 383, 226, 214-G5 (1991)

Alphanumeric: B335

Observations of HCO$^+$ in B335. *Tatsuhiko I. Hasegawa, C. Rogers, & Saeko Suzuki Hayashi.* 374, 177, 100-C1 (1991)

Alphanumeric: BD +30°3639

The 0.46–1.3 Micron Spectrum of the Planetary Nebula BD +30°3639. *Richard J. Rudy, Ross D. Cohen, George S. Rossano, Peter Erwin, R. C. Puetter, & David K. Lynch.* 380, 151, 178-A1 (1991)

Alphanumeric: 3C 400.2

W28 and 3C 400.2: Two Shell-like Radio Supernova Remnants with Centrally Peaked X-Ray Morphologies. *Knox S. Long, William P. Blair, Richard L. White, & Yutaka Matsui.* 373, 567, 95-A10 (1991)

Alphanumeric: CED 201

Emission from Dust in Visual Reflection Nebulae at Infrared and Submillimeter Wavelengths. *Sean C. Casey.* 371, 183, 62-D1 (1991)

Alphanumeric: DR 21

A Spectroscopic Study of the DR 21 Outflow Source. II. The Vibrational H_2 Line Emission. *R. P. Garden, T. R. Geballe, I. Gatley, & D. Nadeau.* 366, 474, 8-G1 (1991)

The Extinction to the H_2 Line Emission in the DR 21 Outflow Source. *Daniel Nadeau, Martin Riopel, & T. R. Geballe.* 372, L103, 85-F5 (1991)

A Spectroscopic Study of the DR 21 Outflow Source. III. The CO Line Emission. *R. P. Garden, M. Hayashi, I. Gatley, T. Hasegawa, & N. Kaifu.* 374, 540, 105-G11 (1991)

Alphanumeric: DR 21(OH)

Synthesis Imaging of the DR 21(OH) Cluster. I. Dust Continuum and $C^{18}O$ Emission. *Jeffrey G. Mangum, Alwyn Wootten, & Lee G. Mundy.* 378, 576, 159-E3 (1991)

Alphanumeric: 1E 0102−7219

The Young Supernova Remnants N132D and 1E 0102.2−7219: Limits on the Presence of Rapidly Moving Sulfur. *Barry M. Lasker & David A. Golimowski.* 371, 568, 68-E8 (1991)

Alphanumeric: G29.96−0.02

The Dynamics and Physical Properties of the Cometary Nebula G29.96−0.02. *Douglas O. S. Wood & Ed Churchwell.* 372, 199, 76-D8 (1991)

Alphanumeric: G45.13+0.14

Far-Infrared Lines from G45.13+0.14 A and K3-50 A: Density Fluctuations in Compact H II Regions. *Sean W. J. Colgan, J. P. Simpson, Robert H. Rubin, Edwin F. Erickson, M. R. Haas, & Jürgen Wolf.* 366, 172, 3-B13 (1991)

Alphanumeric: G348+0

A New Look at the "Jet" in the CTB 37A/B Supernova Remnant Complex. *Namir E. Kassim, Stefi A. Baum, & Kurt W. Weiler.* 374, 212, 100-F9 (1991)

Alphanumeric: GGD 27

The Dense, Inner Part of the Protostellar Disk: Protostar Candidates in GGD 27 IRS. *Takuya Yamashita, Yasuhiro Murata, Ryohei Kawabe, Norio Kaifu, & Motohide Tamura.* 373, 560, 95-A1 (1991)

Alphanumeric: GL 618

Proto–Planetary Nebulae. II. The Shock-heated Bipolar Nebulae GL 618 and M2-56. *Robert W. Goodrich.* 376, 654, 134-D12 (1991)

Alphanumeric: HH 12

Near-Infrared Emission-Line Images of Three Herbig-Haro Objects. *Karl R. Stapelfeldt, Charles A. Beichman, J. Jeff Hester, Nicholas Z. Scoville, & Thomas N. Gautier III.* 371, 226, 63-A1 (1991)

Alphanumeric: HH 34

Near-Infrared Emission-Line Images of Three Herbig-Haro Objects. *Karl R. Stapelfeldt, Charles A. Beichman, J. Jeff Hester, Nicholas Z. Scoville, & Thomas N. Gautier III.* 371, 226, 63-A1 (1991)

Alphanumeric: HH 7–11

Near-Infrared Emission-Line Images of Three Herbig-Haro Objects. *Karl R. Stapelfeldt, Charles A. Beichman, J. Jeff Hester, Nicholas Z. Scoville, & Thomas N. Gautier III.* 371, 226, 63-A1 (1991)

Alphanumeric: IC 443

H_2CO in IC 443G: Unusual Excitation and a Diagnostic of Shock Astrochemistry. *B. E. Turner & D. A. Lubowich.* 381, 173, 191-B9 (1991)

Forbidden Iron Emission on the North Rim of IC 443. *Richard G. Teske.* 383, 233, 215-A1 (1991)

Alphanumeric: IC 446

Emission from Dust in Visual Reflection Nebulae at Infrared and Submillimeter Wavelengths. *Sean C. Casey.* 371, 183, 62-D1 (1991)

Alphanumeric: IC 1396

A Search for Embedded Young Stellar Objects in and near the IC 1396 Complex. *Richard D. Schwartz, Armen L. Gyulbudaghian, & Bruce A. Wilking.* 370, 263, 50-D9 (1991)

Alphanumeric: IRAS 22272+5435

The Carbon-rich Proto–Planetary Nebula IRAS 22272+5435. *Bruce J. Hrivnak & Sun Kwok.* 371, 631, 69-D6 (1991)

Alphanumeric: K3-50

Far-Infrared Lines from G45.13+0.14 A and K3-50 A: Density Fluctuations in Compact H II Regions. *Sean W. J. Colgan, J. P. Simpson, Robert H. Rubin, Edwin F. Erickson, M. R. Haas, & Jürgen Wolf.* 366, 172, 3-B13 (1991)

Alphanumeric: L134 (Lynds 134)

IRAS Detection of Very Cold Dust in the Lynds 134 Cloud Complex. *R. J. Laureijs, F. O. Clark, & T. Prusti.* 372, 185, 76-C4 (1991)

Alphanumeric: L1221 (Lynds 1221)

U-shaped Outflow in the Lynds 1221 Dark Cloud: An Example of Interaction of Outflows with Ambient Molecular Clouds. *Tomofumi Umemoto, Naomi Hirano, Osamu Kameya, Yasuo Fukui, Nario Kuno, & Keiya Takakubo.* 377, 510, 146-A13 (1991)

Alphanumeric: L723 (Lynds 723)

A Double Radio Source at the Center of the Outflow in L723. *Guillem Anglada, Robert Estalella, Luis F. Rodríguez, José M. Torrelles, Rosario López, & Jorge Cantó.* 376, 615, 134-A7 (1991)

Molecular Observations of the L723 Region: Interaction between the Clumpy Outflow and the Gaseous Core? *Saeko S. Hayashi, Tetsuo Hasegawa, & Norio Kaifu.* 377, 492, 145-G5 (1991)

Alphanumeric: L1287 (Lynds 1287)

A Millimeter-Wave Line Study of L1287: A Case of Induced Star Formation by Stellar Wind Compression? *Ji Yang, Tomofumi Umemoto, Takahiro Iwata, & Yasuo Fukui.* 373, 137, 87-F7 (1991)

Alphanumeric: L1457 (Lynds 1457)

An X-Ray Pulsator in the Direction of Molecular Cloud MBM 12 (Lynds 1457). *K. Koyama, S. Takano, Y. Tawara, T. Matsumoto, K. Noguchi, Y. Fukui, T. Iwata, N. Ohashi, K. Tatematsu, N. Takahashi, T. Umemoto, K. W. Hodapp, J. Rayner, & K. Makishima.* 377, 240, 141-A1 (1991)

Alphanumeric: L1489 (Lynds 1489)

Two Micron Morphology of Candidate Protostars. *Motohide Tamura, Ian Gatley, William Waller, & Michael W. Werner.* 374, L25, 103-E7 (1991)

Alphanumeric: L1536 (Lynds 1536)

Two Micron Morphology of Candidate Protostars. *Motohide Tamura, Ian Gatley, William Waller, & Michael W. Werner.* 374, L25, 103-E7 (1991)

Alphanumeric: L1551 (Lynds 1551)

Two Micron Morphology of Candidate Protostars. *Motohide Tamura, Ian Gatley, William Waller, & Michael W. Werner.* 374, L25, 103-E7 (1991)

Testing Models of Low-Mass Star Formation: High-Resolution Far-Infrared Observations of L1551 IRS 5. *Harold M. Butner, Neal J. Evans II, Daniel F. Lester, Russell M. Levreault, & Stephen E. Strom.* 376, 636, 134-C6 (1991)

Two New Molecular Outflows in L1551? *Marc W. Pound & John Bally.* 383, 705, 223-A7 (1991)

Alphanumeric: L1551 IRS 5 (Lynds 1551 IRS 5)

A Second Outflow from L1551/IRS 5? *G. H. Moriarty-Schieven & P. G. Wannier.* 373, L23, 91-C8 (1991)

Alphanumeric: L1563 (Lynds 1563)

Dust and Molecular Properties of the Low-Opacity Cloud Lynds 1563. *Frank O. Clark, R. J. Laureijs, & Lauri L. Wardell.* 370, 237, 50-B7 (1991)

Alphanumeric: L1630 (Lynds 1630)

An Unbiased Survey for Dense Cores in the Lynds 1630 Molecular Cloud. *Elizabeth A. Lada, John Bally, & Antony A. Stark.* 368, 432, 30-D9 (1991)

A 2.2 Micron Survey in the L1630 Molecular Cloud. *Elizabeth A. Lada, D. L. DePoy, Neal J. Evans II, & Ian Gatley.* 371, 171, 62-C1 (1991)

Alphanumeric: L1641 (Lynds 1641)

Molecular Outflows in the L1641 Region of Orion. *James A. Morgan & John Bally.* 372, 505, 82-B1 (1991)

Molecular Outflows Associated with Young Stellar Objects in the L1641 Region of Orion. *James A. Morgan, F. Peter Schloerb, Ronald L. Snell, & John Bally.* 376, 618, 134-A12 (1991)

Alphanumeric: LMC N132D

The Young Supernova Remnants N132D and 1E 0102.2−7219: Limits on the Presence of Rapidly Moving Sulfur. *Barry M. Lasker & David A. Golimowski.* 371, 568, 68-E8 (1991)

Alphanumeric: M1-91

Proto–Planetary Nebulae. I. The Extreme Bipolar Nebulae M2-9 and M1-91. *Robert W. Goodrich.* 366, 163, 3-B1 (1991)

Alphanumeric: M1-92

OH Emission and the Nature of Minkowski's Footprint (M1-92). *E. R. Seaquist, René Plume, & L. E. Davis.* 367, 200, 14-E5 (1991)

Alphanumeric: M2-9

Proto–Planetary Nebulae. I. The Extreme Bipolar Nebulae M2-9 and M1-91. *Robert W. Goodrich.* 366, 163, 3-B1 (1991)

Alphanumeric: M2-19

Two Planetary Nebulae in the Direction of the Galactic Center. *A. Gutiérrez-Moreno, H. Moreno, & G. Cortés.* 383, 174, 214-C1 (1991)

Alphanumeric: M2-56

Proto–Planetary Nebulae. II. The Shock-heated Bipolar Nebulae GL 618 and M2-56. *Robert W. Goodrich.* 376, 654, 134-D12 (1991)

Alphanumeric: M3-44

Two Planetary Nebulae in the Direction of the Galactic Center. *A. Gutiérrez-Moreno, H. Moreno, & G. Cortés.* 383, 174, 214-C1 (1991)

Alphanumeric: SN 1987A

Supernova Remnant 1987A. *Ding Luo & Richard McCray.* 372, 194, 76-D1 (1991)

The Circumstellar Shell of SN 1987A. *Ding Luo & Richard McCray.* 379, 659, 172-G9 (1991)

Alphanumeric: TMC-1

Detection of a New Carbon-Chain Molecule, CCO. *Masatoshi Ohishi, Hiroko Suzuki, Shin-ichi Ishikawa, Chikashi Yamada, Hideto Kanamori, William M. Irvine, Ronald D. Brown, Peter D. Godfrey, & Norio Kaifu.* 380, L39, 181-E11 (1991)

Alphanumeric: W3

Parsec-Scale Penetration of Ultraviolet Photons into Molecular Clouds: [C II] 158 Micron Mapping of W3, NGC 1977, and NGC 2023. *J. E. Howe, D. T. Jaffe, R. Genzel, & G. J. Stacey.* 373, 158, 88-A5 (1991)

Alphanumeric: W28

W28 and 3C 400.2: Two Shell-like Radio Supernova Remnants with Centrally Peaked X-Ray Morphologies. *Knox S. Long, William P. Blair, Richard L. White, & Yutaka Matsui.* 373, 567, 95-A10 (1991)

Alphanumeric: W49

A Simulation of the Collapse and Fragmentation of Cooling Molecular Clouds. *Joe J. Monaghan & John C. Lattanzio.* 375, 177, 113-C1 (1991)

Gravitational Fragmentation: A Comparison with W49A. *Eric R. Keto, John C. Lattanzio, & Joe J. Monaghan.* 383, 639, 222-B12 (1991)

Alphanumeric: W51

Pumping the Interstellar (6,3) Ammonia Maser. *Ronald D. Brown & Dinah M. Cragg.* 378, 445, 156-D10 (1991)

NEBULAE: INTERNAL MOTIONS

Proto–Planetary Nebulae. I. The Extreme Bipolar Nebulae M2-9 and M1-91. *Robert W. Goodrich.* 366, 163, 3-B1 (1991)

A Spectroscopic Study of the DR 21 Outflow Source. II. The Vibrational H_2 Line Emission. *R. P. Garden, T. R. Geballe, I. Gatley, & D. Nadeau.* 366, 474, 8-G1 (1991)

A Detailed Optical Study of Kepler's Supernova Remnant. *William P. Blair, Knox S. Long, & Olaf Vancura.* 366, 484, 9-A1 (1991)

Superbubble Blowout in the Giant H II Region NGC 2363? *Jean-René Roy, J. Boulesteix, Gilles Joncas, & B. Grundseth.* 367, 141, 13-F8 (1991)

OH Emission and the Nature of Minkowski's Footprint (M1-92). *E. R. Seaquist, René Plume, & L. E. Davis.* 367, 200, 14-E5 (1991)

The Structure and Kinematics of Bipolar Outflows: Observations and Models of the Monoceros R2 Outflow. *Barry A. Meyers-Rice & Charles J. Lada.* 368, 445, 30-E10 (1991)

Star Formation and the Nature of Bipolar Outflows. *Frank H. Shu, Steven P. Ruden, Charles J. Lada, & Susana Lizano.* 370, L31, 53-E1 (1991)

The Spectral Signatures of Collapse and Outflow around Young Stars. *E. R. Keto.* 371, 163, 62-B3 (1991)

Episodic Outflows from High-Mass Protostars. *G. F. Mitchell, J.-P. Maillard, & T. I. Hasegawa.* 371, 342, 64-D1 (1991)

The Dynamics and Physical Properties of the Cometary Nebula G29.96−0.02. *Douglas O. S. Wood & Ed Churchwell.* 372, 199, 76-D8 (1991)

Molecular Outflows in the L1641 Region of Orion. *James A. Morgan & John Bally.* 372, 505, 82-B1 (1991)

CS Multitransitional Studies of Density Distribution in Star-forming Regions. I. The NGC 2071 Region. *Shudong Zhou, Neal J. Evans II, Rolf Güsten, Lee G. Mundy, & Marc L. Kutner.* 372, 518, 82-C1 (1991)

Dynamical Evolution and Molecular Abundances of Interstellar Clouds. *Sheo S. Prasad, Karen R. Heere, & Shankar P. Tarafdar.* 373, 123, 87-E5 (1991)

A Second Outflow from L1551/IRS 5? *G. H. Moriarty-Schieven & P. G. Wannier.* 373, L23, 91-C8 (1991)

W28 and 3C 400.2: Two Shell-like Radio Supernova Remnants with Centrally Peaked X-Ray Morphologies. *Knox S. Long, William P. Blair, Richard L. White, & Yutaka Matsui.* 373, 567, 95-A10 (1991)

Observations of HCO^+ in B335. *Tatsuhiko I. Hasegawa, C. Rogers, & Saeko Suzuki Hayashi.* 374, 177, 100-C1 (1991)

Changes in the Optical Remnant of Kepler's Supernova during the Period 1942–1989. *Rino Bandiera & Sidney van den Bergh.* 374, 186, 100-C11 (1991)

A Spectroscopic Study of the DR 21 Outflow Source. III. The CO Line Emission. *R. P. Garden, M. Hayashi, I. Gatley, T. Hasegawa, & N. Kaifu.* 374, 540, 105-G11 (1991)

Spectroscopic Study of Direct and Dust-scattered Line Emission in the HH 1–HH 2 System. *J. Solf & K.-H. Böhm.* 375, 618, 120-D3 (1991)

The Smoothness of CO Line Profiles in Orion: Implications for Clumpiness. *Jan A. Tauber, Paul F. Goldsmith, & Robert L. Dickman.* 375, 635, 120-E7 (1991)

Six Balmer-dominated Supernova Remnants. *R. Chris Smith, Robert P. Kirshner, William P. Blair, & P. Frank Winkler.* 375, 652, 120-G1 (1991)

Anatomy of the Barnard 5 Core. *G. A. Fuller, P. C. Myers, W. J. Welch, P. F. Goldsmith, W. D. Langer, B. G. Campbell, S. Guilloteau, & R. W. Wilson.* 376, 135, 126-E10 (1991)

The Multiple-Shell Structure of the Planetary Nebula NGC 6751. *You-Hua Chu, Arturo Manchado, George H. Jacoby, & Karen B. Kwitter.* 376, 150, 126-F13 (1991)

Molecular Observations of the L723 Region: Interaction between the Clumpy Outflow and the Gaseous Core? *Saeko S. Hayashi, Tetsuo Hasegawa, & Norio Kaifu.* 377, 492, 145-G5 (1991)

U-shaped Outflow in the Lynds 1221 Dark Cloud: An Example of Interaction of Outflows with Ambient Molecular Clouds. *Tomofumi Umemoto, Naomi Hirano, Osamu Kameya, Yasuo Fukui, Nario Kuno, & Keiya Takakubo.* 377, 510, 146-A13 (1991)

Kinematical Models of Maser Shells Formed by Aspherical Stellar Outflows (U Orionis; OH 231.8+4.2; Orion-IRc2). *P. F. Bowers.* 76, 1099, 40-G9 (1991)

The Velocity Dispersion of Giant Molecular Clouds. II. Mathematical and Numerical Refinements. *Charles F. Gammie, Jeremiah P. Ostriker, & Chanda J. Jog.* 378, 565, 159-D5 (1991)

SiS in Outflow Regions: More High-Temperature Silicon Chemistry. *L. M. Ziurys.* 379, 260, 166-C7 (1991)

CO J = 3–2 and J = 2–1 Observations of NGC 7027. *P. A. Jaminet, W. C. Danchi, E. C. Sutton, A. P. G. Russell, Göran Sandell, J. H. Bieging, & D. Wilner.* 380, 461, 184-A4 (1991)

X Marks the Spot: Distribution and Excitation of Unidentified Molecules in the Red Rectangle. *Gary D. Schmidt & Adolf N. Witt.* 383, 698, 222-G12 (1991)

Two New Molecular Outflows in L1551? *Marc W. Pound & John Bally.* 383, 705, 223-A7 (1991)

NEBULAE: ORION NEBULA

Water Vapor in the Orion Molecular Cloud. *R. F. Knacke & H. P. Larson.* 367, 162, 14-A10 (1991)

Fossil DCN in Orion-KL. *Jeffrey G. Mangum, Richard L. Plambeck, & Alwyn Wootten.* 369, 169, 38-A11 (1991)

Ionization Fronts and Shocked Flows: The Structure of the Orion Nebula at 0.1″. *J. Jeff Hester, R. Gilmozzi, C. R. O'Dell, S. M. Faber, Bel Campbell, Arthur Code, Douglas G. Currie, G. Edward Danielson, S. P. Ewald, Edward J. Groth, Jon A. Holtzman, T. Kelsall, Tod R. Lauer, Robert M. Light, Roger Lynds, Earl J. O'Neil, Jr., Edward J. Shaya, & James A. Westphal.* 369, L75, 46-C7 (1991)

Polarimetric Mapping of Orion Using MILLIPOL: Magnetic Activity in BN/KL. *Robert W. Leach, Dan P. Clemens, Brian D. Kane, & Richard Barvainis.* 370, 257, 50-D1 (1991)

N_2H^+ in Orion: Chemical Clues to the Dynamics of the Quiescent Gas. *M. Womack, L. M. Ziurys, & S. Wyckoff.* 370, L99, 59-F1 (1991)

Detection of Low-J Pure-Rotational Emission from H_2 in the Orion Bar Region: Evidence for Small-Scale Clumpiness. *Parvinder S. Parmar, John H. Lacy, & Jeffrey M. Achtermann.* 372, L25, 79-D1 (1991)

Observations of [Si II] (35 Micron) and [S I] (25 Micron) in Orion: Evidence for a Wind Shock near IRc2. *Michael R. Haas, David Hollenbach, & Edwin F. Erickson.* 374, 555, 106-B1 (1991)

Axisymmetric Model of the Ionized Gas in the Orion Nebula. *R. H. Rubin, J. P. Simpson, M. R. Haas, & E. F. Erickson.* 374, 564, 106-B12 (1991)

Physical Conditions in the Orion Nebula and an Assessment of Its Helium Abundance. *Jack A. Baldwin, Gary J. Ferland, P. G. Martin, Michael R. Corbin, Stephen A. Cota, Bradley M. Peterson, & Arne Slettebak.* 374, 580, 106-D1 (1991)

A Molecular Line Survey of Sagittarius B2 and Orion–KL from 70 to 115 GHz. II. Analysis of the Data. *B. E. Turner.* 76, 617, 33-D1 (1991)

Molecular Hydrogen Polarization Images of OMC-1. *Michael G. Burton, N. R. Minchin, J. H. Hough, C. Aspin, D. J. Axon, & J. A. Bailey.* 375, 611, 120-C9 (1991)

The Optical Depth of the 158 Micron [^{12}C II] Line: Detection of the $F = 1 \rightarrow 0$ [^{13}C II] Hyperfine-Structure Component. *G. J. Stacey, C. H. Townes, A. Poglitsch, S. C. Madden, J. M. Jackson, F. Herrmann, R. Genzel, & N. Geis.* 382, L37, 205-E1 (1991)

NEBULAE: PLANETARY

Proto–Planetary Nebulae. I. The Extreme Bipolar Nebulae M2-9 and M1-91. *Robert W. Goodrich.* 366, 163, 3-B1 (1991)

Photoionization Modeling of Magellanic Cloud Planetary Nebulae. I. *M. A. Dopita & S. J. Meatheringham.* 367, 115, 13-D6 (1991)

NGC 6302: Ionized by a Very Hot Star or by a Wind? *N. J. Lame & G. J. Ferland.* 367, 208, 14-F1 (1991)

Emission Features in the Spectrum of NGC 7027 near 3.3 Microns at Very High Resolution. *R. P. Lowe, J. M. Moorhead, W. H. Wehlau, & J.-P. Maillard.* 368, 195, 25-E1 (1991)

The Dynamic Instability of Adiabatic Blast Waves. *Dongsu Ryu & Ethan T. Vishniac.* 368, 411, 30-B12 (1991)

Near-Infrared Spectroscopy of the Planetary Nebula NGC 6572. *Richard J. Rudy, George S. Rossano, Peter Erwin, & R. C. Puetter.* 368, 468, 30-G13 (1991)

Relative Populations for Levels in the $3d^2$ Ground Configuration of Fe VII. *F. P. Keenan & P. H. Norrington.* 368, 486, 31-B7 (1991)

Optical Spectroscopy of Magellanic Cloud Planetary Nebulae. I. *Stephen J. Meatheringham & Michael A. Dopita.* 75, 407, 6-C9 (1991)

The Infrared Properties of Compact Galactic Radio Sources: The Young and the Restless. *Richard L. White, Robert H. Becker, & David J. Helfand.* 371, 148, 62-A1 (1991)

The Ionization Structure of Planetary Nebulae. X. NGC 2392. *Timothy Barker.* 371, 217, 62-G5 (1991)

Echelle Spectroscopy of CD −41° 13967: The Young Central Star of a New Planetary Nebula. *James K. McCarthy, R. Michael Rich, S. R. Becker, K. Butler, D. Husfeld, & H. G. Groth.* 371, 380, 64-G1 (1991)

The Carbon-rich Proto–Planetary Nebula IRAS 22272+5435. *Bruce J. Hrivnak & Sun Kwok.* 371, 631, 69-D6 (1991)

Ne V in Planetary Nebulae. *F. P. Keenan, V. M. Burke, & K. M. Aggarwal.* 371, 636, 69-D13 (1991)

Nitrogen Abundances in Carbon-rich Stars That Are Progenitors to Planetary Nebulae. *M. Jura.* 372, 208, 76-E7 (1991)

Central Star Temperatures of Low-Excitation Planetary Nebulae. *James B. Kaler & George H. Jacoby.* 372, 215, 76-F1 (1991)

Ultraviolet High-Excitation Fe II Fluorescence Lines Excited by O VI, C IV, and H I Resonance Emission As Seen in *IUE* Spectra. *Walter A. Feibelman, Frederick C. Bruhweiler, & Sveneric Johansson.* 373, 649, 96-A8 (1991)

Spatial Studies of Planetary Nebulae with *IRAS*. *G. W. Hawkins & B. Zuckerman.* 374, 227, 100-G11 (1991)

LMC SMP 64: The Youngest Planetary Nebula? *M. A. Dopita & S. J. Meatheringham.* 374, L21, 103-E1 (1991)

Chemical Abundances in Planetary Nebulae: Basic Data and Correlations between Elements. *M. Perinotto.* 76, 687, 34-C9 (1991)

Near-Infrared Emission of Neutral Carbon from Photon-dominated Regions. *V. Escalante, A. Sternberg, & A. Dalgarno.* 375, 630, 120-E1 (1991)

The Multiple-Shell Structure of the Planetary Nebula NGC 6751. *You-Hua Chu, Arturo Manchado, George H. Jacoby, & Karen B. Kwitter.* 376, 150, 126-F13 (1991)

The Spectrum of NGC 7027 from 3080 to 2630 Wavenumbers (3.25–3.80 Microns): Detection of New Atomic and Molecular Hydrogen Lines and New Constraints on the Chemical Sidegroups on Polycyclic Aromatic Hydrocarbons. *Scott A. Sandford.* 376, 599, 133-G1 (1991)

Proto–Planetary Nebulae. II. The Shock-heated Bipolar Nebulae GL 618 and M2-56. *Robert W. Goodrich.* 376, 654, 134-D12 (1991)

Neutral Oxygen in Planetary Nebulae: Probing Radiative Transfer and Nebular Structure. *Michael G. Richer, Marshall L. McCall, & Peter G. Martin.* 377, 210, 140-E1 (1991)

Ultraviolet Fe VII Absorption and Fe II Emission Lines of Central Stars of Planetary Nebulae. *Kwang-Ping Cheng, Walter A. Feibelman, & Frederick C. Bruhweiler.* 377, 235, 140-G7 (1991)

Photoionization Modeling of Magellanic Cloud Planetary Nebulae. II. *M. A. Dopita & S. J. Meatheringham.* 377, 480, 145-F6 (1991)

Optical Spectroscopy of Magellanic Cloud Planetary Nebulae. II. *Stephen J. Meatheringham & Michael A. Dopita.* 76, 1085, 40-F7 (1991)

High-Resolution Radio Continuum Observations of Compact Planetary Nebulae. *O. B. Aaquist & Sun Kwok.* 378, 599, 159-G1 (1991)

A Grain-heated, Dusty Planetary Nebula in M22. *Kazimierz J. Borkowski & J. Patrick Harrington.* 379, 168, 165-B1 (1991)

The Molecular Envelope of NGC 7027. *John H. Bieging, David Wilner, & Harley A. Thronson, Jr.* 379, 271, 166-D9 (1991)

The 0.46–1.3 Micron Spectrum of the Planetary Nebula BD +30°3639. *Richard J. Rudy, Ross D. Cohen, George S. Rossano, Peter Erwin, R. C. Puetter, & David K. Lynch.* 380, 151, 178-A1 (1991)

CO $J = 3$–2 and $J = 2$–1 Observations of NGC 7027. *P. A. Jaminet, W. C. Danchi, E. C. Sutton, A. P. G. Russell, Göran Sandell, J. H. Bieging, & D. Wilner.* 380, 461, 184-A4 (1991)

Core Masses and Abundances of Low-Excitation Planetary Nebulae in the Magellanic Clouds. *James B. Kaler & George H. Jacoby.* 382, 134, 201-G7 (1991)

Deep VLA Images of Globular Clusters. *Helen M. Johnston, Shrinivas R. Kulkarni, & W. M. Goss.* 382, L89, 211-D11 (1991)

Two Planetary Nebulae in the Direction of the Galactic Center. *A. Gutiérrez-Moreno, H. Moreno, & G. Cortés.* 383, 174, 214-C1 (1991)

Planetary Nebulae as Standard Candles. VII. A Test versus Hubble Type in the NGC 1023 Group. *Robin Ciardullo, George H. Jacoby, & William E. Harris.* 383, 487, 220-D1 (1991)

About the Stage of Evolution of Wolf-Rayet Stars. *Anne B. Underhill.* 383, 729, 223-C6 (1991)

NEBULAE: REFLECTION

IRAS 23545+6508, a Dissociating Star: Prototype for a New Observational Class? *P. E. Dewdney, R. S. Roger, C. R. Purton, & W. H. McCutcheon.* 370, 243, 50-C1 (1991)

Emission from Dust in Visual Reflection Nebulae at Infrared and Submillimeter Wavelengths. *Sean C. Casey.* 371, 183, 62-D1 (1991)

Two Micron Morphology of Candidate Protostars. *Motohide Tamura, Ian Gatley, William Waller, & Michael W. Werner.* 374, L25, 103-E7 (1991)

Infrared Polarization Images of Star-forming Regions. I. The Ubiquity of Bipolar Structure. *M. Tamura, Ian Gatley, R. R. Joyce, M. Ueno, H. Suto, & M. Sekiguchi.* 378, 611, 160-A1 (1991)

X Marks the Spot: Distribution and Excitation of Unidentified Molecules in the Red Rectangle. *Gary D. Schmidt & Adolf N. Witt.* 383, 698, 222-G12 (1991)

NEBULAE: STRUCTURE

Proto–Planetary Nebulae. I. The Extreme Bipolar Nebulae M2-9 and M1-91. *Robert W. Goodrich.* 366, 163, 3-B1 (1991)

Far-Infrared Observations and the Structure of Wolf-Rayet Ring Nebulae. *A. P. Marston.* 366, 181, 3-C9 (1991)

Faraday Rotation and Physical Conditions in the Crab Nebula. *M. F. Bietenholz & P. P. Kronberg.* 368, 231, 26-A1 (1991)

An Unbiased Survey for Dense Cores in the Lynds 1630 Molecular Cloud. *Elizabeth A. Lada, John Bally, & Antony A. Stark.* 368, 432, 30-D9 (1991)

Observations of ^{12}CO and ^{13}CO $J = 9$–8 in Galactic Molecular Clouds. *R. T. Boreiko & A. L. Betz.* 369, 382, 42-E1 (1991)

Ionization Fronts and Shocked Flows: The Structure of the Orion Nebula at 0.1″. *J. Jeff Hester, R. Gilmozzi, C. R. O'Dell, S. M. Faber, Bel Campbell, Arthur Code, Douglas G. Currie, G. Edward Danielson, S. P. Ewald, Edward J. Groth, Jon A. Holtzman, T. Kelsall, Tod R. Lauer, Robert M. Light, Roger Lynds, Earl J. O'Neil, Jr., Edward J. Shaya, & James A. Westphal.* 369, L75, 46-C7 (1991)

An X-Ray Image of the Violent Interstellar Medium in 30 Doradus. *Q. Wang & D. J. Helfand.* 370, 541, 55-B9 (1991)

Narrow-Band Imaging of the Inner R Aquarii Nebula: Further Evidence for Shock Excitation. *Denis Burgarella & Francesco Paresce.* 370, 590, 55-G1 (1991)

New Clues to the Cassiopeia A Supernova Progenitor. *Robert A. Fesen & Robert H. Becker.* 371, 621, 69-C4 (1991)

CS Multitransitional Studies of Density Distribution in Star-forming Regions. I. The NGC 2071 Region. *Shudong Zhou, Neal J. Evans II, Rolf Güsten, Lee G. Mundy, & Marc L. Kutner.* 372, 518, 82-C1 (1991)

Dynamical Evolution and Molecular Abundances of Interstellar Clouds. *Sheo S. Prasad, Karen R. Heere, & Shankar P. Tarafdar.* 373, 123, 87-E5 (1991)

Probing the Core of Cepheus A: Millimeter and Submillimeter Observations. *G. H. Moriarty-Schieven, R. L. Snell, & V. A. Hughes.* 374, 169, 100-B3 (1991)

Observations of HCO^+ in B335. *Tatsuhiko I. Hasegawa, C. Rogers, & Saeko Suzuki Hayashi.* 374, 177, 100-C1 (1991)

A New Look at the "Jet" in the CTB 37A/B Supernova Remnant Complex. *Namir E. Kassim, Stefi A. Baum, & Kurt W. Weiler.* 374, 212, 100-F9 (1991)

Axisymmetric Model of the Ionized Gas in the Orion Nebula. *R. H. Rubin, J. P. Simpson, M. R. Haas, & E. F. Erickson.* 374, 564, 106-B12 (1991)

A Simulation of the Collapse and Fragmentation of Cooling Molecular Clouds. *Joe J. Monaghan & John C. Lattanzio.* 375, 177, 113-C1 (1991)

Spectroscopic Study of Direct and Dust-scattered Line Emission in the HH 1–HH 2 System. *J. Solf & K.-H. Böhm.* 375, 618, 120-D3 (1991)

Anatomy of the Barnard 5 Core. *G. A. Fuller, P. C. Myers, W. J. Welch, P. F. Goldsmith, W. D. Langer, B. G. Campbell, S. Guilloteau, & R. W. Wilson.* 376, 135, 126-E10 (1991)

The Multiple-Shell Structure of the Planetary Nebula NGC 6751. *You-Hua Chu, Arturo Manchado, George H. Jacoby, & Karen B. Kwitter.* 376, 150, 126-F13 (1991)

Dense Cores in Dark Clouds. VI. Shapes. *P. C. Myers, G. A. Fuller, A. A. Goodman, & P. J. Benson.* 376, 561, 133-D1 (1991)

Neutral Oxygen in Planetary Nebulae: Probing Radiative Transfer and Nebular Structure. *Michael G. Richer, Marshall L. McCall, & Peter G. Martin.* 377, 210, 140-E1 (1991)

Ultraviolet and Optical Spectroscopy of the R Aquarii Symmetrical Jet. *J. M. Hollis, R. J. Oliversen, M. Kafatos, A. G. Michalitsianos, & R. M. Wagner.* 377, 227, 140-F11 (1991)

The Edges of Molecular Clouds: Fractal Boundaries and Density Structure. *E. Falgarone, T. G. Phillips, & C. K. Walker.* 378, 186, 153-C8 (1991)

High-Resolution Radio Continuum Observations of Compact Planetary Nebulae. *O. B. Aaquist & Sun Kwok.* 378, 599, 159-G1 (1991)

Infrared Polarization Images of Star-forming Regions. I. The Ubiquity of Bipolar Structure. *M. Tamura, Ian Gatley, R. R. Joyce, M. Ueno, H. Suto, & M. Sekiguchi.* 378, 611, 160-A1 (1991)

The Collimation of a Time-dependent Stellar Wind. *S.-H. Kim & A. C. Raga.* 379, 689, 173-C4 (1991)

Radial Dust Density Profiles in Small Molecular Clouds. *João Lin Yun & Dan P. Clemens.* 381, 474, 196-E7 (1991)

A Study of ^{13}CO Cloud Cores in Ophiuchus. *S. Nozawa, A. Mizuno, Y. Teshima, H. Ogawa, & Y. Fukui.* 77, 647, 53-E6 (1991)

NEBULAE: SUPERNOVA REMNANTS

A Detailed Optical Study of Kepler's Supernova Remnant. *William P. Blair, Knox S. Long, & Olaf Vancura.* 366, 484, 9-A1 (1991)

The Proper Motion of the Soft X-Ray–emitting Radio Pulsar PSR 0656+14. *R. J. Thompson, Jr., F. A. Córdova, R. M. Hjellming, & E. B. Fomalont.* 366, L83, 11-E1 (1991)

Simulations of the Supernova-dominated Interstellar Medium in Disk Galaxies. *Denis F. Cioffi & J. Michael Shull.* 367, 96, 13-B13 (1991)

An Infrared Analysis of Puppis A. *Richard G. Arendt, Eli Dwek, & Robert Petre.* 368, 474, 31-A7 (1991)

Magnetic Focusing of Precessing Jets. *Christopher S. Kochanek.* 371, 289, 63-F7 (1991)

The Young Supernova Remnants N132D and 1E 0102.2−7219: Limits on the Presence of Rapidly Moving Sulfur. *Barry M. Lasker & David A. Golimowski.* 371, 568, 68-E8 (1991)

New Clues to the Cassiopeia A Supernova Progenitor. *Robert A. Fesen & Robert H. Becker.* 371, 621, 69-C4 (1991)

Supernova Remnant 1987A. *Ding Luo & Richard McCray.* 372, 194, 76-D1 (1991)

Spectra of Two Very Old Supernovae: SN 1986J and SN 1980K. *Bruno Leibundgut, Robert P. Kirshner, Philip A. Pinto, Michael P. Rupen, R. Chris Smith, James E. Gunn, & Donald P. Schneider.* 372, 531, 82-D1 (1991)

Discovery of a Young, 267 Millisecond Pulsar in the Supernova Remnant W44. *A. Wolszczan, J. M. Cordes, & R. J. Dewey.* 372, L99, 85-F1 (1991)

Relativistic Electron Populations in Cassiopeia A. *M. Anderson, L. Rudnick, P. Leppik, R. Perley, & R. Braun.* 373, 146, 87-G4 (1991)

The Detection of X-Ray Emission from the OB Associations of the Large Magellanic Cloud. *Q. Wang & D. J. Helfand.* 373, 497, 94-B7 (1991)

Supernova Remnant Evolution in an Interstellar Medium with Evaporating Clouds. *Richard L. White & Knox S. Long.* 373, 543, 94-F7 (1991)

W28 and 3C 400.2: Two Shell-like Radio Supernova Remnants with Centrally Peaked X-Ray Morphologies. *Knox S. Long, William P. Blair, Richard L. White, & Yutaka Matsui.* 373, 567, 95-A10 (1991)

The Expansion of the Crab Nebula. *M. F. Bietenholz, P. P. Kronberg, D. E. Hogg, & A. S. Wilson.* 373, L59, 97-D5 (1991)

Changes in the Optical Remnant of Kepler's Supernova during the Period 1942–1989. *Rino Bandiera & Sidney van den Bergh.* 374, 186, 100-C11 (1991)

Far-Ultraviolet Mapping of the Cygnus Loop with the *Voyager 2* Ultraviolet Spectrometer. *William P. Blair, Knox S. Long, Olaf Vancura, & J. B. Holberg.* 374, 202, 100-E5 (1991)

A New Look at the "Jet" in the CTB 37A/B Supernova Remnant Complex. *Namir E. Kassim, Stefi A. Baum, & Kurt W. Weiler.* 374, 212, 100-F9 (1991)

HEAO 1 A-2 Low-Energy Detector X-Ray Spectra of the Lupus Loop and SN 1006. *D. A. Leahy, J. Nousek, & A. J. S. Hamilton.* 374, 218, 100-G1 (1991)

Six Balmer-dominated Supernova Remnants. *R. Chris Smith, Robert P. Kirshner, William P. Blair, & P. Frank Winkler.* 375, 652, 120-G1 (1991)

Does the Vela Pulsar Have "Wisps"? *M. F. Bietenholz, D. A. Frail, & T. H. Hankins.* 376, L41, 137-C1 (1991)

A Statistical Study of the Correlation of Galactic Supernova Remnants and Spiral Arms. *Zongwei Li, J. Craig Wheeler, Frank N. Bash, & W. H. Jefferys.* 378, 93, 152-B9 (1991)

Cosmic-Ray Transport and Gamma-Ray Emission in Supernova Shells. *A. K. Harding, A. Mastichiadis, R. J. Protheroe, & A. P. Szabo.* 378, 163, 153-A9 (1991)

The O VII Soft X-Ray Spectrum and Its Application to Hot Plasmas in Astrophysics. *A. H. Gabriel, F. Bely-Dubau, P. Faucher, & L. W. Acton.* 378, 438, 156-D1 (1991)

Variable Interstellar Absorption toward HD 72127A. II. 1981–1988. *L. M. Hobbs, R. Ferlet, D. E. Welty, & G. Wallerstein.* 378, 586, 159-F1 (1991)

The Radio Recovery of SN 1970G in M101. *John J. Cowan, W. M. Goss, & R. A. Sramek.* 379, L49, 175-B5 (1991)

The 10 Year Radio Light Curves for SN 1979C. *Kurt W. Weiler, Schuyler D. Van Dyk, Nino Panagia, Richard A. Sramek, & Jennifer L. Discenna.* 380, 161, 178-B1 (1991)

A Survey of H I 21 Centimeter Emission Lines toward Supernova Remnants. *Bon-Chul Koo & Carl Heiles.* 382, 204, 202-F11 (1991)

Electron Acceleration in a Nonlinear Shock Model with Applications to Supernova Remnants. *Donald C. Ellison & Stephen P. Reynolds.* 382, 242, 203-C1 (1991)

Evidence for a Thermally Unstable Shock Wave in the Vela Supernova Remnant. *John C. Raymond, George Wallerstein, & Bruce Balick.* 383, 226, 214-G5 (1991)

Forbidden Iron Emission on the North Rim of IC 443. *Richard G. Teske.* 383, 233, 215-A1 (1991)

Magnetized Supernova Remnants with Cosmic Rays. *Katia M. Ferrière & Ellen G. Zweibel.* 383, 602, 221-F11 (1991)

Supernova Remnants in Dense Clouds. I. Blast-Wave Dynamics and X-Ray Irradiation. *B. T. Draine & D. T. Woods.* 383, 621, 222-A6 (1991)

A Kinematic and Proper-Motion Survey of the Cygnus Loop. *Peter Shull, Jr., & Hans Hippelein.* 383, 714, 223-B3 (1991)

NEUTRINOS

Hollow Galactic Halos of Fermionic Dark Matter. *John P. Ralston & Lesley L. Smith.* 367, 54, 12-F4 (1991)

Zero Central Density Solutions of the Anisotropic Jeans Equation and Neutrino Dark Matter. *Jes Madsen.* 367, 507, 19-F1 (1991)

Neutrino Oscillations and the Leptonic Charge of the Universe. *Martin J. Savage, Robert A. Malaney, & George M. Fuller.* 368, 1, 23-B1 (1991)

Window for the Dark Matter Solution to the Solar Neutrino Problem. *David Dearborn, Kim Griest, & Georg Raffelt.* 368, 626, 33-A1 (1991)

Solar-Cycle Modulation of Event Rates in the Chlorine Solar Neutrino Experiment. *John N. Bahcall & William H. Press.* 370, 730, 57-E1 (1991)

Numerical Solution of the General Relativistic Boltzmann Equation for Massive and Massless Particles. *Hugh Harleston & Katherine A. Holcomb.* 372, 225, 76-F13 (1991)

Oscillations of Rotating Neutron Stars. *Tod E. Strohmayer.* 372, 573, 82-G5 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

Voids in a Neutrino-dominated Universe. *Ning Zeng & Simon D. M. White.* 374, 1, 98-B1 (1991)

High-Temperature Neutrino-Nucleus Processes in Stellar Collapse. *George M. Fuller & Bradley S. Meyer.* 376, 701, 135-A12 (1991)

Does the Solar Interior Rotate Rigidly? *Andrew Gould.* 377, 707, 148-D7 (1991)

Neutrino Oscillations and Solar Models. *C.-X. Chen & M. L. Cherry.* 377, L105, 150-F5 (1991)

Neutrino-heated Stars and Broad-Line Emission from Active Galactic Nuclei. *James MacDonald, Todor Stanev, & Peter L. Biermann.* 378, 30, 151-D4 (1991)

A Critical Look at Cosmions. *Jean Kaplan, François Martin de Volnay, Charling Tao, & Sylvaine Turck-Chièze.* 378, 315, 154-G11 (1991)

Vacuum Ultraviolet Imagery of the Virgo Cluster Region. III. Diffuse Far-Ultraviolet Radiation at High Galactic Latitudes. *Takashi Onaka & Keiichi Kodaira.* 379, 532, 171-C5 (1991)

Search for High-Energy Neutrinos from Celestial Sources in the Kolar Gold Fields Experiment. *H. Adarkar, S. R. Dugad, Y. Hayashi, N. Ito, S. Kawakami, M. R. Krishnaswamy, M. G. K. Menon, S. Miyake, N. K. Mondal, T. Nakamura, V. S. Narasimham, B. V. Sreekantan, & K. Tanaka.* 380, 235, 179-A1 (1991)

Large Solar Flares: Analysis of the Events Recorded by the Mont Blanc Neutrino Detector. *M. Aglietta, G. Badino, G. Bologna, C. Castagnoli, A. Castellina, V. L. Dadykin, W. Fulgione, P. Galeotti, F. F. Kalchukov, I. V. Korolkova, P. V. Kortchaguin, V. A. Kudryavtsev, A. S. Malguin, L. Periale, V. G. Ryassny, O. G. Ryazhskaya, O. Saavedra, G. Trinchero, S. Vernetto, V. F. Yakushev, & G. T. Zatsepin.* 382, 344, 204-D9 (1991)

Signatures of Cosmic-Ray Interactions on the Solar Surface. *D. Seckel, Todor Stanev, & T. K. Gaisser.* 382, 652, 209-F8 (1991)

Spectral Signatures of the MeV–PeV Radiation from Accreting Neutron Stars. *B. Rudak & P. Mészáros.* 383, 269, 215-E3 (1991)

NUCLEAR REACTIONS

The *s*-Process Branchings at ^{185}W and ^{186}Re. *F. Käppeler, S. Jaag, Z. Y. Bao, & G. Reffo.* 366, 605, 10-E5 (1991)

s-Process Nucleosynthesis in Massive Stars and the Weak Component. I. Evolution and Neutron Captures in a 25 $M_{\odot}$ Star. *C. M. Raiteri, M. Busso, R. Gallino, G. Picchio, & L. Pulone.* 367, 228, 14-G13 (1991)

Cold Nuclear Fusion in Dense Metallic Hydrogen. *Charles J. Horowitz.* 367, 288, 15-E13 (1991)

^{57}Co and ^{44}Ti Production in SN 1987A. *S. E. Woosley & Robert D. Hoffman.* 368, L31, 35-B10 (1991)

Nuclear Reaction Rates in Dense Carbon-Oxygen Mixtures. *Shuji Ogata, Hiroshi Iyetomi, & Setsuo Ichimaru.* 372, 259, 77-B9 (1991)

Measurement of the Neutron Capture Rate of the ^{12}C(n,γ)^{13}C Reaction at Stellar Energy. *Y. Nagai, M. Igashira, K. Takeda, N. Mukai, S. Motoyama, F. Uesawa, H. Kitazawa, & T. Fukuda.* 372, 683, 84-B7 (1991)

Photoerosion and the Abundances of ^{7}Li, ^{9}Be, ^{10}B, and ^{11}B near Active Galactic Nuclei. *R. N. Boyd & H. S. Fencl.* 373, 84, 87-A13 (1991)

A New Site for the Astrophysical Gamma-Process. *W. Michael Howard, Bradley S. Meyer, & S. E. Woosley.* 373, L5, 91-B1 (1991)

Thermonuclear Reactions in Dense Stellar Matter: Electron Screening Revisited. *Setsuo Ichimaru & Shuji Ogata.* 374, 647, 107-B5 (1991)

Capture Cross Section Measurements of Krypton and Xenon Isotopes and the Fundamental Parameters of the *s*-Process. *Hermann Beer.* 375, 823, 122-G7 (1991)

Neutrino-Nucleus Interactions in Core-Collapse Supernovae. *Stephen W. Bruenn & W. C. Haxton.* 376, 678, 134-G1 (1991)

High-Temperature Neutrino-Nucleus Processes in Stellar Collapse. *George M. Fuller & Bradley S. Meyer.* 376, 701, 135-A12 (1991)

The ^{54}Mn Clock and Its Implications for Cosmic-Ray Propagation and Fe Isotope Studies. *J. E. Grove, B. T. Hayes, R. A. Mewaldt, & W. R. Webber.* 377, 680, 148-B3 (1991)

An Analytical Formulation of the Double-Pulse *s*-Process Model. *Hermann Beer.* 379, 409, 168-B1 (1991)

A Measurement of the ^{22}Ne(n,γ)^{23}Ne Capture Cross Section at a Stellar Temperature of kT = 25 keV. *Hermann Beer, G. Rupp, F. Voss, & F. Käppeler.* 379, 420, 168-C1 (1991)

On the Sodium Excess in the Atmospheres of Yellow Supergiants. *N. Prantzos, A. Coc, & J. P. Thibaud.* 379, 729, 173-G1 (1991)

Capture Rate of the ^{7}Li(n,γ)^{8}Li Reaction by Prompt Gamma-Ray Detection. *Y. Nagai, M. Igashira, N. Mukai, T. Ohsaki, F. Uesawa, K. Takeda, T. Ando, H. Kitazawa, S. Kubono, & T. Fukuda.* 381, 444, 196-C1 (1991)

Barrier Penetration at Astrophysical Energies. *N. Rowley & A. C. Merchant.* 381, 591, 198-B1 (1991)

NUCLEAR REACTIONS, NUCLEOSYNTHESIS, ABUNDANCES

The Fate of Accreted CNO Elements in Neutron Star Atmospheres: X-Ray Bursts and Gamma-Ray Lines. *Lars Bildsten, Edwin E. Salpeter, & Ira Wasserman.* 384, 143, 2-G1 (1992)

Abundances of the Heavy Elements in the Magellanic Clouds. III. Interpretation of Results. *Stephen C. Russell & Michael A. Dopita.* 384, 508, 8-D9 (1992)

The Energy Sources Powering the Late-Time Bolometric Evolution of SN 1987A. *Nicholas B. Suntzeff, M. M. Phillips, J. H. Elias, D. L. DePoy, & A. R. Walker.* 384, L33, 11-B6 (1992)

Thermal Evolution of Phases during the Cosmological Quark-Hadron Transition. *Michele Mariani & Silvio A. Bonometto.* 385, 393, 18-B5 (1992)

Possible Models for the Type Ia Supernova 1990N. *Toshikazu Shigeyama, Ken'ichi Nomoto, Hitoshi Yamaoka, & Friedrich-Karl Thielemann.* 386, L13, 29-C1 (1992)

The Evolution through H and He Burning of Galactic Cluster Stars. *Vittorio Castellani, Alessandro Chieffi, & Oscar Straniero.* 78, 517, 9-G11 (1992)

Evolution of Spiral Galaxies. I. Halo-Disk Connection for the Evolution of the Solar Neighborhood. *Federico Ferrini, Francesca Matteucci, Chiara Pardi, & Umberto Penco.* 387, 138, 38-F5 (1992)

A Measurement of the ^{14}C(n,γ)^{15}C Cross Section at a Stellar Temperature of kT = 23.3 keV. *Hermann Beer, M. Wiescher, F. Käppeler, J. Görres, & P. E. Koehler.* 387, 258, 40-B8 (1992)

s-Processing in Massive Stars as a Function of Metallicity and Interpretation of Observational Trends. *C. M. Raiteri, R. Gallino, & M. Busso.* 387, 263, 40-C1 (1992)

HEAO 3 Limits on the ^{44}Ti Yield in Galactic Supernovae. *W. A. Mahoney, J. C. Ling, W. A. Wheaton, & J. C. Higdon.* 387, 314, 40-G5 (1992)

Evolution of Beryllium Abundances in the Galactic Halo. *Sean G. Ryan, John E. Norris, M. S. Bessell, & Constantine P. Deliyannis.* 388, 184, 51-C6 (1992)

Cosmological Density of WIMPs from Solar and Terrestrial Annihilations. *Andrew Gould.* 388, 338, 54-E5 (1992)

CNO Destruction by Spallation and Type I X-Ray Bursts. *Jason C. Tillett & James MacDonald.* 388, 555, 57-B7 (1992)

Limits on a Possible Violation of the Strong Equivalence Principle from Primordial Nucleosynthesis. *A. Serna & R. Domínguez-Tenreiro.* 389, 1, 60-B1 (1992)

Possible Sources of the Population I Lithium Abundance and Light-Element Evolution. *Lawrence E. Brown.* 389, 251, 63-B1 (1992)

Dust and Gas Contributions to the Energy Output of SN 1987A on Day 1153. *E. Dwek, S. H. Moseley, W. Glaccum, J. R. Graham, R. F. Loewenstein, R. F. Silverberg, & R. K. Smith.* 389, L21, 66-C11 (1992)

Measurement of the ^{76}Se(n,γ) Capture Cross Section and Phenomenological *s*-Process Studies: The Weak Component. *Hermann Beer, G. Walter, & F. Käppeler.* 389, 784, 71-B1 (1992)

The Chemical Composition of Magellanic Cloud Cepheids and Nonvariable Supergiants. *R. Earle Luck & David L. Lambert.* 79, 303, 18-E3 (1992)

The Interstellar Deuterium-to-Hydrogen Ratio: A Reevaluation of Lyman Absorption-Line Measurements. *Peter R. McCullough.* 390, 213, 76-E10 (1992)

The Collapse of White Dwarfs to Neutron Stars. *S. E. Woosley & E. Baron.* 391, 228, 88-G1 (1992)

On the Calculation of Maxwellian-averaged Capture Cross Sections. *Hermann Beer, F. Voss, & R. R. Winters.* 80, 403, 27-G13 (1992)

Primordial Nucleosynthesis Bounds on the Brans-Dicke Theory. *A. Serna, R. Domínguez-Tenreiro, & G. Yepes.* 391, 433, 93-C4 (1992)

Evolution of Heavy-Element Abundances as a Constraint on Sites for Neutron-Capture Nucleosynthesis. *G. J. Mathews, G. Bazan, & J. J. Cowan.* 391, 719, 97-A1 (1992)

A Prediction of the γ-Ray Flux from Nova Herculis 1991. *Sumner Starrfield, Steven N. Shore, Warren M. Sparks, George Sonneborn, James W. Truran, & Michael Politano.* 391, L71, 99-E5 (1992)

On the Form of the 1987 Hydrogen Spectrum in the Outer Heliosphere. *J. P. L. Reinecke & H. Moraal.* 392, 272, 104-D1 (1992)

Origin of ^{180m}Ta and the Temperature of the *s*-Process. *Zs. Németh, F. Käppeler, & G. Reffo.* 392, 277, 104-D7 (1992)

The Fate of ^{7}Be in the Sun. *C. W. Johnson, E. Kolbe, S. E. Koonin, & K. Langanke.* 392, 320, 105-A1 (1992)

SiC Particles from Asymptotic Giant Branch Stars: Mg Burning and the *s*-Process. *Lawrence E. Brown & Donald D. Clayton.* 392, L79, 113-E1 (1992)

Minimum Mass for D and H Burning during Slow Accretion. *E. E. Salpeter.* 393, 258, 117-C12 (1992)

The Diffuse Gamma-Ray Background, Light Element Abundances, and Signatures of Early Massive Star Formation. *Joseph Silk & David N. Schramm.* 393, L9, 120-B7 (1992)

A Solvable Model of Fusion Rates in Dense Stars. *Magnus Jändel & Mikael Sahrling.* 393, 679, 124-C5 (1992)

Late Detonation Models for the Type Ia Supernovae SN 1991T and SN 1990N. *Hitoshi Yamaoka, Ken'ichi Nomoto, Toshikazu Shigeyama, & Friedrich-Karl Thielemann.* 393, L55, 127-C1 (1992)

On the Role of Radioactive Decays in Powering Gamma Rays and X-Rays from Novae. *Mario Livio, Apostolos Mastichiadis, Hakki Ögelman, & James W. Truran.* 394, 217, 130-F5 (1992)

Interstellar SiC with Unusual Isotopic Compositions: Grains from a Supernova? *Sachiko Amari, Peter Hoppe, Ernst Zinner, & Roy S. Lewis.* 394, L43, 139-C1 (1992)

The α-Process and the *r*-Process. *S. E. Woosley & Robert D. Hoffman.* 395, 202, 142-F7 (1992)

A Rapid Decline in the Optical Emission from SN 1957D in M83. *Knox S. Long, P. Frank Winkler, & William P. Blair.* 395, 632, 151-A5 (1992)

The Conductive Propagation of Nuclear Flames. I. Degenerate C + O and O + Ne + Mg White Dwarfs. *F. X. Timmes & S. E. Woosley.* 396, 649, 165-D9 (1992)

Some Remarks on Luminosity Distance and Nucleosynthesis in Higher Dimensional Cosmology. *S. Chatterjee.* 397, 1, 168-B1 (1992)

Diffuse 0.511 MeV Line Emission and the Distribution of Positron Annihilation in the Galaxy. *J. G. Skibo, R. Ramaty, & M. Leventhal.* 397, 135, 169-F3 (1992)

Pycnonuclear Triple-α Fusion Rates. *S. Schramm, K. Langanke, & S. E. Koonin.* 397, 579, 178-B12 (1992)

A Limit on the ^{57}Co Gamma-Ray Flux from SN 1987A. *S. Gunji, T. Kamae, S. Miyazaki, Y. Sekimoto, T. Takahashi, T. Tamura, M. Tanaka, N. Yamaoka, T. Yamagami, M. Nomachi, H. Murakami, J. Braga, & J. A. Neri.* 397, L83, 181-A8 (1992)

The Neutrino Process and ^{9}Be in the Early Universe. *R. A. Malaney.* 398, L45, 187-G1 (1992)

Nucleosynthesis and Mixing on the Asymptotic Giant Branch. I. MS and S Stars with and without Tc. *M. Busso, R. Gallino, D. L. Lambert, C. M. Raiteri, & V. V. Smith.* 399, 218, 198-A1 (1992)

On the Evolution of Slowly Accreting Neutron Stars. *O. M. Blaes, R. D. Blandford, P. Madau, & L. Yan.* 399, 634, 205-G3 (1992)

Constraints on Element Mixing in Classical Novae. *Masayuki Y. Fujimoto & Icko Iben, Jr.* 399, 646, 206-A1 (1992)

r-Process Nucleosynthesis in the High-Entropy Supernova Bubble. *B. S. Meyer, G. J. Mathews, W. M. Howard, S. E. Woosley, & R. D. Hoffman.* 399, 656, 206-B1 (1992)

Oriented Scintillation Spectrometer Experiment Observations of ^{57}Co in SN 1987A. *J. D. Kurfess, W. N. Johnson, R. L. Kinzer, R. A. Kroeger, M. S. Strickman, J. E. Grove, M. D. Leising, D. D. Clayton, D. A. Grabelsky, W. R. Purcell, M. P. Ulmer, R. A. Cameron, & G. V. Jung.* 399, L137, 208-B7 (1992)

The ^{57} Co Abundance in SN 1987A. *Donald D. Clayton, Mark D. Leising, Lih-Sin The, W. N. Johnson, & J. D. Kurfess.* 399, L141, 208-C1 (1992)

Light Element Nucleosynthesis: A False Clue? *N. Yu. Gnedin & J. P. Ostriker.* 400, 1, 209-A13 (1992)

Nebular Spectra of Type Ia Supernovae as Probes for Extragalactic Distances, Reddening, and Nucleosynthesis. *P. Ruiz-Lapuente & L. B. Lucy.* 400, 127, 210-E1 (1992)

Reaction Rate and Energy-Loss Rate for Photopair Production by Relativistic Nuclei. *Michał J. Chodorowski, Andrzej A. Zdziarski, & Marek Sikora.* 400, 181, 211-B9 (1992)

Galactic Evolution of D and ^{3}He. *Gary Steigman & Monica Tosi.* 401, 150, 222-G8 (1992)

On Determining the Primordial Helium Abundance from the Spectra of H II Galaxies. *Alison Campbell.* 401, 157, 223-A1 (1992)

Pycnonuclear Reaction Rates for Binary Ionic Mixtures. *S. Ichimaru, S. Ogata, & H. M. Van Horn.* 401, L35, 227-E7 (1992)

The Abundance of Boron in Three Halo Stars. *Douglas K. Duncan, David L. Lambert, & Michael Lemke.* 401, 584, 229-G6 (1992)

Deposition of Mass, Momentum, and Energy by Massive Stars into the Interstellar Medium. *Claus Leitherer, Carmelle Robert, & Laurent Drissen.* 401, 596, 230-A6 (1992)

Strange Quark Contributions to the Nucleon and Neutrino Nucleosynthesis. *E. Kolbe, K. Langanke, S. Krewald, & F. K. Thielemann.* 401, L89, 233-C1 (1992)

On ^{9}Be Production in the Nonuniform Density Model of Big Bang Nucleosynthesis. *A. Coc, P. Delbourgo-Salvador, F. de Oliveira, P. Aguer, S. Barhoumi, G. Bogaert, J. Kiener, A. Lefebvre, & J. P. Thibaud.* 402, 62, 1-G6 (1993)

Companions to Bright S and MS Stars: Technetium Deficiency and Binarity. *Hollis R. Johnson, Thomas B. Ake, & Mudhaffer M. Ameen.* 402, 667, 10-G11 (1993)

The Cosmic Gamma-Ray Background from Type Ia Supernovae. *Lih-Sin The, Mark D. Leising, & Donald D. Clayton.* 403, 32, 14-D12 (1993)

Chemical Evolution of Irregular Galaxies and the Primordial ^{4}He Abundance. *G. J. Mathews, R. N. Boyd, & G. M. Fuller.* 403, 65, 14-G7 (1993)

Isotopic *r*-Process Abundances and Nuclear Structure Far from Stability: Implications for the *r*-Process Mechanism. *Karl-Ludwig Kratz, Jean-Philippe Bitouzet, Friedrich-Karl Thielemann, Peter Möller, & Bernd Pfeiffer.* 403, 216, 16-E13 (1993)

Production and Evolution of LiBeB Isotopes in the Galaxy. *N. Prantzos, M. Casse, & E. Vangioni-Flam.* 403, 630, 23-D12 (1993)

Oxygen, Sulfur, Argon, and the Chemical Evolution of the Galactic Disk. *J. A. de Freitas Pacheco.* 403, 673, 24-A10 (1993)

Protogalactic Mergers and Cosmochronology. *G. J. Mathews & D. N. Schramm.* 404, 468, 34-G1 (1993)

Limits to the Primordial Helium Abundance in the Baryon-inhomogeneous Big Bang. *G. J. Mathews, D. N. Schramm, & B. S. Meyer.* 404, 476, 34-G11 (1993)

The ^{8}Li$(n,\gamma)^{9}$Li and ^{8}B$(p,\gamma)^{9}$C Mirror Reactions in a Microscopic Cluster Model. *P. Descouvemont.* 405, 518, 49-E1 (1993)

Beryllium and Boron Constraints on an Early Galactic Bright Phase. *Brian D. Fields, David N. Schramm, & James W. Truran.* 405, 559, 50-A7 (1993)

Positrons from Supernovae. *Kai-wing Chan & Richard E. Lingenfelter.* 405, 614, 50-G1 (1993)

Radioactive ^{26}Al from Massive Stars: Production and Distribution in the Galaxy. *N. Prantzos.* 405, L55, 54-C1 (1993)

Primordial Nucleosynthesis and the Abundances of Beryllium and Boron. *David Thomas, David N. Schramm, Keith A. Olive, & Brian D. Fields.* 406, 569, 65-A1 (1993)

Heavy-Element Abundances and Massive Star Formation. *Boqi Wang & Joseph Silk.* 406, 580, 65-B1 (1993)

Determination of ^{12}C/^{13}C in the Interstellar Medium toward ζ Ophiuchi and ξ Persei. *Isabel Hawkins, Nahide Craig, & David M. Meyer.* 407, 185, 71-D1 (1993)

Mass Loss in Globular Cluster Red Giants: An Evolutionary Investigation. *M. Castellani & V. Castellani.* 407, 649, 78-F1 (1993)

Evolution of Cosmic Rays in the Early Galaxy. *R. A. Malaney & M. N. Butler.* 407, L73, 82-D11 (1993)

Experimental, Computational, and Observational Analysis of Primordial Nucleosynthesis. *Michael S. Smith, Lawrence H. Kawano, & Robert A. Malaney.* 85, 219, 10-B1 (1993)

The ^{6}Li/^{7}Li Ratio in the Metal-poor Halo Dwarfs HD 19445 and HD 84937. *Verne V. Smith, David L. Lambert, & Poul E. Nissen.* 408, 262, 86-D1 (1993)

Toward a Unified Classical Model of the Sun: On the Sensitivity of Neutrinos and Helioseismology to the Microscopic Physics. *Sylvaine Turck-Chièze & Ilidio Lopes.* 408, 347, 87-D10 (1993)

The Freeze-out Phase of SN 1987A: Implications for the Light Curve. *Claes Fransson & Cecilia Kozma.* 408, L25, 89-A1 (1993)

Ar/S. *Christopher C. Stevenson, Marshall L. McCall, & Douglas L. Welch.* 408, 460, 90-G11 (1993)

Helium Destruction and Gamma-Ray Line Emission in Accreting Neutron Stars. *Lars Bildsten, Edwin E. Salpeter, & Ira Wasserman.* 408, 615, 92-G9 (1993)

Energy Generation in Convective Shells of Low-Mass, Low-Metallicity Asymptotic Giant Branch Stars. *Grant Bazan & John C. Lattanzio.* 409, 762, 108-E6 (1993)

The Interstellar ^{7}Li/^{6}Li Isotope Ratio toward ζ Ophiuchi and ζ Persei. *David M. Meyer, Isabel Hawkins, & Edward L. Wright.* 409, L61, 111-E8 (1993)

Evolution of Elliptical Galaxies. I. The Multiphase Model. *Federico Ferrini & Bianca Maria Poggianti.* 410, 44, 112-F4 (1993)

The *s*-Process between A = 120 and 124: Signature of Neutron Density and Temperature in Red Giants. *F. Käppeler, W. Schanz, K. Wisshak, & G. Reffo.* 410, 370, 116-F3 (1993)

s-Process Ba Isotopic Compositions in Presolar SiC from the Murchison Meteorite. *C. A. Prombo, F. A. Podosek, S. Amari, & R. S. Lewis.* 410, 393, 117-A1 (1993)

Carbon Stars and Isotopic Ba Anomalies in Meteoritic SiC Grains. *R. Gallino, C. M. Raiteri, & M. Busso.* 410, 400, 117-A10 (1993)

A Quasi–Steady State Cosmological Model with Creation of Matter. *F. Hoyle, G. Burbidge, & J. V. Narlikar.* 410, 437, 119-B7 (1993)

The Interstellar Abundances of Tin and Four Other Heavy Elements. *L. M. Hobbs, D. E. Welty, D. C. Morton, L. Spitzer, & D. G. York.* 411, 750, 139-A13 (1993)

The Effect of Helium Breakup on Two-Temperature Accretion Disks including Cooling Processes. *Cesar Meirelles Filho.* 412, 288, 145-F5 (1993)

The Cosmic-Ray ^{3}He/^{4}He Ratio from 100 to 1600 MeV amu^{-1}. *J. J. Beatty, D. J. Ficenec, S. Tobias, J. W. Mitchell, S. McKee, S. Nutter, G. Tarlé, A. Tomasch, J. Clem, T. G. Guzik, M. Lijowski, J. P. Wefel, C. R. Bower, R. M. Heinz, S. L. Mufson, J. Musser, J. J. Pitts, G. M. Spiczak, S. P. Ahlen, & B. Zhou.* 413, 268, 159-E8 (1993)

The Boron-to-Beryllium Ratio in Halo Stars: A Signature of Cosmic-Ray Nucleosynthesis in the Early Galaxy. *T. P. Walker, G. Steigman, D. N. Schramm, K. A. Olive, & B. Fields.* 413, 562, 163-D12 (1993)

^{17}O$(n,\alpha)^{14}$C: Closure of a Primordial CNO Bi-Cycle? *H. Schatz, F. Käppeler, P. E. Koehler, M. Wiescher, & H.-P. Trautvetter.* 413, 750, 165-F13 (1993)

OSSE Observations of Galactic 511 keV Positron Annihilation Radiation: Initial Phase I Results. *W. R. Purcell, D. A. Grabelsky, M. P. Ulmer, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, & G. V. Jung.* 413, L85, 168-E4 (1993)

A Hydrodynamical Model for the Explosion of a Neutron Star Just below the Minimum Mass. *Monica Colpi, Stuart L. Shapiro, & Saul A. Teukolsky.* 414, 717, 180-B10 (1993)

Reaction Rates of the *s*-Process Neutron Sources ^{22}Ne$(\alpha, n)^{25}$Mg and ^{13}C$(\alpha, n)^{16}$O. *H. W. Drotleff, A. Denker, H. Knee, M. Soiné, G. Wolf, J. W. Hammer, U. Greife, C. Rolfs, & H. P. Trautvetter.* 414, 735, 180-D3 (1993)

Evidence for a Dispersion in the Lithium Abundances of Extreme Halo Stars. *Constantine P. Deliyannis, M. H. Pinsonneault, & Douglas K. Duncan.* 414, 740, 180-D10 (1993)

Type II Supernovae from 8–10 $M_{\odot}$ Asymptotic Giant Branch Stars. *Masaaki Hashimoto, Kohichi Iwamoto, & Ken'ichi Nomoto.* 414, L105, 186-A1 (1993)

Neutrino Energy Loss in Stellar Interiors. V. Recombination Neutrino Process. *Yasuharu Kohyama, Naoki Itoh, Akihiko Obama, & Haruhiko Mutoh.* 415, 267, 188-C9 (1993)

On ^{26}Al and Other Short-lived Interstellar Radioactivity. *Donald D. Clayton, Dieter H. Hartmann, & Mark D. Leising.* 415, L25, 192-A1 (1993)

Population II ^{6}Li as a Probe of Nucleosynthesis and Stellar Structure and Evolution. *Gary Steigman, Brian D. Fields, Keith A. Olive, David N. Schramm, & Terry P. Walker.* 415, L35, 192-B1 (1993)

Abundances of Four Ultra–Metal-Deficient Stars. *John E. Norris, Ruth C. Peterson, & Timothy C. Beers.* 415, 797, 197-F13 (1993)

Thermonuclear Reaction Rates for Dense Binary-Ionic Mixtures. *Shuji Ogata, Setsuo Ichimaru, & Hugh M. Van Horn.* 417, 265, 220-F12 (1993)

Cooling and Spin-down of Pulsars with Evolving Rotating Equilibrium Configuration. II. Effects of Equations of State. *N. Chong & K. S. Cheng.* 417, 279, 221-A3 (1993)

Neutron-rich α-rich Freeze-out and the *r*-Process in the High-Entropy Neutrino-energized Supernova Bubble. *W. M. Howard, S. Goriely, M. Rayet, & M. Arnould.* 417, 713, 228-C5 (1993)

The Primordial Helium Abundance as Determined from Chemical Evolution of Irregular Galaxies. *M. J. Balbes, R. N. Boyd, & G. J. Mathews.* 418, 229, 233-G8 (1993)

Nova Herculis 1991: Thermonuclear Runaway on a Massive ONeMg White Dwarf. *Thomas Matheson, Alexei V. Filippenko, & Luis C. Ho.* 418, L29, 238-D6 (1993)

Lithium Abundances and Other Clues to Envelope Burning in Small Magellanic Cloud Asymptotic Giant Branch Stars. *Bertrand Plez, Verne V. Smith, & David L. Lambert.* 418, 812, 242-F3 (1993)

Stability of Detonations in Supernovae. *A. M. Khokhlov.* 419, 200, 248-F5 (1993)

The Weak *s*-Component and Nucleosynthesis in Massive Stars. *C. M. Raiteri, R. Gallino, M. Busso, D. Neuberger, & F. Käppeler.* 419, 207, 248-G1 (1993)

Theoretical Light Curves of Type IIb Supernova 1993J. *Toshikazu Shigeyama, Tomoharu Suzuki, Shiomi Kumagai, Ken'ichi Nomoto, Hideyuki Saio, & Hitoshi Yamaoka.* 420, 341, 5-B5 (1994)

The Conductive Propagation of Nuclear Flames. II. Convectively Bounded Flames in C+O and O+Ne+Mg Cores. *F. X. Timmes, S. E. Woosley, & Ronald E. Taam.* 420, 348, 5-B13 (1994)

Observational Prospects for Massive Stars with Degenerate Neutron Cores. *Garrett T. Biehle.* 420, 364, 5-D6 (1994)

The Rate of the Proton-Proton Reaction. *Marc Kamionkowski & John N. Bahcall.* 420, 884, 13-G11 (1994)

The Primordial Lithium Abundance from Extreme Subdwarfs: New Observations. *J. A. Thorburn.* 421, 318, 19-G12 (1994)

Cross Section Parameterizations for Cosmic-Ray Nuclei. II. Double Nucleon Removal. *John W. Norbury & Cindy M. Mueller.* 90, 115, 2-D11 (1994)

An Observational Estimate of the Probability of Encounters between Mass-losing Evolved Stars and Molecular Clouds. *Joel H. Kastner & P. C. Myers.* 421, 605, 25-G3 (1994)

Elemental Abundances of the Supernova Remnant G292.0+1.8: Evidence for a Massive Progenitor. *John P. Hughes & K. P. Singh.* 422, 126, 31-F1 (1994)

Enhanced Heavy-Element Formation in Baryon-inhomogeneous Big Bang Models. *K. Jedamzik, G. M. Fuller, G. J. Mathews, & T. Kajino.* 422, 423, 37-B9 (1994)

The Annihilation of Positrons in the Cold Phase of the Interstellar Medium Revisited. *P. Wallyn, Ph. Durouchoux, C. Chapuis, & M. Leventhal.* 422, 610, 39-D7 (1994)

New Measurement of the ^{12}C$(n, \gamma)^{13}$C Reaction Cross Section. *T. Ohsaki, Y. Nagai, M. Igashira, T. Shima, K. Takeda, S. Seino, & T. Irie.* 422, 912, 43-C9 (1994)

Positron Annihilation Radiation from the 1991 November 15 Flare. *K. Kawabata, M. Yoshimori, K. Suga, K. Morimoto, T. Hiraoka, J. Sato, & K. Ohki.* 90, 701, 12-D13 (1994)

Inhomogeneous Primordial Nucleosynthesis: Coupled Nuclear Reactions and Hydrodynamic Dissipation Processes. *Karsten Jedamzik, George M. Fuller, & Grant J. Mathews.* 423, 50, 46-F9 (1994)

The Production of Beryllium in the Early Galaxy. *Sofia Feltzing & Bengt Gustafsson.* 423, 68, 47-A6 (1994)

Sub–Chandrasekhar Mass Models for Type Ia Supernovae. *S. E. Woosley & Thomas A. Weaver.* 423, 371, 50-F10 (1994)

Lithium Abundances in the Most Metal-deficient Stars. *John E. Norris, Sean G. Ryan, & Guy S. Stringfellow.* 423, 386, 51-A1 (1994)

A Scenario for a Large Number of Low-Mass Black Holes in the Galaxy. *G. E. Brown & H. A. Bethe.* 423, 659, 56-F11 (1994)

On the Acceleration of Nuclear Flame Fronts in White Dwarfs. *F. X. Timmes.* 423, L131, 61-B5 (1994)

Gamma-Ray Limits on Galactic ^{60}Fe and ^{44}Ti Nucleosynthesis. *Mark D. Leising & Gerald H. Share.* 424, 200, 64-D7 (1994)

A New Urca Process. *Maurice B. Aufderheide, Ikko Fushiki, George M. Fuller, & Thomas A. Weaver.* 424, 257, 65-B1 (1994)

Asymptotic Giant Branch Stars as a Source of Short-lived Radioactive Nuclei in the Solar Nebula. *G. J. Wasserburg, M. Busso, R. Gallino, & C. M. Raiteri.* 424, 412, 67-A6 (1994)

Search for Important Weak Interaction Nuclei in Presupernova Evolution. *Maurice B. Aufderheide, Ikko Fushiki, Stanford E. Woosley, & Dieter H. Hartmann.* 91, 389, 23-F3 (1994)

Neutrino Process Nucleosynthesis and the ^{11}B/^{10}B Ratio. *Keith A. Olive, Nikos Prantzos, Sean Scully, & Elisabeth Vangioni-Flam.* 424, 666, 73-B7 (1994)

Nickel Bubble Instability and Mixing in SN 1987A. *Mikhail Basko.* 425, 264, 83-E5 (1994)

Extreme ^{26}Mg and ^{17}O Enrichments in an Orgueil Corundum: Identification of a Presolar Oxide Grain. *I. D. Hutcheon, G. R. Huss, A. J. Fahey, & G. J. Wasserburg.* 425, L97, 94-F7 (1994)

Nucleosynthesis in the Cd-In-Sn Region. *Zs. Németh, F. Käppeler, C. Theis, T. Belgya, & S. W. Yates.* 426, 357, 100-E12 (1994)

The Delayed-Detonation Model of Type Ia Supernovae I. The Deflagration Phase. *David Arnett & Eli Livne.* 427, 314, 113-G4 (1994)

The Delayed-Detonation Model of Type Ia Supernovae. II. The Detonation Phase. *David Arnett & Eli Livne.* 427, 330, 114-A7 (1994)

On the Galactic Evolution of D and ^{3}He. *Elisabeth Vangioni-Flam, Keith A. Olive, & Nikos Prantzos.* 427, 618, 120-D5 (1994)

Oxygen-burning Hydrodynamics. I. Steady Shell Burning. *David Arnett.* 427, 932, 124-C2 (1994)

Can Conformal Weyl Gravity Be Considered a Viable Cosmological Theory? *D. Elizondo & G. Yepes.* 428, 17, 128-D5 (1994)

The Oxygen Mass in SN 1987A: Making Use of Fluctuations in the [O I] $\lambda\lambda$6300, 6364 Profile. *Nikolai N. Chugai.* 428, L17, 143-C11 (1994)

Implications of ^{26}Al Emission at 1.8 MeV from the Vela Region. *U. Oberlack, R. Diehl, T. Montmerle, N. Prantzos, & P. von Ballmoos.* 92, 433, 37-E7 (1994)

Observation of the 1.8 MeV Emission Line from ^{26}Al and the Chemical Evolution of the Galaxy. *Georges Meynet.* 92, 441, 37-F2 (1994)

Gamma-Ray Constraints on Supernova Nucleosynthesis. *Mark D. Leising.* 92, 495, 38-D7 (1994)

The Properties of Ni $\rightarrow$ Co $\rightarrow$ Fe Decay. *D. K. Nadyozhin.* 92, 527, 38-G6 (1994)

The Lithium Problem with IRAM, OSSE, and *INTEGRAL*. *M. Signore, G. Vedrenne, P. de Bernardis, V. Dubrovich, P. Encrenaz, R. Maoli, S. Masi, G. Mastrantonio, B. Melchiorri, F. Melchiorri, & P. E. Tanzilli.* 92, 535, 39-A3 (1994)

The Positronium Fraction before Thermalization in Helium. *C. G. L. Chapuis, P. Wallyn, & P. Durouchoux.* 92, 545, 39-B1 (1994)

Charge Exchange Reaction Rates of Thermal Positrons in H, H_2, and He. *P. Wallyn, C. Chapuis, & Ph. Durouchoux.* 92, 551, 39-B10 (1994)

Cosmic Rays and Gamma Rays in Early Galaxian Phases and the Cosmic Gamma-Ray Background. *N. Prantzos & M. Casse.* 92, 575, 39-D12 (1994)

Production of Heavy Elements in Inhomogeneous Cosmologies. *Thomas Rauscher, James H. Applegate, John J. Cowan, Friedrich-Karl Thielemann, & Michael Wiescher.* 429, 499, 152-A1 (1994)

Production of Lithium, Beryllium, and Boron from Baryon Inhomogeneous Primordial Nucleosynthesis. *David Thomas, David N. Schramm, Keith A. Olive, Grant J. Mathews, Bradley S. Meyer, & Brian D. Fields.* 430, 291, 162-F11 (1994)

Predictions of Oxygen Isotope Ratios in Stars and of Oxygen-rich Interstellar Grains in Meteorites. *Arnold I. Boothroyd, I.-Juliana Sackmann, & G. J. Wasserburg.* 430, L77, 166-C7 (1994)

Oxygen Isotopes in Circumstellar Al_2O_3 Grains from Meteorites and Stellar Nucleosynthesis. *Gary R. Huss, Albert J. Fahey, Roberto Gallino, & G. J. Wasserburg.* 430, L81, 166-C13 (1994)

The Cosmic Abundance of ^{3}He. III. Improved Line Parameters for Selected Sources. *Dana S. Balser, T. M. Bania, Charles J. Brockway, Robert T. Rood, & T. L. Wilson.* 430, 667, 170-B8 (1994)

The Puzzle of Silicon, Titanium, and Magnesium Anomalies in Meteoritic Silicon Carbide Grains. *Roberto Gallino, Claudia M. Raiteri, Maurizio Busso, & Francesca Matteucci.* 430, 858, 172-E13 (1994)

Carbon, Nitrogen, Magnesium, Silicon, and Titanium Isotopic Compositions of Single Interstellar Silicon Carbide Grains from the Murchison Carbonaceous Chondrite. *Peter Hoppe, Sachiko Amari, Ernst Zinner, Trevor Ireland, & Roy S. Lewis.* 430, 870, 172-F12 (1994)

Ultra–Metal-poor Halo Stars: The Remarkable Spectrum of CS 22892−052. *Christopher Sneden, George W. Preston, Andrew McWilliam, & Leonard Searle.* 431, L27, 182-E13 (1994)

^{41}Ca in the Early Solar System. *G. Srinivasan, A. A. Ulyanov, & J. N. Goswami.* 431, L67, 183-C9 (1994)

Reaction Rates and Reaction Sequences in the rp-Process. *L. Van Wormer, J. Görres, C. Iliadis, M. Wiescher, & F.-K. Thielemann.* 432, 326, 197-C1 (1994)

A Seismic Model of the Sun's Interior. *W. A. Dziembowski, Philip R. Goode, A. A. Pamyatnykh, & R. Sienkiewicz.* 432, 417, 198-C13 (1994)

The Primordial Abundance of ^{6}Li and ^{9}Be. *Brian Chaboyer.* 432, L47, 199-G1 (1994)

Widespread Water Vapor Emission in Orion. *J. Cernicharo, E. González-Alfonso, J. Alcolea, R. Bachiller, & D. John.* 432, L59, 200-A5 (1994)

Recent Deuterium Observations and Big Bang Nucleosynthesis Constraints. *Lawrence M. Krauss & Peter J. Kernan.* 432, L79, 206-D10 (1994)

A Possible Solution to the Problem of the Galactic Evolution of D and ^{3}He. *Daniele Galli, Francesco Palla, Oscar Straniero, & Federico Ferrini.* 432, L101, 206-G1 (1994)

Thermonuclear Runaways in Nova Outbursts. II. Effect of Strong, Instantaneous, Local Fluctuations. *Anurag Shankar & David Arnett.* 433, 216, 211-A8 (1994)

The *r*-Process and Neutrino-heated Supernova Ejecta. *S. E. Woosley, J. R. Wilson, G. J. Mathews, R. D. Hoffman, & B. S. Meyer.* 433, 229, 211-B9 (1994)

Convection, Nucleosynthesis, and Core Collapse. *Grant Bazan & David Arnett.* 433, L41, 215-B9 (1994)

^{7}Li Abundances in Halo Stars: Testing Stellar Evolution Models and the Primordial ^{7}Li Abundance. *Brian Chaboyer & P. Demarque.* 433, 510, 217-C11 (1994)

On the Formation and Evolution of Super–Asymptotic Giant Branch Stars with Cores Processed by Carbon Burning. I. Spica to Antares. *Enrique García-Berro & Icko Iben, Jr.* 434, 306, 229-F4 (1994)

Beta-Decay Rates of *fp* Shell Nuclei with $A > 60$ in Massive Stars at the Presupernova Stage. *K. Kar, A. Ray, & S. Sarkar.* 434, 662, 237-A1 (1994)

s-Process Abundances for ^{122,123,124}Tellurium. *J. R. De Laeter.* 434, 695, 237-C12 (1994)

Isotopically Normal Zirconium in Murchison Hibonite 13-13: Implications for a Link between the *e*- and *r*-Processes. *Trevor R. Ireland.* 434, L79, 242-A1 (1994)

Cosmic-Ray Models for Early Galactic Lithium, Beryllium, and Boron Production. *Brian D. Fields, Keith A. Olive, & David N. Schramm.* 435, 185, 245-G9 (1994)

Possible Detection of ^{14}CO in the Carbon Star IRC +10216. *Gregory A. Wright.* 436, L157, 281-F1 (1994)

Isotopically Distinct Reservoirs in the Solar Nebula: Isotope Anomalies in Vigarano Meteorite Inclusions. *R. D. Loss, G. W. Lugmair, A. M. Davis, & G. J. MacPherson.* 436, L193, 282-D13 (1994)

Ensemble-averaged Thermonuclear Reaction Rates for Turbulent Convection in Stellar Interiors. *Lawrence D. Cloutman.* 437, 384, 288-D9 (1994)

Reaction Rates for ^{18}O$(\alpha,\gamma)^{22}$Ne, ^{22}Ne$(\alpha,\gamma)^{26}$Mg, and ^{22}Ne$(\alpha,n)^{25}$Mg in Stellar Helium Burning and *s*-Process Nucleosynthesis in Massive Stars. *F. Käppeler, M. Wiescher, U. Giesen, J. Görres, I. Baraffe, M. El Eid, C. M. Raiteri, M. Busso, R. Gallino, M. Limongi, & A. Chieffi.* 437, 396, 288-E10 (1994)

The Heating of Nova Ejecta by Radioactive Decays of the β-unstable Nuclei. *Shlomi Pistinner, Giora Shaviv, & Sumner Starrfield.* 437, 794, 296-E4 (1994)

Theoretical Light Curves for the Type Ic Supernova SN 1994I. *Kohichi Iwamoto, Ken'ichi Nomoto, Peter Höflich, Hitoshi Yamaoka, Shiomi Kumagai, & Toshikazu Shigeyama.* 437, L115, 299-C8 (1994)

Massive Black Holes and Light-Element Nucleosynthesis in a Baryonic Universe. *Nickolay Y. Gnedin, Jeremiah P. Ostriker, & Martin J. Rees.* 438, 40, 1-G8 (1995)

Pycnonuclear Reaction Rates in Stellar Interiors: Thermal Enhancement. *Hikaru Kitamura & Setsuo Ichimaru.* 438, 300, 5-E9 (1995)

Gamma-Ray Lines from the Orion Complex. *Reuven Ramaty, Benzion Kozlovsky, & Richard E. Lingenfelter.* 438, L21, 10-A1 (1995)

Propagation of Nuclear Burning Fronts on Accreting Neutron Stars: X-Ray Bursts and Sub-Hertz Noise. *Lars Bildsten.* 438, 852, 16-A2 (1995)

Implications of a High Population II B/Be Ratio. *Brian D. Fields, Keith A. Olive, & David N. Schramm.* 439, 854, 36-D7 (1995)

Evidence of Heavy Element Nucleosynthesis Early in the History of the Galaxy: The Ultra–metal-poor Star CS 22892−052. *John J. Cowan, Debra L. Burris, Christopher Sneden, Andrew McWilliam, & George W. Preston.* 439, L51, 40-E3 (1995)

First Measurement of a $p(n,\gamma)d$ Reaction Cross Section between 10 and 80 keV. *T. S. Suzuki, Y. Nagai, T. Shima, T. Kikuchi, H. Sato, T. Kii, & M. Igashira.* 439, L59, 40-F5 (1995)

On the Formation of Globular Clusters. II. Early Dynamical Evolution. *J. H. Brown, A. Burkert, & J. W. Truran.* 440, 666, 52-D4 (1995)

Radiative ^{13}C Burning in Asymptotic Giant Branch Stars and *s*-Processing. *O. Straniero, R. Gallino, M. Busso, A. Chieffi, C. M. Raiteri, M. Limongi, & M. Salaris.* 440, L85, 58-B3 (1995)

Injection of Freshly Synthesized ^{41}Ca in the Early Solar Nebula by an Asymptotic Giant Branch Star. *G. J. Wasserburg, R. Gallino, M. Busso, J. N. Goswami, & C. M. Raiteri.* 440, L101, 58-D1 (1995)

Absence of a Lower Limit on Ω_b in Inhomogeneous Primordial Nucleosynthesis. *Karsten Jedamzik, Grant J. Mathews, & George M. Fuller.* 441, 465, 68-D9 (1995)

Cosmological and Astrophysical Consequences of a High Primordial Deuterium Abundance. *Elisabeth Vangioni-Flam & Michel Cassé.* 441, 471, 68-E4 (1995)

The Sodium/Aluminum–Oxygen Anticorrelation in ω Centauri and Other Clusters. *John E. Norris & G. S. Da Costa.* 441, L81, 76-B11 (1995)

Measurement of the $^{16}O(n,\gamma)^{17}O$ Reaction Cross Section at Stellar Energy and the Critical Role of Nonresonant *p*-Wave Neutron Capture. *M. Igashira, Y. Nagai, K. Masuda, T. Ohsaki, & H. Kitazawa.* 441, L89, 76-C11 (1995)

Hot Bottom Burning in Asymptotic Giant Branch Stars and Its Effect on Oxygen Isotopic Abundances. *Arnold I. Boothroyd, I.-Juliana Sackmann, & G. J. Wasserburg.* 442, L21, 84-G4 (1995)

On the Abundance of Primordial Helium. *Keith A. Olive & Gary Steigman.* 97, 49, 11-E9 (1995)

Deviations from Chemical Equilibrium Due to Spin-down as an Internal Heat Source in Neutron Stars. *Andreas Reisenegger.* 442, 749, 90-E3 (1995)

Galactic Evolution of D and ^3He. *Daniele Galli, Francesco Palla, Federico Ferrini, & Umberto Penco.* 443, 536, 105-C3 (1995)

Parameterization of Spectral Distributions for Pion and Kaon Production in Proton-Proton Collisions. *John P. Schneider, John W. Norbury, & Frank A. Cucinotta.* 97, 571, 20-A1 (1995)

CGRO/OSSE Observations of the Cassiopeia A Supernova Remnant. *L.-S. The, M. D. Leising, D. D. Clayton, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, G. V. Jung, D. A. Grabelsky, W. R. Purcell, & M. P. Ulmer.* 444, 244, 116-G4 (1995)

What Is the Problem with ^3He? *Keith A. Olive, Robert T. Rood, David N. Schramm, James Truran, & Elisabeth Vangioni-Flam.* 444, 680, 125-F6 (1995)

Delayed Detonation Models for Normal and Subluminous Type Ia Supernovae: Absolute Brightness, Light Curves, and Molecule Formation. *P. Höflich, A. M. Khokhlov, & J. C. Wheeler.* 444, 831, 128-A1 (1995)

ASCA Observations of the Large Magellanic Cloud Supernova Remnant Sample: Typing Supernovae from Their Remnants. *John P. Hughes, Ichizo Hayashi, David Helfand, Una Hwang, Masayuki Itoh, Robert Kirshner, Katsuji Koyama, Thomas Markert, Hiroshi Tsunemi, & Jonathan Woo.* 444, L81, 130-E1 (1995)

Heavy Element Abundances in a New Sample of Low-Metallicity Blue Compact Galaxies. *Trinh X. Thuan, Yuri I. Izotov, & Valentin A. Lipovetsky.* 445, 108, 133-G5 (1995)

The Deuterium Abundance and Nucleocosmochronology. *Sean Thomas Scully & Keith A. Olive.* 446, 272, 157-A6 (1995)

Gamma-Ray Transfer and Energy Deposition in Supernovae. *Douglas A. Swartz, Peter G. Sutherland, & Robert P. Harkness.* 446, 766, 166-F1 (1995)

Nucleosynthesis and Mixing on the Asymptotic Giant Branch. II. Carbon and Barium Stars in the Galactic Disk. *M. Busso, D. L. Lambert, L. Beglio, R. Gallino, C. M. Raiteri, & V. V. Smith.* 446, 775, 166-F13 (1995)

Galactic Chemical Evolution: Hydrogen through Zinc. *F. X. Timmes, S. E. Woosley, & Thomas A. Weaver.* 98, 617, 32-A6 (1995)

The Screened Nuclear Reaction Rates and the Solar Neutrino Puzzle. *H. Dzitko, S. Turck-Chièze, P. Delbourgo-Salvador, & C. Lagrange.* 447, 428, 178-D2 (1995)

Deep Circulation in Red Giant Stars: A Solution to the Carbon and Oxygen Isotope Puzzles? *G. J. Wasserburg, Arnold I. Boothroyd, & I.-Juliana Sackmann.* 447, L37, 181-A11 (1995)

Metal Abundances and Physical Conditions in Two Damped Lyα Systems toward HS 1946+7658. *Limin Lu, Blair D. Savage, Todd M. Tripp, & David M. Meyer.* 447, 597, 184-D2 (1995)

The Giant Branch of ω Centauri. IV. Abundance Patterns Based on Echelle Spectra of 40 Red Giants. *John E. Norris & G. S. Da Costa.* 447, 680, 185-D9 (1995)

The Dynamics of Two-dimensional Local and Finite Perturbations in Envelopes of Rotating White Dwarfs. I. *Patrick Godon & Giora Shaviv.* 447, 797, 187-A3 (1995)

Carbon and Nitrogen Isotopes in Type II Supernova Diamonds. *Donald D. Clayton, Bradley S. Meyer, Chris I. Sanderson, Sara S. Russell, & C. T. Pillinger.* 447, 894, 188-C2 (1995)

Large ^{18}O Excesses in Circumstellar Graphite Grains from the Murchison Meteorite: Indication of a Massive-Star Origin. *Sachiko Amari, Ernst Zinner, & Roy S. Lewis.* 447, L147, 191-F4 (1995)

The Presupernova Evolution and Explosion of Helium Stars That Experience Mass Loss. *S. E. Woosley, Norbert Langer, & Thomas A. Weaver.* 448, 315, 196-E7 (1995)

Effects of Neutrino Degeneracy on the Primordial Abundances of ^9Be and ^{11}B. *Jong Bock Kim & Hyun Kyu Lee.* 448, 510, 201-F9 (1995)

Hydrodynamic Studies of Accretion onto Massive White Dwarfs: ONeMg-enriched Nova Outbursts. I. Dependence on White Dwarf Mass. *M. Politano, S. Starrfield, J. W. Truran, A. Weiss, & W. M. Sparks.* 448, 807, 206-A11 (1995)

^{26}Al and ^{60}Fe from Supernova Explosions. *F. X. Timmes, S. E. Woosley, D. H. Hartmann, R. D. Hoffman, T. A. Weaver, & F. Matteucci.* 449, 204, 213-A4 (1995)

Neutrino Reactions on ^4He and the *r*-Process. *Bradley S. Meyer.* 449, L55, 216-G11 (1995)

Baryonic Dark Matter and Big Bang Nucleosynthesis. *Arnon Dar.* 449, 550, 220-D1 (1995)

A Search for *r*-Process Elements in the Vela Supernova Remnant. *George Wallerstein, Andrew D. Vanture, Edward B. Jenkins, & George M. Fuller.* 449, 688, 222-C10 (1995)

Propagation of Turbulent Flames in Supernovae. *Alexei M. Khokhlov.* 449, 695, 222-D7 (1995)

Interstellar Lead. *D. E. Welty, L. M. Hobbs, J. T. Lauroesch, D. C. Morton, & D. G. York.* 449, L135, 227-C8 (1995)

The Chemical Composition of Red Giants. IV. The Neutron Density at the *s*-Process Site. *David L. Lambert, Verne V. Smith, Maurizio Busso, Roberto Gallino, & Oscar Straniero.* 450, 302, 232-B9 (1995)

Compton Gamma Ray Observatory OSSE Observations of SN 1991T. *M. D. Leising, W. N. Johnson, J. D. Kurfess, D. D. Clayton, D. A. Grabelsky, G. V. Jung, R. L. Kinzer, W. R. Purcell, M. S. Strickman, L.-S. The, & M. P. Ulmer.* 450, 805, 241-G1 (1995)

On the Nature of Core-Collapse Supernova Explosions. *Adam Burrows, John Hayes, & Bruce A. Fryxell.* 450, 830, 242-B9 (1995)

Deuterium in the Universe. *Francesco Palla, Daniele Galli, & Joseph Silk.* 451, 44, 246-F11 (1995)

Large-Scale Baryon Isocurvature Inhomogeneities. *Craig J. Copi, Keith A. Olive, & David N. Schramm.* 451, 51, 246-G9 (1995)

Energy Degradation in Cosmic-Ray Nuclear Spallation Reactions: Relaxing the Straight-ahead Approximation. *C. H. Tsao, R. Silberberg, A. F. Barghouty, & L. Sihver.* 451, 275, 249-F8 (1995)

Sodium Enrichment in A–F Type Supergiants. *Mounib F. El Eid & Arthur E. Champagne.* 451, 298, 250-A9 (1995)

Reaction Rates for ^{146}Sm Production in Supernovae. *Thomas Rauscher, Friedrich-Karl Thielemann, & Heinz Oberhummer.* 451, L37, 252-F4 (1995)

Gamma Rays, Cosmic Rays, and Extinct Radioactivity in Molecular Clouds. *Donald D. Clayton & Liping Jin.* 451, 681, 256-E10 (1995)

Interpretation of ^{26}Al in Meteoritic Inclusions. *Donald D. Clayton & Liping Jin.* 451, L87, 261-B12 (1995)

Nucleosynthesis in the Presence of Primordial Isocurvature Baryon Fluctuations. *Karsten Jedamzik & George M. Fuller.* 452, 33, 262-F2 (1995)

Explosions of Sub–Chandrasekhar Mass White Dwarfs in Two Dimensions. *Eli Livne & David Arnett.* 452, 62, 263-A6 (1995)

Baryon Density Contrast in a Quark-Hadron Phase Transition in the Early Universe. *Ashok Goyal, Saurav Pathak, V. K. Gupta, & J. D. Anand.* 452, 501, 271-E8 (1995)

Electromagnetic Cascade in the Early Universe and Its Application to the Big Bang Nucleosynthesis. *M. Kawasaki & T. Moroi.* 452, 506, 271-F3 (1995)

Turbulent Nuclear Flames in Type Ia Supernovae. *J. C. Niemeyer & W. Hillebrandt.* 452, 769, 275-B13 (1995)

Generic Evolution of Deuterium and ^3He. *Gary Steigman & Monica Tosi.* 453, 173, 283-E7 (1995)

Silicon Nitride from Supernovae. *Larry R. Nittler, Peter Hoppe, Conel M. O'D. Alexander, Sachiko Amari, Peter Eberhardt, Xia Gao, Roy S. Lewis, Roger Strebel, Robert M. Walker, & Ernst Zinner.* 453, L25, 289-E9 (1995)

A Consistent Explanation for $^{12}C/^{13}C$, ^{7}Li, and ^{3}He Anomalies in Red Giant Stars. *C. Charbonnel.* 453, L41, 289-G10 (1995)

The *r*-Process Element Europium in Galactic Disk F and G Dwarf Stars. *Vincent M. Woolf, Jocelyn Tomkin, & David L. Lambert.* 453, 660, 293-A1 (1995)

Neutrino Capture and Supernova Nucleosynthesis. *George M. Fuller & Bradley S. Meyer.* 453, 792, 294-G7 (1995)

Cosmic Chemical Evolution. *Yichuan C. Pei & S. Michael Fall.* 454, 69, 300-B10 (1995)

The Evolution and Explosion of Massive Stars. II. Explosive Hydrodynamics and Nucleosynthesis. *S. E. Woosley & Thomas A. Weaver.* 101, 181, 55-B1 (1995)

Type Ia Supernovae: The Flame Is Born. *D. Garcia-Senz & S. E. Woosley.* 454, 895, 314-B7 (1995)

Neutrino Capture on Heavy Nuclei. *Gail C. McLaughlin & George M. Fuller.* 455, 202, 321-A1 (1995)

Big Bang Nucleosynthesis and a New Approach to Galactic Chemical Evolution. *Craig J. Copi, David N. Schramm, & Michael S. Turner.* 455, L95, 333-C1 (1995)

Solar Atmopheric Abundances and Energy Content in Flare Accelerated Ions from Gamma-Ray Spectroscopy. *Reuven Ramaty, Natalie Mandzhavidze, Benzion Kozlovsky, & Ronald J. Murphy.* 455, L193, 335-A4 (1995)

NUCLEOSYNTHESIS

On the [O/Fe] versus [Fe/H] Relationship and the Progenitors of Type I Supernovae. *C. Abia, R. Canal, & J. Isern.* 366, 198, 3-E1 (1991)

Evidence for CNO Processed Material in the Accretion Disk of GP Comae. *T. R. Marsh, Keith Horne, & Simon Rosen.* 366, 535, 9-F1 (1991)

The *s*-Process Branchings at ^{185}W and ^{186}Re. *F. Käppeler, S. Jaag, Z. Y. Bao, & G. Reffo.* 366, 605, 10-E5 (1991)

s-Process Nucleosynthesis in Massive Stars and the Weak Component. I. Evolution and Neutron Captures in a 25 $M_{\odot}$ Star. *C. M. Raiteri, M. Busso, R. Gallino, G. Picchio, & L. Pulone.* 367, 228, 14-G13 (1991)

Neutrino Oscillations and the Leptonic Charge of the Universe. *Martin J. Savage, Robert A. Malaney, & George M. Fuller.* 368, 1, 23-B1 (1991)

Gamma-Ray Lines from Type I Supernovae. *K. W. Chan & R. E. Lingenfelter.* 368, 515, 31-E1 (1991)

^{57}Co and ^{44}Ti Production in SN 1987A. *S. E. Woosley & Robert D. Hoffman.* 368, L31, 35-B10 (1991)

The Formation of ^{26}Al Nova Explosions. *Irit Nofar, Giora Shaviv, & Sumner Starrfield.* 369, 440, 43-B11 (1991)

Theoretical Light Curve for the Recurrent Nova RS Ophiuchi—Determination of the White Dwarf Mass, Composition, and Distance. *Mariko Kato.* 369, 471, 43-E6 (1991)

Shock Waves and Nucleosynthesis in Type II Supernovae. *M. B. Aufderheide, E. Baron, & F.-K. Thielemann.* 370, 630, 56-C8 (1991)

Solar-Cycle Modulation of Event Rates in the Chlorine Solar Neutrino Experiment. *John N. Bahcall & William H. Press.* 370, 730, 57-E1 (1991)

Primordial ^{4}He as a Test of Big Bang Nucleosynthesis. *G. M. Fuller, R. N. Boyd, & J. D. Kalen.* 371, L11, 66-B7 (1991)

The Shock Process and Light-Element Production in Supernova Envelopes. *Lawrence E. Brown, David S. Dearborn, David N. Schramm, Jon T. Larsen, & Shin Kurokawa.* 371, 648, 69-F1 (1991)

s-Process Nucleosynthesis in Massive Stars and the Weak Component. II. Carbon Burning and Galactic Enrichment. *C. M. Raiteri, M. Busso, R. Gallino, & G. Picchio.* 371, 665, 69-G6 (1991)

Signatures of Inhomogeneity in the Early Universe. *Lawrence H. Kawano, William A. Fowler, Ralph W. Kavanagh, & Robert A. Malaney.* 372, 1, 74-A11 (1991)

Measurement of the Neutron Capture Rate of the $^{12}C(n,\gamma)^{13}C$ Reaction at Stellar Energy. *Y. Nagai, M. Igashira, K. Takeda, N. Mukai, S. Motoyama, F. Uesawa, H. Kitazawa, & T. Fukuda.* 372, 683, 84-B7 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

Interstellar Grains within Interstellar Grains. *Thomas J. Bernatowicz, Sachiko Amari, Ernst K. Zinner, & Roy S. Lewis.* 373, L73, 97-E10 (1991)

^{26}Al and ^{16}O in the Early Solar System: Clues from Meteoritic Al_2O_3. *Edward Anders, Alois Virag, Ernst Zinner, & Roy S. Lewis.* 373, L77, 97-F6 (1991)

A Search for the 478 keV Line from the Decay of Nucleosynthetic ^{7}Be. *Michael J. Harris, Mark D. Leising, & Gerald H. Share.* 375, 216, 113-F5 (1991)

Capture Cross Section Measurements of Krypton and Xenon Isotopes and the Fundamental Parameters of the *s*-Process. *Hermann Beer.* 375, 823, 122-G7 (1991)

Primordial Nucleosynthesis Redux. *Terry P. Walker, Gary Steigman, David N. Schramm, Keith A. Olive, & Ho-Shik Kang.* 376, 51, 125-F1 (1991)

Inhomogeneous Halo Collapse and Early Galactic Chemical Evolution: Globular Cluster Metallicities. *G. Malinie, D. H. Hartmann, & G. J. Mathews.* 376, 520, 132-G9 (1991)

Isotopically Anomalous Ti in Presolar SiC from the Murchison Meteorite. *Trevor R. Ireland, Ernst K. Zinner, & Sachiko Amari.* 376, L53, 137-D7 (1991)

Our Sun. II. Early Mass Loss of 0.1 $M_{\odot}$ and the Case of the Missing Lithium. *Arnold I. Boothroyd, I.-Juliana Sackmann, & William A. Fowler.* 377, 318, 141-G11 (1991)

Lithium Abundances in Carbon Stars. *Grant R. Denn, R. Earle Luck, & David L. Lambert.* 377, 657, 147-G5 (1991)

Abundance Gradients and Galaxy Formation. *M. Stiavelli & F. Matteucci.* 377, L79, 150-C9 (1991)

Primordial Nucleosynthesis without a Computer. *Rahim Esmailzadeh, Glenn D. Starkman, & Savas Dimopoulos.* 378, 504, 158-F7 (1991)

An Analytical Formulation of the Double-Pulse *s*-Process Model. *Hermann Beer.* 379, 409, 168-B1 (1991)

A Measurement of the $^{22}Ne(n,\gamma)^{23}Ne$ Capture Cross Section at a Stellar Temperature of kT = 25 keV. *Hermann Beer, G. Rupp, F. Voss, & F. Käppeler.* 379, 420, 168-C1 (1991)

On the Sodium Excess in the Atmospheres of Yellow Supergiants. *N. Prantzos, A. Coc, & J. P. Thibaud.* 379, 729, 173-G1 (1991)

On the Distribution of the Diffuse Galactic Gamma-Ray Line Emissions at 1809 keV and 511 keV. *P. von Ballmoos.* 380, 98, 177-C1 (1991)

High-Mass Stars with Degenerate Neutron Cores. *Garrett T. Biehle.* 380, 167, 178-B9 (1991)

The Galactic Globular Cluster System: Theoretical Constraints for α-enhanced Compositions. *D. Bencivenni, F. Caputo, M. Manteiga, & M. L. Quarta.* 380, 484, 184-C1 (1991)

Abundances of Tc and Related Elements in Stars of Type M, MS, and S. *Andrew D. Vanture, George Wallerstein, Jeffery A. Brown, & Grant Bazan.* 381, 278, 192-D7 (1991)

Capture Rate of the $^{7}Li(n,\gamma)^{8}Li$ Reaction by Prompt Gamma-Ray Detection. *Y. Nagai, M. Igashira, N. Mukai, T. Ohsaki, F. Uesawa, K. Takeda, T. Ando, H. Kitazawa, S. Kubono, & T. Fukuda.* 381, 444, 196-C1 (1991)

s-Process Ba, Nd, and Sm in Presolar SiC from the Murchison Meteorite. *Ernst Zinner, Sachiko Amari, & Roy S. Lewis.* 382, L47, 205-E11 (1991)

Nonthermal Excitation of Helium in Type Ib Supernovae. *L. B. Lucy.* 383, 308, 216-A8 (1991)

NUMERICAL METHODS

Galaxy Velocity Dispersions Using a Cross-Correlation Method. *Cristina Dalle Ore, S. M. Faber, J. Jesús Gonzalez, Roland Stoughton, & David Burstein.* 366, 38, 1-E5 (1991)

N-Body Simulation of Large-Scale Structures in $\Lambda \neq 0$ Friedmann Models. *Hugo Martel.* 366, 353, 7-C1 (1991)

Abel Integral Equation Inversion and Deconvolution by Multi-Gaussian Approximation. *O. Bendinelli.* 366, 599, 10-D11 (1991)

Statistical Procedure and the Significance of Periodicities in Double-Galaxy Redshifts. *W. J. Cocke & W. G. Tifft.* 368, 383, 29-G6 (1991)

Light-Curve Inversion Formalism. *Walter J. Wild.* 368, 622, 32-G9 (1991)

Mesh-refined P^3M: A Fast Adaptive *N*-Body Algorithm. *H. M. P. Couchman.* 368, L23, 35-A11 (1991)

Application of the Ewald Method to Cosmological *N*-Body Simulations. *Lars Hernquist, François R. Bouchet, & Yasushi Suto.* 75, 231, 4-B1 (1991)

Models of White Dwarfs under Rapid Uniform or Differential Rotation: Numerical Results. II. *V. S. Geroyannis & A. A. Hadjopoulos.* 75, 499, 7-D11 (1991)

Optimal Order and Time-Step Criterion for Aarseth-Type *N*-Body Integrators. *Junichiro Makino.* 369, 200, 38-D7 (1991)

Numerical Simulations of a Restarting Jet. *David A. Clarke & Jack O. Burns.* 369, 308, 41-E4 (1991)

The Imaging Performance of the *Hubble Space Telescope*. *Christopher J. Burrows, Jon A. Holtzman, S. M. Faber, Pierre Y. Bely, Hashima Hasan, C. R. Lynds, & Daniel Schroeder.* 369, L21, 45-C1 (1991)

Redshift-Space Correlation Functions in the Cold Dark Matter Scenario. *Yasushi Suto & Tatsushi Suginohara.* 370, L15, 53-C7 (1991)

Cosmological *N*-Body Simulations with a Tree Code: Fluctuations in the Linear and Nonlinear Regimes. *Tatsushi Suginohara, Yasushi Suto, François R. Bouchet, & Lars Hernquist.* 75, 631, 10-B1 (1991)

Gravity in One Dimension: A Correction for Ensemble Averaging. *Charles J. Reidl, Jr., & Bruce N. Miller.* 371, 260, 63-D1 (1991)

A Redshift Survey of *IRAS* Galaxies. III. Reconstruction of the Velocity and Density Fields in *N*-Body Model Universes. *Marc Davis, Michael A. Strauss, & Amos Yahil.* 372, 394, 80-F7 (1991)

On the Sensitivity of the *N*-Body Problem to Small Changes in Initial Conditions. *Henry E. Kandrup & Haywood Smith, Jr.* 374, 255, 101-C9 (1991)

Determination of Confidence Limits for Experiments with Low Numbers of Counts. *Ralph P. Kraft, David N. Burrows, & John A. Nousek.* 374, 344, 102-D1 (1991)

Fourier Spectra of Three-dimensional Data. *David J. Baumgart & J. N. Fry.* 375, 25, 111-C11 (1991)

Linear and Circular Digital Spectral Analysis of Serial Data. *Richard B. Stothers.* 375, 423, 116-B6 (1991)

Shot Model Parameters for Cygnus X-1 through Phase Portrait Fitting. *James C. Lochner, J. H. Swank, & A. E. Szymkowiak.* 376, 295, 128-E9 (1991)

On the Evaluation of the Fermi-Dirac Integrals. *Robin P. Sagar.* 376, 364, 129-D8 (1991)

The Fragmentation of "Pancakes" in a Dark Matter–dominated Universe. *Wenbo Yuan, Joan M. Centrella, & Michael L. Norman.* 376, L29, 137-A11 (1991)

The Evolution of Void-filled Cosmological Structures. *Enikő Regős & Margaret J. Geller.* 377, 14, 138-C1 (1991)

A Quantitative Measure of Phase Correlations in Density Fields. *Robert J. Scherrer, Adrian L. Melott, & Sergei F. Shandarin.* 377, 29, 138-D5 (1991)

First Results from the Goddard High-Resolution Spectrograph: A Demonstration of Spectral Resolution and Experiments with Deconvolution. *Glenn M. Wahlgren, David S. Leckrone, Steven N. Shore, Don J. Lindler, Ronald L. Gilliland, & Dennis C. Ebbets.* 377, L41, 143-E6 (1991)

Dissipational Galaxy Formation. I. Effects of Gasdynamics. *Neal Katz & James E. Gunn.* 377, 365, 144-D1 (1991)

Fragmentation of Elongated Cylindrical Clouds. III. Formation of Binary and Multiple Systems. *Ian Bonnell, Hugo Martel, Pierre Bastien, Jean-Pierre Arcoragi, & Willy Benz.* 377, 553, 146-E5 (1991)

Fragmentation of Elongated Cylindrical Clouds. I. Isothermal Clouds. *Pierre Bastien, Jean-Pierre Arcoragi, Willy Benz, Ian Bonnell, & Hugo Martel.* 378, 255, 154-B5 (1991)

The Structure of Cold Dark Matter Halos. *John Dubinski & R. G. Carlberg.* 378, 496, 158-E11 (1991)

Searches for Millisecond Pulsations in Low-Mass X-Ray Binaries. *K. S. Wood, J. P. Norris, P. Hertz, B. A. Vaughan, P. F. Michelson, K. Mitsuda, W. H. G. Lewin, J. van Paradijs, W. Penninx, & M. van der Klis.* 379, 295, 166-F9 (1991)

Application of the Continuous Orthonormalization and Adjoint Methods to the Computation of Solar Eigenfrequencies and Eigenfrequency Sensitivities. *R. D. Rosenwald & G. F. Rabaey.* 77, 97, 44-G1 (1991)

Excursion Set Mass Functions for Hierarchical Gaussian Fluctuations. *J. R. Bond, S. Cole, G. Efstathiou, & N. Kaiser.* 379, 440, 170-C1 (1991)

Fragmentation of Elongated Cylindrical Clouds. II. Polytropic Clouds. *Jean-Pierre Arcoragi, Ian Bonnell, Hugo Martel, Willy Benz, & Pierre Bastien.* 380, 476, 184-B7 (1991)

Three-dimensional Compressible Hydrodynamic Convection in the Sun and Stars. *Murshed Hossain & D. J. Mullan.* 380, 631, 186-A10 (1991)

On Equation of State Interpolation Errors in Stellar Interior Calculations. *Ben Dorman, Alan W. Irwin, & Brian B. Pedersen.* 381, 228, 191-G4 (1991)

Integral and Differential Cross Sections for Electron Impact Ionization. *R. E. H. Clark, J. Abdallah, Jr., & J. B. Mann.* 381, 597, 198-B9 (1991)

Precollapse Scale Invariance in Gravitational Instability. *F. Moutarde, J.-M. Alimi, F. R. Bouchet, R. Pellat, & A. Ramani.* 382, 377, 206-C5 (1991)

Influence of a Dark Halo on the Stability of Elliptical Galaxies. *M. Stiavelli & L. S. Sparke.* 382, 466, 207-D1 (1991)

Simultaneous Correlation Analysis of Combined Gamma-Ray Data. *K. N. Yu.* 382, 647, 209-F1 (1991)

The Three-Point Correlation Function for Abell Clusters: Observations and Simulations. *J. Richard Gott III, Bin Gao, & Changbom Park.* 383, 90, 213-B10 (1991)

The Piecewise-Parabolic Method in Curvilinear Coordinates. *John M. Blondin & Eric A. Lufkin.* 88, 589, 48-A3 (1993)

Multiparameter Linear Least-Squares Fitting to Poisson Data One Count at a Time. *Wm. A. Wheaton, Alfred L. Dunklee, Allan S. Jacobson, James C. Ling, William A. Mahoney, & Robert G. Radocinski.* 438, 322, 6-A1 (1995)

OBITUARIES, BIOGRAPHIES

Founded in 1895 by George E. Hale and James E. Keeler: The *Astrophysical Journal* Centennial. *Donald E. Osterbrock.* 438, 1, 1-C1 (1995)

Subrahmanyan Chandrasekhar (1910–1995), Managing Editor, 1952–1971. *Helmut A. Abt.* 454, 551, 309-B1 (1995)

The *Astrophysical Journal*: A New Journal for a New Science. *R. S. Brashear.* 455, 403, 327-D1 (1995)

OCCULTATIONS

Stellar Occultation of Polarized Light from Circumstellar Electrons. II. Flat Envelopes Viewed at Arbitrary Inclination. *Geoffrey K. Fox & John C. Brown.* 375, 300, 114-F1 (1991)

Stellar Occultation of Polarized Light from Circumstellar Electrons. III. General Axisymmetric Envelopes. *Geoffrey K. Fox.* 379, 663, 173-A1 (1991)

Multiplicity among the Young Stars in Taurus. *M. Simon, W. P. Chen, R. R. Howell, J. A. Benson, & D. Slowik.* 384, 212, 3-E8 (1992)

10 AU Scale Halo Structure around DG Tauri. *Wen Ping Chen, R. R. Howell, M. Simon, & J. A. Benson.* 387, L43, 43-E8 (1992)

The Spatial Size of the SiO Masers in R Leonis Derived from Lunar Occultations. *J. Cernicharo, W. Brunswig, G. Paubert, & S. Liechti.* 423, L143, 61-C13 (1994)

Stellar Occultation of Polarized Light from Circumstellar Electrons. IV. Detached Binary Systems. *G. K. Fox.* 432, 262, 196-D10 (1994)

A Lunar Occultation and Direct Imaging Survey of Multiplicity in the Ophiuchus and Taurus Star-forming Regions. *M. Simon, A. M. Ghez, Ch. Leinert, L. Cassar, W. P. Chen, R. R. Howell, R. F. Jameson, K. Matthews, G. Neugebauer, & A. Richichi.* 443, 625, 106-E1 (1995)

OPACITIES

Mixing Length and Opacity Effects: Deep Convective Envelopes on the Asymptotic Giant Branch. *I.-Juliana Sackmann & Arnold I. Boothroyd.* 366, 529, 9-E7 (1991)

Opacities for the Solar Radiative Interior. *C. A. Iglesias & F. J. Rogers.* 371, 408, 65-C1 (1991)

Opacity Tables for Cepheid Variables. *Carlos A. Iglesias & Forrest J. Rogers.* 371, L73, 73-D1 (1991)

Ionization by High-Energy Particles and the Electron Scattering Opacity in Supernovae. *Douglas A. Swartz.* 373, 604, 95-D11 (1991)

Rosseland and Planck Mean Opacities of a Zero-Metallicity Gas. *Paolo Lenzuni, David F. Chernoff, & Edwin E. Salpeter.* 76, 759, 35-B13 (1991)

Lyman-Alpha Depression of the Continuum from High-Redshift Quasars: A New Technique Applied in Search of the Gunn-Peterson Effect. *Edward B. Jenkins & Jeremiah P. Ostriker.* 376, 33, 125-D9 (1991)

Continuum Opacity Produced by Spectral Lines in Supernovae and Similar Expansions. *Robert V. Wagoner, Christopher A. Perez, & Mary Vasu.* 377, 639, 147-E12 (1991)

The Effect of the Mihalas, Hummer, and Däppen Equation of State and the Molecular Opacity on the Standard Solar Model. *Y.-C. Kim, P. Demarque, & D. B. Guenther.* 378, 407, 156-A10 (1991)

Galactic Bulge M Giants. IV. 0.5–2.5 Micron Spectrophotometry and Abundances for Stars in Baade's Window. *D. M. Terndrup, Jay A. Frogel, & A. E. Whitford.* 378, 742, 161-E5 (1991)

Effects of Opacity and Equation of State on Solar Structure and Oscillations. *Joyce A. Guzik & Arthur N. Cox.* 381, 333, 193-B5 (1991)

Metal Opacities and Convective Core Overshooting in Population I Stars. *Richard B. Stothers & Chao-wen Chin.* 381, L67, 199-E7 (1991)

Masses of RR*d* Variables Using Livermore OPAL Opacities. *Arthur N. Cox.* 381, L71, 199-F1 (1991)

The Rosseland Mean Free-Free Gaunt Factor of the Dense High-Temperature Stellar Plasma. *Naoki Itoh, Fumiyoshi Kuwashima, Koki Ichihashi, & Haruhiko Mutoh.* 382, 636, 209-E1 (1991)

PARTICLE ACCELERATION

Oblique Mixed Shocks in Extragalactic Jets. *D. Fraix-Burnet & G. Pelletier.* 367, 86, 13-B1 (1991)

Heliospheric Effects on Cosmic-Ray Electrons. *H. Moraal, J. R. Jokipii, & R. A. Mewaldt.* 367, 191, 14-D8 (1991)

Universal Particle Acceleration. *J. I. Katz.* 367, 407, 18-E1 (1991)
On the Transport and Acceleration of Solar Flare Particles in a Coronal Loop. *James M. Ryan & Martin A. Lee.* 368, 316, 26-A7 (1991)
Problems of Ultra–High-Energy Particle Acceleration in Cygnus X-3: A Critical Reappraisal. *Abhas Mitra.* 370, 345, 51-E7 (1991)
Viscosity and Inertia in Cosmic-Ray Transport: Effects of an Average Magnetic Field. *L. L. Williams & J. R. Jokipii.* 371, 639, 69-E3 (1991)
Relativistic Electron Populations in Cassiopeia A. *M. Anderson, L. Rudnick, P. Leppik, R. Perley, & R. Braun.* 373, 146, 87-G4 (1991)
Transverse Conductivity of a Relativistic Plasma in Oblique Electric and Magnetic Fields. *Fulvio Melia & Marco Fatuzzo.* 373, 198, 88-D8 (1991)
A Slingshot Model for Solar Flares. *Gregory Benford.* 373, 671, 96-C9 (1991)
Cosmic-Ray Distribution and the Dynamic Balance in the Large Magellanic Cloud. *Carl E. Fichtel, Mehmet E. Özel, Robert G. Stone, & P. Sreekumar.* 374, 134, 99-F7 (1991)
Consequences of Strong Pitch-Angle Diffusion of Particles in Solar Flares. *P. A. Bespalov, V. V. Zaitsev, & A. V. Stepanov.* 374, 369, 102-F5 (1991)
Energy Degradation of Fast Electrons in Hydrogen Gas. *Yueming Xu & Richard McCray.* 375, 190, 113-D1 (1991)
Interrelation of Soft and Hard X-Ray Emissions during Solar Flares. I. Observations. *R. M. Winglee, A. L. Kiplinger, D. M. Zarro, G. A. Dulk, & J. R. Lemen.* 375, 366, 115-D13 (1991)
Interrelation of Soft and Hard X-Ray Emissions during Solar Flares. II. Simulation Model. *R. M. Winglee, G. A. Dulk, P. L. Bornmann, & J. C. Brown.* 375, 382, 115-F1 (1991)
Magnetohydrodynamic Turbulence Dissipation and Stochastic Proton Acceleration in Solar Flares. *James A. Miller.* 376, 342, 129-B11 (1991)
Transient Particle Acceleration in Strongly Magnetized Neutron Stars. *Fulvio Melia & Marco Fatuzzo.* 376, 673, 134-F7 (1991)
The Interaction of Collisionless Shocks in Astrophysical Plasmas. *P. J. Cargill.* 376, 771, 136-A1 (1991)
Particle Injection following Solar Flares on 1980 May 28 and June 8: Evidence for Different Injection Time Histories in Impulsive and Gradual Events? *M.-B. Kallenrode & G. Wibberenz.* 376, 787, 136-B8 (1991)
Cosmic-Ray Transport and Gamma-Ray Emission in Supernova Shells. *A. K. Harding, A. Mastichiadis, R. J. Protheroe, & A. P. Szabo.* 378, 163, 153-A9 (1991)
A Mechanism for Gamma-Ray Bursts by Alfvén-Wave Acceleration in a Nonuniform Atmosphere. *K. A. Holcomb & T. Tajima.* 378, 682, 160-G10 (1991)
Measurement of Cosmic-Ray Proton and Helium Spectra during the 1987 Solar Minimum. *E. S. Seo, J. F. Ormes, R. E. Streitmatter, S. J. Stochaj, W. V. Jones, S. A. Stephens, & T. Bowen.* 378, 763, 161-G1 (1991)
Center-to-Limb Variations of Characteristics of Solar Flare Hard X-Ray and Gamma-Ray Emission. *James M. McTiernan & Vahé Petrosian.* 379, 381, 167-F11 (1991)
A Measurement of the Cosmic-Ray ^{2}H and ^{3}He Spectra and ^{2}H/^{4}He and ^{3}He/^{4}He Ratios in 1989. *W. R. Webber, R. L. Golden, S. J. Stochaj, J. F. Ormes, & R. E. Strittmatter.* 380, 230, 178-G9 (1991)
Subthreshold Stochastic Diffusion with Application to Selective Acceleration of ^{3}He in Solar Flares. *Spilios Riyopoulos.* 381, 578, 197-G5 (1991)
Inverse-Compton Gamma-Ray Emission from Chaotic, Early-Type Stellar Winds and Its Detectability by *Gamma Ray Observatory*. *Wan Chen & Richard L. White.* 381, L63, 199-E1 (1991)
Electron Acceleration in a Nonlinear Shock Model with Applications to Supernova Remnants. *Donald C. Ellison & Stephen P. Reynolds.* 382, 242, 203-C1 (1991)
Outflows Driven by Cosmic-Ray Pressure in Broad Absorption Line QSOs. *Mitchell C. Begelman, Martijn de Kool, & Marek Sikora.* 382, 416, 206-F9 (1991)
Transient Particle Acceleration in Strongly Magnetized Neutron Stars. II. Effects Due to a Dipole Field Geometry. *Marco Fatuzzo & Fulvio Melia.* 382, 570, 208-E10 (1991)
Magnetized Supernova Remnants with Cosmic Rays. *Katia M. Ferrière & Ellen G. Zweibel.* 383, 602, 221-F11 (1991)
Formation of Dense Charged Bunches in Vacuum Gaps. *F. Curtis Michel.* 383, 808, 224-C6 (1991)
Gamma-Ray Bursts from Sheared Alfvén Waves. *Fulvio Melia & Marco Fatuzzo.* 383, L57, 226-D1 (1991)
High-Energy Gamma Rays from Polars. *P. Barrett, E. Schlegel, O. C. de Jager, & G. Chanmugam.* 450, 334, 232-E6 (1995)
Accuracy, Uncertainties, and Delay Distribution of Electron Time-of-Flight Measurements in Solar Flares. *Markus J. Aschwanden & Richard A. Schwartz.* 455, 699, 331-E6 (1995)

PHOTOMETRY

ESO 207-61: A Brown Dwarf Candidate in the Hyades Moving Group. *María Teresa Ruiz, Marianne Y. Takamiya, & Miguel Roth.* 367, L59, 22-C7 (1991)
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Light-Curve Inversion Formalism. *Walter J. Wild.* 368, 622, 32-G9 (1991)
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Stellar Photometry with the *Hubble Space Telescope* Wide-Field/Planetary Camera: A Progress Report. *Jon A. Holtzman, Edward J. Groth, Robert M. Light, S. M. Faber, Deidre Hunter, Earl J. O'Neil, Jr., Edward J. Shaya, William A. Baum, Bel Campbell, Arthur Code, Douglas G. Currie, S. P. Ewald, J. Jeff Hester, T. Kelsall, Tod R. Lauer, Roger Lynds, Donald P. Schneider, P. Kenneth Seidelmann, & James A. Westphal.* 369, L35, 45-E1 (1991)
Bok Globules and Small Molecular Clouds: Deep *IRAS* Photometry and ^{12}CC Spectroscopy. *Dan P. Clemens, João Lin Yun, & Mark H. Heyer.* 75, 877, 13-E1 (1991)
Multicolor CCD Photometry of Globular Clusters in Two Virgo Elliptical Galaxies. *Jean Couture, William E. Harris, & J. W. B. Allwright.* 372, 97, 75-C1 (1991)
Rapid Ultraviolet Variability in the BL Lacertae Object PKS 2155−304. *R. A. Edelson, J. Saken, G. Pike, C. M. Urry, I. M. George, R. S. Warwick, H. R. Miller, M. T. Carini, & J. R. Webb.* 372, L9, 79-B5 (1991)
The Extraordinary 1989 December 14/15 Optical Flare Events on V711 Tauri. *Gregory W. Henry & Douglas S. Hall.* 373, L9, 91-B7 (1991)
The Structure and Evolution of Rich Star Clusters in the Large Magellanic Cloud. *Rebecca A. W. Elson.* 76, 185, 26-E9 (1991)
Diameters of Galactic Globular Clusters. *Sidney van den Bergh, Christopher Morbey, & John Pazder.* 375, 594, 120-B1 (1991)
Photoelectric *UBV* Photometry of Stars Selected in the HK Objective-Prism Survey. *George W. Preston, Stephen A. Shectman, & Timothy C. Beers.* 76, 1001, 38-G5 (1991)
UBV Photometry of OB$^+$ Stars in the Southern Milky Way. *J. S. Drilling.* 76, 1033, 39-C11 (1991)
UBVRI Photometry of Stars in the Fields of X-Ray Selected BL Lacertae Objects. *Paul S. Smith, Buell T. Jannuzi, & Richard Elston.* 77, 67, 44-D1 (1991)
Infrared Images, Virgo Spirals, and the Tully-Fisher Law. *R. F. Peletier & S. P. Willner.* 382, 382, 206-C13 (1991)
Optical Polarimetry of PKS 2155−304 and Constraints on Accretion Disk Models for BL Lacertae Objects. *Paul S. Smith & Michael L. Sitko.* 383, 580, 221-D9 (1991)

PLANETS: ABUNDANCES

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Atomic Oxygen Fine-Structure Splittings with Tunable Far-Infrared Spectroscopy. *Lyndon R. Zink, Kenneth M. Evenson, Fusakazu Matsushima, Thomas Nelis, & Ruth L. Robinson.* 371, L85, 73-E3 (1991)
First Absolute Wind Measurements in the Middle Atmosphere of Mars. *Emmanuel Lellouch, Jeffrey J. Goldstein, Stephen W. Bougher, Gabriel Paubert, & Jan Rosenqvist.* 383, 401, 217-C5 (1991)
Detection of ^{13}C-Ethane in Jupiter's Atmosphere. *Günter Wiedemann, Gordon L. Bjoraker, & Donald E. Jennings.* 383, L29, 219-D7 (1991)

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PLANETS: FORMATION

The Dynamical Evolution of the Protosolar Nebula. *Steven P. Ruden & James B. Pollack.* 375, 740, 121-G11 (1991)

Dynamo Magnetic Field Modes in Thin Astrophysical Disks: An Adiabatic Computational Approximation. *T. F. Stepinski & E. H. Levy.* 379, 343, 167-C9 (1991)

The Origin of the Planet around PSR 1829−10. *Takashi Nakamura & Tsvi Piran.* 382, L81, 211-C13 (1991)

Gravitational Instabilities in a Proto–Planetary Disk. *Hyerim Noh, Ethan T. Vishniac, & William D. Cochran.* 383, 372, 217-A1 (1991)

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Gravitational Microlensing by Double Stars and Planetary Systems. *Shude Mao & Bohdan Paczyński.* 374, L37, 110-B11 (1991)

A Model for Tidally Driven Eccentric Instabilities in Fluid Disks. *Stephen H. Lubow.* 381, 259, 192-B12 (1991)

PLANETS: INTERIORS

Cold Nuclear Fusion in Dense Metallic Hydrogen. *Charles J. Horowitz.* 367, 288, 15-E13 (1991)

What Maintains the Zonal Circulation in Planetary Atmospheres? *H. G. Mayr, K. L. Chan, I. Harris, & K. Schatten.* 367, 361, 16-E1 (1991)

PLANETS: JUPITER

What Maintains the Zonal Circulation in Planetary Atmospheres? *H. G. Mayr, K. L. Chan, I. Harris, & K. Schatten.* 367, 361, 16-E1 (1991)

The Structure of Io's Corona. *N. M. Schneider, D. M. Hunten, W. K. Wells, A. B. Schultz, & U. Fink.* 368, 298, 27-G1 (1991)

The Cyclotron Maser Instability: Application to Low-Density Magnetoplasmas. *H. P. Ladreiter.* 370, 419, 52-D12 (1991)

Dielectronic Recombination Rate Coefficients for S^{q+} (q = 1–5) Ions. *N. R. Badnell.* 379, 356, 167-D9 (1991)

Detection of ^{13}C-Ethane in Jupiter's Atmosphere. *Günter Wiedemann, Gordon L. Bjoraker, & Donald E. Jennings.* 383, L29, 219-D7 (1991)

PLANETS: MAGNETOSPHERES

The Cyclotron Maser Instability: Application to Low-Density Magnetoplasmas. *H. P. Ladreiter.* 370, 419, 52-D12 (1991)

Determination of Ionic Abundances in the Io Torus Using the Hopkins Ultraviolet Telescope. *H. W. Moos, P. D. Feldman, S. T. Durrance, W. P. Blair, C. W. Bowers, A. F. Davidsen, W. V. Dixon, H. C. Ferguson, R. C. Henry, R. A. Kimble, G. A. Kriss, J. W. Kruk, K. S. Long, & O. Vancura.* 382, L105, 211-F3 (1991)

PLANETS: MARS

First Absolute Wind Measurements in the Middle Atmosphere of Mars. *Emmanuel Lellouch, Jeffrey J. Goldstein, Stephen W. Bougher, Gabriel Paubert, & Jan Rosenqvist.* 383, 401, 217-C5 (1991)

PLANETS: NEPTUNE

What Maintains the Zonal Circulation in Planetary Atmospheres? *H. G. Mayr, K. L. Chan, I. Harris, & K. Schatten.* 367, 361, 16-E1 (1991)

The Brightness, Albedo, and Temporal Variability of Neptune. *G. W. Lockwood, D. T. Thompson, B. L. Lutz, & E. S. Howell.* 368, 287, 26-F1 (1991)

PLANETS: PLUTO

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First Results from the Faint Object Camera: High-Resolution Imaging of the Pluto-Charon System. *R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 374, L65, 110-E5 (1991)

PLANETS: SATELLITES

The Structure of Io's Corona. *N. M. Schneider, D. M. Hunten, W. K. Wells, A. B. Schultz, & U. Fink.* 368, 298, 27-G1 (1991)

Dielectronic Recombination Rate Coefficients for S^{q+} (q = 1–5) Ions. *N. R. Badnell.* 379, 356, 167-D9 (1991)

Determination of Ionic Abundances in the Io Torus Using the Hopkins Ultraviolet Telescope. *H. W. Moos, P. D. Feldman, S. T. Durrance, W. P. Blair, C. W. Bowers, A. F. Davidsen, W. V. Dixon, H. C. Ferguson, R. C. Henry, R. A. Kimble, G. A. Kriss, J. W. Kruk, K. S. Long, & O. Vancura.* 382, L105, 211-F3 (1991)

Non–LTE Models of Titan's Upper Atmosphere. *Roger V. Yelle.* 383, 380, 217-A10 (1991)

PLANETS: SATURN

On the Radial Structure of Saturn's B Ring. *Lin-Hua Shan & C. K. Goertz.* 367, 350, 16-D1 (1991)

Hubble Space Telescope Wide-Field/Planetary Camera Images of Saturn. *James A. Westphal, William A. Baum, Tod R. Lauer, G. Edward Danielson, Douglas G. Currie, S. P. Ewald, S. M. Faber, Edward J. Groth, J. Jeff Hester, Robert M. Light, Roger Lynds, Earl J. O'Neil, Jr., P. Kenneth Seidelmann, Edward J. Shaya, & Bradford A. Smith.* 369, L51, 45-G1 (1991)

The Cyclotron Maser Instability: Application to Low-Density Magnetoplasmas. *H. P. Ladreiter.* 370, 419, 52-D12 (1991)

Non–LTE Models of Titan's Upper Atmosphere. *Roger V. Yelle.* 383, 380, 217-A10 (1991)

PLANETS: SPECTRA

The Brightness, Albedo, and Temporal Variability of Neptune. *G. W. Lockwood, D. T. Thompson, B. L. Lutz, & E. S. Howell.* 368, 287, 26-F1 (1991)

Discovery of a Doppler-limited CO Line in the Upper Mesosphere of Venus: A New Dynamical Probe. *David Buhl, Gordon Chin, & Jeffrey J. Goldstein.* 369, L17, 40-C1 (1991)

Detection of ^{13}C-Ethane in Jupiter's Atmosphere. *Günter Wiedemann, Gordon L. Bjoraker, & Donald E. Jennings.* 383, L29, 219-D7 (1991)

PLANETS: VENUS

What Maintains the Zonal Circulation in Planetary Atmospheres? *H. G. Mayr, K. L. Chan, I. Harris, & K. Schatten.* 367, 361, 16-E1 (1991)

Discovery of a Doppler-limited CO Line in the Upper Mesosphere of Venus: A New Dynamical Probe. *David Buhl, Gordon Chin, & Jeffrey J. Goldstein.* 369, L17, 40-C1 (1991)

PLANETS AND SATELLITES: GENERAL

Occurrence of Global-Scale Emissions on Jupiter: Proposed Identification of Jovian Dimer H_2 Emission. *L. M. Trafton & J. K. G. Watson.* 385, 320, 15-G8 (1992)

Gamma-Ray Bursts from Planet-Magnetosphere Systems around Neutron Stars. *Hitoshi Hanami.* 389, L71, 73-D11 (1992)

VLA Imaging of a Possible Circumstellar Disk around HL Tauri. *L. F. Rodríguez, J. Cantó, J. M. Torrelles, J. F. Gómez, & P. T. P. Ho.* 393, L29, 120-E1 (1992)

Probing the Heliosphere with Energetic Hydrogen Atoms. *K. C. Hsieh, K. L. Shih, J. R. Jokipii, & S. Grzedzielski.* 393, 756, 125-C1 (1992)

Evidence for Unseen Companions around T Tauri Stars. *Kenneth A. Marsh & Michael J. Mahoney.* 395, L115, 154-D1 (1992)

On the Detectability of the Gas of Other Solar Nebulae. *Toshihiro Omodaka, Yoshimi Kitamura, & Eiko Kawazoe.* 396, L87, 167-C7 (1992)

γ Cephei: Rotation or Planetary Companion? *Gordon A. H. Walker, David A. Bohlender, Andrew R. Walker, Alan W. Irwin, Stephenson L. S. Yang, & Ana Larson.* 396, L91, 167-D1 (1992)

A Survey of Bimolecular Ion-Molecule Reactions for Use in Modeling the Chemistry of Planetary Atmospheres, Cometary Comae, and Interstellar Clouds: 1993 Supplement. *V. G. Anicich.* 84, 215, 4-C11 (1993)

Gravitational Tides in the Outer Planets. I. Implications of Classical Tidal Theory. *Petros J. Ioannou & Richard S. Lindzen.* 406, 252, 58-B12 (1993)

Genesis of a Planet in Messier 4. *Steinn Sigurdsson.* 415, L43, 192-B13 (1993)

Disk-Satellite Interaction via Density Waves and the Eccentricity Evolution of Bodies Embedded in Disks. *Paweł Artymowicz.* 419, 166, 248-C1 (1993)

Thermal Behavior of Rocky Material in Contact with Ice. *Norbert I. Kömle, Gerhard Steiner, & Eberhard Grün.* 421, 350, 20-C9 (1994)

Sources and Acceleration of Energetic Particles in Planetary Magnetospheres. *Eberhard Möbius.* 90, 521, 10-C1 (1994)

Gravitational Instabilities in a Proto–Planetary Disk Including the Effects of Magnetic Fields. *Hyerim Noh, Ethan T. Vishniac, & William D. Cochran.* 428, 275, 131-E9 (1994)

Hubble Space Telescope Goddard High-Resolution Spectrograph H_2 Rotational Spectra of Jupiter's Aurora. *John T. Clarke, Lotfi Ben Jaffel, Alfred Vidal-Madjar, G. Randall Gladstone, J. Hunter Waite, Jr., Renee Prangé, Jean-Claude Gérard, Joe Ajello, & Geoffrey James.* 430, L73, 166-C1 (1994)

Disk Tides and Accretion Runaway. *William R. Ward & Joseph M. Hahn.* 440, L25, 48-E1 (1995)

Magnetic Moments and Angular Momenta of Stars and Planets. *C. N. Arge, D. J. Mullan, & A. Z. Dolginov.* 443, 795, 108-G1 (1995)

Improved Bounds on Nonluminous Matter in Solar Orbit. *John D. Anderson, Eunice L. Lau, Timothy P. Krisher, Duane A. Dicus, Doris C. Rosenbaum, & Vigdor L. Teplitz.* 448, 885, 207-B7 (1995)

Optimization and Performance of Adaptive Optics for Imaging Extrasolar Planets. *Steven M. Stahl & David G. Sandler.* 454, L153, 316-F13 (1995)

PLANETS AND SATELLITES: INDIVIDUAL

Charon

High-Resolution Imaging of the Pluto-Charon System with the Faint Object Camera of the *Hubble Space Telescope*. *R. Albrecht, C. Barbieri, H.-M. Adorf, G. Corrain, A. Gemmo, P. Greenfield, O. Hainaut, R. N. Hook, D. J. Tholen, J. C. Blades, & W. B. Sparks.* 435, L75, 252-G3 (1994)

Hyperion

Topological Analysis of Chaotic Orbits: Revisiting Hyperion. *Patricia T. Boyd, Gabriel B. Mindlin, Robert Gilmore, & Hernán G. Solari.* 431, 425, 181-C12 (1994)

Io

Detection of [O III] λ5007 Emission from the Io Plasma Torus. *Nicolas Thomas.* 414, L41, 175-G2 (1993)

Detection of [O II] λ2471 from the Io Plasma Torus. *M. A. McGrath, P. D. Feldman, D. F. Strobel, H. W. Moos, & G. E. Ballester.* 415, L55, 192-D7 (1993)

Resonance Scattering by Mercurian Sodium. *Donald M. Hunten & Lloyd V. Wallace.* 417, 757, 228-G6 (1993)

Hopkins Ultraviolet Telescope Determination of the Io Torus Electron Temperature. *D. T. Hall, C. J. Bednar, S. T. Durrance, P. D. Feldman, M. A. McGrath, H. W. Moos, & D. F. Strobel.* 420, L45, 7-F7 (1994)

Extreme Ultraviolet Explorer Satellite Observation of Jupiter's Io Plasma Torus. *D. T. Hall, G. R. Gladstone, H. W. Moos, F. Bagenal, J. T. Clarke, P. D. Feldman, M. A. McGrath, N. M. Schneider, D. E. Shemansky, D. F. Strobel, & J. H. Waite.* 426, L51, 103-G1 (1994)

Fabry-Perot Imaging of O III λ = 5007 Å Emission in the Io Plasma Torus. *M. Küppers & K. Jockers.* 441, L101, 76-E4 (1995)

Neutral Sulfur Emission from the Io Torus Measured with the Hopkins Ultraviolet Telescope. *Samuel T. Durrance, Paul D. Feldman, William P. Blair, Arthur F. Davidsen, Gerard A. Kriss, Jeffrey W. Kruk, Knox S. Long, & H. Warren Moos.* 447, 408, 178-A10 (1995)

The Structure of the Io Torus. *Nicholas M. Schneider & John T. Trauger.* 450, 450, 234-B13 (1995)

Jupiter

Methane Band Photometry of the Faded South Equatorial Belt of Jupiter. *Takehiko Satoh & Kiyoshi Kawabata.* 384, 298, 4-F1 (1992)

Occurrence of Global-Scale Emissions on Jupiter: Proposed Identification of Jovian Dimer H_2 Emission. *L. M. Trafton & J. K. G. Watson.* 385, 320, 15-G8 (1992)

The Abundance and Distribution of Water Vapor in the Jovian Troposphere as Inferred from *Voyager* IRIS Observations. *Barbara E. Carlson, Andrew A. Lacis, & William B. Rossow.* 388, 648, 58-C7 (1992)

The Molecular-Metallic Transition of Hydrogen and the Structure of Jupiter and Saturn. *Gilles Chabrier, Didier Saumon, William B. Hubbard, & Jonathan I. Lunine.* 391, 817, 98-B1 (1992)

The Role of the Molecular-metallic Transition of Hydrogen in the Evolution of Jupiter, Saturn, and Brown Dwarfs. *Didier Saumon, William B. Hubbard, Gilles Chabrier, & Hugh M. Van Horn.* 391, 827, 98-B13 (1992)

Ortho-para–Hydrogen Equilibration on Jupiter. *Barbara E. Carlson, Andrew A. Lacis, & William B. Rossow.* 393, 357, 118-E6 (1992)

On the Inclusion of the Hydrogen Dimer in the Analysis of *Voyager* IRIS Spectra. *Barbara E. Carlson, Qiancheng Ma, & Andrew A. Lacis.* 394, L29, 133-D10 (1992)

Inertial Mode Oscillations of Jupiter. *Umin Lee, Tod E. Strohmayer, & H. M. Van Horn.* 397, 674, 179-D10 (1992)

Line-resolved Spectroscopy of the Jovian H_3^+ Auroral Emission at 3.5 Micrometers. *Pierre Drossart, Jean-Pierre Maillard, John Caldwell, & Jan Rosenqvist.* 402, L25, 6-E1 (1993)

Acoustic Oscillations of Jupiter. *Umin Lee.* 405, 359, 45-E12 (1993)

Gravitational Tides in the Outer Planets. II. Interior Calculations and Estimation of the Tidal Dissipation Factor. *Petros J. Ioannou & Richard S. Lindzen.* 406, 266, 58-D1 (1993)

The Spectrum of the Jovian Dayglow Observed at 3 Å Resolution with the Hopkins Ultraviolet Telescope. *P. D. Feldman, M. A. McGrath, H. W. Moos, S. T. Durrance, D. F. Strobel, & A. F. Davidsen.* 406, 279, 58-E1 (1993)

Polycyclic Aromatic Hydrocarbons in the Atmospheres of Titan and Jupiter. *Carl Sagan, B. N. Khare, W. R. Thompson, G. D. McDonald, Michael R. Wing, Jeffrey L. Bada, Tuan Vo-Dinh, & E. T. Arakawa.* 414, 399, 175-A3 (1993)

Detection of [O II] λ2471 from the Io Plasma Torus. *M. A. McGrath, P. D. Feldman, D. F. Strobel, H. W. Moos, & G. E. Ballester.* 415, L55, 192-D7 (1993)

Hopkins Ultraviolet Telescope Determination of the Io Torus Electron Temperature. *D. T. Hall, C. J. Bednar, S. T. Durrance, P. D. Feldman, M. A. McGrath, H. W. Moos, & D. F. Strobel.* 420, L45, 7-F7 (1994)

High-Resolution Spectra of Jupiter's Northern Auroral Ultraviolet Emission with the *Hubble Space Telescope*. *L. M. Trafton, J. C. Gérard, G. Munhoven, & J. H. Waite, Jr.* 421, 816, 28-D3 (1994)

Jupiter Radio Bursts and Particle Acceleration. *Michael D. Desch.* 90, 541, 10-D10 (1994)

A Non-LTE Model for the Jovian Methane Infrared Emissions at High Spectral Resolution. *Rangasayi N. Halthore, J. E. Allen, Jr., & Philip L. DeCola.* 424, L61, 70-A4 (1994)

Gravitational Tides on Jupiter. III. Atmospheric Response and Mean Flow Acceleration. *Petros J. Ioannou & Richard S. Lindzen.* 424, 1005, 77-C10 (1994)

Extreme Ultraviolet Explorer Satellite Observation of Jupiter's Io Plasma Torus. *D. T. Hall, G. R. Gladstone, H. W. Moos, F. Bagenal, J. T. Clarke, P. D. Feldman, M. A. McGrath, N. M. Schneider, D. E. Shemansky, D. F. Strobel, & J. H. Waite.* 426, L51, 103-G1 (1994)

Seismological Consequences of the Collision of Shoemaker-Levy/9 with Jupiter. *Mark S. Marley.* 427, L63, 118-A9 (1994)

Global Oscillation Amplitudes Excited by the Jupiter-Comet Collision. *U. Lee & H. M. Van Horn.* 428, L41, 134-F5 (1994)

Explosions of Infalling Comets in Jupiter's Atmosphere. *Roger A. Chevalier & Craig L. Sarazin.* 429, 863, 156-D6 (1994)

Neutral Cloud Theory of the Jovian Nebula: Anomalous Ionization Effect of Superthermal Electrons. *D. D. Barbosa.* 430, 376, 163-G10 (1994)

Hubble Space Telescope Goddard High-Resolution Spectrograph H_2 Rotational Spectra of Jupiter's Aurora. *John T. Clarke, Lotfi Ben Jaffel, Alfred Vidal-Madjar, G. Randall Gladstone, J. Hunter Waite, Jr., Renee Prangé, Jean-Claude Gérard, Joe Ajello, & Geoffrey James.* 430, L73, 166-C1 (1994)

Explosion of Comet Shoemaker-Levy 9 on Entry into the Jovian Atmosphere. *Mordecai-Mark Mac Low & Kevin Zahnle.* 434, L33, 232-E11 (1994)

The Behavior of Fragments of Comet Shoemaker-Levy 9 in the Atmosphere of Jupiter. *G. B. Field & A. Ferrara.* 438, 957, 17-C11 (1995)

On the Injection of Fine Dust from the Jovian Magnetosphere. *D. Maravilla, K. R. Flammer, & D. A. Mendis.* 438, 968, 17-D11 (1995)

Excitation of Low-Order Jovian *p*-Modes by Cometary Impacts. *Andrew J. Dombard & Stephen P. Boughn.* 443, L89, 112-B11 (1995)

High-Resolution Ultraviolet Spectroscopy of Jupiter's Aurora with the *Hubble Space Telescope*. *Y. H. Kim, J. J. Caldwell, & J. L. Fox.* 447, 906, 188-D3 (1995)

The Structure of the Io Torus. *Nicholas M. Schneider & John T. Trauger.* 450, 450, 234-B13 (1995)

Effect of Radiative Transport on the Evolution of Jupiter and Saturn. *T. Guillot, G. Chabrier, D. Gautier, & P. Morel.* 450, 463, 234-D4 (1995)

Detection of $H_2{}^{18}O$ in Jupiter. *Keith S. Noll, T. R. Geballe, & Roger F. Knacke.* 453, L49, 290-A11 (1995)

The Ultraviolet Reflectivity of Jupiter at 3.5 Å Resolution from Astro-1 and Astro-2. *Patrick F. Morrissey, Paul D. Feldman, Melissa A. McGrath, Brian C. Wolven, & H. Warren Moos.* 454, L65, 308-E2 (1995)

Mercury

Subsurface Emissions from Mercury: VLA Radio Observations at 2 and 6 Centimeters. *Michael J. Ledlow, Jack O. Burns, Galen R. Gisler, Jun-Hui Zhao, Michael Zeilik, & Daniel N. Baker.* 384, 640, 10-B1 (1992)

Resonance Scattering by Mercurian Sodium. *Donald M. Hunten & Lloyd V. Wallace.* 417, 757, 228-G6 (1993)

On the Surface Sputtering Effects of Magnetospheric Charged Particles at Mercury. *W.-H. Ip.* 418, 451, 236-E12 (1993)

Theoretical Overview and Modeling of the Sodium and Potassium Atmospheres of Mercury. *William H. Smyth & M. L. Marconi.* 441, 839, 73-E12 (1995)

Neptune

Millimeter-Wave Observations of Saturn, Uranus, and Neptune: CO and HCN on Neptune. *Jan Rosenqvist, Emmanuel Lellouch, Paul N. Romani, Gabriel Paubert, & Thérèse Encrenaz.* 392, L99, 113-G1 (1992)

First Observations of CO and HCN on Neptune and Uranus at Millimeter Wavelengths and Their Implications for Atmospheric Chemistry. *A. Marten, D. Gautier, T. Owen, D. B. Sanders, H. E. Matthews, S. K. Atreya, R. P. J. Tilanus, & J. R. Deane.* 406, 285, 58-E9 (1993)

Pluto

High-Resolution Imaging of the Pluto-Charon System with the Faint Object Camera of the *Hubble Space Telescope*. *R. Albrecht, C. Barbieri, H.-M. Adorf, G. Corrain, A. Gemmo, P. Greenfield, O. Hainaut, R. N. Hook, D. J. Tholen, J. C. Blades, & W. B. Sparks.* 435, L75, 252-G3 (1994)

Saturn

The Molecular-Metallic Transition of Hydrogen and the Structure of Jupiter and Saturn. *Gilles Chabrier, Didier Saumon, William B. Hubbard, & Jonathan I. Lunine.* 391, 817, 98-B1 (1992)

The Role of the Molecular-metallic Transition of Hydrogen in the Evolution of Jupiter, Saturn, and Brown Dwarfs. *Didier Saumon, William B. Hubbard, Gilles Chabrier, & Hugh M. Van Horn.* 391, 827, 98-B13 (1992)

Millimeter-Wave Observations of Saturn, Uranus, and Neptune: CO and HCN on Neptune. *Jan Rosenqvist, Emmanuel Lellouch, Paul N. Romani, Gabriel Paubert, & Thérèse Encrenaz.* 392, L99, 113-G1 (1992)

Detection of H_3^+ Infrared Emission Lines in Saturn. *T. R. Geballe, M.-F. Jagod, & T. Oka.* 408, L109, 95-F7 (1993)

On the Nature of the Polarization Opposition Effect Exhibited by Saturn's Rings. *Michael I. Mishchenko.* 411, 351, 131-F1 (1993)

Topological Analysis of Chaotic Orbits: Revisiting Hyperion. *Patricia T. Boyd, Gabriel B. Mindlin, Robert Gilmore, & Hernán G. Solari.* 431, 425, 181-C12 (1994)

Effect of Radiative Transport on the Evolution of Jupiter and Saturn. *T. Guillot, G. Chabrier, D. Gautier, & P. Morel.* 450, 463, 234-D4 (1995)

Titan

Polycyclic Aromatic Hydrocarbons in the Atmospheres of Titan and Jupiter. *Carl Sagan, B. N. Khare, W. R. Thompson, G. D. McDonald, Michael R. Wing, Jeffrey L. Bada, Tuan Vo-Dinh, & E. T. Arakawa.* 414, 399, 175-A3 (1993)

Uranus

Millimeter-Wave Observations of Saturn, Uranus, and Neptune: CO and HCN on Neptune. *Jan Rosenqvist, Emmanuel Lellouch, Paul N. Romani, Gabriel Paubert, & Thérèse Encrenaz.* 392, L99, 113-G1 (1992)

Detection of H_3^+ from Uranus. *L. M. Trafton, T. R. Geballe, S. Miller, J. Tennyson, & G. E. Ballester.* 405, 761, 52-E1 (1993)

First Observations of CO and HCN on Neptune and Uranus at Millimeter Wavelengths and Their Implications for Atmospheric Chemistry. *A. Marten, D. Gautier, T. Owen, D. B. Sanders, H. E. Matthews, S. K. Atreya, R. P. J. Tilanus, & J. R. Deane.* 406, 285, 58-E9 (1993)

PLASMAS

Three-dimensional Kinematic Reconnection of Plasmoids. *Yun-Tung Lau & John M. Finn.* 366, 577, 10-B11 (1991)

Saturation of the Synchrotron Megamaser. *André R. Crusius-Wätzel.* 368, 390, 30-A1 (1991)

Formulae for the Cyclotron Luminosity of Magnetized Plasma Slabs. *G. Chanmugam & Steven H. Langer.* 368, 580, 32-C11 (1991)

Luminosity Enhancement Factor for Thermal Comptonization and the Electron Energy Balance. *C. D. Dermer, E. P. Liang, & E. Canfield.* 369, 410, 42-G5 (1991)

The Finite-Amplitude Behavior of the Joule Mode under Astrophysical Conditions. *G. Bodo, S. Massaglia, R. Rosner, & A. Ferrari.* 370, 398, 52-C1 (1991)

The Cyclotron Maser Instability: Application to Low-Density Magnetoplasmas. *H. P. Ladreiter.* 370, 419, 52-D12 (1991)

Mechanisms for Pulsar Eclipse. *David Eichler.* 370, L27, 53-D11 (1991)

On the Thermal Stability of Slabs, Cylinders, and Spheres. *Miguel H. Ibáñez S., & Florencio P. Plachco M.* 370, 743, 57-F1 (1991)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. I. The Issues, Formulation of the Problem, and Method of Solution. *Telemachos Ch. Mouschovias & Scott A. Morton.* 371, 296, 63-G1 (1991)

Densities and Abundances of Hot Cometary Ions in the Coma of P/Halley. *M. Neugebauer, R. Goldstein, B. E. Goldstein, S. A. Fuselier, H. Balsiger, & W.-H. Ip.* 372, 291, 77-E6 (1991)

Solar and Stellar Radio Spikes: Limits on the Saturation of the Electron-Cyclotron Maser. *Donat G. Wentzel & Markus J. Aschwanden.* 372, 688, 84-C1 (1991)

Magnetic Braking, Ambipolar Diffusion, Cloud Cores, and Star Formation: Natural Length Scales and Protostellar Masses. *Telemachos Ch. Mouschovias.* 373, 169, 88-B3 (1991)

Direct Radiation from a Strong DC Electric Field. *Donat G. Wentzel.* 373, 285, 89-E3 (1991)

Accurate Collision Integrals for the Attractive Static Screened Coulomb Potential with Application to Electrical Conductivity. *James MacDonald.* 76, 369, 29-F3 (1991)

Rosseland and Planck Mean Opacities of a Zero-Metallicity Gas. *Paolo Lenzuni, David F. Chernoff, & Edwin E. Salpeter.* 76, 759, 35-B13 (1991)

Siphon Flows in Isolated Magnetic Flux Tubes. IV. Critical Flows with Standing Tube Shocks. *John H. Thomas & Benjamin Montesinos.* 375, 404, 115-G11 (1991)

The Dissipation of Magnetohydrodynamic Turbulence Responsible for Interstellar Scintillation and the Heating of the Interstellar Medium. *Steven R. Spangler.* 376, 540, 133-B5 (1991)

The Interaction of Collisionless Shocks in Astrophysical Plasmas. *P. J. Cargill.* 376, 771, 136-A1 (1991)

Asymptotic Structure of Hydromagnetically Driven Relativistic Winds. *Tzihong Chiueh, Zhi-yun Li, & Mitchell C. Begelman.* 377, 462, 145-D11 (1991)

The O VII Soft X-Ray Spectrum and Its Application to Hot Plasmas in Astrophysics. *A. H. Gabriel, F. Bely-Dubau, P. Faucher, & L. W. Acton.* 378, 438, 156-D1 (1991)

Coherent Radiation from Energetic Electron Streams via Collisionless Bremsstrahlung in Strong Plasma Turbulence. *James C. Weatherall & Gregory Benford.* 378, 543, 159-B8 (1991)

Joule Heating as an Explanation for the Differential Emission Measure Structure and Systematic Redshifts in the Sun's Lower Transition Region. *George Roumeliotis.* 379, 392, 167-G9 (1991)

Propagation of Magnetoacoustic Waves in the Solar Atmosphere with Random Inhomogeneities of Density and Magnetic Fields. *M. Ryutova, M. Kaisig, & T. Tajima.* 380, 268, 179-D1 (1991)

Magnetic Field–aligned Electric Potentials in Nonideal Plasma Flows. *K. Schindler, M. Hesse, & J. Birn.* 380, 293, 179-G9 (1991)

Collisional Rates and Cooling within Atomic Hydrogen Plasmas. *T. T. Scholz & H. R. J. Walters.* 380, 302, 180-A5 (1991)

Avalanches and the Distribution of Solar Flares. *Edward T. Lu & Russell J. Hamilton.* 380, L89, 188-F5 (1991)

Magnetoacoustic Heating of the Solar Chromosphere. *Joseph M. Davila & S. M. Chitre.* 381, L31, 194-D12 (1991)

The Rosseland Mean Free-Free Gaunt Factor of the Dense High-Temperature Stellar Plasma. *Naoki Itoh, Fumiyoshi Kuwashima, Koki Ichihashi, & Haruhiko Mutoh.* 382, 636, 209-E1 (1991)

Coronal Evolution Due to Shear Motion. *R. S. Steinolfson.* 382, 677, 210-A13 (1991)

Level Populations for Fe III Applicable to Astrophysical Plasmas and a Comparison with Planetary Nebula Observations. *F. P. Keenan, K. A. Berrington, P. G. Burke, C. J. Zeippen, M. Le Dourneuf, & R. E. S. Clegg.* 384, 385, 5-F7 (1992)

Resonance Line Radiation Instability in Fully Ionized Plasmas. *William G. Mathews.* 386, 90, 25-C1 (1992)

Connection between Ambient Density Fluctuations and Clumpy Langmuir Waves in Type III Radio Sources. *P. A. Robinson, I. H. Cairns, & D. A. Gurnett.* 387, L101, 48-F1 (1992)

Close Encounters in Coulomb and Gravitational Scattering. I. Relaxation of Isotropic Test-Particle Distributions by Like-Particle Collisions. *Edward C. Shoub.* 389, 558, 68-D8 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. II. Results and a Length Scale for Protostellar Cores. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 144, 75-G1 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. III. A Further Parameter Study and Magnetically Controlled Accretion Rate. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 166, 76-A11 (1992)

On the Thermal Conductivity due to Collisions between Relativistic Degenerate Electrons. *F. X. Timmes.* 390, L107, 85-D9 (1992)

Relativistic, Perpendicular Shocks in Electron-Positron Plasmas. *Yves A. Gallant, Masahiro Hoshino, A. Bruce Langdon, Jonathan Arons, & Claire E. Max.* 391, 73, 87-A1 (1992)

X-Ray Emission-Line Spectra of Photoionized Plasmas: Density Sensitivity of the Fe L-Shell Series. *Duane A. Liedahl, Steven M. Kahn, Albert L. Osterheld, & William H. Goldstein.* 391, 306, 89-F11 (1992)

The Production of ^{3}He and Heavy Ion Enrichments in ^{3}He-rich Flares by Electromagnetic Hydrogen Cyclotron Waves. *M. Temerin & I. Roth.* 391, L105, 100-B1 (1992)

Neutrino Emissivity of an Ultrarelativistic Plasma from Positron and Plasmino Annihilation. *Eric Braaten.* 392, 70, 101-G7 (1992)

Self-similar Evolution of Magnetized Plasmas. I. Quasi-static Solution. *Wei-Hong Yang.* 392, 465, 108-B1 (1992)

Stochastic Gyroresonant Electron Acceleration in a Low-Beta Plasma. I. Interaction with Parallel Transverse Cold Plasma Waves. *Jürgen Steinacker & James A. Miller.* 393, 764, 125-C10 (1992)

Microwave Transition Radiation in Solar Flares and in Astrophysics. *G. D. Fleishman & S. W. Kahler.* 394, 688, 138-A11 (1992)

Magnetized Stimulated Scattering in Pulsar Winds. *Mark W. Sincell & Julian H. Krolik.* 395, 553, 149-F7 (1992)

Incompressible Disturbances in Nonuniform Media: Formation of Small Scales. *Francesco Malara, Pierluigi Veltri, Claudio Chiuderi, & Giorgio Einaudi.* 396, 297, 158-F13 (1992)

Propagation of Sound and Thermal Waves in a Plasma with Solar Abundances. *Miguel H. Ibáñez S., & Néstor M. Sánchez D.* 396, 717, 166-C1 (1992)

First-Order Fermi Acceleration in Spherically Symmetric Flows: Solutions Including Quadratic Losses. *Peter A. Becker.* 397, 88, 169-B6 (1992)

On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. I. General Results. *Miguel H. Ibáñez S., Antonio Parravano, & César A. Mendoza B.* 398, 177, 184-B1 (1992)

On the Causes of Temperature Change in Inhomogeneous Low-Density Astrophysical Plasmas. *Jack D. Scudder.* 398, 299, 185-E1 (1992)

A Burst Model for Line Emission in the Solar Atmosphere. II. Coronal Extreme Ultraviolet Lines. *U. Feldman, J. M. Laming, P. Mandelbaum, W.H. Goldstein, & A. Osterheld.* 398, 692, 192-F3 (1992)

Stochastic Gyroresonant Electron Acceleration in a Low-Beta Plasma. II. Implications of Thermal Effects in a Solar Flare Plasma. *James A. Miller & Jürgen Steinacker.* 399, 284, 198-F12 (1992)

The Effect of Line Tying on Parker's Instability. *Ellen G. Zweibel & David L. Bruhwiler.* 399, 318, 199-C11 (1992)

A Hybrid Thermal/Nonthermal Model for the Energetic Emissions from Solar Flares. *Gordon D. Holman & Stephen G. Benka.* 400, L79, 220-F8 (1992)

Electron Injection in Collisionless Shocks. *Amir Levinson.* 401, 73, 222-A1 (1992)

A Flux-limited Treatment for the Conductive Evaporation of Spherical Interstellar Gas Clouds. *William W. Dalton & Steven A. Balbus.* 404, 625, 36-F11 (1993)

Nonlinear Plasma Mechanisms of Pulsar Eclipse in Binary Systems. *M. Gedalin & D. Eichler.* 406, 629, 65-F4 (1993)

A New Explanation of Solar Radio Millisecond "Spikes." *Donat G. Wentzel.* 407, 380, 73-F11 (1993)

On the Nonlinear Instability of a Thermal Field. *Miguel H. Ibáñez S., Antonio Parravano, & César A. Mendoza B.* 407, 611, 78-B13 (1993)

Clumpy Langmuir Waves in Type III Radio Sources: Comparison of Stochastic-Growth Theory with Observations. *P. A. Robinson, I. H. Cairns, & D. A. Gurnett.* 407, 790, 80-C9 (1993)

Centrifugally Driven Winds from Protostellar Disks. I. Wind Model and Thermal Structure. *Pedro N. Safier.* 408, 115, 84-E6 (1993)

On the Thermal Stability of a Radiating Plasma Subject to Nonlocal Thermal Conduction. I. Linear Analysis. *E. Chun & R. Rosner.* 408, 678, 93-F1 (1993)

Particle Dynamics in Spherical Wave Fields of Rotating Magnets: Acceleration Boundary, Plasma Border, and $1/r_0^2$ Law of Asymptotic Energy. *K. O. Thielheim.* 409, 333, 101-C1 (1993)

Ion Acceleration and Abundance Enhancements by Electron Beam Instabilities in Impulsive Solar Flares. *James A. Miller & Adolfo F. Viñas.* 412, 386, 146-G12 (1993)

On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. II. Application to the Interstellar Medium. *Antonio Parravano, Miguel H. Ibáñez S., & César A. Mendoza B.* 412, 625, 151-E6 (1993)

Solar Flares and Avalanches in Driven Dissipative Systems. *Edward T. Lu, Russell J. Hamilton, J. M. McTiernan, & Kenneth R. Bromund.* 412, 841, 154-C9 (1993)

A Limitation on the Generation of Magnetic Fields. *Steven A. Balbus.* 413, L137, 169-C11 (1993)

Detection of [O III] λ5007 Emission from the Io Plasma Torus. *Nicolas Thomas.* 414, L41, 175-G2 (1993)

Propagation of Hydrodynamic Waves in Optically Thin Plasmas. *Miguel H. Ibáñez S., & Orlando B. Escalona T.* 415, 335, 189-B7 (1993)

Detection of [O II] λ2471 from the Io Plasma Torus. *M. A. McGrath, P. D. Feldman, D. F. Strobel, H. W. Moos, & G. E. Ballester.* 415, L55, 192-D7 (1993)

Cooling Functions for Low-Density Astrophysical Plasmas. *Ralph S. Sutherland & M. A. Dopita.* 88, 253, 43-D9 (1993)

Polarization Changes of Radiation through Stimulated Raman Scattering. *R. T. Gangadhara & V. Krishan.* 415, 505, 194-B6 (1993)

Ambipolar Diffusion and Star Formation: Formation and Contraction of Axisymmetric Cloud Cores. II. Results. *Robert A. Fiedler & Telemachos Ch. Mouschovias.* 415, 680, 196-C7 (1993)

Electromagnetic Radiation from a Strong DC Electric Field. *Manuel Güdel & Donat G. Wentzel.* 415, 750, 197-B10 (1993)

A Class of Three-dimensional Isothermal Laminated Equilibria and Their Stability. *Y. P. Chou, B. C. Low, & A. Bhattacharjee.* 416, 379, 205-F12 (1993)

Magnetically Confined Plasma Columns with Helical Symmetry. *L. J. Palumbo & A. M. Platzeck.* 416, 656, 211-E8 (1993)

Stochastic Growth Theory of Type III Solar Radio Emission. *P. A. Robinson & I. H. Cairns.* 418, 506, 237-C8 (1993)

Temperatures of Enhanced Stability in Hot Thin Plasmas. *Neil Gehrels & Ellen D. Williams.* 418, L25, 238-D1 (1993)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. I. Basic Physics and Formulation of the Problem. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 418, 774, 242-B13 (1993)

Ion Thermalization in the Inner Coma of a Comet. *P. Puhl, T. E. Cravens, & J. Lindgren.* 418, 899, 243-G1 (1993)

The Propagation of Sound Waves in a Randomly Magnetized Medium. I. General Considerations. *M. P. Ryutova & E. R. Priest.* 419, 349, 250-E6 (1993)

The Propagation of Sound Waves in a Randomly Magnetized Medium. II. The Interaction of an Unsteady Wave Packet with an Ensemble of Magnetic Flux Tubes. *M. P. Ryutova & E. R. Priest.* 419, 371, 250-G2 (1993)

The Dynamics of Charged Particles in Turbulent Astrophysical Plasmas. *Rüdiger Dung & Vahé Petrosian.* 421, 550, 25-A6 (1994)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. II. Numerical Method of Solution. *Scott A. Morton, Telemachos Ch. Mouschovias, & Glenn E. Ciolek.* 421, 561, 25-B6 (1994)

Magnetogravitational Instability of Self-gravitating Dusty Plasma. *R. K. Chhajlani & A. K. Parihar.* 422, 746, 41-B6 (1994)

Dynamics and Efficiency of Type III Solar Radio Emission. *P. A. Robinson, I. H. Cairns, & A. J. Willes.* 422, 870, 42-F5 (1994)

Foreword. *Edward Chupp.* 90, 151, 10-B1 (1994)

A Theoretical Review of Diffusive Shock Acceleration. *Frank C. Jones.* 90, 561, 10-F10 (1994)

Strong Double Layers, Existence Criteria, and Annihilation: An Application to Solar Flares. *Martin Volwerk & Jan Kuijpers.* 90, 589, 11-B2 (1994)

Particle Orbits, Trapping, and Acceleration in a Filamentary Current Sheet Model. *Bernhard Kliem.* 90, 719, 12-F6 (1994)

Electron-Beam Evolution in Partially Ionized Hydrogenic Plasma with Return Currents. *D. V. Syniavskii & V. V. Zharkova.* 90, 729, 12-G4 (1994)

Acceleration from Field-Aligned Potential Drops. *Gerhard Haerendel.* 90, 765, 13-C5 (1994)

Disk-Accreting Magnetic Neutron Stars as High-Energy Particle Accelerators. *Russell J. Hamilton, Frederick K. Lamb, & M. Coleman Miller.* 90, 837, 14-B9 (1994)

Linear Wave Propagation in Mildly Relativistic Thermal Pair Plasmas. *Paola Pietrini & Julian H. Krolik.* 423, 693, 57-B13 (1994)

Dissociative Recombination of H_2^+ Molecular Ions in Hydrogen Plasmas between 20 K and 4000 K. *I. F. Schneider, O. Dulieu, A. Giusti-Suzor, & E. Roueff.* 424, 983, 77-A10 (1994)

A Model of the Proton Heat Flux Appropriate for Collisionless Plasmas. *L. L. Williams.* 424, L143, 79-G3 (1994)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. III. Typical Axisymmetric Solutions. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 425, 142, 82-A6 (1994)

Standard and Nonstandard Plasma Neutrino Emission Revisited. *Martin Haft, Georg Raffelt, & Achim Weiss.* 425, 222, 83-A8 (1994)

Comparison between Cool and Hot Plasma Behaviors of Surges. *B. Schmieder, L. Golub, & S. K. Antiochos.* 425, 326, 84-C6 (1994)

Self-similar Evolution of Magnetized Plasmas. II. Nonequilibrium Solutions and Hubble's Expansion. *Wei-Hong Yang.* 425, 439, 87-B10 (1994)

Asymptotic Domination of Cold Relativistic MHD Winds by Kinetic Energy Flux. *Mitchell C. Begelman & Zhi-Yun Li.* 426, 269, 99-D9 (1994)

Extreme Ultraviolet Explorer Satellite Observation of Jupiter's Io Plasma Torus. *D. T. Hall, G. R. Gladstone, H. W. Moos, F. Bagenal, J. T. Clarke, P. D. Feldman, M. A. McGrath, N. M. Schneider, D. E. Shemansky, D. F. Strobel, & J. H. Waite.* 426, L51, 103-G1 (1994)

Streaming Instability in Relativistically Hot Pulsar Magnetospheres. *James C. Weatherall.* 428, 261, 131-D5 (1994)

Charge Transfer in Helium-rich Supernova Plasma. *Douglas A. Swartz.* 428, 267, 131-D13 (1994)

Hot Plasmas and the Generation of Gamma Rays. *A. C. Fabian.* 92, 555, 39-C1 (1994)

On Thermal Comptonization in $e^{\pm}$ Pair Plasmas. *Gabriele Ghisellini & Francesco Haardt.* 429, L53, 157-G7 (1994)

Stable Space Charge Configurations near the Force-free Surface of Rotating Magnets. *K. O. Thielheim & H. Wolfsteller.* 431, 718, 187-D13 (1994)

Stability Criteria for Massive Current Sheets in Two-dimensional Potential Magnetic Fields. *J. J. Aly, S. Colombi, & T. Lepeltier.* 432, 793, 205-G9 (1994)

A Model for the X-Ray and Ultraviolet Emission from Seyfert Galaxies and Galactic Black Holes. *Francesco Haardt, Laura Maraschi, & Gabriele Ghisellini.* 432, L95, 206-F7 (1994)

On a Thermodynamic Origin of the Cometary Ion Rays. *W.-H. Ip.* 432, L143, 207-D11 (1994)

Hard X-Rays from NGC 4151: A Thermal Origin? *Lev Titarchuk & Apostolos Mastichiadis.* 433, L33, 215-A7 (1994)

Linear Stability of Spherical Collisionless Stellar Systems. *G. Bertin, F. Pegoraro, F. Rubini, & E. Vesperini.* 434, 94, 226-D8 (1994)

Steady State Magnetic Reconnection in Planar Geometries. *I. J. D. Craig & S. M. Henton.* 434, 192, 228-B1 (1994)

Coalescence of Two Current Loops with a Kink Instability Simulated by a Three-dimensional Electromagnetic Particle Code. *Ken-Ichi Nishikawa, Jun-ichi Sakai, Jie Zhao, Torsten Neubert, & Oscar Buneman.* 434, 363, 230-D7 (1994)

On the Absence of a Relationship between the Properties of the $T_e \geq 10^6$ K and the Properties of the $T_e \leq 7 \times 10^5$ K Solar Plasmas. *U. Feldman & J. M. Laming.* 434, 370, 230-E13 (1994)

Generalized Comptonization Models and Application to the Recent High-Energy Observations. *Lev Titarchuk.* 434, 570, 235-F7 (1994)

Flare Plasma Dynamics Observed with the *Yohkoh* Bragg Crystal Spectrometer. II. Properties of the Fe XXV, Ca XIX, and S XV Resonance Lines. *John T. Mariska.* 434, 756, 238-C1 (1994)

Electron Energy Loss in Oxygen Plasmas. *G. A. Victor, John C. Raymond, & J. L. Fox.* 435, 864, 258-A7 (1994)

What is the Condition for Fast Magnetic Reconnection? *T. Yokoyama & K. Shibata.* 436, L197, 282-E7 (1994)

Temperature Dependence of Nonthermal Motions in Solar Flare Plasmas Observed with the Flat Crystal Spectrometer on *SMM*. *Ester Antonucci & Maria Adele Dodero.* 438, 480, 8-C3 (1995)

Cooling of Solar Flare Plasmas. I. Theoretical Considerations. *Peter J. Cargill, John T. Mariska, & Spiro K. Antiochos.* 439, 1034, 39-A3 (1995)

Coronal Loop Formation Resulting from Photospheric Convection. *G. Van Hoven, Y. Mok, & Z. Mikić.* 440, L105, 58-D8 (1995)

Cosmic Dust Synthesis by Accretion and Coagulation. *G. Praburam & J. Goree.* 441, 830, 73-D4 (1995)

Fabry-Perot Imaging of O III $\lambda = 5007$ Å Emission in the Io Plasma Torus. *M. Küppers & K. Jockers.* 441, L101, 76-E4 (1995)

High-Resolution Measurements of the Kα Spectra of Low-Ionization Species of Iron: A New Spectral Signature of Nonequilibrium Ionization Conditions in Young Supernova Remnants. *V. Decaux, P. Beiersdorfer, A. Osterheld, M. Chen, & S. M. Kahn.* 443, 464, 101-D13 (1995)

Flare Plasma Dynamics Observed with the *Yohkoh* Bragg Crystal Spectrometer. III. Spectral Signatures of Electron-Beam–heated Atmospheres. *John T. Mariska.* 444, 478, 120-B12 (1995)

Nonlinear Alfvén Wave Propagation in Nonhomogeneous Collisionless Media. *Ildar K. Khabibrakhmanov & Danny Summers.* 444, 796, 127-D9 (1995)

Vacuum Zero-Point Field Pressure Instability in Astrophysical Plasmas and the Formation of Cosmic Voids. *Alfonso Rueda, Bernhard Haisch, & Daniel C. Cole.* 445, 7, 132-D10 (1995)

Thermal Cyclotron Absorption Coefficients. II. Opacities in the Stokes Formalism. *H. M. Väth & G. Chanmugam.* 98, 295, 26-A9 (1995)

Magnetic Viscosity by Localized Shear Flow Instability in Magnetized Accretion Disks. *R. Matsumoto & T. Tajima.* 445, 767, 145-G1 (1995)

Thermal Comptonization in Mildly Relativistic Pair Plasmas. *J. G. Skibo, C. D. Dermer, R. Ramaty, & J. M. McKinley.* 446, 86, 154-D6 (1995)

Derivation of Analytical Particle Spectra from the Solution of the Transport Equation by the WKBJ Method. *A. Gallegos-Cruz & J. Pérez-Peraza.* 446, 400, 158-F11 (1995)

Fokker-Planck Equations of Stochastic Acceleration: Green's Functions and Boundary Conditions. *Brian T. Park & Vahé Petrosian.* 446, 699, 165-F10 (1995)

The Dynamics of Flux Tubes in a High-β Plasma. I. A General Description. *Ethan T. Vishniac.* 446, 724, 166-B1 (1995)

The Statistical Physics of Solar Active Regions and the Fundamental Nature of Solar Flares. *Edward T. Lu.* 446, L109, 171-E3 (1995)

The Inverse Compton Thermostat in Hot Plasmas near Accreting Black Holes. *Paola Pietrini & Julian H. Krolik.* 447, 526, 183-B1 (1995)

Comptonization Models and Spectroscopy of X-Ray and Gamma-Ray Sources: A Combined Study by Monte Carlo and Analytical Methods. *Xin-Min Hua & Lev Titarchuk.* 449, 188, 212-F13 (1995)

Detectability of Electrostatic Decay Products in *Ulysses* and *Galileo* Observations of Type III Solar Radio Sources. *Iver H. Cairns.* 449, L95, 217-E8 (1995)

Self-Consistency Constraints on the Dynamo Mechanism. *A. Bhattacharjee & Y. Yuan.* 449, 739, 223-A6 (1995)

Magnetohydrodynamic Stellar Winds: A New Class of Solutions. *Néstor O. Rotstein & Constantino Ferro Fontán.* 449, 745, 223-B1 (1995)

Magnetohydrodynamic Stellar Wind Solutions in Curved Magnetic Fields. *Néstor O. Rotstein & Constantino Ferro Fontán.* 449, 764, 223-C9 (1995)

One-dimensional Merging of Magnetic Fields with Cooling. *Victoria L. Dorman & Russell M. Kulsrud.* 449, 777, 223-D11 (1995)

Compton Heating and Superthermal Electrons in Gamma-loud Active Galactic Nuclei. *Andrei M. Beloborodov & Andrei F. Illarionov.* 450, 64, 229-A3 (1995)

Exact Solutions for Steady State Incompressible Magnetic Reconnection. *I. J. D. Craig & S. M. Henton.* 450, 280, 231-G9 (1995)

The Role of Magnetic Reconnection in Chromospheric Eruptions. *Judith T. Karpen, Spiro K. Antiochos, & C. Richard DeVore.* 450, 422, 233-G3 (1995)

The Structure of the Io Torus. *Nicholas M. Schneider & John T. Trauger.* 450, 450, 234-B13 (1995)

Power-Law Spectra as a Result of Comptonization of the Soft Radiation in a Plasma Cloud. *Lev Titarchuk & Yurij Lyubarskij.* 450, 876, 243-A10 (1995)

Bound-Bound Transitions in Strongly Magnetized Hydrogen Plasma. *George G. Pavlov & Alexander Y. Potekhin.* 450, 883, 243-B6 (1995)

Satellites on Lyman Alpha Due to H-H and H-H^+ Collisions. *John F. Kielkopf & Nicole F. Allard.* 450, L75, 245-A8 (1995)

The Effects on Mass Flows on the Dissipation of Alfvén Waves in the Upper Layers of the Solar Atmosphere. *Margarita P. Ryutova & Shadia R. Habbal.* 451, 381, 251-B7 (1995)

Differential Emission Measure and Iron-to-Calcium Abundance in Solar Flare Plasmas. *Ester Antonucci & Renato Martin.* 451, 402, 251-D6 (1995)

The Dynamics of Flux Tubes in a High-β Plasma. II. Buoyancy in Stars and Accretion Disks. *Ethan T. Vishniac.* 451, 816, 258-D12 (1995)

A Comparison of Thermal Comptonization Models. *Lev Titarchuk & Xin-Min Hua.* 452, 226, 265-B9 (1995)

DC Electric Field Acceleration of Ions in Solar Flares. *Gordon D. Holman.* 452, 451, 268-C6 (1995)

Stochastic Proton Acceleration by Cascading Alfvén Waves in Impulsive Solar Flares. *James A. Miller & D. Aaron Roberts.* 452, 912, 277-C7 (1995)

General Local Stability Criteria for Stratified, Weakly Magnetized Rotating Systems. *Steven A. Balbus.* 453, 380, 286-C13 (1995)

The Effect of Degeneracy on the Scattering Contribution to the Radiative Opacity. *S. J. Rose.* 453, L45, 290-A4 (1995)

Ion Acoustic Wave Frequencies and Onset Times during Type III Solar Radio Bursts. *Iver H. Cairns & P. A. Robinson.* 453, 959, 297-C1 (1995)

An Exact Solution for Steady State Magnetic Reconnection in Three Dimensions. *I. J. D. Craig, R. B. Fabling, S. M. Henton, & G. J. Rickard.* 455, L197, 335-A11 (1995)

POLARIZATION

Detection of Polarized Ultraviolet Emission from the High-Redshift Radio Galaxy 3C 265. *Buell T. Jannuzi & Richard Elston.* 366, L69, 11-C5 (1991)

A Technique for Using Radio Jets as Extended Gravitational Lensing Probes. *Philipp P. Kronberg, Charles C. Dyer, E. Margaret Burbidge, & Vesa T. Junkkarinen.* 367, L1, 17-B1 (1991)

Extinction and Polarization of Transmitted Light by Partially Aligned Nonspherical Grains. *Mikhail I. Mishchenko.* 367, 561, 20-C8 (1991)

Faraday Rotation and Physical Conditions in the Crab Nebula. *M. F. Bietenholz & P. P. Kronberg.* 368, 231, 26-A1 (1991)

Observation of a Pulsar Wind: CCD Polarimetry of the Crab Nebula. *F. C. Michel, P. A. Scowen, R. J. Dufour, & J. J. Hester.* 368, 463, 30-G1 (1991)

Infrared Polarimetry of Quasars. *Michael L. Sitko & Yudong Zhu.* 369, 106, 37-C5 (1991)

Continuum Polarization by Electron Scattering in Rotationally Distorted, Radiation-driven Stellar Winds: B[e] Supergiants. *Cameron J. Boyd & J. M. Marlborough.* 369, 191, 38-C11 (1991)

Thomson Scattering in a Magnetic Field. II. Arbitrary Field Orientation. *Barbara A. Whitney.* 369, 451, 43-C10 (1991)

Circular Polarization in 1612 MHz OH Maser Emission from OH/IR Stars. *Philip J. Zell & John D. Fix.* 369, 506, 44-A9 (1991)

Polarimetric Mapping of Orion Using MILLIPOL: Magnetic Activity in BN/KL. *Robert W. Leach, Dan P. Clemens, Brian D. Kane, & Richard Barvainis.* 370, 257, 50-D1 (1991)

Polarization of Astronomical Maser Radiation. *Moshe Elitzur.* 370, 407, 52-C12 (1991)

Fluctuations in Astronomical Masers. *Moshe Elitzur.* 370, L45, 53-F6 (1991)

A Relativistic Model of Pulsar Polarization. *M. Blaskiewicz, J. M. Cordes, & I. Wasserman.* 370, 643, 56-D9 (1991)

Synchrotron Radiation with Radiation Reaction. *Robert W. Nelson & Ira Wasserman.* 371, 265, 63-D7 (1991)

Multifrequency VLA, VLBI, and Single-Dish Observations of the Quasar 4C 39.25. *Alan P. Marscher, Yun Fei Zhang, David B. Shaffer, Hugh D. Aller, & Margo F. Aller.* 371, 491, 67-E12 (1991)

Synchronization of the Magnetic Nova V1500 Cygni. *Gary D. Schmidt & H. S. Stockman.* 371, 749, 70-G7 (1991)

Thomson Scattering in a Magnetic Field. I. Field along z. *Barbara A. Whitney.* 75, 1293, 22-F1 (1991)

Optical and Near-Infrared Polarimetry of the Infrared Luminous Galaxy IRAS 23060+0505. *J. H. Hough, C. Brindle, Beverley J. Wills, D. Wills, & J. Bailey.* 372, 478, 81-F9 (1991)

On the Dispersion in Direction of Interstellar Polarization. *P. C. Myers & A. A. Goodman.* 373, 509, 94-C9 (1991)

Broad-Band Linear Polarization in Cool Stars. I. Models and Spatial Effects for Magnetic and Scattering Regions. *Juhani Huovelin & Steven H. Saar.* 374, 319, 102-B1 (1991)

Optical Polarization of a Complete Sample of Radio Sources. *C. D. Impey, C. R. Lawrence, & S. Tapia.* 375, 46, 111-E10 (1991)

Scattering-induced Optical Polarization in Thick Accretion Disks. *John F. Kartje & Arieh Königl.* 375, 69, 111-G6 (1991)

Analysis of SN 1987A Polarimetry. *David J. Jeffery.* 375, 264, 114-C5 (1991)

Stellar Occultation of Polarized Light from Circumstellar Electrons. II. Flat Envelopes Viewed at Arbitrary Inclination. *Geoffrey K. Fox & John C. Brown.* 375, 300, 114-F1 (1991)

Molecular Hydrogen Polarization Images of OMC-1. *Michael G. Burton, N. R. Minchin, J. H. Hough, C. Aspin, D. J. Axon, & J. A. Bailey.* 375, 611, 120-C9 (1991)

Direct VLBI Detection of the Magnetosphere Surrounding the Young Star S1 in ρ Ophiuchi. *Philippe André, Robert B. Phillips, Jean-François Lestrade, & Karl-Ludwig Klein.* 376, 630, 134-B12 (1991)

Multidirectional Views of the Active Nucleus of NGC 1068. *J. S. Miller, R. W. Goodrich, & William G. Mathews.* 378, 47, 151-E13 (1991)

Infrared Polarization Images of Star-forming Regions. I. The Ubiquity of Bipolar Structure. *M. Tamura, Ian Gatley, R. R. Joyce, M. Ueno, H. Suto, & M. Sekiguchi.* 378, 611, 160-A1 (1991)

Detection of Excess Rotation Measure Due to Intracluster Magnetic Fields in Clusters of Galaxies. *K.-T. Kim, Peter C. Tribble, & P. P. Kronberg.* 379, 80, 164-A5 (1991)

Stellar Occultation of Polarized Light from Circumstellar Electrons. III. General Axisymmetric Envelopes. *Geoffrey K. Fox.* 379, 663, 173-A1 (1991)

What Are the Gigahertz Peaked-Spectrum Radio Sources? *C. P. O'Dea, S. A. Baum, & C. Stanghellini.* 380, 66, 176-G5 (1991)

Polarimetric Imaging of the Galactic Center at 12.4 Microns: The Detailed Magnetic Field Structure in the Northern Arm and East-West Bar. *David K. Aitken, Daniel Gezari, Craig H. Smith, Mark McCaughrean, & Patrick F. Roche.* 380, 419, 183-D10 (1991)

Depolarization Asymmetry in the Quasar 3C 47. *Ilias Fernini, J. Patrick Leahy, Jack O. Burns, & John P. Basart.* 381, 63, 189-G1 (1991)

Polarized Radio Emission from the Edge-on Spiral Galaxies NGC 891 and NGC 4565. *S. Sukumar & R. J. Allen.* 382, 100, 201-D1 (1991)

Polarization Properties of Emission Lines from Relativistic Accretion Disks. *Kaiyou Chen & Douglas M. Eardley.* 382, 125, 201-F10 (1991)

On the Wind Geometry of the Wolf-Rayet Star EZ Canis Majoris. *R. E. Schulte-Ladbeck, K. H. Nordsieck, M. Taylor, M. A. Nook, K. S. Bjorkman, A. M. Magalhães, & C. M. Anderson.* 382, 301, 204-A1 (1991)

Catalog of SN 1987A Polarimetry Corrected for Interstellar Polarization. *David J. Jeffery.* 77, 405, 50-B5 (1991)

Vector Magnetic Fields in Sunspots. I. Stokes Profile Analysis Using the Marshall Space Flight Center Magnetograph. *K. S. Balasubramaniam & E. A. West.* 382, 699, 210-C11 (1991)

First Ultraviolet Spectropolarimetry of Hot Supergiants. *M. Taylor, A. D. Code, K. H. Nordsieck, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, R. E. Schulte-Ladbeck, & B. A. Whitney.* 382, L85, 211-D5 (1991)

Discrete Ordinate Solution of the Radiative Transfer Equation in the "Polarization Normal Wave Representation." *A. Kylling.* 383, 243, 215-C1 (1991)

Optical Polarimetry of PKS 2155−304 and Constraints on Accretion Disk Models for BL Lacertae Objects. *Paul S. Smith & Michael L. Sitko.* 383, 580, 221-D9 (1991)

First Ultraviolet Spectropolarimetry of Be Stars from the Wisconsin Ultraviolet Photo-Polarimeter Experiment. *K. S. Bjorkman, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, G. C. Clayton, A. M. Magalhães, M. R. Meade, M. A. Nook, R. E. Schulte-Ladbeck, M. Taylor, & B. A. Whitney.* 383, L67, 226-E1 (1991)

The Zeeman Effect in Astrophysical Water Masers and the Observation of Strong Magnetic Fields in Regions of Star Formation. *Gerald E. Nedoluha & William D. Watson.* 384, 185, 3-C5 (1992)

A Reanalysis of the Orbital Inclination of Cygnus XR-1 Determined Polarimetrically. *Joseph F. Dolan.* 384, 249, 4-A9 (1992)

Origin of the Structures and Polarization in the Classical Double 3C 219. *David A. Clarke, Alan H. Bridle, Jack O. Burns, Richard A. Perley, & Michael L. Norman.* 385, 173, 14-B1 (1992)

The Practical Application of the Magnetic Virial Theorem. *J. A. Klimchuk, R. C. Canfield, & J. E. Rhoads.* 385, 327, 16-A1 (1992)

The First Spectropolarimetric Study of the Wavelength Dependence of Interstellar Polarization in the Ultraviolet. *Geoffrey C. Clayton, Christopher M. Anderson, Antonio Mario Magalhães, Arthur D. Code, Kenneth H. Nordsieck, Marilyn R. Meade, Michael J. Wolff, Brian Babler, Karen S. Bjorkman, Regina E. Schulte-Ladbeck, MaryJane Taylor, & Barbara A. Whitney.* 385, L53, 23-D7 (1992)

Rotation Measures of Low-Latitude Extragalactic Sources and the Magnetoionic Structure of the Galaxy. *Andrew W. Clegg, James M. Cordes, John H. Simonetti, & Shrinivas R. Kulkarni.* 386, 143, 26-A1 (1992)

Polarization Variability among Wolf-Rayet Stars. VII. The Single Stars WR 14, WR 25, and WR 69. *Laurent Drissen, Carmelle Robert, & Anthony F. J. Moffat.* 386, 288, 27-F11 (1992)

Systematic Variations in the Wavelength Dependence of Interstellar Linear Polarization. *D. C. B. Whittet, P. G. Martin, J. H. Hough, M. F. Rouse, J. A. Bailey, & D. J. Axon.* 386, 562, 32-C14 (1992)

The Wind Geometry of the Wolf-Rayet Star HD 191765. *R. E. Schulte-Ladbeck, K. H. Nordsieck, M. Taylor, K. S. Bjorkman, A. M. Magalhães, & M. J. Wolff.* 387, 347, 41-C6 (1992)

Discovery of Extended Faraday Rotation Compatible with Spiral Structure in an Intervening Galaxy at $z = 0.395$: New Observations of PKS 1229−021. *Philipp P. Kronberg, Judith J. Perry, & Edwin L. H. Zukowski.* 387, 528, 45-C1 (1992)

A Survey of the Milliarcsecond Polarization Properties of BL Lacertae Objects at 5 GHz. *D. C. Gabuzda, T. V. Cawthorne, D. H. Roberts, & J. F. C. Wardle.* 388, 40, 49-E5 (1992)

Dust within Globular Clusters: A Large Bubble in NGC 6624? *Juan C. Forte, Sergio A. Cellone, Mariano Méndez, & E. Irene Vega.* 388, 383, 55-B4 (1992)

Where Have All the Cluster Halos Gone? *Jack O. Burns, Martin E. Sulkanen, Galen R. Gisler, & Rick A. Perley.* 388, L49, 59-B1 (1992)

Infrared Polarimetry and the Galactic Magnetic Field. II. Improved Models. *Terry Jay Jones, Dimitri Klebe, & John M. Dickey.* 389, 602, 69-A1 (1992)

Spectral Evolution of Accretion Disks of Dwarf Novae. III. Outburst Cycle of SS Cygni. *F. H. Cheng & D. N. C. Lin.* 389, 714, 70-C5 (1992)

On the Rotation of Polarization by a Gravitational Lens. *C. C. Dyer & Eric G. Shaver.* 390, L5, 78-B1 (1992)

The First Linear Polarization Spectra of Wolf-Rayet Stars in the Ultraviolet: EZ Canis Majoris and θ Muscae. *R. E. Schulte-Ladbeck, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, D. Shepherd, M. Taylor, & B. A. Whitney.* 391, L37, 92-C6 (1992)

Polarization in the Radio Galaxy 3C 109—An Obscured Quasar. *Robert W. Goodrich & Marshall H. Cohen.* 391, 623, 95-F12 (1992)

Near-Infrared Polarized Images of a Nebula around T Tauri. *David A. Weintraub, Joel H. Kastner, B. Zuckerman, & Ian Gatley.* 391, 784, 97-F7 (1992)

VLA Observations of 1612 and 1665 MHz OH Masers Associated with IRC +10420. *G. E. Nedoluha & P. F. Bowers.* 392, 249, 104-A9 (1992)

Electron Impact Polarization of Atomic Spectral Lines. I. A General Theoretical Scheme. *Silvano Fineschi & Egidio Landi Degl'Innocenti.* 392, 337, 105-B6 (1992)

Interstellar Polarization from 3 to 5 Microns in Reddened Stars. *P. G. Martin, A. J. Adamson, D. C. B. Whittet, J. H. Hough, J. A. Bailey, S.-H. Kim, S. Sato, M. Tamura, & T. Yamashita.* 392, 691, 110-G3 (1992)

Using Electron Scattering to Probe the Environment of Cluster Cooling Flows. *Michael W. Wise & Craig L. Sarazin.* 395, 387, 147-B5 (1992)

Model Scattering Envelopes of Young Stellar Objects. I. Method and Application to Circumstellar Disks. *Barbara A. Whitney & Lee Hartmann.* 395, 529, 149-D1 (1992)

Intermediate-Resolution Spectropolarimetry of 3C 273. *J. A. de Diego, E. Pérez, M. R. Kidger, & L. O. Takalo.* 396, L19, 160-D10 (1992)

The University of Michigan Radio Astronomy Data Base. I. Structure Function Analysis and the Relation between BL Lacertae Objects and Quasi-stellar Objects. *P. A. Hughes, H. D. Aller, & M. F. Aller.* 396, 469, 163-C9 (1992)

Photometry, Polarimetry, Spectroscopy, and Spectropolarimetry of the Enigmatic Wolf-Rayet Star EZ Canis Majoris. *Carmelle Robert, Anthony F. J. Moffat, Laurent Drissen, Robert Lamontagne, Wilhelm Seggewiss, Virpi S. Niemela, Miguel A. Cerruti, Paul Barrett, Jeremy Bailey, Jorge Garcia, & Santiago Tapia.* 397, 277, 171-D1 (1992)

Detection of Obscured Broad-Line Regions in Four Seyfert 2 Galaxies. *Hien D. Tran, Joseph S. Miller, & Laura E. Kay.* 397, 452, 176-C12 (1992)

Polarization and the Envelopes of B[e] Supergiants in the Magellanic Clouds. *A. M. Magalhães.* 398, 286, 185-C11 (1992)

Observation and Interpretation of the Asymmetric Stokes *Q*, *U*, and *V* Line Profiles in Sunspots. *J. Sánchez Almeida & B. W. Lites.* 398, 359, 186-C1 (1992)

Inversion of Stokes Profiles. *B. Ruiz Cobo & J. C. del Toro Iniesta.* 398, 375, 186-D11 (1992)

Spectropolarimetry of the 5797 Å Diffuse Interstellar Band. *A. J. Adamson & D. C. B. Whittet.* 398, L69, 188-C1 (1992)

A Survey for High Optical Polarization in Quasars with Core-dominant Radio Structure: Is There a Beamed Optical Continuum? *Beverley J. Wills, D. Wills, Michel Breger, R. R. J. Antonucci, & Richard Barvainis.* 398, 454, 189-F10 (1992)

Pearson-Readhead Survey Sources: Properties of the Centimeter-Wavelength Flux and Polarization of a Complete Radio Sample. *M. F. Aller, H. D. Aller, & P. A. Hughes.* 399, 16, 195-C8 (1992)

Polarization in the Narrow [O III] Lines in Seyfert 2 Galaxies. *Robert W. Goodrich.* 399, 50, 195-F8 (1992)

The Structure of Magnetic Fields in Dark Clouds: Infrared Polarimetry in B216–217. *Alyssa A. Goodman, Terry J. Jones, Elizabeth A. Lada, & Philip C. Myers.* 399, 108, 196-E3 (1992)

Polarization of the Far-Infrared Emission from the Thermal Filaments of the Galactic Center Arc. *M. Morris, J. A. Davidson, M. Werner, J. Dotson, D. F. Figer, R. Hildebrand, G. Novak, & S. Platt.* 399, L63, 200-G6 (1992)

Polarimetry and Spectrophotometry of the QSO IRAS 13349+2438 and the Unification of Active Galaxies. *Beverley J. Wills, D. Wills, Neal J. Evans II, A. Natta, K. L. Thompson, M. Breger, & M. L. Sitko.* 400, 96, 210-B10 (1992)

Intensive Optical Monitoring of the BL Lacertae Object PKS 2155−304. *Paul S. Smith, Patrick B. Hall, Richard G. Allen, & Michael L. Sitko.* 400, 115, 210-D1 (1992)

Scattering of Infrared Radiation by Dust in NGC 7023 and NGC 2023. *K. Sellgren, M. W. Werner, & H. L. Dinerstein.* 400, 238, 211-G9 (1992)

The BL Lacertae Object PKS 1413+135: Is It within or behind a Spiral Galaxy? *John T. Stocke, Ron Wurtz, Qingde Wang, Richard Elston, & Buell T. Jannuzi.* 400, L17, 214-C5 (1992)

Polarization Cancellation in the Two-Component Winds from Wolf-Rayet Stars. *M. Taylor & J. P. Cassinelli.* 401, 311, 224-G5 (1992)

A Search for Circular Polarization in Cataclysmic Variables. *H. S. Stockman, Gary D. Schmidt, G. Berriman, James Liebert, R. L. Moore, & D. T. Wickramasinghe.* 401, 628, 230-C13 (1992)

Evidence for a Bipolar Nebula around the Peculiar B[e] Star HD 45677 from Ultraviolet Spectropolarimetry. *R. E. Schulte-Ladbeck, D. S. Shepherd, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, M. Taylor, & B. A. Whitney.* 401, L105, 233-D12 (1992)

Infrared Polarimetry of Galaxies. III. Global Comparisons. *Terry Jay Jones.* 403, 135, 15-F5 (1993)

Ultraviolet Polarimetry and Spectroscopy of the BL Lacertae Object PKS 2155−304. *Richard G. Allen, Paul S. Smith, J. R. P. Angel, Bryan W. Miller, Scott F. Anderson, & Bruce Margon.* 403, 610, 23-C1 (1993)

Ultraviolet Interstellar Linear Polarization. I. Applicability of Current Dust Grain Models. *Michael J. Wolff, Geoffrey C. Clayton, & Marilyn R. Meade.* 403, 722, 24-F7 (1993)

The First Ultraviolet Spectropolarimetric Study of NGC 1068. *Arthur D. Code, Marilyn R. Meade, Christopher M. Anderson, Kenneth H. Nordsieck, Geoffrey C. Clayton, Barbara A. Whitney, Antonio Mario Magalhães, Brian Babler, Karen S. Bjorkman, Regina E. Schulte-Ladbeck, & MaryJane Taylor.* 403, L63, 27-C8 (1993)

Limits to Cosmic Background Radiation Fluctuations at 8.44 GHz between Angular Scales $10''$ and $200''$. *Edward B. Fomalont, R. Bruce Partridge, James D. Lowenthal, & Rogier A. Windhorst.* 404, 8, 28-B9 (1993)

An Optical Polarization Survey for BL Lacertae Objects and Highly Polarized Quasars. *Buell T. Jannuzi, Richard F. Green, & Howard French.* 404, 100, 29-C5 (1993)

Magnetic Field in a Low-Mass Protostar Disk: Millimeter Polarimetry of IRAS 16293−2422. *Motohide Tamura, Saeko S. Hayashi, Takuya Yamashita, William D. Duncan, & James H. Hough.* 404, L21, 33-F1 (1993)

Imaging Polarimetry of High-Redshift Radio Galaxies. *S. di Serego Alighieri, A. Cimatti, & R. A. E. Fosbury.* 404, 584, 36-C3 (1993)

Broad-band Linear Polarization in Cool Stars. II. Amplitude and Wavelength Dependence for Magnetic and Scattering Regions. *Steven H. Saar & Juhani Huovelin.* 404, 739, 38-B7 (1993)

Evidence for the Cospatial Origin of SiO Masers in Different Rotational Transitions. *G. C. McIntosh & C. Read Predmore.* 404, L71, 40-E11 (1993)

Beyond Clausius-Mossotti: Wave Propagation on a Polarizable Point Lattice and the Discrete Dipole Approximation. *B. T. Draine & Jeremy Goodman.* 405, 685, 51-E11 (1993)

The Strong Magnetic Field in G227-35. *Marshall H. Cohen, Angela Putney, & Robert W. Goodrich.* 405, L67, 54-D5 (1993)

Parametric Instabilities of Circularly Polarized Alfvén Waves in High-β Plasmas. *Hiromitsu Hamabata.* 406, 563, 64-G5 (1993)

PKS 1830−211 as a Gravitationally Lensed System. *Sunita Nair, D. Narasimha, & A. Pramesh Rao.* 407, 46, 69-F5 (1993)

The Asymmetric Wind of R127. *R. E. Schulte-Ladbeck, C. Leitherer, G. C. Clayton, C. Robert, M. R. Meade, L. Drissen, A. Nota, & W. Schmutz.* 407, 723, 79-E1 (1993)

Optical Polarimetry and Photometry of X-Ray Selected BL Lacertae Objects. *Buell T. Jannuzi, Paul S. Smith, & Richard Elston.* 85, 265, 10-F1 (1993)

Circularly Polarized Radio Emission from the T Tauri Star Hubble 4. *Stephen L. Skinner.* 408, 660, 93-D6 (1993)

Solar Magnetic Field Studies Using the 12 Micron Emission Lines. II. Stokes Profiles and Vector Field Samples in Sunspots. *Tilak Hewagama, Drake Deming, Donald E. Jennings, Vladimir Osherovich, Gunter Wiedemann, David Zipoy, Donald L. Mickey, & Howard Garcia.* 86, 313, 18-B7 (1993)

Optical and *Hubble Space Telescope* Ultraviolet Spectropolarimetry of 3C 273 and PG 1114+445. *Paul S. Smith, Gary D. Schmidt, & Richard G. Allen.* 409, 604, 106-D13 (1993)

Polarization Eclipse Model of the Wolf-Rayet Binary V444 Cygni with Constraints on the Stellar Radii and an Estimate of the Wolf-Rayet Mass-Loss Rate. *N. St-Louis, A. F. J. Moffat, L. Lapointe, Yu. S. Efimov, N. M. Shakhovskoy, G. K. Fox, & V. Piirola.* 410, 342, 116-C10 (1993)

Elliptical Polarimetry of the Interacting Binary Star V367 Cygni. *Nicholas M. Elias II.* 410, 785, 123-E1 (1993)

The Discovery of Variable Polarization over the 13.9 Minute Spin Period of the Intermediate Polar RE 0751+14. *V. Piirola, P. Hakala, & G. V. Coyne, S.J.* 410, L107, 126-C3 (1993)

IRC +10420: A Cool Hypergiant near the Top of the H-R Diagram. *Terry Jay Jones, Roberta M. Humphreys, Robert D. Gehrz, Geoffrey F. Lawrence, Franz-Josef Zickgraf, Harvey Moseley, Sean Casey, William J. Glaccum, Carol J. Koch, Robert Pina, Barbara Jones, Kim Venn, Otmar Stahl, & Sumner G. Starrfield.* 411, 323, 131-C6 (1993)

On the Nature of the Polarization Opposition Effect Exhibited by Saturn's Rings. *Michael I. Mishchenko.* 411, 351, 131-F1 (1993)

A Spectroscopic Method for the Solution of the 180° Azimuth Ambiguity in Magnetograms. *Egidio Landi Degl'Innocenti & Véronique Bommier.* 411, L49, 134-C8 (1993)

Magnetic Fields in Massive Cloud Cores: Comparison of MILLIPOL and *IRAS* Results. *Brian D. Kane, Dan P. Clemens, Richard Barvainis, & Robert W. Leach.* 411, 708, 138-E1 (1993)

The Exciting Young Stellar Object for the Molecular Outflow at the Core of L1287. *David A. Weintraub & Joel Kastner.* 411, 767, 139-C9 (1993)

The Radio Properties of High-Redshift Quasars. I. Dual-Frequency Observations of 79 Steep-Spectrum Quasars at $z > 1.5$. *C. J. Lonsdale, P. D. Barthel, & G. K. Miley.* 87, 63, 27-G1 (1993)

Ultraviolet Spectropolarimetry of the Be Star PP Carinae with the Wisconsin Ultraviolet Photo-Polarimeter Experiment. *K. S. Bjorkman, M. R. Meade, K. H. Nordsieck, C. M. Anderson, B. L. Babler, G. C. Clayton, A. D. Code, A. M. Magalhães, R. E. Schulte-Ladbeck, M. Taylor, & B. A. Whitney.* 412, 810, 153-G11 (1993)

Quantitative Modeling and Impersonal Fitting of Algol Polarization Curves. *R. E. Wilson & Jer-Chyi Liou.* 413, 670, 164-G1 (1993)

Polarization Variability among Wolf-Rayet Stars. VIII. Emission Lines versus Continuum in WR+O Binaries. *Anthony F. J. Moffat & Vilppu Piirola.* 413, 724, 165-D8 (1993)

Hubble Space Telescope Ultraviolet Spectroscopy of the Highly Polarized but Quiescent Quasar OI 287. *Robert Antonucci, Anne L. Kinney, & Todd Hurt.* 414, 506, 177-E1 (1993)

A New Method to Calculate the Extinction Properties of Irregularly Shaped Particles. *François Rouleau & P. G. Martin.* 414, 803, 181-C2 (1993)

Disks around Pre–Main-Sequence Binary Systems: The Case of Haro 6-10. *François Ménard, Jean-Louis Monin, Françoise Angelucci, & Daniel Rouan.* 414, L117, 186-B5 (1993)

The Highly Polarized Hidden Quasar IRAS 09104+4109: A Double-lobed Radio Source in a Rich Cluster. *Dean C. Hines & Beverley J. Wills.* 415, 82, 186-A10 (1993)

Polarization Changes of Radiation through Stimulated Raman Scattering. *R. T. Gangadhara & V. Krishan.* 415, 505, 194-B6 (1993)

Further Observations of the Peculiar Galactic Radio Source G318.9+0.4. *Jonathan B. Z. Whiteoak.* 415, 701, 196-E3 (1993)

First Ultraviolet Spectropolarimetry of Radio-selected BL Lacertae Objects. *Paul S. Smith, Richard G. Allen, & J. R. P. Angel.* 415, L83, 199-F6 (1993)

Polarization of Compact Radio Sources. *C.-I. Björnsson.* 416, 104, 202-C11 (1993)

Polarization of Astronomical Maser Radiation. II. Polarization Modes and Unsaturated Growth. *Moshe Elitzur.* 416, 256, 204-C7 (1993)

Milliarcsecond Polarization Structure of 24 Objects from the Pearson-Readhead Sample of Bright Extragalactic Radio Sources. I. The Images. *T. V. Cawthorne, J. F. C. Wardle, D. H. Roberts, D. C. Gabuzda, & L. F. Brown.* 416, 496, 209-D11 (1993)

Milliarcsecond Polarization Structure of 24 Objects from the Pearson-Readhead Sample of Bright Extragalactic Radio Sources. II. Discussion. *T. V. Cawthorne, J. F. C. Wardle, D. H. Roberts, & D. C. Gabuzda.* 416, 519, 209-G5 (1993)

Magnetic Fields in the Hydra A Cluster. *Gregory B. Taylor & Richard A. Perley.* 416, 554, 210-C3 (1993)

Polarization of the Thermal Emission from the Dust Ring at the Center of the Galaxy. *R. H. Hildebrand, J. A. Davidson, J. Dotson, D. F. Figer, G. Novak, S. R. Platt, & L. Tao.* 417, 565, 226-D1 (1993)

Spectrum of the "Invisible" Companion of Z Canis Majoris Revealed in Polarized Light. *Barbara A. Whitney, Geoffrey C. Clayton, Regina E. Schulte-Ladbeck, Nuria Calvet, Lee Hartmann, & Scott J. Kenyon.* 417, 687, 228-A1 (1993)

Polarized Scattering in the Vicinity of Galaxies. *Brian W. Murphy & David F. Chernoff.* 418, 60, 231-G7 (1993)

The Langevin Equation and Its Application to Grain Alignment in Molecular Clouds. *W. G. Roberge, T. A. DeGraff, & J. E. Flaherty.* 418, 287, 234-E11 (1993)

J H K L Imaging and *K* Polarimetry of the Bipolar Outflow NGC 2071. *D. M. Walther, E. I. Robson, C. Aspin, & W. R. F. Dent.* 418, 310, 234-G9 (1993)

The Faraday Rotation and Linear Polarization of Light in Stellar Atmospheres. *N. A. Silant'ev.* 419, 294, 249-G6 (1993)

Magnetospheres of Solar Active Regions Inferred from Spectral-Polarization Observations with High Spatial Resolution. *K. R. Lang, R. F. Willson, J. N. Kile, J. Lemen, K. T. Strong, V. L. Bogod, G. B. Gelfreikh, B. I. Ryabov, S. R. Hafizov, V. E. Abramov, & S. V. Svetkov.* 419, 398, 251-B7 (1993)

The Wavelength Dependence of Polarization of Active Galaxies and Quasars. *Wayne Webb, Matthew Malkan, Gary Schmidt, & Chris Impey.* 419, 494, 253-G12 (1993)

Discovery of a Deeply Embedded Companion to LkHα 234. *David A. Weintraub, Joel H. Kastner, & Ashwin Mahesh.* 420, L87, 15-F1 (1994)

Discovery of a Dwarf Carbon Star with a White Dwarf Companion and of a Highly Magnetic Degenerate Star. *James Liebert, Gary D. Schmidt, M. Lesser, J. A. Stepanian, V. A. Lipovetsky, Frederic H. Chaffee, Craig B. Foltz, & P. Bergeron.* 421, 733, 27-C12 (1994)

Stellar and Scattered Light in a Radio Galaxy at $z = 2.63$. *Andrea Cimatti, Sperello di Serego Alighieri, George B. Field, & Robert A. E. Fosbury.* 422, 562, 38-G1 (1994)

Polarized One-Quantum Annihilation in Strong Magnetic Fields as a Process for Particle Deceleration in Neutron Star Atmospheres. *D. Berg, M. Mentzel, & G. Wunner.* 90, 905, 15-A10 (1994)

Intensity-dependent Circular Polarization and Circumstellar Magnetic Fields from the Observation of SiO Masers. *Gerald E. Nedoluha & William D. Watson.* 423, 394, 51-A11 (1994)

Modeling Composite and Fluffy Grains: The Effects of Porosity. *Michael J. Wolff, Geoffrey C. Clayton, P. G. Martin, & Regina E. Schulte-Ladbeck.* 423, 412, 51-C3 (1994)

New Infrared Observations of Seyfert 2 Galaxies and Unification Theories. *M. Ruiz, G. H. Rieke, & G. D. Schmidt.* 423, 608, 56-A11 (1994)

Infrared Spectroscopy and Imaging Polarimetry of the Disk around the T Tauri Star RNO 91. *David A. Weintraub, Stephen C. Tegler, Joel H. Kastner, & Terrence Rettig.* 423, 674, 57-A3 (1994)

Spectropolarimetry of Five Objects toward the Galactic Center from 1.4 to 4.2 Microns. *Tetsuya Nagata, Naoto Kobayashi, & Shuji Sato.* 423, L113, 60-F11 (1994)

Intermediate-Resolution Spectropolarimetry of a Small Sample of Quasars. *J. A. de Diego, M. R. Kidger, E. Pérez, & L. O. Takalo.* 424, 76, 63-A4 (1994)

Basic Theory for Polarized, Astrophysical Maser Radiation in a Magnetic Field. *William D. Watson.* 424, L37, 69-E8 (1994)

A Broad Observational Study of the Eclipsing Magnetic Cataclysmic Variable RE 2107−05. *Jason Glenn, Steve B. Howell, Gary D. Schmidt, James Liebert, Albert D. Grauer, & R. Mark Wagner.* 424, 967, 76-G3 (1994)

The Inclination of Network Magnetic Fields. *J. Sánchez Almeida & V. Martínez Pillet.* 424, 1014, 77-D7 (1994)

Spectropolarimetry of Nova Cygni 1992: Evidence for an Asymmetric Geometry. *K. S. Bjorkman, K. A. Johansen, K. H. Nordsieck, J. S. Gallagher, & A. J. Barger.* 425, 247, 83-C12 (1994)

Light Scattering by Porous Dust Particles in the Discrete-Dipole Approximation. *K. Lumme & J. Rahola.* 425, 653, 89-F12 (1994)

Multifrequency Studies of Bright Radio Supernova Remnants. I. 3C 391. *David A. Moffett & Stephen P. Reynolds.* 425, 668, 90-A1 (1994)

Evidence for Supersonic Downflows in the Photosphere of a Delta Sunspot. *V. Martínez Pillet, B. W. Lites, A. Skumanich, & D. Degenhardt.* 425, L113, 95-A1 (1994)

Is the High-Energy Emission from Centaurus A Compton-scattered Jet Radiation? *J. G. Skibo, C. D. Dermer, & R. L. Kinzer.* 426, L23, 103-C11 (1994)

The Synchrotron Continuum of the Highly Polarized Quasar PKS 1546+027. *Paul S. Smith, Gary D. Schmidt, Buell T. Jannuzi, & Richard Elston.* 426, 535, 105-A12 (1994)

Polarization Profiles of Scattered Emission Lines. I. General Formalism for Optically Thin Rayleigh Scattering. *W. J. Henney.* 427, 288, 113-E1 (1994)

Polarization Profiles of Scattered Emission Lines. II. Upstream Dust Scattering in the HH 1 Jet. *W. J. Henney, A. C. Raga, & D. J. Axon.* 427, 305, 113-F6 (1994)

Linear Polarization Radio Imaging at Milliarcsecond Resolution. *D. H. Roberts, J. F. C. Wardle, & L. F. Brown.* 427, 718, 121-F2 (1994)

The Optical Polarization Properties of X-Ray–selected BL Lacertae Objects. *Buell T. Jannuzi, Paul S. Smith, & Richard Elston.* 428, 130, 129-G3 (1994)

Geometry and Physical Conditions in the Stellar Wind of AG Carinae. *Claus Leitherer, Richard Allen, Bruce Altner, Augusto Damineli, Laurent Drissen, Thais Idiart, Olivia Lupie, Antonella Nota, Carmelle Robert, Werner Schmutz, & Steven N. Shore.* 428, 292, 131-G4 (1994)

Circular and Linear Polarization of the SiO Masers in VY Canis Majoris. *G. C. McIntosh, C. Read Predmore, & Nimesh A. Patel.* 428, L29, 134-E1 (1994)

Detection of Linear Polarization in the Microwave Emission of Solar Active Regions. *C. E. Alissandrakis & F. Chiuderi-Drago.* 428, L73, 142-G8 (1994)

Relativistic Jets in Blazars: Polarization of Radiation. *Juri Poutanen.* 92, 607, 40-A2 (1994)

The Polarization Sensitivity of the Liquid Xenon Imaging Telescope. *E. Aprile, A. Bolotnikov, D. Chen, R. Mukherjee, & F. Xu.* 92, 689, 41-A13 (1994)

The Axisymmetric Stellar Wind of AG Carinae. *Regina E. Schulte-Ladbeck, Geoffrey C. Clayton, D. John Hillier, Tim J. Harries, & Ian D. Howarth.* 429, 846, 156-B13 (1994)

The Hidden Nuclear Spectrum of the Luminous *IRAS* Source FSC 10214+4724. *Buell T. Jannuzi, Richard Elston, Gary D. Schmidt, Paul S. Smith, & H. S. Stockman.* 429, L49, 157-G1 (1994)

Blue Spectropolarimetry of Seyfert 2 Galaxies. I. Analysis and Basic Results. *Laura E. Kay.* 430, 196, 161-E3 (1994)

HST Ultraviolet Spectropolarimetry of NGC 1068. *Robert Antonucci, Todd Hurt, & Joseph Miller.* 430, 210, 161-F5 (1994)

Directivity of the Radio Emission from the K1 Dwarf Star AB Doradus. *Jeremy Lim, Stephen M. White, Graham J. Nelson, & Arnold O. Benz.* 430, 332, 163-C9 (1994)

Magnetic Field Structure in Monoceros R2. *T. H. Jarrett, G. Novak, T. Xie, & P. F. Goldsmith.* 430, 743, 171-B6 (1994)

Misdirected Quasars and Evolved Stars in Distant Radio Galaxies. *Sperello di Serego Alighieri, Andrea Cimatti, & Robert A. E. Fosbury.* 431, 123, 177-F5 (1994)

COBE DIRBE Near-Infrared Polarimetry of the Zodiacal Light: Initial Results. *G. B. Berriman, N. W. Boggess, M. G. Hauser, T. Kelsall, C. M. Lisse, S. H. Moseley, W. T. Reach, & R. F. Silverberg.* 431, L63, 183-C1 (1994)

The Size Distribution of Interstellar Dust Particles as Determined from Polarization: Infinite Cylinders. *Sang-Hee Kim & P. G. Martin.* 431, 783, 188-D1 (1994)

Stellar Occultation of Polarized Light from Circumstellar Electrons. IV. Detached Binary Systems. *G. K. Fox.* 432, 262, 196-D10 (1994)

Resonance Line Polarization in Spherical Atmospheres: Partial Redistribution Effects Studied with the Domke-Hubeny Redistribution Matrix. *K. N. Nagendra.* 432, 274, 196-E10 (1994)

The Linear Polarization of 3C 345 in the Ultraviolet. *Joseph F. Dolan, Patricia T. Boyd, Karen G. Wolinski, Paul S. Smith, C. D. Impey, Robert C. Bless, M. J. Nelson, J. W. Percival, M. J. Taylor, J. L. Elliot, Edward L. Robinson, & G. W. van Citters.* 432, 560, 203-A1 (1994)

Spectropolarimetry of High-Polarization Seyfert 1 Galaxies: Geometry and Kinematics of the Scattering Regions. *R. W. Goodrich & J. S. Miller.* 434, 82, 226-C7 (1994)

Broken Symmetry: The Structure of the Dust Envelope of IRC +10216. *Joel H. Kastner & David A. Weintraub.* 434, 719, 237-F7 (1994)

Coronal Magnetic Structures Observing Campaign. III. Coronal Plasma and Magnetic Field Diagnostics Derived from Multiwaveband Active Region Observations. *J. T. Schmelz, G. D. Holman, J. W. Brosius, & R. F. Willson.* 434, 786, 238-F8 (1994)

The Polarization and Nuclear Structure of the Broad Absorption Line QSO CSO 755. *Jason Glenn, Gary D. Schmidt, & Craig B. Foltz.* 434, L47, 241-D1 (1994)

Unusual Evolution in the VLBI Structure of 0735+178. *D. C. Gabuzda, J. F. C. Wardle, D. H. Roberts, M. F. Aller, & H. D. Aller.* 435, 128, 245-B3 (1994)

Evolution of the Millarcsecond Total Intensity and Polarization Structures of BL Lacertae Objects. *D. C. Gabuzda, C. M. Mullan, T. V. Cawthorne, J. F. C. Wardle, & D. H. Roberts.* 435, 140, 245-C5 (1994)

The Theoretical Polarization of Pure Scattering Axisymmetric Circumstellar Envelopes. *G. K. Fox.* 435, 372, 248-E1 (1994)

The Effects of Gravity Darkening on the Ultraviolet Continuum Polarization Produced by Circumstellar Disks. *J. E. Bjorkman & K. S. Bjorkman.* 436, 818, 277-A1 (1994)

Evolution of the Parsec-Scale Linear Polarization Structure of the Superluminal Quasar 3C 345. *L. F. Brown, D. H. Roberts, & J. F. C. Wardle.* 437, 108, 284-F7 (1994)

Interpretation of VLBI Kinematic and Polarization Data: Application to 3C 345. *J. F. C. Wardle, T. V. Cawthorne, D. H. Roberts, & L. F. Brown.* 437, 122, 284-G10 (1994)

The Effect of Grain Mantles and Grain Shape upon the 9.7 and 18 Micron Silicate Features. *James E. O'Donnell.* 437, 262, 286-F10 (1994)

Transient Microwave Brightenings in Solar Active Regions: Comparison between VLA and *Yohkoh* Observations. *N. Gopalswamy, T. E. W. Payne, E. J. Schmahl, M. R. Kundu, J. R. Lemen, K. T. Strong, R. C. Canfield, & J. de La Beaujardiere.* 437, 522, 290-C3 (1994)

Multifrequency Studies of Bright Radio Supernova Remnants. II. W49B. *David A. Moffett & Stephen P. Reynolds.* 437, 705, 295-D9 (1994)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. III. Ground-based Observations in 1991 November. *T. J.-L. Courvoisier, A. Blecha, P. Bouchet, P. Bratschi, M. T. Carini, M. Donahue, R. Edelson, E. D. Feigelson, A. V. Filippenko, I. S. Glass, J. Heidt, R. I. Kollgaard, T. Matheson, H. R. Miller, J. C. Noble, K. Sekiguchi, P. S. Smith, C. M. Urry, & S. J. Wagner.* 438, 108, 2-G2 (1995)

Gamma-Ray Pulsars: Emission Zones and Viewing Geometries. *Roger W. Romani & I.-A. Yadigaroglu.* 438, 314, 5-G3 (1995)

Interstellar Scattering toward Cygnus X-3: Measurements of Anisotrophy and of the Inner Scale. *L. A. Molnar, R. L. Mutel, M. J. Reid, & K. J. Johnston.* 438, 708, 14-A2 (1995)

Is the Solar Chromospheric Magnetic Field Force-free? *Thomas R. Metcalf, Litao Jiao, Alexander N. McClymont, Richard C. Canfield, & Han Uitenbroek.* 439, 474, 27-E11 (1995)

Polarization of Thermal Emission from Aspherical Dust Grains in an Anisotropic Radiation Field. *Takashi Onaka.* 439, L21, 30-A10 (1995)

Ultraviolet Spectropolarimetry of High-Redshift Quasars with the *Hubble Space Telescope*. *C. D. Impey, Matthew A. Malkan, Wayne Webb, & C. E. Petry.* 440, 80, 42-C8 (1995)

Rapid Polarization Variability in Intense Sources. *R. T. Gangadhara & V. Krishan.* 440, 116, 42-G1 (1995)

Dust in the Broad-Line Regions of Seyfert Galaxies. *Robert W. Goodrich.* 440, 141, 43-B7 (1995)

On the Current Status of Maser Polarization Theory. *Moshe Elitzur.* 440, 345, 45-G13 (1995)

Solar Coronal Dust Scattering in the Infrared. *R. M. MacQueen & Bradford W. Greeley.* 440, 361, 46-B8 (1995)

The Nature of Seyfert 2 Galaxies with Obscured Broad-Line Regions. I. Observations. *Hien D. Tran.* 440, 565, 51-A8 (1995)

The Nature of Seyfert 2 Galaxies with Obscured Broad-Line Regions. II. Individual Objects. *Hien D. Tran.* 440, 578, 51-B10 (1995)

The Nature of Seyfert 2 Galaxies with Obscured Broad-Line Regions. III. Interpretation. *Hien D. Tran.* 440, 597, 51-D4 (1995)

A Near-Infrared Reflection Nebula Associated with NGC 2024 FIR 4. *T. J. T. Moore & T. Yamashita.* 440, 722, 53-B6 (1995)

HCN Emission from Bright Carbon Stars: The Ground State Masers and Peculiar Broad Features. *Hideyuki Izumiura, Nobuharu Ukita, & Takashi Tsuji.* 440, 728, 53-C1 (1995)

Remarks on the Polarization Observed in SN 1993J. *Peter Höflich.* 440, 821, 54-D4 (1995)

Photon-Splitting Limits to the Hardness of Emission in Strongly Magnetized Soft Gamma Repeaters. *Matthew G. Baring.* 440, L69, 57-G1 (1995)

The Polarization and Depolarization of Radio Emission from Supernova Remnant Cassiopeia A. *M. C. Anderson, J. W. Keohane, & L. Rudnick.* 441, 300, 63-D7 (1995)

Polarization from Scattering in Blobs. *Arthur D. Code & Barbara A. Whitney.* 441, 400, 64-G4 (1995)

Can the Variability of Solar-like Spotted Stars be Detected Polarimetrically? *Geoffrey K. Fox.* 441, 408, 65-A1 (1995)

Detection of the Hot White Dwarf in the Magnetic Nova V1500 Cygni with the *Hubble Space Telescope*. *Gary D. Schmidt, James Liebert, & H. S. Stockman.* 441, 414, 65-A11 (1995)

Polarization Properties of Two Pulsars. *R. N. Manchester & Simon Johnston.* 441, L65, 75-G6 (1995)

The Gravitational Lens System Q0957+561 in the Ultraviolet. *J. F. Dolan, A. G. Michalitsianos, R. W. Thompson, P. T. Boyd, K. G. Wolinski, R. C. Bless, M. J. Nelson, J. W. Percival, M. J. Taylor, J. L. Elliot, & G. W. van Citters.* 442, 87, 78-D5 (1995)

Can We Improve upon Astronomical Silicate? *Sang-Hee Kim & P. G. Martin.* 442, 172, 79-E6 (1995)

On the Nature of the Spectral Features in Peculiar "DQ" White Dwarfs. *Gary D. Schmidt, P. Bergeron, & Bruce Fegley, Jr.* 443, 274, 99-A10 (1995)

Effects of Prescattering Attenuation on Spectropolarimetric Line Profiles. *Kenneth Wood & J. E. Bjorkman.* 443, 348, 100-A3 (1995)

The Magnetic Field in Lynds 1457: Multiband Photopolarimetry. *B-G Andersson & Peter G. Wannier.* 443, L49, 103-B2 (1995)

The Polarization and Ultraviolet Spectrum of Markarian 231. *Paul S. Smith, Gary D. Schmidt, Richard G. Allen, & J. R. P. Angel.* 444, 146, 115-D1 (1995)

The Size Distribution of Interstellar Dust Particles as Determined from Polarization: Spheroids. *Sang-Hee Kim & P. G. Martin.* 444, 293, 117-D13 (1995)

Circular Polarization in the Radio Emission of RS Canum Venaticorum Binaries. *Stephen M. White & Elena Franciosini.* 444, 342, 118-C1 (1995)

Magnetic Fields around Bok Globules: CCD Polarimetry of CB 4. *Brian D. Kane, Dan P. Clemens, Robert W. Leach, & Richard Barvainis.* 445, 269, 136-C2 (1995)

Instabilities and the Transport of Polarized Astrophysical Maser Radiation. *Bradley K. Wallin & William D. Watson.* 445, 465, 139-A4 (1995)

On the Value of GEMS (Glass with Embedded Metal and Sulphides). *P. G. Martin.* 445, L63, 141-C8 (1995)

Gravity Wave–induced Polarization of the Cosmic Microwave Background Radiation. *Ka Lok Ng & Kin-Wang Ng.* 445, 521, 142-C1 (1995)

A Faraday Rotation Search for Magnetic Fields in Quasar-damped Lyα Absorption Systems. *Abraham L. Oren & Arthur M. Wolfe.* 445, 624, 143-F7 (1995)

Ultraviolet Interstellar Linear Polarization. II. The Wavelength Dependence. *Geoffrey C. Clayton, Michael J. Wolff, R. G. Allen, & O. L. Lupie.* 445, 947, 148-C11 (1995)

The Magnetic Fields in the Galactic Center: Detection of H I Zeeman Splitting. *R. L. Plante, K. Y. Lo, & R. M. Crutcher.* 445, L113, 151-B4 (1995)

HST Imaging Polarimetry of NGC 1068. *A. Capetti, D. J. Axon, F. Macchetto, W. B. Sparks, & A. Boksenberg.* 446, 155, 155-C9 (1995)

Optical Structure and Polarization of the Western Hot Spot of Pictor A. *R. C. Thomson, P. Crane, & C. D. Mackay.* 446, L93, 171-B12 (1995)

The Visual and Ultraviolet Polarimetric Data of α Camelopardalis and κ Cassiopeia: Evidence of Shocked Regions. *Geoffrey K. Fox, John C. Brown, & Karen S. Bjorkman.* 447, 889, 188-B8 (1995)

Multifrequency Radio Studies of G359.1−00.2. *Andrew D. Gray, Jenniger Nicholls, Ron D. Ekers, & Lawrence E. Cram.* 448, 164, 194-D4 (1995)

A Search for Magnetic Fields among DA White Dwarfs. *Gary D. Schmidt & Paul S. Smith.* 448, 305, 196-D7 (1995)

1 Millimeter Polarimetry of Young Stellar Objects: Low-Mass Protostars and T Tauri Stars. *Motohide Tamura, J. H. Hough, & Saeko S. Hayashi.* 448, 346, 197-A2 (1995)

A Search for Polarization in Diffuse Interstellar Bands toward HD 197770. *A. J. Adamson & D. C. B. Whittet.* 448, L49, 200-B3 (1995)

Does Near-Infrared Polarimetry Reveal the Magnetic Field in Cold Dark Clouds? *Alyssa A. Goodman, Terry J. Jones, Elizabeth A. Lada, & Philip C. Myers.* 448, 748, 205-B4 (1995)

The Polarized Spectrum of the Fe II–rich Broad Absorption Line QSO IRAS 07598+6508. *Dean C. Hines & Beverley J. Wills.* 448, L69, 208-F8 (1995)

Polarization Clues to the Structure of Broad Absorption Line Quasi-stellar Objects. *Robert W. Goodrich & Joseph S. Miller.* 448, L73, 208-G1 (1995)

Spectropolarimetry of Two Broad Absorption Line Quasars with the W. M. Keck Telescope. *M. H. Cohen, P. M. Ogle, H. D. Tran, R. C. Vermeulen, J. S. Miller, R. W. Goodrich, & A. R. Martel.* 448, L77, 208-G8 (1995)

The Distribution of Warm Dust in the Star-forming Region Cepheus A: Infrared Constraints. *Cecilia Colomé & Paul M. Harvey.* 449, 656, 221-F8 (1995)

Off-centered Dipole Models for Three Isolated Magnetic White Dwarfs. *Angela Putney & Stefan Jordan.* 449, 863, 224-E10 (1995)

The Buried QSO in IRAS F15307+3252 and the Nature of Hyperluminous Infrared Galaxies. *Dean C. Hines, Gary D. Schmidt, Paul S. Smith, Roc M. Cutri, & Frank J. Low.* 450, L1, 235-D1 (1995)

Quasar Lyman Edge Regions in Polarized Light. *A. Koratkar, R. R. J. Antonucci, R. W. Goodrich, H. Bushouse, & A. L. Kinney.* 450, 501, 237-F1 (1995)

The Shapes and Alignment Properties of Interstellar Dust Grains. *Roger H. Hildebrand & Mark Dragovan.* 450, 663, 239-G13 (1995)

Zeeman Effect Observations of H I Emission Profiles. I. Magnetic Field Limits for Three Regions Based on Observations Corrected for Polarized Beam Structure. *Gerrit L. Verschuur.* 451, 624, 255-G10 (1995)

Mechanical Alignment of Suprathermally Rotating Grains. *A. Lazarian.* 451, 660, 256-C11 (1995)

Three New Magnetic White Dwarf Stars. *Angela Putney.* 451, L67, 260-F7 (1995)

Detection of a Faint Optical Jet in 3C 120. *Jens Hjorth, Marianne Vestergaard, Anton N. Sørensen, & Frank Grundahl.* 452, L17, 269-E3 (1995)

Models of the Optical/Ultraviolet Continuum Polarization in Active Galactic Nuclei: Implications for Unification Schemes. *John F. Kartje.* 452, 565, 272-D8 (1995)

The Massive Post–Red Supergiants IRC +10420 and HD 179821. *Joel H. Kastner & David A. Weintraub.* 452, 833, 276-B7 (1995)

Hubble Space Telescope Imaging Polarimetry of the Inner Nuclear Region of NGC 1068. *A. Capetti, F. Macchetto, D. J. Axon, W. B. Sparks, & A. Boksenberg.* 452, L87, 279-D9 (1995)

In Search of HL Tauri. *David A. Weintraub, Joel H. Kastner, & Barbara A. Whitney.* 452, L141, 280-E6 (1995)

Davis-Greenstein Alignment of Nonspherical Grains. *A. Lazarian.* 453, 229, 284-C5 (1995)

Grain Alignment by Ambipolar Diffusion in Molecular Clouds. *W. G. Roberge, S. Hanany, & D. W. Messinger.* 453, 238, 284-D3 (1995)

Polarization Profiles of Scattered Emission Lines. III. Effects of Multiple Scattering and Non-Rayleigh Phase Functions. *W. J. Henney & D. J. Axon.* 454, 233, 302-E4 (1995)

Detection of Extended Polarized Ultraviolet Radiation from the $z = 1.82$ Radio Galaxy 3C 256. *Buell T. Jannuzi, Richard Elston, Gary D. Schmidt, Paul S. Smith, & H. S. Stockman.* 454, L111, 316-A1 (1995)

Optical Detection of the Hidden Nuclear Engine in NGC 4258. *Belinda J. Wilkes, Gary D. Schmidt, Paul S. Smith, Smita Mathur, & Kim K. McLeod.* 455, L13, 324-D8 (1995)

Grain Alignment in the Taurus Dark Cloud. *P. A. Gerakines, D. C. B. Whittet, & A. Lazarian.* 455, L171, 334-E7 (1995)

A Point in Favor of the Superparamagnetic Grain Hypothesis. *A. A. Goodman & D. C. B. Whittet.* 455, L181, 334-F8 (1995)

PULSARS

Neutron Star Crustal Plate Tectonics. I. Magnetic Dipole Evolution in Millisecond Pulsars and Low-Mass X-Ray Binaries. *M. Ruderman.* 366, 261, 4-C5 (1991)

A New X-Ray Pulsar GS 2138+56 (Cepheus X-4). *Katsuji Koyama, Mitsunobu Kawada, Yuzuru Tawara, Kazuhiro Kimura, Shunji Kitamoto, Sigenori*

Miyamoto, Hiroshi Tsunemi, Ken Ebisawa, & Fumiaki Nagase. 366, L19, 6-C5 (1991)
Birthrates of Galactic Millisecond Pulsars and Their Low-Mass X-Ray Binary Precursors. *Marco Tavani.* 366, L27, 6-D1 (1991)
Refractive Interstellar Scintillation and Millisecond Pulsar Timing. *Wayne Hu, Roger W. Romani, & Daniel R. Stinebring.* 366, L33, 6-D9 (1991)
On the Orbital Period Change of the Binary Pulsar PSR 1913+16. *Thibault Damour & J. H. Taylor.* 366, 501, 9-C1 (1991)
The Proper Motion of the Soft X-Ray–emitting Radio Pulsar PSR 0656+14. *R. J. Thompson, Jr., F. A. Córdova, R. M. Hjellming, & E. B. Fomalont.* 366, L83, 11-E1 (1991)
Optical and Radio Observations of the Binary Pulsar 1855+09: Evolution of Pulsar Magnetic Fields and Low-Mass White Dwarf Cooling. *S. R. Kulkarni, S. Djorgovski, & A. R. Klemola.* 367, 221, 14-G4 (1991)
Conditions for Accretion-induced Collapse of White Dwarfs. *Ken'ichi Nomoto & Yoji Kondo.* 367, L19, 17-D1 (1991)
Accretion Powered Pulsars: Continuum Spectra and Light Curves of Settling Accretion Mounds. *David J. Burnard, Jonathan Arons, & Richard I. Klein.* 367, 575, 20-D10 (1991)
Observation of a Pulsar Wind: CCD Polarimetry of the Crab Nebula. *F. C. Michel, P. A. Scowen, R. J. Dufour, & J. J. Hester.* 368, 463, 30-G1 (1991)
On the Detectability of Pulsars in Close Binary Systems. *Helen M. Johnston & Shrinivas R. Kulkarni.* 368, 504, 31-D1 (1991)
No Evidence for TeV Gamma Radiation from 2CG 006−00. *H. I. Nel, B. C. Raubenheimer, O. C. de Jager, R. Buccheri, M. Busetta, A. R. North, & C. Brink.* 368, 585, 32-D4 (1991)
Dynamic Effects on Cyclotron Scattering in Pulsar Accretion Columns. *J. J. Brainerd & P. Mészáros.* 369, 179, 38-B11 (1991)
HEAO 3 Upper Limits to Pulsed Gamma-Ray Emission from PSR 1509−58 and PSR 0833−45. *M. P. Ulmer, W. R. Purcell, W. A. Wheaton, & W. A. Mahoney.* 369, 485, 43-F12 (1991)
Accretion Mechanisms in the Be/X-Ray Transient System A0535+26. *C. Motch, L. Stella, E. Janot-Pacheco, & M. Mouchet.* 369, 490, 43-G5 (1991)
Problems of Ultra–High-Energy Particle Acceleration in Cygnus X-3: A Critical Reappraisal. *Abhas Mitra.* 370, 345, 51-E7 (1991)
Mechanisms for Pulsar Eclipse. *David Eichler.* 370, L27, 53-D11 (1991)
A Relativistic Model of Pulsar Polarization. *M. Blaskiewicz, J. M. Cordes, & I. Wasserman.* 370, 643, 56-D9 (1991)
Multimission Observations of 4U 1538−52. *L. R. Cominsky & F. Moraes.* 370, 670, 56-F10 (1991)
Discovery of 111 Second Pulsation from the X-Ray Source Scutum X-1. *K. Koyama, H. Kunieda, Y. Takeuchi, & Y. Tawara.* 370, L77, 59-D1 (1991)
The Relativistic Rotation Transformation and the Corotating Source Model. *S. Kichenassamy & R. A. Krikorian.* 371, 277, 63-E7 (1991)
The Discovery of an X-Ray Burst and a Study of Aperiodic Variability from SMC X-1. *L. Angelini, L. Stella, & N. E. White.* 371, 332, 64-C1 (1991)
High-Precision Timing of Millisecond Pulsars. I. Astrometry and Masses of the PSR 1855+09 System. *M. F. Ryba & J. H. Taylor.* 371, 739, 70-F9 (1991)
Line Integrals of n_e and n_e^2 at High Galactic Latitude. *R. J. Reynolds.* 372, L17, 79-C1 (1991)
Magnetic Two-Photon Scattering and Two-Photon Emission: Cross Sections and Redistribution Functions. *S. G. Alexander & P. Mészáros.* 372, 554, 82-E11 (1991)
Cyclotron Harmonics in Accreting Pulsars and Gamma-Ray Bursters: Effect of Two-Photon Processes. *S. G. Alexander & P. Mészáros.* 372, 565, 82-F9 (1991)
Oscillations of Rotating Neutron Stars. *Tod E. Strohmayer.* 372, 573, 82-G5 (1991)
Discovery of a Young, 267 Millisecond Pulsar in the Supernova Remnant W44. *A. Wolszczan, J. M. Cordes, & R. J. Dewey.* 372, L99, 85-F1 (1991)
Stationary Accelerators around Keplerian Disks of Aligned Magnetized Collapsed Objects: Pair Production and Gamma-Ray Emission. *K. S. Cheng & M. Ruderman.* 373, 187, 88-C9 (1991)
Transverse Conductivity of a Relativistic Plasma in Oblique Electric and Magnetic Fields. *Fulvio Melia & Marco Fatuzzo.* 373, 198, 88-D8 (1991)
Rotation of the Neutron-Drip Superfluid in Pulsars: The Interaction and Pinning of Vortices. *P. B. Jones.* 373, 208, 88-E6 (1991)
Microstructure-determined Pulsar Dispersion Measures and the Problem of Profile Alignment. *Timothy H. Hankins, Vera A. Izvekova, Valerii M. Malofeev, Joanna M. Rankin, Yuri P. Shitov, & Daniel R. Stinebring.* 373, L17, 91-C1 (1991)
Mechanics and Energetics of Vortex Unpinning in Neutron Stars. *Bennett K. Link & Richard I. Epstein.* 373, 592, 95-C11 (1991)
Pulsar Timing at Low Radio Frequencies: Evidence for Superdispersion? *J. A. Phillips.* 373, L63, 97-D11 (1991)
Multipolar Magnetic Fields in Neutron Stars. *Julian H. Krolik.* 373, L69, 97-E4 (1991)
Timing Observations of the 8 Hour Binary Pulsar 2127+11C in the Globular Cluster M15. *T. A. Prince, S. B. Anderson, S. R. Kulkarni, & A. Wolszczan.* 374, L41, 110-C1 (1991)
Cyclotron Line Features in the Spectrum of the Transient X-Ray Pulsar X0115+634. *F. Nagase, T. Dotani, Y. Tanaka, K. Makishima, T. Mihara, T. Sakao, H. Tsunemi, S. Kitamoto, K. Tamura, A. Yoshida, & H. Nakamura.* 375, L49, 124-B11 (1991)
The X-Ray Properties of GX 301−2 (4U 1223−62). *F. Haberl.* 376, 245, 128-A5 (1991)
Detection of a Feature at 0.44 MeV in the Crab Pulsar Spectrum with FIGARO II: A Redshifted Positron Annihilation Line? *E. Massaro, G. Matt, M. Salvati, E. Costa, P. Mandrou, M. Niel, J. F. Olive, T. Mineo, B. Sacco, L. Scarsi, G. Gerardi, B. Agrinier, E. Barouch, R. Comte, B. Parlier, & J. L. Masnou.* 376, L11, 130-B7 (1991)
Transient Particle Acceleration in Strongly Magnetized Neutron Stars. *Fulvio Melia & Marco Fatuzzo.* 376, 673, 134-F7 (1991)
Search for TeV Emission from 4U 0115+63. *D. J. Macomb, M. F. Cawley, D. J. Fegan, A. M. Hillas, P. W. Kwok, R. C. Lamb, M. J. Lang, D. A. Lewis, P. T. Reynolds, G. Vacanti, & T. C. Weekes.* 376, 738, 135-D12 (1991)
Does the Vela Pulsar Have "Wisps"? *M. F. Bietenholz, D. A. Frail, & T. H. Hankins.* 376, L41, 137-C1 (1991)
An X-Ray Pulsator in the Direction of Molecular Cloud MBM 12 (Lynds 1457). *K. Koyama, S. Takano, Y. Tawara, T. Matsumoto, K. Noguchi, Y. Fukui, T. Iwata, N. Ohashi, K. Tatematsu, N. Takahashi, T. Umemoto, K. W. Hodapp, J. Rayner, & K. Makishima.* 377, 240, 141-A1 (1991)
Frequency Dependence of Pulsar Integrated Profiles. *S. E. Thorsett.* 377, 263, 141-C1 (1991)
Asymptotic Structure of Hydromagnetically Driven Relativistic Winds. *Tzihong Chiueh, Zhi-yun Li, & Mitchell C. Begelman.* 377, 462, 145-D11 (1991)
Gamma-Ray Observations of the Crab Nebula at TeV Energies. *G. Vacanti, M. F. Cawley, E. Colombo, D. J. Fegan, A. M. Hillas, P. W. Kwok, M. J. Lang, R. C. Lamb, D. A. Lewis, D. J. Macomb, K. S. O'Flaherty, P. T. Reynolds, & T. C. Weekes.* 377, 467, 145-E4 (1991)
Collisions of Giant Stars with Compact Objects: Hydrodynamical Calculations. *Frederic A. Rasio & Stuart L. Shapiro.* 377, 559, 146-F1 (1991)
PSR 0540+23 Revisited: Three Components, Drifting Subpulses, and Mode Switching. *Leszek A. Nowakowski.* 377, 581, 147-A1 (1991)
On the Nature and Evolution of the Windy Binary Pulsar PSR 1744−24A. *Jacob Shaham & Marco Tavani.* 377, 588, 147-A11 (1991)
The Contribution of Light Bending and Redshift to the Pulse Characteristics of a Pulsar in the Case of Smaller Neutron Stars. *R. C. Kapoor.* 378, 227, 153-G1 (1991)
Magnetosphere of the Rotation-powered Pulsar: A DC Circuit Model. *Shinpei Shibata.* 378, 239, 154-A1 (1991)
A Spectral Study of Four Millisecond Pulsars. *R. S. Foster, L. Fairhead, & D. C. Backer.* 378, 687, 161-A1 (1991)
Very High Energy Gamma-Ray Emission from Accreting X-Ray Pulsars. *K. S. Cheng, K. N. Yu, T. Cheung, & M. M. Lau.* 379, 290, 166-F1 (1991)
Searches for Millisecond Pulsations in Low-Mass X-Ray Binaries. *K. S. Wood, J. P. Norris, P. Hertz, B. A. Vaughan, P. F. Michelson, K. Mitsuda, W. H. G. Lewin, J. van Paradijs, W. Penninx, & M. van der Klis.* 379, 295, 166-F9 (1991)
Neutron Star and Black Hole Binaries in the Galaxy. *Ramesh Narayan, Tsvi Piran, & Amotz Shemi.* 379, L17, 169-B11 (1991)
A Model of Unpulsed Very High Energy Gamma Rays from the Crab Nebula and Pulsar. *P. W. Kwok, K. S. Cheng, & M. M. Lau.* 379, 653, 172-G1 (1991)
Discovery of Periodic Eclipses in the X-Ray Pulsar 1H 0253+193. *Yuichi Kamata, Yuzuru Tawara, & Katsuji Koyama.* 379, L65, 175-C13 (1991)
"Hidden" Millisecond Pulsars. *Marco Tavani.* 379, L69, 175-D5 (1991)
The Rate of Neutron Star Binary Mergers in the Universe: Minimal Predictions for Gravity Wave Detectors. *E. S. Phinney.* 380, L17, 181-C6 (1991)

The *K* Parameter and Evolution of the Radio Pulsars. *Wen Xu & Xinji Wu.* 380, 550, 185-A12 (1991)

High-Precision Timing of Millisecond Pulsars. II. Astrometry, Orbital Evolution, and Eclipses of PSR 1957+20. *M. F. Ryba & J. H. Taylor.* 380, 557, 185-B7 (1991)

LMC X-4: *Ginga* Observations and Search for Orbital Period Changes. *A. Levine, S. Rappaport, A. Putney, R. Corbet, & F. Nagase.* 381, 101, 190-C7 (1991)

A Model of Pulsed Gamma Radiation from the X-Ray Binary Hercules X-1/HZ Herculis. *F. A. Aharonian & A. M. Atoyan.* 381, 220, 191-F8 (1991)

Outflow Hydrodynamics in the Eclipsing Millisecond Pulsar Binaries PSR 1957+20 and PSR 1744−24A. *Marco Tavani & Leigh Brookshaw.* 381, L21, 194-C13 (1991)

H I Absorption Measurements toward 15 Pulsars and the Radial Distribution of Diffuse Ionized Gas in the Galaxy. *D. A. Frail, J. M. Cordes, T. H. Hankins, & J. M. Weisberg.* 382, 168, 202-C10 (1991)

Time Variability of Pulsar Dispersion Measures. *J. A. Phillips & A. Wolszczan.* 382, L27, 205-D1 (1991)

Transient Particle Acceleration in Strongly Magnetized Neutron Stars. II. Effects Due to a Dipole Field Geometry. *Marco Fatuzzo & Fulvio Melia.* 382, 570, 208-E10 (1991)

Neutron Star Crustal Plate Tectonics. II. Evolution of Radio Pulsar Magnetic Fields. *M. Ruderman.* 382, 576, 208-F4 (1991)

Neutron Star Crustal Plate Tectonics. III. Cracking, Glitches, and Gamma-Ray Bursts. *M. Ruderman.* 382, 587, 208-G3 (1991)

The Origin of the Planet around PSR 1829−10. *Takashi Nakamura & Tsvi Piran.* 382, L81, 211-C13 (1991)

Deep VLA Images of Globular Clusters. *Helen M. Johnston, Shrinivas R. Kulkarni, & W. M. Goss.* 382, L89, 211-D11 (1991)

Decrease in the Orbital Period of Hercules X-1. *John E. Deeter, Paul E. Boynton, Sigenori Miyamoto, Shunji Kitamoto, Fumiaki Nagase, & Nobuyuki Kawai.* 383, 324, 216-C1 (1991)

Evolution of Compact Binary Systems with X-Ray Heating. *Amos Harpaz & Saul Rappaport.* 383, 739, 223-D3 (1991)

Formation of Dense Charged Bunches in Vacuum Gaps. *F. Curtis Michel.* 383, 808, 224-C6 (1991)

Gamma-Ray Bursts from Sheared Alfvén Waves. *Fulvio Melia & Marco Fatuzzo.* 383, L57, 226-D1 (1991)

X-Ray and Radio Pulse Phase Comparison for PSR 1509−58. *N. Kawai, R. Okayasu, W. Brinkmann, R. Manchester, A. G. Lyne, & N. D'Amico.* 383, L65, 226-D12 (1991)

QUANTUM MECHANICS

Theoretical Determination of the Spectroscopic Constants of the MgC Molecule. *Marcos A. Castro, Sylvio Canuto, & Florian Müller-Plathe.* 367, L69, 22-D3 (1991)

Recalculation of Radial Matrix Integrals for the Electric Dipole Transitions in Hydrogen. *G. P. Malik, Usha Malik, & Vijaya S. Varma.* 371, 418, 65-D1 (1991)

Transverse Conductivity of a Relativistic Plasma in Oblique Electric and Magnetic Fields. *Fulvio Melia & Marco Fatuzzo.* 373, 198, 88-D8 (1991)

A New Gravitational Interaction of Cosmological Importance. *David F. Crawford.* 377, 1, 138-B1 (1991)

Gamma-Ray Bursts from Sheared Alfvén Waves. *Fulvio Melia & Marco Fatuzzo.* 383, L57, 226-D1 (1991)

QUASARS

Galaxies Clustering around QSOs with $z = 0.9$–1.5 and the Origin of Blue Field Galaxies. *Paul Hintzen, W. Romanishin, & Francisco Valdes.* 366, 7, 1-B5 (1991)

Comparison of VLBI Radio-Core and X-Ray Flux Densities of Extragalactic Radio Sources. *Steven D. Bloom & Alan P. Marscher.* 366, 16, 1-C5 (1991)

Southern *IRAS* Quasar with Extreme Fe II Emission. *S. Lípari, F. D. Macchetto, & D. Golombek.* 366, L65, 11-C1 (1991)

A Change in the Cluster Environments of Radio Galaxies with Cosmic Epoch. *G. J. Hill & S. J. Lilly.* 367, 1, 12-A13 (1991)

The Redshift Distribution of Lyα Clouds and the Proximity Effect. *Limin Lu, Arthur M. Wolfe, & David A. Turnshek.* 367, 19, 12-C5 (1991)

Accretion Disk Emission from a BL Lacertae Object. *Amri Wandel & C. Megan Urry.* 367, 78, 13-A5 (1991)

A Technique for Using Radio Jets as Extended Gravitational Lensing Probes. *Philipp P. Kronberg, Charles C. Dyer, E. Margaret Burbidge, & Vesa T. Junkkarinen.* 367, L1, 17-B1 (1991)

Universal Particle Acceleration. *J. I. Katz.* 367, 407, 18-E1 (1991)

X-Ray Continuum and Evidence for an Iron Emission Line from the Quasar E1821+643. *T. Kii, O. R. Williams, T. Ohashi, H. Awaki, K. Hayashida, H. Inoue, H. Kondo, K. Koyama, F. Makino, K. Makishima, R. D. Saxton, G. C. Stewart, S. Takano, Y. Tanaka, & M. J. L. Turner.* 367, 455, 19-A11 (1991)

Effect of a QSO on the Interstellar Medium of Its Host Galaxy. *Smita Shanbhag.* 367, 462, 19-B5 (1991)

Dark Matter Decay and the Temperature of Lyman-Alpha Clouds. *D. W. Sciama.* 367, L39, 22-A11 (1991)

Lyman-α Companions to High-z Quasars. *Esther M. Hu, Antoinette Songaila, Lennox L. Cowie, & Alan Stockton.* 368, 28, 23-D9 (1991)

A Study of Two Absorption-Line Complexes in the Quasar UM 402 ≡ Q0207−003. *E. Joseph Wampler.* 368, 40, 23-E11 (1991)

Expansion-cooled Lyman-Alpha Clouds. *Robert C. Duncan, Ethan T. Vishniac, & Jeremiah P. Ostriker.* 368, L1, 28-B1 (1991)

BL Lacertae Objects and Radio-loud Quasars within an Evolutionary Unified Scheme. *F. Vagnetti, E. Giallongo, & A. Cavaliere.* 368, 366, 29-E11 (1991)

A New Survey for Quasar Clustering. *Patrick S. Osmer & Paul C. Hewett.* 75, 273, 4-E9 (1991)

An Optical Catalog of Extragalactic Emission-Line Objects Similar to Quasi-stellar Objects. *A. Hewitt & G. Burbidge.* 75, 297, 5-A5 (1991)

Infrared Polarimetry of Quasars. *Michael L. Sitko & Yudong Zhu.* 369, 106, 37-C5 (1991)

First Results from the Faint Object Camera: Images of the Gravitational Lens System G2237+0305. *P. Crane, R. Albrecht, C. Barbieri, J. C. Blades, A. Bokensenberg, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 369, L59, 46-A7 (1991)

Spatially Resolved Optical Images of High-Redshift Quasi-stellar Objects. *Timothy M. Heckman, Matthew D. Lehnert, Wil van Breugel, & George K. Miley.* 370, 78, 48-A7 (1991)

An Ultraviolet Atlas of Quasar and Blazar Spectra. *A. L. Kinney, R. C. Bohlin, J. C. Blades, & D. G. York.* 75, 645, 10-C7 (1991)

Structure and Kinematics of the Broad-Line Regions in Active Galaxies from *IUE* Variability Data. *Anuradha P. Koratkar & C. Martin Gaskell.* 75, 719, 11-B5 (1991)

The Shape of the Ultraviolet Continuum of Quasars and Intergalactic Dust. *F. H. Cheng, C. Martin Gaskell, & Anuradha P. Koratkar.* 370, 487, 54-D9 (1991)

High-Resolution Spectroscopy of Q1100−264 Again. *R. F. Carswell, K. M. Lanzetta, H. C. Parnell, & J. K. Webb.* 371, 36, 60-E1 (1991)

Quasars and Active Galactic Nuclei in Rich Environments. II. The Evolution of Radio-loud Quasars. *E. Ellingson, H. K. C. Yee, & R. F. Green.* 371, 49, 60-F7 (1991)

Correlated Radio and Optical Asymmetries in Powerful Radio Sources. *Patrick J. McCarthy, Wil van Breugel, & Vijay K. Kapahi.* 371, 478, 67-D11 (1991)

Multifrequency VLA, VLBI, and Single-Dish Observations of the Quasar 4C 39.25. *Alan P. Marscher, Yun Fei Zhang, David B. Shaffer, Hugh D. Aller, & Margo F. Aller.* 371, 491, 67-E12 (1991)

OX 169: Evidence for a Recent Merger. *Alan Stockton & Tony Farnham.* 371, 525, 68-A13 (1991)

A Comparison of C IV and Hβ Broad Emission-Line Profiles in Low-Redshift Active Galactic Nuclei. *Michael R. Corbin.* 371, L51, 73-B1 (1991)

The Formation of Galaxies and Quasars in a Texture-seeded Cold Dark Matter Cosmogony. *Andrew K. Gooding, David N. Spergel, & Neil Turok.* 372, L5, 79-A13 (1991)

Evidence for Structure in the Distribution of Active Galactic Nuclei with $z < 0.05$. *Michael J. Longo.* 372, L59, 85-B11 (1991)

Evolution of the Luminosity Function of Quasar Accretion Disks. *David M. Caditz, Vahé Petrosian, & Amri Wandel.* 372, L63, 85-C1 (1991)

Discovery of an Infrared Nucleus in Cygnus A: An Obscured Quasar Revealed? *S. Djorgovski, N. Weir, K. Matthews, & J. R. Graham.* 372, L67, 85-C5 (1991)

Correlated Radio and Optical Variability in the BL Lacertae Object 0716+714. *A. Quirrenbach, A. Witzel, S. Wagner, F. Sanchez-Pons, T. P. Krichbaum,*

R. Wegner, K. Anton, U. Erkens, M. Haehnelt, J. A. Zensus, & K. J. Johnston. 372, L71, 85-C9 (1991)

Comparisons of the Emission-Line and Continuum Properties of Broad Absorption Line and Normal Quasi-stellar Objects. *Ray J. Weymann, Simon L. Morris, Craig B. Foltz, & Paul C. Hewett.* 373, 23, 86-C13 (1991)

Physical Models for the Hypothesized $F(\nu) \propto \nu^{-1}$ Infrared to X-Ray Continuum of Quasi-stellar Objects. *Wayne A. Stein.* 373, 54, 86-F4 (1991)

The Ultraviolet Spectrum and Continuum Energy Distribution of the Bright Quasar H1821+643. *Michiel Kolman, Jules P. Halpern, Chris R. Shrader, & Alexei V. Filippenko.* 373, 57, 86-F8 (1991)

A Wide-Field Multicolor Survey for High-Redshift Quasars, $z \geq 2.2$. I. Photometric Catalog and Survey Selection Function. *Stephen J. Warren, Paul C. Hewett, Michael J. Irwin, & Patrick S. Osmer.* 76, 1, 24-B1 (1991)

A Wide-Field Multicolor Survey for High-Redshift Quasars, $z \geq 2.2$. II. The Quasar Catalog. *Stephen J. Warren, Paul C. Hewett, & Patrick S. Osmer.* 76, 23, 24-D3 (1991)

A High Signal-to-Noise Ratio Composite Quasar Spectrum. *Paul J. Francis, Paul C. Hewett, Craig B. Foltz, Frederic H. Chaffee, Ray J. Weymann, & Simon L. Morris.* 373, 465, 93-F10 (1991)

Analysis of C IV Absorption Lines from Clouds at High Redshifts. *Wei Peng & Jon C. Weisheit.* 373, 471, 93-G4 (1991)

Emission from the $z = 2$ Damped Lyα Absorber toward Q1215+333. *Richard Elston, Jill Bechtold, James Lowenthal, & Marcia Rieke.* 373, L39, 97-B1 (1991)

Synchrotron Emission from Shocked Relativistic Jets. III. Models for the Centimeter Wave Band Quiescent and Burst Emission from 3C 279 and OT 081. *P. A. Hughes, H. D. Aller, & M. F. Aller.* 374, 57, 98-F5 (1991)

New Observations of the Gas Cloud Associated with the Quasar-Galaxy Pair 3C 232/NGC 3067. *John T. Stocke, James Case, Megan Donahue, J. Michael Shull, & Theodore P. Snow.* 374, 72, 98-G7 (1991)

Gravitational Lens Interference. *J. B. Peterson & Toby Falk.* 374, L5, 103-C1 (1991)

Broad Paschen-Alpha Emission in Two Extremely Infrared Luminous Seyfert 2 Galaxies. *Dean C. Hines.* 374, L9, 103-C7 (1991)

The CfA *Einstein Observatory* Extended Deep X-Ray Survey. *F. A. Primini, S. S. Murray, J. Huchra, R. Schild, R. Burg, & R. Giacconi.* 374, 440, 104-E12 (1991)

Broad Na D Emission in QSOs and the Profile of He I λ5876. *Keith L. Thompson.* 374, 496, 105-C7 (1991)

Quasars and Active Galactic Nuclei in Rich Environments. I. Fields Surrounding Optically Faint Quasars. *E. Ellingson, H. K. C. Yee, & R. F. Green.* 76, 455, 31-D2 (1991)

Evolution of High-Redshift Lyman-Limit Absorption Systems. *Kenneth M. Lanzetta.* 375, 1, 111-A11 (1991)

Optical Polarization of a Complete Sample of Radio Sources. *C. D. Impey, C. R. Lawrence, & S. Tapia.* 375, 46, 111-E10 (1991)

Infrared Broad Emission Lines from an Obscured Quasar, IRAS 23060+0505. *Tadashi Nakajima, Nathaniel P. Carleton, & Minoru Nishida.* 375, L1, 117-A7 (1991)

Gravitational Lensing and the Lyman-Alpha Forest. *Satoru Ikeuchi & Edwin L. Turner.* 375, 499, 119-A5 (1991)

The Emission-Line Properties of Steep Radio Spectrum Quasars. *Michael R. Corbin.* 375, 503, 119-A11 (1991)

Evidence for a Massive, Dark Gravitational Lensing Object in Q2345+007. *Robert C. Duncan.* 375, L41, 124-B1 (1991)

Lyman-Alpha Depression of the Continuum from High-Redshift Quasars: A New Technique Applied in Search of the Gunn-Peterson Effect. *Edward B. Jenkins & Jeremiah P. Ostriker.* 376, 33, 125-D9 (1991)

Bounds on the Enhancement of Quasar Counts by Lenses. *Israel Kovner.* 376, 70, 125-G8 (1991)

The *Einstein Observatory* Extended Medium-Sensitivity Survey. II. The Optical Identifications. *John T. Stocke, Simon L. Morris, I. M. Gioia, T. Maccacaro, R. Schild, A. Wolter, Thomas A. Fleming, & J. Patrick Henry.* 76, 813, 36-B1 (1991)

Infrared and Visible Photometry of the Gravitational Lens System 2237+030. *Daniel Nadeau, H. K. C. Yee, W. J. Forrest, J. D. Garnett, Z. Ninkov, & J. L. Pipher.* 376, 430, 131-G1 (1991)

QSO Absorption Systems and the Origin of the Ionizing Background at High Redshift. *Piero Madau.* 376, L33, 137-B4 (1991)

Radio Source Orientation and the Angular Diameter–Redshift Relation. *L. I. Onuora.* 377, 36, 138-E1 (1991)

The Origin of the Quasi-stellar Object Absorption Lines. *S. M. Viegas & R. B. Gruenwald.* 377, 39, 138-E5 (1991)

Far-Ultraviolet Spectroscopy of the Quasar UM 675 with the Faint Object Spectrograph on the *Hubble Space Telescope*. *E. A. Beaver, E. M. Burbidge, Ross D. Cohen, Vesa T. Junkkarinen, Ronald W. Lyons, E. I. Rosenblatt, George F. Hartig, Bruce Margon, & A. F. Davidsen.* 377, L1, 143-B1 (1991)

The Ultraviolet Absorption Spectrum of 3C 273. *J. N. Bahcall, B. T. Jannuzi, D. P. Schneider, G. F. Hartig, R. Bohlin, & V. Junkkarinen.* 377, L5, 143-B6 (1991)

First Results from the Goddard High-Resolution Spectrograph: The Galactic Halo and the Lyα Forest at Low Redshift in 3C 273. *Simon L. Morris, Ray J. Weymann, Blair D. Savage, & Ronald L. Gilliland.* 377, L21, 143-C11 (1991)

Optical Variability of Quasars: Statistics and Cosmological Properties. *E. Giallongo, D. Trevese, & F. Vagnetti.* 377, 345, 144-B6 (1991)

Asymptotic Structure of Hydromagnetically Driven Relativistic Winds. *Tzihong Chiueh, Zhi-yun Li, & Mitchell C. Begelman.* 377, 462, 145-D11 (1991)

A $\sim$10 Mpc Void in the Lyα Forest at $z = 3.17$. *Adam Dobrzycki & Jill Bechtold.* 377, L69, 150-B10 (1991)

Discovery of a Lyα Galaxy near a Damped Lyα Absorber at $z = 2.3$. *James D. Lowenthal, Craig J. Hogan, Richard F. Green, Adeline Caulet, Bruce E. Woodgate, Larry Brown, & Craig B. Foltz.* 377, L73, 150-C1 (1991)

The Case Low-Dispersion Northern Sky Survey. XII. A Region in Southern Canes Venatici. *Peter Pesch, N. Sanduleak, & C. B. Stephenson.* 76, 1043, 40-B1 (1991)

Confirmation of Dust in Damped Lyman-Alpha Systems. *Yichuan C. Pei, S. Michael Fall, & Jill Bechtold.* 378, 6, 151-B4 (1991)

Neutrino-heated Stars and Broad-Line Emission from Active Galactic Nuclei. *James MacDonald, Todor Stanev, & Peter L. Biermann.* 378, 30, 151-D4 (1991)

The *EXOSAT* High Galactic Latitude Survey. *P. Giommi, G. Tagliaferri, K. Beuermann, G. Branduardi-Raymont, R. Brissenden, U. Graser, K. O. Mason, J. D. P. Mittaz, P. Murdin, G. Pooley, H.-C. Thomas, & I. Tuohy.* 378, 77, 152-A5 (1991)

Origin of Cosmic X-Ray Background Radiation. *Nobuo Terasawa.* 378, L11, 157-B8 (1991)

Attenuation of Lyman-Alpha Emission by Dust in Damped Lyman-Alpha Systems. *Stéphane Charlot & S. Michael Fall.* 378, 471, 158-C7 (1991)

Clusters of Galaxies Associated with Quasars. II. Galaxy Cluster Dynamics. *E. Ellingson, R. F. Green, & H. K. C. Yee.* 378, 476, 158-D1 (1991)

First- and Second-Epoch VLBI Observations of the Gravitational Lens System 2016+112. *M. B. Heflin, M. V. Gorenstein, C. R. Lawrence, & B. F. Burke.* 378, 519, 158-G9 (1991)

Persistence and Change in the Soft X-Ray Spectrum of the Quasar PG 1211+143. *Martin Elvis, P. Giommi, Belinda J. Wilkes, & Jonathan McDowell.* 378, 537, 159-B1 (1991)

Superclustering at High Redshifts. *Michael J. West.* 379, 19, 163-C7 (1991)

The Carbon Abundance of the Lyman-Alpha Clouds. *Limin Lu.* 379, 99, 164-C1 (1991)

The Visual Wavelength Continua of Quasars: A Reexamination. *W. A. Stein.* 379, 107, 164-C11 (1991)

Massive Star Formation and Superwinds in IRAS 19254−7245 (The "Superantennae"). *Luis Colina, Sebastian Lípari, & F. Macchetto.* 379, 113, 164-D5 (1991)

X-Ray Irradiation of Interstellar Grains in Active Galaxies: Evaporation and Infrared Spectra. *G. Mark Voit.* 379, 122, 164-E1 (1991)

A New Spectroscopic Survey for Damped Lyα Absorption Lines from High-Redshift Galaxies. *Kenneth M. Lanzetta, Arthur M. Wolfe, David A. Turnshek, Limin Lu, Richard G. McMahon, & Cyril Hazard.* 77, 1, 43-B1 (1991)

Atomic Data for Resonance Absorption Lines. I. Wavelengths Longward of the Lyman Limit. *Donald C. Morton.* 77, 119, 45-B1 (1991)

Small-Scale Fluctuations and Angular Correlations of the X-Ray Background in the *HEAO 1* A-2 Energy Band: Constraints on Clustering of X-Ray Sources. *J. M. Martín-Mirones, G. De Zotti, E. A. Boldt, F. E. Marshall, L. Danese, A. Franceschini, & M. Persic.* 379, 507, 171-A4 (1991)

Selection Effects in Optical Surveys for Gravitational Lenses. *Christopher S. Kochanek.* 379, 517, 171-B1 (1991)

Statistics of Gravitational Lenses: The Uncertainties. *Shude Mao.* 380, 9, 176-B9 (1991)

What Are the Gigahertz Peaked-Spectrum Radio Sources? *C. P. O'Dea, S. A. Baum, & C. Stanghellini.* 380, 66, 176-G5 (1991)

The Origin of Quasar Correlations. *Neta A. Bahcall & Arati Chokshi.* 380, L9, 181-B11 (1991)

3C 345: Is the Variability of Quasars Nonlinear? *R. Vio, S. Cristiani, O. Lessi, & L. Salvadori.* 380, 351, 182-F1 (1991)

A Catalog of Absorption in the Spectra of Quasi-stellar Objects. *V. Junkkarinen, A. Hewitt, & G. Burbidge.* 77, 203, 47-B1 (1991)

Probing the Galactic Halo along the 3C 273 Sight Line Using *IUE*. *Geoffrey S. Burks, Donald G. York, J. Chris Blades, Ralph C. Bohlin, & Willem Wamsteker.* 381, 55, 189-F5 (1991)

Depolarization Asymmetry in the Quasar 3C 47. *Ilias Fernini, J. Patrick Leahy, Jack O. Burns, & John P. Basart.* 381, 63, 189-G1 (1991)

The Evolution of the Diffuse Cosmic Ultraviolet Background Constrained by *Hubble Space Telescope* Observations of 3C 273. *Satoru Ikeuchi & Edwin L. Turner.* 381, L1, 194-A9 (1991)

The Systemic Redshift of the Quasar 1331+170. *R. F. Carswell, C. M. Mountain, D. J. Robertson, S. M. Beard, A. R. Glendinning, D. C. Laird, L. C. Lawrence, D. Montgomery, G. Pentland, D. A. Pickup, I. A. Smith, J. A. Bailey, A. Bridger, M. M. Casali, T. R. Geballe, P. Puxley, M. G. Smith, G. S. Wright, S. K. Ramsay, A. C. Baker, B. R. Espey, & M. J. Ward.* 381, L5, 194-B1 (1991)

Spectroscopy of Spatially Extended Material around High-Redshift Radio-loud Quasars. *Timothy M. Heckman, Matthew D. Lehnert, George K. Miley, & Wil van Breugel.* 381, 373, 195-D1 (1991)

Spatially Resolved Spectroscopy of Lyman-Alpha and C IV in the Gravitational Lens 2237+030. *H. K. C. Yee & M. M. De Robertis.* 381, 386, 195-E1 (1991)

Microlensing and the Structure of Active Galactic Nucleus Accretion Disks. *Kevin P. Rauch & Roger D. Blandford.* 381, L39, 199-B1 (1991)

Near-Infrared Observations of the $z \sim 2.3$ *IRAS* Source FSC 10214+4724. *B. T. Soifer, G. Neugebauer, J. R. Graham, K. Matthews, J. M. Mazzarella, C. J. Lonsdale, M. Rowan-Robinson, T. Broadhurst, A. Lawrence, & R. McMahon.* 381, L55, 199-D1 (1991)

A Radio-quiet Galaxy at Redshift $z = 3.409$. *D. A. Turnshek, F. Macchetto, M. V. Bencke, C. Hazard, W. B. Sparks, & R. G. McMahon.* 382, 26, 200-D1 (1991)

Are Quasar Redshifts Cosmological? *Arnon Dar.* 382, L1, 205-A7 (1991)

Outflows Driven by Cosmic-Ray Pressure in Broad Absorption Line QSOs. *Mitchell C. Begelman, Martijn de Kool, & Marek Sikora.* 382, 416, 206-F9 (1991)

Emission-Line and Continuum Properties of 92 Bright QSOs: Luminosity Dependence and Differences between Radio-selected and Optically Selected Samples. *Charles C. Steidel & Wallace L. W. Sargent.* 382, 433, 207-A1 (1991)

Inference of the Extreme-Ultraviolet Continuum Shape of Quasars. *Wei Zheng.* 382, L55, 211-A11 (1991)

IRAS 02366−3101: An Accretion Disk Candidate among Luminous *IRAS* Galaxies. *Luis Colina, Sebastian Lípari, & F. Macchetto.* 382, L63, 211-B7 (1991)

The Confinement and Cosmological Evolution of Extragalactic Radio Source Components. *A. A. Ubachukwu, S. E. Okoye, & L. I. Onuora.* 383, 56, 212-F7 (1991)

New Photoionization Models of Intergalactic Clouds. *Megan Donahue & J. Michael Shull.* 383, 511, 220-F1 (1991)

Observations of Ca II Absorption along the Nearly Parallel Lines of Sight toward 3C 273 and SN 1991T. *David M. Meyer & Katherine C. Roth.* 383, L41, 226-B11 (1991)

Luminous Quasars in Luminous Early-Type Host Galaxies. *K. K. McLeod & G. H. Rieke.* 454, L77, 315-C9 (1995)

RADAR ASTRONOMY

Voyager 2 Test of the Radar Time-Delay Effect. *Timothy P. Krisher, John D. Anderson, & Anthony H. Taylor.* 373, 665, 96-C1 (1991)

Radio Range Measurements of Coronal Electron Densities at 13 and 3.6 Centimeter Wavelengths during the 1988 Solar Conjunction of *Voyager 2*. *T. P. Krisher, J. D. Anderson, D. D. Morabito, S. W. Asmar, S. E. Borutzki, M. L. Delitsky, A. C. Densmore, P. M. Eshe, G. D. Lewis, M. J. Maurer, D. C. Roth, Y. H. Son, T. R. Spilker, D. N. Sweetnam, A. H. Taylor, G. L. Tyler, D. L. Gresh, & P. A. Rosen.* 375, L57, 124-C6 (1991)

RADIAL VELOCITIES

Radial Velocity Distribution and Line Strengths of 33 Carbon Stars in the Galactic Bulge. *Neil D. Tyson & R. Michael Rich.* 367, 547, 20-B6 (1991)

The Halo of the Large Magellanic Cloud: Kinematics of the CH Stars. *A. P. Cowley & F. D. A. Hartwick.* 373, 80, 87-A8 (1991)

Radial Velocities of 26 Northern Milky Way Cepheids. *Mark R. Metzger, John A. R. Caldwell, James K. McCarthy, & Paul L. Schechter.* 76, 803, 35-G3 (1991)

Probing Shock Models of CH^+ Formation. *Isabel Hawkins & Nahide Craig.* 375, 642, 120-F1 (1991)

Dynamics of the Microwave-Decrement Cluster Abell 665. *William R. Oegerle, Michael J. Fitchett, John M. Hill, & Paul Hintzen.* 376, 46, 125-E10 (1991)

Radial Velocity Measurements in the Pleiades. *T. Liu, Kenneth A. Janes, & T. M. Bania.* 377, 141, 139-F7 (1991)

RADIATION MECHANISMS

Comparison of VLBI Radio-Core and X-Ray Flux Densities of Extragalactic Radio Sources. *Steven D. Bloom & Alan P. Marscher.* 366, 16, 1-C5 (1991)

Cosmic X-Ray Background from Hot Gas. *R. D. Rogers & G. B. Field.* 366, 22, 1-C13 (1991)

Ginga Observations of Three X-Ray–luminous Galaxies: NGC 4472, NGC 4636, and NGC 3998. *H. Awaki, K. Koyama, H. Kunieda, S. Takano, Y. Tawara, & T. Ohashi.* 366, 88, 2-B8 (1991)

Far-Infrared Observations and the Structure of Wolf-Rayet Ring Nebulae. *A. P. Marston.* 366, 181, 3-C9 (1991)

Compton Scattering of Gamma Rays in Optically Thick Media. *Magda Zbyszewska & Andrzej A. Zdziarski.* 366, 233, 3-G13 (1991)

On the Nature of Soft Gamma Repeaters. *J. P. Norris, P. Hertz, K. S. Wood, & C. Kouveliotou.* 366, 240, 4-A8 (1991)

Coronal Loop Heating by Wave-Particle Interactions. *Altair S. de Assis & King H. Tsui.* 366, 324, 5-B1 (1991)

Bursts of Gamma Rays from Compton Scattering at Cosmological Distances. *Andrzej A. Zdziarski, Roland Svensson, & Bohdan Paczyński.* 366, 343, 7-B3 (1991)

H II Regions in M82: High-Resolution Millimeter Continuum Observations. *J. E. Carlstrom & Philipp P. Kronberg.* 366, 422, 8-B1 (1991)

A Detailed Optical Study of Kepler's Supernova Remnant. *William P. Blair, Knox S. Long, & Olaf Vancura.* 366, 484, 9-A1 (1991)

Monte Carlo Simulation of Comptonization in Plasma Accreting onto Neutron Stars. *Tomoyuki Hanawa.* 366, 495, 9-B9 (1991)

Nonthermal X-Ray Emission from Winds of OB Supergiants. *Wan Chen & Richard L. White.* 366, 512, 9-D1 (1991)

Universal Particle Acceleration. *J. I. Katz.* 367, 407, 18-E1 (1991)

Cosmic Backgrounds from Primeval Dust. *J. R. Bond, B. J. Carr, & C. J. Hogan.* 367, 420, 18-F1 (1991)

Structure of Thermal Pair Clouds around Gamma-Ray–emitting Black Holes. *Edison P. Liang.* 367, 470, 19-C1 (1991)

Faraday Rotation and Physical Conditions in the Crab Nebula. *M. F. Bietenholz & P. P. Kronberg.* 368, 231, 26-A1 (1991)

Nonthermal Radio Emission from the X-Ray–Bright K5 IV Star 1E 1751+7046. *Stephen L. Skinner.* 368, 272, 26-D11 (1991)

Saturation of the Synchrotron Megamaser. *André R. Crusius-Wätzel.* 368, 390, 30-A1 (1991)

On the Observability of the Gamma-Ray Line Flux from Dark Matter Annihilation. *S. Rudaz & F. W. Stecker.* 368, 406, 30-B5 (1991)

An Infrared Analysis of Puppis A. *Richard G. Arendt, Eli Dwek, & Robert Petre.* 368, 474, 31-A7 (1991)

Formulae for the Cyclotron Luminosity of Magnetized Plasma Slabs. *G. Chanmugam & Steven H. Langer.* 368, 580, 32-C11 (1991)

Infrared Polarimetry of Quasars. *Michael L. Sitko & Yudong Zhu.* 369, 106, 37-C5 (1991)

A Nonthermal Radio Halo Surrounding M82. *E. R. Seaquist & Nils Odegard.* 369, 320, 41-F13 (1991)

Luminosity Enhancement Factor for Thermal Comptonization and the Electron Energy Balance. *C. D. Dermer, E. P. Liang, & E. Canfield.* 369, 410, 42-G5 (1991)

Problems of Ultra–High-Energy Particle Acceleration in Cygnus X-3: A Critical Reappraisal. *Abhas Mitra.* 370, 345, 51-E7 (1991)

Polarization of Astronomical Maser Radiation. *Moshe Elitzur.* 370, 407, 52-C12 (1991)

Synchrotron Radiation with Radiation Reaction. *Robert W. Nelson & Ira Wasserman.* 371, 265, 63-D7 (1991)

Ultraviolet Variability of NGC 5548: Dynamics of the Continuum Production Region and Geometry of the Broad-Line Region. *J. H. Krolik, Keith Horne, T. R. Kallman, M. A. Malkan, R. A. Edelson, & G. A. Kriss.* 371, 541, 68-C6 (1991)

Supernova Remnant 1987A. *Ding Luo & Richard McCray.* 372, 194, 76-D1 (1991)

Magnetic Two-Photon Scattering and Two-Photon Emission: Cross Sections and Redistribution Functions. *S. G. Alexander & P. Mészáros.* 372, 554, 82-E11 (1991)

Cyclotron Harmonics in Accreting Pulsars and Gamma-Ray Bursters: Effect of Two-Photon Processes. *S. G. Alexander & P. Mészáros.* 372, 565, 82-F9 (1991)

Physical Models for the Hypothesized $F(\nu) \propto \nu^{-1}$ Infrared to X-Ray Continuum of Quasi-stellar Objects. *Wayne A. Stein.* 373, 54, 86-F4 (1991)

Relativistic Electron Populations in Cassiopeia A. *M. Anderson, L. Rudnick, P. Leppik, R. Perley, & R. Braun.* 373, 146, 87-G4 (1991)

High-Energy X-Ray Production in a Boundary Layer of an Accreting Neutron Star. *Tomoyuki Hanawa.* 373, 222, 88-F9 (1991)

Relativistic Motion in Gamma-Ray Bursts. *Julian H. Krolik & Edward A. Pier.* 373, 277, 89-D8 (1991)

Direct Radiation from a Strong DC Electric Field. *Donat G. Wentzel.* 373, 285, 89-E3 (1991)

The Bumps in the Spectral Energy Distribution of Active Galactic Nuclei. *Marcella Contini & Sueli M. Viegas.* 373, 405, 93-A9 (1991)

He II Emission in Extragalactic H II Regions. *Donald R. Garnett, Robert C. Kennicutt, Jr., You-Hua Chu, & Evan D. Skillman.* 373, 458, 93-E14 (1991)

Supernova Remnant Evolution in an Interstellar Medium with Evaporating Clouds. *Richard L. White & Knox S. Long.* 373, 543, 94-F7 (1991)

Unsaturated Comptonization of Isotropic Photon Spectra by Relativistic Electrons. *Abraham Loeb, Christopher F. McKee, & Ofer Lahav.* 374, 44, 98-E5 (1991)

Synchrotron Emission from Shocked Relativistic Jets. III. Models for the Centimeter Wave Band Quiescent and Burst Emission from 3C 279 and OT 081. *P. A. Hughes, H. D. Aller, & M. F. Aller.* 374, 57, 98-F5 (1991)

Infrared Fluorescence of H_2 in NGC 6240: A Starburst Origin for the H_2 Luminosity. *Masuo Tanaka, Tetsuo Hasegawa, & Ian Gatley.* 374, 516, 105-E9 (1991)

A Theory of Gamma-Ray Bursts Based on Resonant Compton Scattering. *Peter Vitello & Charles D. Dermer.* 374, 668, 107-D1 (1991)

Cyclotron Resonant Scattering and Absorption. *Alice K. Harding & Joseph K. Daugherty.* 374, 687, 107-E8 (1991)

Bremsstrahlung and Energetic Electrons in Supernovae. *Donald D. Clayton & Lih-Sin The.* 375, 221, 113-F12 (1991)

Interrelation of Soft and Hard X-Ray Emissions during Solar Flares. I. Observations. *R. M. Winglee, A. L. Kiplinger, D. M. Zarro, G. A. Dulk, & J. R. Lemen.* 375, 366, 115-D13 (1991)

Interrelation of Soft and Hard X-Ray Emissions during Solar Flares. II. Simulation Model. *R. M. Winglee, G. A. Dulk, P. L. Bornmann, & J. C. Brown.* 375, 382, 115-F1 (1991)

Variable Soft X-Ray Excesses in Active Galactic Nuclei from Nonthermal Electron-Positron Pair Cascades. *Andrzej A. Zdziarski & Paolo S. Coppi.* 376, 480, 132-D5 (1991)

Gamma-Ray Observations of the Crab Nebula at TeV Energies. *G. Vacanti, M. F. Cawley, E. Colombo, D. J. Fegan, A. M. Hillas, P. W. Kwok, M. J. Lang, R. C. Lamb, D. A. Lewis, D. J. Macomb, K. S. O'Flaherty, P. T. Reynolds, & T. C. Weekes.* 377, 467, 145-E4 (1991)

Isothermal, Compton-heated Coronae above Accretion Disks. *Eve C. Ostriker, Christopher F. McKee, & Richard I. Klein.* 377, 593, 147-B3 (1991)

The O VII Soft X-Ray Spectrum and Its Application to Hot Plasmas in Astrophysics. *A. H. Gabriel, F. Bely-Dubau, P. Faucher, & L. W. Acton.* 378, 438, 156-D1 (1991)

Coherent Radiation from Energetic Electron Streams via Collisionless Bremsstrahlung in Strong Plasma Turbulence. *James C. Weatherall & Gregory Benford.* 378, 543, 159-B8 (1991)

The Visual Wavelength Continua of Quasars: A Reexamination. *W. A. Stein.* 379, 107, 164-C11 (1991)

Very High Energy Gamma-Ray Emission from Accreting X-Ray Pulsars. *K. S. Cheng, K. N. Yu, T. Cheung, & M. M. Lau.* 379, 290, 166-F1 (1991)

Center-to-Limb Variations of Characteristics of Solar Flare Hard X-Ray and Gamma-Ray Emission. *James M. McTiernan & Vahé Petrosian.* 379, 381, 167-F11 (1991)

What Are the Gigahertz Peaked-Spectrum Radio Sources? *C. P. O'Dea, S. A. Baum, & C. Stanghellini.* 380, 66, 176-G5 (1991)

Emission at Cyclotron Harmonics Due to Coalescence of z-Mode Waves. *D. B. Melrose.* 380, 256, 179-C1 (1991)

Radiative Widths and Splitting of Cyclotron Lines in Superstrong Magnetic Fields. *G. G. Pavlov, V. G. Bezchastnov, P. Mészáros, & S. G. Alexander.* 380, 541, 185-A1 (1991)

Einstein Observatory SSS and MPC Observations of the Complex X-Ray Spectra of Seyfert Galaxies. *T. J. Turner, K. A. Weaver, R. F. Mushotzky, S. S. Holt, & G. M. Madejski.* 381, 85, 190-B1 (1991)

Pair-Density Transitions in Accretion Disk Coronae. *Masaaki Kusunose & Shin Mineshige.* 381, 490, 196-G1 (1991)

Milliarcsecond Radio Structure of Weak-lined T Tauri Stars. *R. B. Phillips, C. J. Lonsdale, & E. D. Feigelson.* 382, 261, 203-D9 (1991)

Multifrequency Observations of BL Lacertae in 1988. *N. Kawai, M. Matsuoka, J. N. Bregman, H. D. Aller, M. F. Aller, P. A. Hughes, S. A. Balbus, T. J. Balonek, K. C. Chambers, R. E. S. Clegg, S. D. Clements, R. J. Leacock, A. G. Smith, R. Goodrich, J. S. Miller, M. Hereld, M. G. Hoare, V. A. Hughes, G. K. Miley, G. H. Moriarty-Schieven, K. Matthews, G. Neugebauer, T. Ohashi, P. F. Roche, H. A. Thronson, E. Valtaoja, H. Terasranta, J. R. Webb, B. J. Wills, & D. Wills.* 382, 508, 207-G8 (1991)

The Ultraviolet Spectra of Nearby Radio Galaxies. *William C. Keel & Rogier A. Windhorst.* 383, 135, 213-F3 (1991)

Spectral Signatures of the MeV–PeV Radiation from Accreting Neutron Stars. *B. Rudak & P. Mészáros.* 383, 269, 215-E3 (1991)

Multifrequency Radio Observations of Cygnus A: Spectral Aging in Powerful Radio Galaxies. *C. L. Carilli, R. A. Perley, J. W. Dreher, & J. P. Leahy.* 383, 554, 221-B9 (1991)

EXOSAT Observations of the Seyfert 1 Galaxy NGC 3516. *K. K. Ghosh & S. Soundararajaperumal.* 383, 574, 221-D1 (1991)

Supernova Remnants in Dense Clouds. I. Blast-Wave Dynamics and X-Ray Irradiation. *B. T. Draine & D. T. Woods.* 383, 621, 222-A6 (1991)

High-Resolution Spectroscopy of Partially Ionized Gas around H II Regions. *Joseph S. Onello, J. A. Phillips, & Yervant Terzian.* 383, 693, 222-G6 (1991)

X Marks the Spot: Distribution and Excitation of Unidentified Molecules in the Red Rectangle. *Gary D. Schmidt & Adolf N. Witt.* 383, 698, 222-G12 (1991)

Formation of Dense Charged Bunches in Vacuum Gaps. *F. Curtis Michel.* 383, 808, 224-C6 (1991)

RADIATION MECHANISMS: BREMSSTRAHLUNG

EXOSAT Observations of the Broad-Line Radio Galaxy 3C 382. *K. K. Ghosh & S. Soundararajaperumal.* 389, 179, 62-C1 (1992)

Stellar Wind Collision and X-Ray Generation in Massive Binaries. *V. V. Usov.* 389, 635, 69-C10 (1992)

Hot Pair-dominated Accretion Disks. *Gunnlaugur Björnsson & Roland Svensson.* 394, 500, 135-E9 (1992)

X-Ray Emission from Single Magnetic Early-Type Stars. *V. V. Usov & D. B. Melrose.* 395, 575, 150-B1 (1992)

A Determination of the Mass of Sagittarius A* from Its Radio Spectral and Source Size Measurements. *Fulvio Melia, J. R. Jokipii, & Ajay Narayanan.* 395, L87, 154-A1 (1992)

X-Ray Observations of the Seyfert 1 Galaxy MCG 2-58-22. *K. K. Ghosh & S. Soundararajaperumal.* 398, 501, 190-D1 (1992)

Noise-driven Radiative Shocks. II. Further Implications for the Quasi-periodic Oscillations of the AM Herculis Objects. *Kent S. Wood, James N. Imamura, & Michael T. Wolff.* 398, 593, 191-E1 (1992)

RADIATION MECHANISMS: CYCLOTRON AND SYNCHROTRON

Multifrequency Observations of a Remarkable Solar Radio Burst. *S. M. White, M. R. Kundu, T. S. Bastian, D. E. Gary, G. J. Hurford, T. Kucera, & J. H. Bieging.* 384, 656, 10-C5 (1992)

Relativistic Magnetosonic Shock Waves in Synchrotron Sources: Shock Structure and Nonthermal Acceleration of Positrons. *Masahiro Hoshino, Jonathan Arons, Yves A. Gallant, & A. Bruce Langdon.* 390, 454, 81-A9 (1992)

Steady, Periodic Gamma-Ray Emission from Accreting X-Ray Pulsars. *K. S. Cheng, M. M. Lau, T. Cheung, P. P. Leung, & K. Y. Ding.* 390, 480, 81-C8 (1992)

Relativistic, Perpendicular Shocks in Electron-Positron Plasmas. *Yves A. Gallant, Masahiro Hoshino, A. Bruce Langdon, Jonathan Arons, & Claire E. Max.* 391, 73, 87-A1 (1992)

The Synchro-Compton Limit of the Brightness Temperature of Nonstationary Radio Sources. *V. I. Slysh.* 391, 453, 93-E4 (1992)

A Thermal/Nonthermal Model for Solar Microwave Bursts. *Stephen G. Benka & Gordon D. Holman.* 391, 854, 98-E7 (1992)

Magnetized Stimulated Scattering in Pulsar Winds. *Mark W. Sincell & Julian H. Krolik.* 395, 553, 149-F7 (1992)

A Determination of the Mass of Sagittarius A* from Its Radio Spectral and Source Size Measurements. *Fulvio Melia, J. R. Jokipii, & Ajay Narayanan.* 395, L87, 154-A1 (1992)

X-Ray Spectra of Bright Core-dominant Quasars: NRAO 140 and 4C 34.47. *T. Ohashi, M. Tashiro, K. Makishima, T. Kii, F. Makino, M. J. L. Turner, & O. R. Williams.* 398, 87, 183-B1 (1992)

Importance of Synchrotron Cooling in Self-consistent Spherical Accretion Models. *A. Mason & R. Turolla.* 400, 170, 211-A10 (1992)

Formation of the Dark Bays in the Crab Optical Synchrotron Nebula: Is the Crab Pulsar Wind Bubble Interacting with Its Progenitor's Wind? *Zhi-Yun Li & Mitchell C. Begelman.* 400, 186, 211-C1 (1992)

Radio Observations of the 1989 Transient Event in V404 Cygni (= GS 2023+338). *Xiaohong Han & R. M. Hjellming.* 400, 304, 212-F6 (1992)

Radiative Acceleration by Synchrotron Sources. *G. Ghisellini, G. Bodo, & E. Trussoni.* 401, 87, 222-B5 (1992)

RADIATION MECHANISMS: COMPTON AND INVERSE COMPTON

Compton Scattering in a Converging Fluid Flow: Spherical Near-critical Accretion onto Neutron Stars. *Apostolos Mastichiadis & Nikolaos D. Kylafis.* 384, 136, 2-F7 (1992)

Multiple Resonant Scattering in the Compton Upscatter Model of Gamma-Ray Bursts. *J. J. Brainerd.* 384, 545, 9-A1 (1992)

Resonant Compton Cooling and Annihilation Line Production in Gamma-Ray Bursts. *R. D. Preece & A. K. Harding.* 386, 308, 28-B1 (1992)

Energy Dependence of Normal Branch Quasi-periodic Intensity Oscillations in Low-Mass X-Ray Binaries. *Guy S. Miller & Frederick K. Lamb.* 388, 541, 57-A5 (1992)

An Ionized Accretion Disk in Cygnus X-1. *C. Done, J. S. Mulchaey, R. F. Mushotzky, & K. A. Arnaud.* 395, 275, 143-E5 (1992)

The Expected High-Energy to Ultra–High-Energy Gamma-Ray Spectrum of the Crab Nebula. *O. C. de Jager & A. K. Harding.* 396, 161, 157-B6 (1992)

A Jet Model for the Gamma-Ray–emitting Blazar 3C 279. *L. Maraschi, G. Ghisellini, & A. Celotti.* 397, L5, 173-B4 (1992)

Angle-dependent Green's Functions for Relativistic Compton Reflection. *Xin-Min Hua & Richard E. Lingenfelter.* 397, 591, 178-D1 (1992)

Nonthermal Electron-Positron Pairs and the Break in the Hard X-Ray Spectrum of NGC 4151. *Paolo S. Coppi & Andrzej A. Zdziarski.* 398, L37, 187-F1 (1992)

Morphological Peculiarities of High-Redshift Radio Galaxies: The Role of Relativistic Electrons. *Ruth A. Daly.* 399, 426, 203-C9 (1992)

RADIATION MECHANISMS: GRAVITATIONAL

Post-Newtonian Frequencies for the Pulsations of Rapidly Rotating Neutron Stars. *Curt Cutler & Lee Lindblom.* 385, 630, 21-A1 (1992)

PSR 0655+64: An Astrophysical Laboratory for Testing Relativistic Gravity Theories. *Itzhak Goldman.* 390, 494, 81-D11 (1992)

Detectability of the Gravitational Wave Signal from a Close Neutron Star Binary with Mass Transfer. *Piotr Jaranowski & Andrzej Krolak.* 394, 586, 136-F1 (1992)

Gravitational Wave Burst Produced by Merging of Central Black Holes of Galaxies. *Toshiyuki Fukushige, Toshikazu Ebisuzaki, & Junichiro Makino.* 396, L61, 166-G7 (1992)

Coalescing Binary Neutron Stars. *Christopher S. Kochanek.* 398, 234, 184-F7 (1992)

Tidal Interactions of Inspiraling Compact Binaries. *Lars Bildsten & Curt Cutler.* 400, 175, 211-B1 (1992)

Hydrodynamical Evolution of Coalescing Binary Neutron Stars. *Frederic A. Rasio & Stuart L. Shapiro.* 401, 226, 223-G9 (1992)

Hydrodynamic Instability and Coalescence of Close Binary Systems. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 406, L63, 68-D3 (1993)

Upper Limits for Gravitational Radiation from Supermassive Coalescing Binaries. *J. D. Anderson, J. W. Armstrong, & E. L. Lau.* 408, 287, 86-F4 (1993)

Binary Black Holes in Stationary Orbits and a Test of the Active Galactic Nucleus Paradigm. *Sandip K. Chakrabarti.* 411, 610, 137-C2 (1993)

Gravitational Radiation from Nonaxisymmetric Collisions of Neutron Stars. *Joan M. Centrella & Stephen L. W. McMillan.* 416, 719, 212-C10 (1993)

RADIATION MECHANISMS: MISCELLANEOUS

Self-Organization of Cosmic Radiation Pressure Instability. II. One-dimensional Simulations. *Craig J. Hogan & Jorden Woods.* 384, 111, 2-D4 (1992)

A VLA 3.6 Centimeter Survey of N-Type Carbon Stars. *Donald G. Luttermoser & Alexander Brown.* 384, 634, 10-A7 (1992)

The Origin of the Far-Ultraviolet Continuum in Solar and Stellar Flares. *K. J. H. Phillips, G. E. Bromage, & J. G. Doyle.* 385, 731, 22-B11 (1992)

Resonance Line Radiation Instability in Fully Ionized Plasmas. *William G. Mathews.* 386, 90, 25-C1 (1992)

Flash Photoionization of Gamma-Ray Burst Environments. *David L. Band & Dieter H. Hartmann.* 386, 299, 28-A5 (1992)

High Dynamic Range Multifrequency Radio Observations of a Solar Active Region. *S. M. White, M. R. Kundu, & N. Gopalswamy.* 78, 599, 11-A13 (1992)

π^0-Decay Gamma-Ray Emission from Winds of Massive Stars. *Richard L. White & Wan Chen.* 387, L81, 48-D6 (1992)

Photodissociation in Strong Magnetic Fields and Application to Pulsars. *V. B. Bhatia, Namrata Chopra, & N. Panchapakesan.* 388, 131, 50-F1 (1992)

On the 440 keV Line in the Crab Nebula Pulsar. *W. Bednarek, O. Cremonesi, & A. Treves.* 390, 489, 81-D5 (1992)

The X-Ray Spectra of Galaxies. II. Average Spectral Properties and Emission Mechanisms. *D.-W. Kim, G. Fabbiano, & G. Trinchieri.* 393, 134, 115-F12 (1992)

The Stability of QSO/AGN Broad Emission Line Clouds. *I. S. Krinsky & R. C. Puetter.* 394, 472, 135-C1 (1992)

Microwave Transition Radiation in Solar Flares and in Astrophysics. *G. D. Fleishman & S. W. Kahler.* 394, 688, 138-A11 (1992)

Neutrino Energy Loss in Stellar Interiors. IV. Plasma Neutrino Process for Strongly Degenerate Electrons. *Naoki Itoh, Haruhiko Mutoh, Atsushi Hikita, & Yasuharu Kohyama.* 395, 622, 150-G5 (1992)

Effects of Evolving Rotating Equilibrium Configurations on the Cooling and Spin-down of Pulsars. *K. S. Cheng, W. Y. Chau, J. L. Zhang, & H. F. Chau.* 396, 135, 156-G3 (1992)

The Radio Properties of the Broad-Absorption-Line QSOs. *John T. Stocke, Simon L. Morris, Ray J. Weymann, & Craig B. Foltz.* 396, 487, 163-E5 (1992)

Reaction Rate and Energy-Loss Rate for Photopair Production by Relativistic Nuclei. *Michał J. Chodorowski, Andrzej A. Zdziarski, & Marek Sikora.* 400, 181, 211-B9 (1992)

New Results on the Radio–Far-Infrared Relation for Galaxies. *Rob Price & Nebojsa Duric.* 401, 81, 222-A11 (1992)

Gamma-Ray Line Afterglow from Burst Environments. *H. S. Fencl, R. N. Boyd, & Dieter Hartmann.* 401, 120, 222-E1 (1992)

Radiation-viscous Boundary Layers. *Nahum Arav & Mitchell C. Begelman.* 401, 125, 222-E7 (1992)

Radiation from a Relativistic Magnetized Star. *V. Belinsky & R. Ruffini.* 401, L27, 227-D7 (1992)

High-Energy Particle Acceleration by Explosive Electromagnetic Interaction in an Accretion Disk. *C. A. Haswell, T. Tajima, & J.-I. Sakai.* 401, 495, 228-G5 (1992)

Plasma Emission from Isotropic Langmuir Turbulence: Are Radio Microbursts Structureless? *N. Gopalswamy.* 402, 326, 5-B13 (1993)

Discovery of an Optical Synchrotron Jet in 3C 264. *P. Crane, R. Peletier, D. Baxter, W. B. Sparks, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, P. Greenfield, R. Jedrzejewski, & A. Nota.* 402, L37, 12-D1 (1993)

Radiation from Magnetized Accretion Disks in Active Galactic Nuclei. *G. B. Field & R. D. Rogers.* 403, 94, 15-C1 (1993)

Constraints on Vacuum Decay from the Microwave Background. *J. M. Overduin, P. S. Wesson, & S. Bowyer.* 404, 1, 28-B1 (1993)

The X-Ray Spectral Variability of the BL Lacertae Type Object PKS 2155−304. *S. Sembay, R. S. Warwick, C. Megan Urry, J. Sokoloski, I. M. George, F. Makino, T. Ohashi, & M. Tashiro.* 404, 112, 29-D5 (1993)

Positron Annihilation Radiation from X-Ray Binary Systems. *Mei Wu, Chun-sheng Zhang, & Ti-pei Li.* 404, 276, 31-C11 (1993)

On Compton Reflection in the Sources of the Cosmic X-Ray Background. *Andrzej A. Zdziarski, Piotr T. Życki, Roland Svensson, & Elihu Boldt.* 405, 125, 42-E8 (1993)

Comptonization Effects as a Test for Hot Intercloud Medium in the Broad-Line Region of Active Galactic Nuclei. *A. Ferrara & P. Pietrini.* 405, 130, 42-F1 (1993)

A New X-Ray Spectral Observation of NGC 1068. *F. E. Marshall, H. Netzer, K. A. Arnaud, E. A. Boldt, S. S. Holt, K. M. Jahoda, R. Kelley, R. F. Mushotzky, R. Petre, P. J. Serlemitsos, A. P. Smale, J. H. Swank, A. E. Szymkowiak, & K. A. Weaver.* 405, 168, 43-B7 (1993)

Relativistic Fireballs and Their Impact on External Matter: Models for Cosmological Gamma-Ray Bursts. *P. Mészáros & M. J. Rees.* 405, 278, 44-E9 (1993)

The Connection between Line Emission and Radio Power in Distant Radio Galaxies. *Ruth A. Daly.* 406, 47, 55-E13 (1993)

Detection of Radio Continuum Emission from Procyon. *Stephen A. Drake, Theodore Simon, & Alexander Brown.* 406, 247, 58-B5 (1993)

The Halo Radio Source Coma C and the Origin of Halo Sources. *G. Giovannini, L. Feretti, T. Venturi, K.-T. Kim, & P. P. Kronberg.* 406, 399, 62-F1 (1993)

Relativistic Bulk Motion in Active Galactic Nuclei. *G. Ghisellini, P. Padovani, A. Celotti, & L. Maraschi.* 407, 65, 70-A1 (1993)

Gamma Rays from Globular Clusters. *Marco Tavani.* 407, 135, 70-F11 (1993)

Photoionization of the Hydrogen Atom in Strong Magnetic Fields. *Alexander Yu. Potekhin & George G. Pavlov.* 407, 330, 73-B11 (1993)

Afterglows from Gamma-Ray Bursters: A Way to Estimate the Burster Distance Scale? *H. S. Fencl, R. N. Boyd, & Dieter H. Hartmann.* 407, L21, 75-C6 (1993)

Determining the Shape of Spectra in Extended Radio Sources. *Debora M. Katz-Stone, Lawrence Rudnick, & Martha C. Anderson.* 407, 549, 77-D5 (1993)

Spatial Spectral Index Variations in Galactic Shell Supernova Remnants G39.2−0.3 and G41.1−0.3. *Martha C. Anderson & Lawrence Rudnick.* 408, 514, 91-E9 (1993)

Flaring and Quiescent Radio Emission of UX Arietis: A Time-dependent Model. *F. Chiuderi Drago & E. Franciosini.* 410, 301, 115-G3 (1993)

A Model of Nonthermal Radiation from Accreting X-Ray Pulsars. *P. P. Leung, K. S. Cheng, & P. C. W. Fung.* 410, 309, 115-G12 (1993)

Relativistic Electron-Positron Beams in Gamma-Ray Bursters. *I. A. Smith & Richard I. Epstein.* 410, 315, 116-A6 (1993)

New 325 MHz Observations of H II Galaxies: The Mechanisms That Shape the Unusual Radio Spectra. *Hans-Jörg Deeg, Elias Brinks, Neb Duric, Uli Klein, & Evan Skillman.* 410, 626, 121-D13 (1993)

A Self-consistent Model for the Long-Term Gamma-Ray Spectral Variability of Cygnus X-1. *Fulvio Melia & Ranjeev Misra.* 411, 797, 139-F8 (1993)

High-Energy Spectrum of Cygnus X-1 Revisited. *F. Haardt, C. Done, G. Matt, & A. C. Fabian.* 411, L95, 142-F5 (1993)

A Model of an X-Ray–illuminated Accretion Disk and Corona. *John C. Raymond.* 412, 267, 145-D6 (1993)

The Effect of Helium Breakup on Two-Temperature Accretion Disks including Cooling Processes. *Cesar Meirelles Filho.* 412, 288, 145-F5 (1993)

Strong-Field Cyclotron Scattering. I. Scattering Amplitudes and Natural Line Width. *Carlo Graziani.* 412, 351, 146-D13 (1993)

The Case for an Optically Thin Thermal Big Blue Bump. *Richard Barvainis.* 412, 513, 150-A10 (1993)

The X-Ray Structure and Spectrum of NGC 6251. *M. Birkinshaw & D. M. Worrall.* 412, 568, 150-G4 (1993)

A Model of Solar Coronal Heating by Classical Inverse Bremsstrahlung and Generation of the Solar Wind. *A. H. Øien & G. Alendal.* 412, 827, 154-B6 (1993)

BATSE Observations of Gamma-Ray Burst Spectra. I. Spectral Diversity. *D. Band, J. Matteson, L. Ford, B. Schaefer, D. Palmer, B. Teegarden, T. Cline, M. Briggs, W. Paciesas, G. Pendleton, G. Fishman, C. Kouveliotou, C. Meegan, R. Wilson, & P. Lestrade.* 413, 281, 159-F9 (1993)

Anisotropic Comptonization in Thermal Plasmas: Spectral Distribution in Plane-Parallel Geometry. *Francesco Haardt.* 413, 680, 164-G12 (1993)

A Model of Unpulsed Gamma Rays from the Crab Pulsar. *W. M. Cheung & K. S. Cheng.* 413, 694, 165-B1 (1993)

Interaction of a Jet with a Radiation Pressure–dominated Atmosphere: The Case of SS 433. *Nahum Arav & Mitchell C. Begelman.* 413, 700, 165-B8 (1993)

Radiative Instability in Synchrotron-emitting Plasmas. *P. Rossi, G. Bodo, S. Massaglia, & A. Ferrari.* 414, 112, 171-D7 (1993)

Compton-backscattered Annihilation Radiation from the Galactic Center Region. *D. M. Smith, R. P. Lin, P. Feffer, S. Slassi, K. Hurley, J. Matteson, H. B. Bowman, R. M. Pelling, M. Briggs, D. Gruber, L. E. Peterson, R. E. Lingenfelter, P. von Ballmoos, I. Malet, M. Niel, G. Vedrenne, P. Durouchoux, P. Wallyn, C. Chapuis, C. Cork, D. Landis, P. Luke, N. Madden, D. Malone, & R. Pehl.* 414, 165, 172-B1 (1993)

Shock Excitation of the Emission-Line Filaments in Centaurus A. *Ralph S. Sutherland, Geoffrey V. Bicknell, & Michael A. Dopita.* 414, 510, 177-E7 (1993)

Active Galactic Nuclei Make the Cosmic X-Ray Background. *Andrzej A. Zdziarski, Piotr T. Życki, & Julian H. Krolik.* 414, L81, 185-E8 (1993)

Acceleration Efficiency in Nonthermal Sources and the Soft Gamma Rays from NGC 4151 Observed by OSSE and SIGMA. *Andrzej A. Zdziarski, Alan P. Lightman, & Andrzej Maciolek-Niedźwiecki.* 414, L93, 185-F13 (1993)

A Physical Model of the Infrared-to-Radio Correlation in Galaxies. *G. Helou & M. D. Bicay.* 415, 93, 186-B9 (1993)

Gasdynamics of Relativistically Expanding Gamma-Ray Burst Sources: Kinematics, Energetics, Magnetic Fields, and Efficiency. *P. Mészáros, P. Laguna, & M. J. Rees.* 415, 181, 187-C7 (1993)

The C^0/CO Ratio Problem: A Possible New Precision Test of the Decaying Neutrino Theory. *D. W. Sciama.* 415, L31, 192-A8 (1993)

Polarization Changes of Radiation through Stimulated Raman Scattering. *R. T. Gangadhara & V. Krishan.* 415, 505, 194-B6 (1993)

Electromagnetic Radiation from a Strong DC Electric Field. *Manuel Güdel & Donat G. Wentzel.* 415, 750, 197-B10 (1993)

Polarization of Compact Radio Sources. *C.-I. Björnsson.* 416, 104, 202-C11 (1993)

Radio and Near-Infrared [Fe II] Emission from Active Galaxies. *Duncan A. Forbes & Martin J. Ward.* 416, 150, 202-G12 (1993)

Compton Backscattered Annihilation Radiation and the Mass of Nova Muscae. *Xin-Min Hua & Richard E. Lingenfelter.* 416, L17, 207-C11 (1993)

Model for the High-Energy Emission from Blazars. *Charles D. Dermer & Reinhard Schlickeiser.* 416, 458, 209-A11 (1993)

Synchrotron Radiation: An Inverse Compton Effect. *Richard Lieu & W. Ian Axford.* 416, 700, 212-B1 (1993)

Evaluation of Emission Mechanisms at ω_{p_e} Using *Ulysses* Observations of Type III Bursts. *G. Thejappa, D. Lengyel-Frey, R. G. Stone, & M. L. Goldstein.* 416, 831, 213-G1 (1993)

Implications of the Soft X-Ray versus Hard X-Ray Temporal Relationship in Solar Flares. *Peng Li, A. Gordon Emslie, & John T. Mariska.* 417, 313, 221-D6 (1993)

Radio Dispersion as a Diagnostic of Gamma-Ray Burst Distances. *David M. Palmer.* 417, L25, 223-A9 (1993)

A Far-Ultraviolet Study of the Cygnus Loop Using the *Voyager* Ultraviolet Spectrometers. *Olaf Vancura, William P. Blair, Knox S. Long, John C. Raymond, & J. B. Holberg.* 417, 663, 227-E11 (1993)

Comptonization of the Cosmic Microwave Background by Gas in Superclusters of Galaxies. *Yoel Rephaeli.* 418, 1, 231-B1 (1993)

γ-γ Attenuation and Relativisitic Beaming in Gamma-Ray Bursts. *Matthew G. Baring.* 418, 391, 235-G8 (1993)

Nonthermal Cyclotron Emission from Low-Luminosity Accretion onto Magnetic Neutron Stars. *Robert W. Nelson, E. E. Salpeter, & Ira Wasserman.* 418, 874, 243-D12 (1993)

Gamma-Ray Bursts: Multiwaveband Spectral Predictions for Blast Wave Models. *P. Mészáros & M. J. Rees.* 418, L59, 245-B7 (1993)

Vertical Structure and Emission Spectrum of an Accretion Disk around a Massive Black Hole. *Toshiya Shimura & Fumio Takahara.* 419, 78, 247-B3 (1993)

Formation of a Jet in the Galactic Center Black Hole Candidate 1E 1740.7−2942. *Ranjeev Misra & Fulvio Melia.* 419, L25, 252-D9 (1993)

Confusion Limits to the Measurement of the Sunyaev-Zel'dovich Effects in Clusters of Galaxies at Millimeter Wavelengths. *Marc L. Fischer & Andrew E. Lange.* 419, 433, 253-B8 (1993)

Comptonization of Diffuse Ambient Radiation by a Relativistic Jet: The Source of Gamma Rays from Blazars? *Marek Sikora, Mitchell C. Begelman, & Martin J. Rees.* 421, 153, 18-A1 (1994)

Hot Accretion Disks with Pairs: Effects of Magnetic Field and Thermal Cyclosynchrotron Radiation. *Masaaki Kusunose & Andrzej A. Zdziarski.* 422, 737, 41-A9 (1994)

Electron Acceleration in Short-lived Radio Transients. *Lewis Ball.* 90, 889, 14-G4 (1994)

Standard and Nonstandard Plasma Neutrino Emission Revisited. *Martin Haft, Georg Raffelt, & Achim Weiss.* 425, 222, 83-A8 (1994)

General Relativistic Corrections in the Gamma-Ray Emission from Pulsars. *P. L. Gonthier & A. K. Harding.* 425, 767, 91-C10 (1994)

Multiple X-Ray Emission Components in Low-Power Radio Galaxies. *D. M. Worrall & M. Birkinshaw.* 427, 134, 111-E10 (1994)

The Role of Radiative Acceleration in Outflows from Broad Absorption Line QSOs. I. Comparison with O Star Winds. *Nahum Arav & Zhi-Yun Li.* 427, 700, 121-D7 (1994)

Neutral Cloud Theory of the Jovian Nebula: Anomalous Ionization Effect of Superthermal Electrons. *D. D. Barbosa.* 430, 376, 163-G10 (1994)

Gamma-Ray Emission and Electron Accleration in Solar Flares. *Vahé Petrosian, James M. McTiernan, & Holger Marschhäuser.* 434, 747, 238-B2 (1994)

RADIATION MECHANISMS: NONTHERMAL

Hydrodynamic Instability and Coalescence of Binary Neutron Stars. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 420, 811, 13-A10 (1994)

On the Energetics and Number of Gamma-Ray Pulsars. *Charles D. Dermer & Steven J. Sturner.* 420, L75, 15-D11 (1994)

On the Spectra and Pulse Profiles of Gamma-Ray Pulsars. *Steven J. Sturner & Charles D. Dermer.* 420, L79, 15-E3 (1994)

The Temporal Evolution of the 4–14 Micron Spectrum of V1974 Cygni (Nova Cygni 1992). *R. D. Gehrz, Charles E. Woodward, M. A. Greenhouse, S. Starrfield, D. H. Wooden, F. C. Witteborn, S. A. Sandford, L. J. Allamandola, J. D. Bregman, & M. Klapisch.* 421, 762, 27-F6 (1994)

Physical Processes in Eclipsing Pulsars: Eclipse Mechanisms and Diagnostics. *C. Thompson, R. D. Blandford, Charles R. Evans, & E. S. Phinney.* 422, 304, 33-G10 (1994)

Solar Simple Bursts Observed with High Spectral Resolution in the 18–23 GHz Range. *H. S. Sawant, R. R. Rosa, J. R. Cecatto. & N. Gopalswamy.* 90, 693, 12-D2 (1994)

Efficiency for Electron Acceleration in Solar Energy Release Region as Estimated in the Context of Plasma Mechanism of Radio Emission. *B. N. Levin, V. M. Fridman, & O. A. Sheiner.* 90, 713, 12-E13 (1994)

The Spectral Turnover of the "Filled-Center" Supernova Remnant 3C 58: Implications for When Acceleration Occurs. *D. A. Green.* 90, 817, 13-G12 (1994)

Unpulsed High-Energy Radiation from the Crab Pulsar and Nebula. *W. M. Cheung & K. S. Cheng.* 90, 827, 14-A11 (1994)

Disk-Accreting Magnetic Neutron Stars as High-Energy Particle Accelerators. *Russell J. Hamilton, Frederick K. Lamb, & M. Coleman Miller.* 90, 837, 14-B9 (1994)

Model Images of Radio Halos around Supernova Remnants. *Stephen P. Reynolds.* 90, 845, 14-C6 (1994)

Acceleration Processes for Gamma-Ray Bursts. *Igor G. Mitrofanov.* 90, 869, 14-E7 (1994)

Gamma-Ray Burst Spectral Breaks and Source Beaming. *Matthew G. Baring.* 90, 899, 15-A3 (1994)

Polarized One-Quantum Annihilation in Strong Magnetic Fields as a Process for Particle Deceleration in Neutron Star Atmospheres. *D. Berg, M. Mentzel, & G. Wunner.* 90, 905, 15-A10 (1994)

High-Energy Radiation from Active Galactic Nuclei. *Marek Sikora.* 90, 923, 15-C7 (1994)

On the Location of the Acceleration and Emission Sites in Gamma-Ray Blazars. *Charles D. Dermer & Reinhard Schlickeiser.* 90, 945, 15-E7 (1994)

Relativistic Particle Transport in Hot Accretion Disks. *Peter A. Becker, Menas Kafatos, & Michael Maisack.* 90, 949, 15-E13 (1994)

Do Relativistic Electrons either Gain or Lose Energy, outside of Extragalactic Nuclei? *Lawrence Rudnick, Debora M. Katz-Stone, & Martha C. Anderson.* 90, 955, 15-F6 (1994)

The Sunyaev-Zel'dovich Effect and Cluster Evolution. *James G. Bartlett & Joseph Silk.* 423, 12, 46-C1 (1994)

Reanalysis of X-Ray Emission from M87. I. The Single-Phase Medium. *John C. Tsai.* 423, 143, 47-G9 (1994)

Plasma Mechanisms for Variability in Active Galactic Nuclei. *Vinod Krishan & Paul J. Wiita.* 423, 172, 48-B13 (1994)

Very High Energy Gamma Rays from Active Galactic Nuclei: Cascading on the Cosmic Background Radiation Fields and the Formation of Pair Halos. *F. A. Aharonian, P. S. Coppi, & H. J. Völk.* 423, L5, 53-B7 (1994)

Two-Phase Model of Accretion Disks: Pressure Balance. *Masaaki Kusunose & Shin Mineshige.* 423, 600, 56-A1 (1994)

On the New Theory of Ultra–High-Energy Gamma-Ray Production in Cygnus X-3. *Abhas Mitra.* 425, 782, 91-E1 (1994)

ROSAT Observations of Cataclysmic Variables: A Search for the Boundary Layer Emission. *S. D. Vrtilek, A. Silber, J. C. Raymond, & J. Patterson.* 425, 787, 91-E8 (1994)

Concurrent X-Ray and Optical Observations of Two Dwarf Novae during Eruption. *A. Silber, S. D. Vrtilek, & J. C. Raymond.* 425, 829, 92-B1 (1994)

Equipartition Brightness Temperature and the Inverse Compton Catastrophe. *Anthony C. S. Readhead.* 426, 51, 96-F6 (1994)

Isolating the Physical Parameters of Synchrotron Sources. *Debora M. Katz-Stone & Lawrence Rudnick.* 426, 116, 97-E2 (1994)

An Upper Limit to the Electrodynamic Power Output from a Thin Accretion Disk around a Black Hole. *Seok Jae Park & Ethan T. Vishniac.* 426, 131, 97-F11 (1994)

Modeling and Interpretation of the Optical and *HST* UV Spectrum of SN 1993J. *E. Baron, P. H. Hauschildt, & D. Branch.* 426, 334, 100-C11 (1994)

π^0 Decay around Black Hole Candidates: A Spectral Component above 200 keV. *E. Jourdain & J. P. Roques.* 426, L11, 103-B6 (1994)

Is the High-Energy Emission from Centaurus A Compton-scattered Jet Radiation? *J. G. Skibo, C. D. Dermer, & R. L. Kinzer.* 426, L23, 103-C11 (1994)

The Synchrotron Continuum of the Highly Polarized Quasar PKS 1546+027. *Paul S. Smith, Gary D. Schmidt, Buell T. Jannuzi, & Richard Elston.* 426, 535, 105-A12 (1994)

Structure of Steady State Accretion Shocks with Several Cooling Functions: Closed Integral-Form Solution. *Kinwah Wu, G. Chanmugan, & G. Shaviv.* 426, 664, 106-F5 (1994)

Radiation from Vela-like Pulsars near the Death Line. *V. V. Usov.* 427, 394, 114-F11 (1994)

Neutrino Bursts from Gamma-Ray Bursts. *Bohdan Paczyński & Guohong Xu.* 427, 708, 121-E3 (1994)

Streaming Instability in Relativistically Hot Pulsar Magnetospheres. *James C. Weatherall.* 428, 261, 131-D5 (1994)

X-Ray Clusters from a High-Resolution Hydrodynamic PPM Simulation of the Cold Dark Matter Universe. *Greg L. Bryan, Renyue Cen, Michael L. Norman, Jeremiah P. Ostriker, & James M. Stone.* 428, 405, 135-C1 (1994)

Gamma Rays from Point Galactic Sources. *S. Karakula, G. Kociolek, I. V. Moskalenko, & W. Tkaczyk.* 92, 481, 38-C5 (1994)

The Nonthermal Pair Model for the X-Ray and Gamma-Ray Spectra from Active Galactic Nuclei. *Roland Svensson.* 92, 585, 39-E12 (1994)

Is the X-Ray Source of 3C 273 Really Compact? *Roland Walter.* 92, 619, 40-B3 (1994)

Spectral Characteristics of Gamma-Ray Bursts Observed by the Anticoincidence Shield of the SIGMA Telescope aboard *GRANAT*. *François Pelaez, Laurent Bouchet, Elisabeth Jourdain, Michel Niel, Arnaud Claret, Philippe Laurent, François Lebrun, Jacques Paul, O. Terekhov, R. Sunyaev, A. Kuznetsov, D. Denisenko, M. Gilfanov, E. Churazov, N. Khavenson, & A. Diachkov.* 92, 651, 40-E4 (1994)

X-Ray Clusters in a Cold Dark Matter + Λ Universe: A Direct, Large-Scale, High-Resolution, Hydrodynamic Simulation. *Renyue Cen & Jeremiah P. Ostriker.* 429, 4, 144-C6 (1994)

ROSAT PSPC Observations of Two X-Ray–faint Early-Type Galaxies: NGC 4365 and NGC 4382. *G. Fabbiano, D.-W. Kim, & G. Trinchieri.* 429, 94, 145-C12 (1994)

Polar Cap Models of Gamma-Ray Pulsars: Emission from Single Poles of Nearly Aligned Rotators. *Joseph K. Daugherty & Alice K. Harding.* 429, 325, 148-B1 (1994)

OSSE Search for High-Energy X-Ray Emission from the Coma Cluster. *Yoel Rephaeli, Mel Ulmer, & Duane Gruber.* 429, 554, 152-E10 (1994)

Energetic and Radiative Constraints on Highly Relativistic Jets. *Mitchell C. Begelman, Martin J. Rees, & Marek Sikora.* 429, L57, 157-G13 (1994)

The Optical–Ultraviolet–Gamma-Ray Spectrum of 3C 279. *Hagai Netzer, D. Kazanas, Beverley J. Wills, D. Wills, Mingsheng Han, M. S. Brotherton, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 430, 191, 161-D10 (1994)

Directivity of the Radio Emission from the K1 Dwarf Star AB Doradus. *Jeremy Lim, Stephen M. White, Graham J. Nelson, & Arnold O. Benz.* 430, 332, 163-C9 (1994)

Detection of a Flaring Low-Energy Gamma-Ray Source. *Dipen Bhattacharya & Alan Owens.* 430, 371, 163-G2 (1994)

Relativistic Induced Compton Scattering in Synchrotron Self-absorbed Sources. *Mark W. Sincell & Julian H. Krolik.* 430, 550, 168-E13 (1994)

Observations of 1E 1740.7−2942 with *ROSAT* and the VLA. *William A. Heindl, Thomas A. Prince, & John M. Grunsfeld.* 430, 829, 172-B12 (1994)

Gravitational Radiation from Pairs of Realistic, Nonaccreting Compact Stars. *N. K. Spyrou & K. D. Kokkotas.* 431, 254, 179-C8 (1994)

Compton Scattering in Jets: A Mechanism for $\sim$0.4 and $\leq$ 0.2 MeV Line Production. *J. G. Skibo, C. D. Dermer, & R. Ramaty.* 431, L39, 182-G5 (1994)

Relic Sources and Diffuse Cluster Radio Emission. *Oleg Goldshmidt & Yoel Rephaeli.* 431, 586, 185-G6 (1994)

Pulsed Gamma-Ray Emission from Short-Period Pulsars. *K. S. Cheng & Winnis K. Y. Ding.* 431, 724, 187-E7 (1994)

Energy Deposition and K-Shell Ionization of Supernovae. *Lih-Sin The, William T. Bridgman, & Donald D. Clayton.* 93, 531, 50-C3 (1994)

Inverse-Compton X-Ray Emission from the Superluminal Quasar 3C 345. *S. C. Unwin, A. E. Wehrle, C. M. Urry, D. M. Gilmore, E. J. Barton, B. C. Kjerulf, J. A. Zensus, & C. R. Rabaça.* 432, 103, 194-E1 (1994)

Spectral Properties of Blast-Wave Models of Gamma-Ray Burst Sources. *P. Mészáros, M. J. Rees, & H. Papathanassiou.* 432, 181, 195-D10 (1994)

Hydrodynamics of Binary Coalescence. I. Polytropes with Stiff Equations of State. *Frederic A. Rasio & Stuart L. Shapiro.* 432, 242, 196-C2 (1994)

The X-Ray Spectrum of the Soft Gamma Repeater 1806−20. *E. E. Fenimore, J. G. Laros, & A. Ulmer.* 432, 742, 205-C3 (1994)

Maximum Entropy Distribution and Closure for Bose-Einstein and Fermi-Dirac Radiation Transport. *J. Cernohorsky & S. A. Bludman.* 433, 250, 211-D6 (1994)

Winds from Neutron Stars and Strong Type I X-Ray Bursts. *Luciano Nobili, Roberto Turolla, & Iosif Lapidus.* 433, 276, 211-F11 (1994)

Pump Cycles and Population Flow Networks in Astrophysical Masers: An Application to Class II Methanol Masers with Different Saturation Degrees. *A. M. Sobolev & S. Deguchi.* 433, 719, 220-A6 (1994)

Star-Disk Collisions and the Origin of the Broad Lines in Quasars. *Wojciech H. Zurek, Aneta Siemiginowska, & Stirling A. Colgate.* 434, 46, 225-G2 (1994)

Simultaneous Optical and TeV Gamma-Ray Observations of the Cataclysmic Variable AE Aquarii. *P. J. Meintjes, O. C. de Jager, B. C. Raubenheimer, H. I. Nel, A. R. North, D. A. H. Buckley, & C. Koen.* 434, 292, 229-E1 (1994)

Simultaneous Synchrotron and Adiabatic Effects in Multiply Shocked Jets in Extended Extragalactic Radio Sources. *Ifeanyi E. Ekejiuba, Paul J. Wiita, & Richard A. Frazin.* 434, 503, 234-F1 (1994)

Generalized Comptonization Models and Application to the Recent High-Energy Observations. *Lev Titarchuk.* 434, 570, 235-F7 (1994)

The Nature of the Compact X-Ray Source in the Supernova Remnant G27.4+0.0. *David J. Helfand, R. H. Becker, G. Hawkins, & R. L. White.* 434, 627, 236-D9 (1994)

A Three-dimensional Hydrodynamics Code for Modeling Sources of Gravitational Radiation. *Scott C. Smith, Joan M. Centrella, & Sean P. Clancy.* 94, 789, 62-G3 (1994)

A Thermal/Nonthermal Model for Solar Hard X-Ray Bursts. *Stephen G. Benka & Gordon D. Holman.* 435, 469, 249-G11 (1994)

The X-Ray Spectrum of the Highly Polarized Quasar PKS 1502+106. *I. M. George, K. Nandra, T. J. Turner, & A. Celotti.* 436, L59, 269-C11 (1994)

An Outer Gap Model of High-Energy Emission from Rotation-powered Pulsars. *James Chiang & Roger W. Romani.* 436, 754, 275-G9 (1994)

Models of Pair Annihilation in 1E 1740.7−2942 and the *HEAO 1* A-4 Annihilation Source. *Andrzej Maciołek-Niedźwiecki & Andrzej A. Zdziarski.* 436, 762, 276-A6 (1994)

Multifrequency Observations of Blazars. V. Long-Term Millimeter, Submillimeter, and Infrared Monitoring. *J. A. Stevens, S. J. Litchfield, E. I. Robson, D. H. Hughes, W. K. Gear, H. Teräsranta, E. Valtaoja, & M. Tornikoski.* 437, 91, 284-F1 (1994)

Gamma-Ray Observations of NGC 253 and M82 with OSSE. *D. Bhattacharya, L.-S. The, J. D. Kurfess, D. D. Clayton, N. Gehrels, M. D. Leising, D. A. Grabelsky, W. N. Johnson, G. V. Jung, R. L. Kinzer, W. R. Purcell, M. S. Strickman, & M. P. Ulmer.* 437, 173, 285-E6 (1994)

X-Ray Emission from PSR 0355+54. *Patrick Slane.* 437, 458, 289-D4 (1994)

X-Ray Reflection from Photoionized Media in Active Galactic Nuclei. *Piotr T. Życki, Julian H. Krolik, Andrzej A. Zdziarski, & Timothy R. Kallman.* 437, 597, 294-A6 (1994)

Gravitational Radiation–driven Secular Instability of Rotating Polytropes. *Shin'ichirou Yoshida & Yoshiharu Eriguchi.* 438, 830, 15-F1 (1995)

Gamma-Ray Emission from Cataclysmic Variables. I. The *Compton* EGRET Survey. *Eric M. Schlegel, Paul E. Barrett, O. C. De Jager, G. Chanmugam, S. Hunter, & J. Mattox.* 439, 322, 25-E10 (1995)

Young Oxygen-rich Supernova Remnants. II. An Oxygen-rich Emission Mechanism. *Ralph S. Sutherland & Michael A. Dopita.* 439, 381, 26-D4 (1995)

Angular Scattering of Radio Waves: Implications for Mode Coupling in the Solar Corona. *T. S. Bastian.* 439, 494, 27-G9 (1995)

X-Ray Spectra from Neutron Stars Accreting at Low Rates. *Luca Zampieri, Roberto Turolla, Silvia Zane, & Aldo Treves.* 439, 849, 36-C12 (1995)

Ultraviolet Spectropolarimetry of High-Redshift Quasars with the *Hubble Space Telescope*. *C. D. Impey, Matthew A. Malkan, Wayne Webb, & C. E. Petry.* 440, 80, 42-C8 (1995)

Hot Accretion Disks with Nonthermal Pairs. *Masaaki Kusunose & Shin Mineshige.* 440, 100, 42-E7 (1995)

Rapid Polarization Variability in Intense Sources. *R. T. Gangadhara & V. Krishan.* 440, 116, 42-G1 (1995)

Emission Spectrum Integrated over an Accretion Disk: Comparison with Observations of Active Galactic Nuclei. *Toshiya Shimura & Fumio Takahara.* 440, 610, 51-E9 (1995)

Screening Effects on Nonrelativistic Bremsstrahlung in the Scattering of Electrons by Neutral Atoms. *Young-Dae Jung & Kun-Sang Lee.* 440, 830, 54-E2 (1995)

Photon-Splitting Limits to the Hardness of Emission in Strongly Magnetized Soft Gamma Repeaters. *Matthew G. Baring.* 440, L69, 57-G1 (1995)

Pair Cascades in Extragalactic Jets. I. Gamma Rays. *R. D. Blandford & A. Levinson.* 441, 79, 60-D11 (1995)

Detection of a Cosmic Ray with Measured Energy Well beyond the Expected Spectral Cutoff due to Cosmic Microwave Radiation. *D. J. Bird, S. C. Corbató, H. Y. Dai, J. W. Elbert, K. D. Green, M. A. Huang, D. B. Kieda, S. Ko, C. G. Larsen, E. C. Loh, M. Z. Luo, M. H. Salamon, J. D. Smith, P. Sokolsky, P. Sommers, J. K. K. Tang, & S. B. Thomas.* 441, 144, 61-C12 (1995)

Heating and Ionization of Stellar Chromospheres by Nonthermal Proton Beams: Implications for Impulsive Phase, Redshifted Lyman-α Radiation in Stellar Flares. *Jeffrey W. Brosius, Richard D. Robinson, & Stephen P. Maran.* 441, 385, 64-E13 (1995)

Phase Lags in Cygnus X-1. *M. Coleman Miller.* 441, 770, 72-E6 (1995)

Gravitational Radiation from Rapidly Rotating Nascent Neutron Stars. *Dong Lai & Stuart L. Shapiro.* 442, 259, 80-F11 (1995)

Large Hysteretic Behavior of Stellar Black Hole Candidate X-Ray Binaries. *Sigenori Miyamoto, Shunji Kitamoto, Kiyoshi Hayashida, & Wataru Egoshi.* 442, L13, 84-F1 (1995)

The Origin of the Soft X-Ray Excess in the Seyfert 2 Galaxy NGC 2110. *K. A. Weaver, R. F. Mushotzky, P. J. Serlemitsos, A. S. Wilson, M. Elvis, & U. Briel.* 442, 597, 88-B7 (1995)

The Parsec-Scale Jet in Quasar 3C 345. *J. Anton Zensus, Marshall H. Cohen, & Stephen C. Unwin.* 443, 35, 95-F9 (1995)

Synchrotron Emission from the H_2O Maser Source in W3(OH). *M. J. Reid, A. L. Argon, C. R. Masson, K. M. Menten, & J. M. Moran.* 443, 238, 98-D3 (1995)

A Star Trail Model of the Galactic Center Snake. *Jennifer Nicholls & E. T. Le Strange.* 443, 638, 106-F3 (1995)

Hydrodynamics of Coalescing Binary Neutron Stars: Ellipsoidal Treatment. *Dong Lai & Stuart L. Shapiro.* 443, 705, 107-E12 (1995)

Compton X-Ray Emission from NGC 253. *Oleg Goldshmidt & Yoel Rephaeli.* 444, 113, 114-G8 (1995)

Astro-1 and Ground-based Observations of Markarian 335: Evidence for an Accretion Disk. *W. Zheng, G. A. Kriss, A. F. Davidsen, G. Lee, A. D. Code, K. S. Bjorkman, P. S. Smith, D. Weistrop, M. A. Malkan, F. K. Baganoff, & B. M. Peterson.* 444, 632, 125-A10 (1995)

Does Gravitational Radiation Limit the Angular Velocities of Superfluid Neutron Stars? *Lee Lindblom & Gregory Mendell.* 444, 804, 127-E6 (1995)

Optical Continuum Signature of the Jet in the Spiral Galaxy NGC 4258. *Yvan Dutil, Dominique Beauchamp, & Jean-René Roy.* 444, L85, 130-E8 (1995)

Cosmic Microwave Background Comptonization by Hot Intracluster Gas. *Yoel Rephaeli.* 445, 33, 132-G1 (1995)

Thermal Cyclotron Absorption Coefficients. II. Opacities in the Stokes Formalism. *H. M. Väth & G. Chanmugam.* 98, 295, 26-A9 (1995)

ASCA and *ROSAT* Observations of NRAO 140 and IX Persei. *T. J. Turner, I. M. George, G. M. Madejski, S. Kitamoto, & T. Suzuki.* 445, 660, 144-B11 (1995)

An Unusual High-Energy Transient. *T. E. Strohmayer, E. E. Fenimore, T. Murakami, & A. Yoshida.* 445, 731, 145-C7 (1995)

Magnetic Compton-induced Pair Cascade Model for Gamma-Ray Pulsars. *Steven J. Sturner, Charles D. Dermer, & F. Curtis Michel.* 445, 736, 145-D1 (1995)

Thermal Comptonization in Mildly Relativistic Pair Plasmas. *J. G. Skibo, C. D. Dermer, R. Ramaty, & J. M. McKinley.* 446, 86, 154-D6 (1995)

Electron Energy Losses near Pulsar Polar Caps. *Steven J. Sturner.* 446, 292, 157-C4 (1995)

Ultra–Low-Frequency Gravitational Radiation from Massive Black Hole Binaries. *Mohan Rajagopal & Roger W. Romani.* 446, 543, 163-E11 (1995)

On the Beaming Statistics of Gamma-Ray Sources. *Charles D. Dermer.* 446, L63, 170-E8 (1995)

Optical Structure and Polarization of the Western Hot Spot of Pictor A. *R. C. Thomson, P. Crane, & C. D. Mackay.* 446, L93, 171-B12 (1995)

Quantum-limited Synchrotron Radiation in Inhomogeneous Magnetic Fields. *Richard Lieu & W. Ian Axford.* 447, 302, 176-E8 (1995)

A Model for the Radio Emission from SNR 1987A. *P. Duffy, Lewis Ball, & J. G. Kirk.* 447, 364, 177-D7 (1995)

Relativistic Electron Energy Spectra of Active Galactic Nuclei in the Thin Synchrotron Limit. I. The Method. *Luis Salas, Irene Cruz-González, & Luis Carrasco.* 447, 505, 182-G1 (1995)

Observable Properties of X-Ray–heated Winds in Active Galactic Nuclei: Warm Reflectors and Warm Absorbers. *Julian H. Krolik & Gerard A. Kriss.* 447, 512, 182-G11 (1995)

The Inverse Compton Thermostat in Hot Plasmas near Accreting Black Holes. *Paola Pietrini & Julian H. Krolik.* 447, 526, 183-B1 (1995)

Gamma-Ray Bursts from Minijets. *Nir J. Shaviv & Arnon Dar.* 447, 863, 187-G1 (1995)

Electron Time-of-Flight Differences in Solar Flares. *Markus J. Aschwanden, Richard A. Schwartz, & Daniel M. Alt.* 447, 923, 188-E12 (1995)

Neutrino Pair Synchrotron Radiation from Relativistic Electrons in Strong Magnetic Fields. *A. Vidaurre, A. Pérez, H. Sivak, J. Bernabéu, & J. Mª Ibáñez.* 448, 264, 195-G6 (1995)

The Synchrotron Self-Compton Model for X-Ray and γ-Ray Emission from Pulsars. *K. S. Cheng & D. M. Wei.* 448, 281, 196-B1 (1995)

Parsec-Scale Synchrotron Emission from Hydrodynamic Relativistic Jets in Active Galactic Nuclei. *J. L. Gómez, J. M^{a}. Martí, A. P. Marscher, J. Mª Ibáñez, & J. M. Marcaide.* 449, L19, 216-C3 (1995)

Spectral Variability of the X-Ray–bright BL Lacertae Object PKS 2005−489. *Rita M. Sambruna, C. Megan Urry, Gabriele Ghisellini, & Laura Maraschi.* 449, 567, 220-E12 (1995)

Hot Accretion Disks with Electron-Positron Pair Winds. *Ranjeev Misra & Fulvio Melia.* 449, 813, 224-A1 (1995)

Discovery of Inverse-Compton X-Rays in Radio Lobes. *E. D. Feigelson, S. A. Laurent-Muehleisen, R. I. Kollgaard, & E. B. Fomalont.* 449, L149, 227-E6 (1995)

Compton Heating and Superthermal Electrons in Gamma-loud Active Galactic Nuclei. *Andrei M. Beloborodov & Andrei F. Illarionov.* 450, 64, 229-A3 (1995)

Millisecond Pulsars: Detectable Sources of Continuous Gravitational Waves? *Kimberly C. B. New, G. Chanmugam, Warren W. Johnson, & Joel E. Tohline.* 450, 757, 241-B9 (1995)

Toward Understanding the Fanaroff-Riley Dichotomy in Radio Source Morphology and Power. *Stefi A. Baum, Esther L. Zirbel, & Christopher P. O'Dea.* 451, 88, 247-C13 (1995)

Multifrequency Spectra of *EXOSAT* Blazars. *K. K. Ghosh & S. Soundararajaperumal.* 100, 37, 46-D12 (1995)

Background X-Ray Emission from Hot Gas in CDM and CDM+Λ Universes: Spectral Signatures. *Renyue Cen, Hyesung Kang, Jeremiah P. Ostriker, & Dongsu Ryu.* 451, 436, 253-C11 (1995)

Detection of a Faint Optical Jet in 3C 120. *Jens Hjorth, Marianne Vestergaard, Anton N. Sørensen, & Frank Grundahl.* 452, L17, 269-E3 (1995)

Advection-dominated Accretion: Underfed Black Holes and Neutron Stars. *Ramesh Narayan & Insu Yi.* 452, 710, 274-D13 (1995)

Soft X-Ray Emission from Selected Isolated Pulsars. *Patrick Slane & Nicole Lloyd.* 452, L115, 280-A12 (1995)

Giant Pulses from the Crab Pulsar: A Joint Radio and Gamma-Ray Study. *S. C. Lundgren, J. M. Cordes, M. Ulmer, S. M. Matz, S. Lomatch, R. S. Foster, & T. Hankins.* 453, 433, 287-A13 (1995)

Disk-Corona Model of Active Galactic Nuclei with Nonthermal Pairs. *Sachiko Tsuruta & Michael Kellen.* 453, L9, 289-C7 (1995)

Detection of Inverse-Compton X-Rays from Lobes of the Radio Galaxy Fornax A. *H. Kaneda, M. Tashiro, Y. Ikebe, Y. Ishisaki, H. Kubo, K. Makishima, T. Ohashi, Y. Saito, H. Tabara, & T. Takahashi.* 453, L13, 289-D1 (1995)

Empirical Constraints on Source Properties and Host Galaxies of Cosmological Gamma-Ray Bursts. *Eric Woods & Abraham Loeb.* 453, 583, 292-A1 (1995)

The Nonthermal Radio, X-Ray, and TeV Gamma-Ray Spectra of MSH 15−52. *I. du Plessis, O. C. de Jager, S. Buchner, H. I. Nel, A. R. North, B. C. Raubenheimer, & D. J. van der Walt.* 453, 746, 294-B6 (1995)

A Signature of Relativistic Electron-Positron Beams in BL Lacertae Objects. *G. Z. Xie, B. F. Liu, & J. C. Wang.* 454, 50, 299-G9 (1995)

Modeling the Multiwavelength Accretion Disk Spectrum of X-Ray–selected Active Galactic Nuclei. *R. J. Thompson, Jr.* 454, 660, 310-F13 (1995)

The Gamma-Ray Galactic Diffuse Radiation and Cerenkov Telescopes. *P. Chardonnet, P. Salati, J. Silk, I. Grenier, & G. Smoot.* 454, 774, 312-D5 (1995)

High-Energy Gamma Rays from PKS 1406−076 and the Observation of Correlated Gamma-Ray and Optical Emission. *Stefan J. Wagner, John R. Mattox, Ulrich Hopp, H. Bock, J. Heidt, D. L. Bertsch, B. L. Dingus, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, P. Sreekumar, & D. J. Thompson.* 454, L97, 315-F4 (1995)

Photon Splitting in Strongly Magnetized Cosmic Objects—Revisited. *Günter Wunner, Robert Sang, & Dagmar Berg.* 455, L51, 325-B8 (1995)

Einstein's Radiation Formula and Modifications to the Einstein Equation. *C. Y. Lo.* 455, 421, 327-F4 (1995)

Spectral Properties of Accretion Disks around Galactic and Extragalactic Black Holes. *Sandip Chakrabarti & Lev G. Titarchuk.* 455, 623, 330-E1 (1995)

Accuracy, Uncertainties, and Delay Distribution of Electron Time-of-Flight Measurements in Solar Flares. *Markus J. Aschwanden & Richard A. Schwartz.* 455, 699, 331-E6 (1995)

RADIATION MECHANISMS: THERMAL

An Infrared Study of Three Wolf-Rayet Ring Nebulae. *J. S. Mathis, J. P. Cassinelli, K. A. van der Hucht, T. Prusti, P. R. Wesselius, & P. M. Williams.* 384, 197, 3-D5 (1992)

Radiation Dynamics in X-Ray Binaries. I. Type I Bursts. *Mark A. Walker.* 385, 642, 21-B1 (1992)

Infrared Observations and Thermal Models of the β Pictoris Disk. *D. E. Backman, F. C. Gillett, & F. C. Witteborn.* 385, 670, 21-D8 (1992)

Mass Loss from OH/IR Stars: Models for the Infrared Emission of Circumstellar Dust Shells. *K. Justtanont & A. G. G. M. Tielens.* 389, 400, 64-G10 (1992)

Thermonuclear Flash Model for Long X-Ray Tails from Aquila X-1. *Ikko Fushiki, Ronald E. Taam, S. E. Woosley, & D. Q. Lamb.* 390, 634, 83-B9 (1992)

Impulsive Phase Fe Kα Emission in a Flare of 1989 March. *D. M. Zarro, B. R. Dennis, & G. L. Slater.* 391, 865, 98-F6 (1992)

Geometrically Thin, Hot Accretion Disks: Topology of the Thermal Equilibrium Curves. *Masaaki Kusunose & Shin Mineshige.* 392, 653, 110-D1 (1992)

Submillimeter Observations of Radio-quiet Quasars and a Luminous Seyfert 1 Galaxy Including the First Detections. *Richard Barvainis, Robert Antonucci, & Paul Coleman.* 399, L19, 200-B1 (1992)

Morphological Peculiarities of High-Redshift Radio Galaxies: The Role of Relativistic Electrons. *Ruth A. Daly.* 399, 426, 203-C9 (1992)

An Infrared Study of Hot Dust in Quasars Using Prism Spectrophotometry. *Yukiyasu Kobayashi, Shuji Sato, Takuya Yamashita, Hisashi Shiba, & Hideki Takami.* 404, 94, 29-B11 (1993)

Dust and Ionized Gas in NGC 3607. *K. P. Singh, T. P. Prabhu, A. K. Kembhavi, & P. N. Bhat.* 424, 638, 72-G2 (1994)

Molecular Hydrogen Emission in Galaxies: Determination of Excitation Mechanism. *Hideaki Mouri.* 427, 777, 122-C12 (1994)

ROSAT PSPC Observations of Two X-Ray–faint Early-Type Galaxies: NGC 4365 and NGC 4382. *G. Fabbiano, D.-W. Kim, & G. Trinchieri.* 429, 94, 145-C12 (1994)

The Very Soft X-Ray Emission of X-Ray–faint Early-Type Galaxies. *S. Pellegrini & G. Fabbiano.* 429, 105, 145-D11 (1994)

On Thermal Comptonization in $e^{\pm}$ Pair Plasmas. *Gabriele Ghisellini & Francesco Haardt.* 429, L53, 157-G7 (1994)

Neutrino Energy Loss in Stellar Interiors. VI. Axial Vector Contribution to the Plasma Neutrino Energy-Loss Rate for Strongly Degenerate Electrons. *Yasuharu Kohyama, Naoki Itoh, Akihiko Obama, & Hiroshi Hayashi.* 431, 761, 188-A11 (1994)

A Model for the X-Ray and Ultraviolet Emission from Seyfert Galaxies and Galactic Black Holes. *Francesco Haardt, Laura Maraschi, & Gabriele Ghisellini.* 432, L95, 206-F7 (1994)

Hard X-Rays from NGC 4151: A Thermal Origin? *Lev Titarchuk & Apostolos Mastichiadis.* 433, L33, 215-A7 (1994)

A Thermal/Nonthermal Model for Solar Hard X-Ray Bursts. *Stephen G. Benka & Gordon D. Holman.* 435, 469, 249-G11 (1994)

Photon-dominated Regions around Cool Stars: The Effects of the Color Temperature of the Radiation Field. *Marco Spaans, A. G. G. M. Tielens, Ewine F. van Dishoeck, & E. L. O. Bakes.* 437, 270, 286-G7 (1994)

Nonequilibria in Thermal Emission from Supernova Remnants. *Kuniaki Masai.* 437, 770, 296-C2 (1994)

Super-Eddington Radiation Transfer in Soft Gamma Repeaters. *Andrew Ulmer.* 437, L111, 299-C1 (1994)

A Multizone Model for Composite Disk-Corona Structure and Spectral Formation in Active Galactic Nuclei. *Toshiya Shimura, Shin Mineshige, & Fumio Takahara.* 439, 74, 22-B12 (1995)

Far-Infrared Thermal Emission from the Inner Cooling Flow Region of NGC 1275. *D. F. Lester, E. C. Zink, G. W. Doppmann, N. I. Gaffney, P. M. Harvey, B. J. Smith, & M. Malkan.* 439, 185, 23-G1 (1995)

Large Hysteretic Behavior of Stellar Black Hole Candidate X-Ray Binaries. *Sigenori Miyamoto, Shunji Kitamoto, Kiyoshi Hayashida, & Wataru Egoshi.* 442, L13, 84-F1 (1995)

Comptonization Models and Spectroscopy of X-Ray and Gamma-Ray Sources: A Combined Study by Monte Carlo and Analytical Methods. *Xin-Min Hua & Lev Titarchuk.* 449, 188, 212-F13 (1995)

On the Geometry of the X-Ray–Emitting Region in Seyfert Galaxies. *Boris E. Stern, Juri Poutanen, Roland Svensson, Marek Sikora, & Mitchell C. Begelman.* 449, L13, 216-B9 (1995)

Power-Law Spectra as a Result of Comptonization of the Soft Radiation in a Plasma Cloud. *Lev Titarchuk & Yurij Lyubarskij.* 450, 876, 243-A10 (1995)

A Comparison of Thermal Comptonization Models. *Lev Titarchuk & Xin-Min Hua.* 452, 226, 265-B9 (1995)

Soft X-Ray Emission from Selected Isolated Pulsars. *Patrick Slane & Nicole Lloyd.* 452, L115, 280-A12 (1995)

Testing Models for the Quasar Big Blue Bump via Color-Color Diagrams. *Aneta Siemiginowska, Olga Kuhn, Martin Elvis, Fabrizio Fiore, Jonathan McDowell, & Belinda J. Wilkes.* 454, 77, 300-C7 (1995)

X-Ray Spectra of Z Sources. *Dimitrios Psaltis, Frederick K. Lamb, & Guy S. Miller.* 454, L137, 316-D9 (1995)

High-Energy Spectral Complexity from Thermal Gradients in Black Hole Atmospheres. *J. G. Skibo & C. D. Dermer.* 455, L25, 324-F1 (1995)

RADIATIVE TRANSFER

Radiative Transfer in Astronomical Masers. III. Filamentary Masers. *Moshe Elitzur, Christopher F. McKee, & David J. Hollenbach.* 367, 333, 16-B10 (1991)

Extinction and Polarization of Transmitted Light by Partially Aligned Nonspherical Grains. *Mikhail I. Mishchenko.* 367, 561, 20-C8 (1991)

Accretion Powered Pulsars: Continuum Spectra and Light Curves of Settling Accretion Mounds. *David J. Burnard, Jonathan Arons, & Richard I. Klein.* 367, 575, 20-D10 (1991)

The Use of Iteration Factors for Temperature Correction in a Stellar Atmosphere When Convective Transport Is Present. *L. Crivellari & E. Simonneau.* 367, 612, 20-G10 (1991)

Instabilities in Line-driven Stellar Winds. V. Effect of an Optically Thick Continuum. *S. P. Owocki & G. B. Rybicki.* 368, 261, 26-C11 (1991)

Axisymmetric Models of Circumstellar Dust Shells. *Alan J. Collison & John D. Fix.* 368, 545, 31-G7 (1991)

The Appearance of Highly Relativistic, Spherically Symmetric Stellar Winds. *Marek A. Abramowicz, Igor D. Novikov, & Bohdan Paczyński.* 369, 175, 38-B5 (1991)

Dynamic Effects on Cyclotron Scattering in Pulsar Accretion Columns. *J. J. Brainerd & P. Mészáros.* 369, 179, 38-B11 (1991)

Scattering of Acoustic Waves from a Magnetic Flux Tube Embedded in a Radiating Fluid. *T. J. Bogdan & M. Knölker.* 369, 219, 38-F1 (1991)

Thomson Scattering in a Magnetic Field. II. Arbitrary Field Orientation. *Barbara A. Whitney.* 369, 451, 43-C10 (1991)

Opacity Effects on the Radiative Losses of Coronal Loops. *N. P. M. Kuin & A. I. Poland.* 370, 763, 57-G11 (1991)

The Escape of Lyman-Alpha Radiation from a Multiphase Interstellar Medium. *David A. Neufeld.* 370, L85, 59-D13 (1991)

Emission from Dust in Visual Reflection Nebulae at Infrared and Submillimeter Wavelengths. *Sean C. Casey.* 371, 183, 62-D1 (1991)

Comptonization of Gamma Rays by Cold Electrons. *Yueming Xu, Randy R. Ross, & Richard McCray.* 371, 280, 63-E11 (1991)

Aberration and Advection Effects in Expanding Spherically Symmetric Shells. *A. Peraiah.* 371, 673, 70-A1 (1991)

Thomson Scattering in a Magnetic Field. I. Field along z. *Barbara A. Whitney.* 75, 1293, 22-F1 (1991)

Stability, Structure, and Evolution of Cool Loops. *P. S. Cally & T. D. Robb.* 372, 329, 78-A11 (1991)

Cyclotron Harmonics in Accreting Pulsars and Gamma-Ray Bursters: Effect of Two-Photon Processes. *S. G. Alexander & P. Mészáros.* 372, 565, 82-F9 (1991)

Non–LTE Analysis of the Ofpe/WN9 Star HDE 269227 (R84). *Werner Schmutz, Claus Leitherer, Ivan Hubeny, Manfred Vogel, Wolf-Rainer Hamann, & Ulf Wessolowski.* 372, 664, 84-A1 (1991)

Heating Solar Coronal Holes. *E. N. Parker.* 372, 719, 84-E11 (1991)

Size and Density Distribution of Very Small Dust Grains in the Barnard 5 Cloud. *Dariusz C. Lis & Chun Ming Leung.* 372, L107, 85-F9 (1991)

Collisional Pumping of H_2O Masers in Star-forming Regions. *Nikolaos D. Kylafis & Colin A. Norman.* 373, 525, 94-D13 (1991)

Ionization by High-Energy Particles and the Electron Scattering Opacity in Supernovae. *Douglas A. Swartz.* 373, 604, 95-D11 (1991)

Bowen Fluorescence in AM Herculis Stars. *Jonathan Schachter, Alexei V. Filippenko, Steven M. Kahn, & Frits B. S. Paerels.* 373, 633, 95-G4 (1991)

Thermal and Mechanical Damping of Solar *p*-Modes. *Peter Goldreich & Pawan Kumar.* 374, 366, 102-F1 (1991)

Flux-limited Diffusion in a Scattering Medium. *Fulvio Melia & Gregory J. Zylstra.* 374, 732, 108-B9 (1991)

Stellar Occultation of Polarized Light from Circumstellar Electrons. II. Flat Envelopes Viewed at Arbitrary Inclination. *Geoffrey K. Fox & John C. Brown.* 375, 300, 114-F1 (1991)

Spectroscopic Study of Direct and Dust-scattered Line Emission in the HH 1–HH 2 System. *J. Solf & K.-H. Böhm.* 375, 618, 120-D3 (1991)

Model Atmospheres and X-Ray Spectra of Bursting Neutron Stars. *Jerzy Madej.* 376, 161, 127-A4 (1991)

The Phase Mixing of Alfvén Waves, Coordinated Modes, and Coronal Heating. *E. N. Parker.* 376, 355, 129-C11 (1991)

The Effects of Thermal Radiation on Some General Relativistic Stellar Models. *J. M. Aguirregabiria, J. Ibáñez, A. Di Prisco, & L. Herrera.* 376, 662, 134-E8 (1991)

Energy Deposition by X-Ray Photoelectrons into Interstellar Molecular Clouds. *G. Mark Voit.* 377, 158, 140-A1 (1991)

Low-Density Photodissociation Regions. *David J. Hollenbach, Takamasa Takahashi, & A. G. G. M. Tielens.* 377, 192, 140-C11 (1991)

Neutral Oxygen in Planetary Nebulae: Probing Radiative Transfer and Nebular Structure. *Michael G. Richer, Marshall L. McCall, & Peter G. Martin.* 377, 210, 140-E1 (1991)

Continuum Opacity Produced by Spectral Lines in Supernovae and Similar Expansions. *Robert V. Wagoner, Christopher A. Perez, & Mary Vasu.* 377, 639, 147-E12 (1991)

Energy Balance in the Solar Transition Region. II. Effects of Pressure and Energy Input on Hydrostatic Models. *J. M. Fontenla, E. H. Avrett, & R. Loeser.* 377, 712, 148-E1 (1991)

On Spectra of X-Ray Bursters in the Expansion Phase. *I. I. Lapidus.* 377, L93, 150-E1 (1991)

Radiative-hydrodynamical Simulations of Accretion Disk Coronae. *Fulvio Melia, Gregory J. Zylstra, & Bruce Fryxell.* 377, L101, 150-E11 (1991)

Constraints on the Physical Properties of Optical Bullets in SS 433. *John C. Brown, Joseph P. Cassinelli, & George W. Collins II.* 378, 307, 154-G1 (1991)

Attenuation of Lyman-Alpha Emission by Dust in Damped Lyman-Alpha Systems. *Stéphane Charlot & S. Michael Fall.* 378, 471, 158-C7 (1991)

Radiation Transport in Dust in Disk Geometry. I. Application to Externally Heated Interstellar Clouds. *George F. Spagna, Jr., Chun Ming Leung, & Michael P. Egan.* 379, 232, 166-A5 (1991)

Echo Images of Broad-Line Regions in Active Galactic Nuclei. *William F. Welsh & Keith Horne.* 379, 586, 172-A1 (1991)

Stellar Occultation of Polarized Light from Circumstellar Electrons. III. General Axisymmetric Envelopes. *Geoffrey K. Fox.* 379, 663, 173-A1 (1991)

Models for Light Scattering by Dust around Herbig-Haro Objects. *Alberto Noriega-Crespo, Nuria Calvet, & Karl-Heinz Böhm.* 379, 676, 173-B1 (1991)

Effects of Aberration and Advection on Line Formation. *A. Peraiah.* 380, 212, 178-F1 (1991)

Irradiation of Accretion Disks around Young Objects. I. Near-Infrared CO Bands. *Nuria Calvet, Alberto Patiño, Gladis Magris C., & Paola D'Alessio.* 380, 617, 185-G8 (1991)

Inferring Chromospheric Flare Heating from Hydrogen-Line Wings. *K. G. Gayley & R. C. Canfield.* 380, 660, 186-D1 (1991)

Nonequilibrium Ionization Effects in Asymmetrically Heated Loops. *D. Spadaro, S. K. Antiochos, & J. T. Mariska.* 382, 338, 204-D1 (1991)

The Temperature of the Circumstellar Envelope of Alpha Orionis. *Bernadette Rodgers & Alfred E. Glassgold.* 382, 606, 209-B1 (1991)

Discrete Ordinate Solution of the Radiative Transfer Equation in the "Polarization Normal Wave Representation." *A. Kylling.* 383, 243, 215-C1 (1991)

Spherical Accretion onto Black Holes: A Complete Analysis of Stationary Solutions. *Luciano Nobili, Roberto Turolla, & Luca Zampieri.* 383, 250, 215-C9 (1991)

The Vertical Structure of T Tauri Accretion Disks. I. Heating by the Central Star. *Fabien Malbet & Claude Bertout.* 383, 814, 224-D1 (1991)

A Model for the Infrared Emission from an OB Star Cluster Environment. *D. Leisawitz.* 77, 451, 51-B1 (1991)

Compton Scattering in a Converging Fluid Flow: Spherical Near-critical Accretion onto Neutron Stars. *Apostolos Mastichiadis & Nikolaos D. Kylafis.* 384, 136, 2-F7 (1992)

Multiple Resonant Scattering in the Compton Upscatter Model of Gamma-Ray Bursts. *J. J. Brainerd.* 384, 545, 9-A1 (1992)

The Effects of Radiation Drag on Radial, Relativistic Hydromagnetic Winds. *Zhi-yun Li, Mitchell C. Begelman, & Tzihong Chiueh.* 384, 567, 9-C1 (1992)

Dynamics of the Envelopes of Be Stars in the Equatorial Plane. *Haiqi Chen, J. M. Marlborough, & L. B. F. M. Waters.* 384, 605, 9-F1 (1992)

Fe II Emission Lines. II. Excitation Mechanisms in Cool Stars. *P. G. Judge, C. Jordan, & U. Feldman.* 384, 613, 9-F10 (1992)

Non–LTE, Line-blanketed Model Atmospheres for Late O- and Early B-Type Stars. *James A. Grigsby, Nancy D. Morrison, & Lawrence S. Anderson.* 78, 205, 4-D9 (1992)

Covariant Flux-limited Diffusion Theories. *A. M. Anile & V. Romano.* 386, 325, 28-C5 (1992)

Partially Coherent Scattering in Stellar Chromospheres. I. Effects on Resonance Line Thermalization. *Kenneth G. Gayley.* 78, 549, 10-D7 (1992)

X-Ray–heated Models of Stellar Flare Atmospheres: Theory and Comparison with Observations. *Suzanne L. Hawley & George H. Fisher.* 78, 565, 10-F1 (1992)

The Sobolev Approximation for Line Formation with Partial Frequency Redistribution. *D. G. Hummer & G. B. Rybicki.* 387, 248, 40-A10 (1992)

A New Scheme for Multidimensional Line Transfer. II. ETLA Method in One Dimension with Application to Iron Kα Lines. *John I. Castor, Pieter G. Dykema, & Richard I. Klein.* 387, 561, 45-F1 (1992)

Radiative Instabilities and 1000 Second Fluctuations in Astrophysical Masers. *Gerardo A. Scappaticci & William D. Watson.* 387, L73, 48-C10 (1992)

Ionization and Excitation in Cool Giant Stars. I. Hydrogen and Helium. *Donald G. Luttermoser & Hollis R. Johnson.* 388, 579, 57-D7 (1992)

X-Ray Scattering and Fluorescence in the Wind of a Massive X-Ray Binary. *W. Lewis, S. Rappaport, A. Levine, & F. Nagase.* 389, 665, 69-F3 (1992)

1612 MHz OH Maser Emission from Axisymmetric Circumstellar Envelopes: Miras. *Alan J. Collison & John D. Fix.* 390, 191, 76-C13 (1992)

Partially Coherent Scattering in Stellar Chromospheres. II. The First-Order Escape Probability Method. *K. G. Gayley.* 390, 573, 82-D8 (1992)

Partially Coherent Scattering in Stellar Chromospheres. III. A Second-Order Escape Probability Method. *K. G. Gayley.* 390, 583, 82-E5 (1992)

Incorporation of Density Fluctuations into Photoionization Calculations. *Robert E. Williams.* 392, 99, 102-C1 (1992)

A Modified Eddington-Barbier Relation in Highly Coherent Resonance-Line Wings. *K. G. Gayley.* 392, 353, 105-C9 (1992)

ZEUS-2D: A Radiation Magnetohydrodynamics Code for Astrophysical Flows in Two Space Dimensions. I. The Hydrodynamic Algorithms and Tests. *James M. Stone & Michael L. Norman.* 80, 753, 33-G3 (1992)

ZEUS-2D: A Radiation Magnetohydrodynamics Code for Astrophysical Flows in Two Space Dimensions. II. The Magnetohydrodynamic Algorithms and Tests. *James M. Stone & Michael L. Norman.* 80, 791, 34-C5 (1992)

ZEUS-2D: A Radiation Magnetohydrodynamics Code for Astrophysical Flows in Two Space Dimensions. III. The Radiation Hydrodynamic Algorithms and Tests. *James M. Stone, Dimitri Mihalas, & Michael L. Norman.* 80, 819, 34-E11 (1992)

Problems with the Standard Theory of Three-dimensional Masers. *David A. Neufeld.* 393, L37, 120-F1 (1992)

Dust and the Transfer of Stellar Radiation within Galaxies. *Adolf N. Witt, Harley A. Thronson, Jr., & John M. Capuano, Jr.* 393, 611, 123-D7 (1992)

Two-Stream, Second-Order, Probabilistic Radiative Transfer. *I. S. Krinsky & R. C. Puetter.* 393, 716, 124-F10 (1992)

In Search of Evidence for Protostellar Collapse: A Systematic Study of Line Formation in Low-Mass Dense Cores. *Shudong Zhou.* 394, 204, 130-E4 (1992)

A Flux-limited Model of Particle Diffusion and Viscosity. *Ramesh Narayan.* 394, 261, 131-C3 (1992)

The Stability of QSO/AGN Broad Emission Line Clouds. *I. S. Krinsky & R. C. Puetter.* 394, 472, 135-C1 (1992)

General Theory of the Purcell-Pennypacker Scattering Approach and Its Extension to Bianisotropic Scatterers. *Akhlesh Lakhtakia.* 394, 494, 135-E1 (1992)

Ultraviolet Imaging Telescope Images of the Reflection Nebula NGC 7023: Derivation of Ultraviolet Scattering Properties of Dust Grains. *Adolf N. Witt, Jens K. Petersohn, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L5, 144-D1 (1992)

Model Scattering Envelopes of Young Stellar Objects. I. Method and Application to Circumstellar Disks. *Barbara A. Whitney & Lee Hartmann.* 395, 529, 149-D1 (1992)

Radiative-hydrodynamical Simulations of X-Ray Burst–induced Accretion Disk Coronae. *Fulvio Melia, Gregory J. Zylstra, & Bruce Fryxell.* 396, L27, 160-E8 (1992)

Two-dimensional Viscous Accretion Disk Models. I. On Meridional Circulations in Radiative Regions. *W. Kley & D. N. C. Lin.* 397, 600, 178-D13 (1992)

On the Thermal Structure and Stability of Configurations with Heat Diffusion and a Gain-Loss Function. I. General Results. *Miguel H. Ibáñez S., Antonio Parravano, & César A. Mendoza B.* 398, 177, 184-B1 (1992)

Radiative Equilibrium in Rapidly Expanding Shells. *P. H. Hauschildt.* 398, 224, 184-E9 (1992)

Inversion of Stokes Profiles. *B. Ruiz Cobo & J. C. del Toro Iniesta.* 398, 375, 186-D11 (1992)

An Interpretation of the Multipeaked Structure in X-Ray Bursts. *Fulvio Melia & Gregory J. Zylstra.* 398, L53, 188-A1 (1992)

Flux-limited Diffusion in Hydrodynamics. *J. Cooperstein & E. Baron.* 398, 531, 190-F11 (1992)

Radiation Transfer in Gamma-Ray Bursts. *B. J. Carrigan & J. I. Katz.* 399, 100, 196-D6 (1992)

Rapid Time Variations and Radiative Instabilities of Astrophysical Masers. *Gerardo A. Scappaticci & William D. Watson.* 400, 351, 213-C7 (1992)

Infrared Spectra of Obscuring Dust Tori around Active Galactic Nuclei. I. Calculational Method and Basic Trends. *Edward A. Pier & Julian H. Krolik.* 401, 99, 222-C5 (1992)

The Dynamics of Molecular Cloud Envelopes in a Varying Ultraviolet Radiation Field. *C. Bréart de Boisanger, J.-P. Chièze, & B. Meltz.* 401, 182, 223-D1 (1992)

Enhancement of Diffusive Transport in Oscillatory Flows. *E. Knobloch & W. J. Merryfield.* 401, 196, 223-E3 (1992)

Photon Escape Probabilities from Resolved Sources: Application to Solar C III Limb Emission. *S. O. Kastner & A. K. Bhatia.* 401, 416, 226-C1 (1992)

Heating of H II Regions with Application to the Galactic Center. *Philip R. Maloney, David J. Hollenbach, & Charles H. Townes.* 401, 559, 229-E5 (1992)

On the Photon Diffusion Time Scale for the Sun. *R. Mitalas & K. R. Sills.* 401, 759, 232-A1 (1992)

High-Excitation ^{29}SiO and ^{30}SiO Maser Emission. *J. Cernicharo & V. Bujarrabal.* 401, L109, 233-E5 (1992)

Siphon Flows in Isolated Magnetic Flux Tubes. V. Radiative Flows with Variable Ionization. *Benjamin Montesinos & John H. Thomas.* 402, 314, 5-A13 (1993)

Spectroscopic Constraints on the Properties of Dust in Active Galactic Nuclei. *Ari Laor & Bruce T. Draine.* 402, 441, 8-B5 (1993)

Equilibrium Slab Models of Lyman-Alpha Clouds. *Jane C. Charlton, Edwin E. Salpeter, & Craig J. Hogan.* 402, 493, 8-F8 (1993)

Model Scattering Envelopes of Young Stellar Objects. II. Infalling Envelopes. *Barbara A. Whitney & Lee Hartmann.* 402, 605, 10-B5 (1993)

A New Interpretation of the Redshift Observed in Optically Thin Transition Region Lines. *Viggo Hansteen.* 402, 741, 11-G1 (1993)

The Telegraph Equation in Charged Particle Transport. *T. I. Gombosi, J. R. Jokipii, J. Kota, K. Lorencz, & L. L. Williams.* 403, 377, 18-E1 (1993)

Covariant Flux-limited Diffusion Theory for an Anisotropic Source Term. *Alfio Bonanno & Vittorio Romano.* 404, 264, 31-B9 (1993)

Colliding Wind Binary Systems: Monte Carlo Simulations of Line-Profile Variability. *Ian R. Stevens.* 404, 281, 31-D3 (1993)

Relativistic Frequency-dependent Transfer in Spherical Flows. I. Method and Numerical Tests. *Luciano Nobili, Roberto Turolla, & Luca Zampieri.* 404, 686, 37-D12 (1993)

A Numerical Simulation of Two-dimensional Radiative Equilibrium in Magnetostatic Flux Tubes. I. The Model. *V. J. Pizzo, K. B. MacGregor, & P. B. Kunasz.* 404, 788, 38-F10 (1993)

Models of Clumpy Photodissociation Regions. *M. Meixner & A. G. G. M. Tielens.* 405, 216, 43-G2 (1993)

Multiline Transfer and the Dynamics of Wolf-Rayet Winds. *L. B. Lucy & D. C. Abbott.* 405, 738, 52-C5 (1993)

The Boltzmann Equation in General Relativistic Rotating Systems: Cooling of Rotating Neutron Stars. *Juan A. Miralles, Kenneth A. Van Riper, & James M. Lattimer.* 407, 687, 79-B1 (1993)

Solar Chromospheric and Transition Region Response to Energy Deposition in the Middle and Upper Chromosphere. *Alphonse C. Sterling, Kazunari Shibata, & John T. Mariska.* 407, 778, 80-B9 (1993)

The Spectral Energy Distribution of Star-forming Regions. *Ralf Siebenmorgen.* 408, 218, 85-G3 (1993)

Light-induced Drift and Abundance Anomalies. *F. LeBlanc & G. Michaud.* 408, 251, 86-C1 (1993)

An Implicit Integral Method to Solve Selected Radiative Transfer Problems. I. Non-LTE Line Formation. *E. Simonneau & L. Crivellari.* 409, 830, 109-D12 (1993)

Mass Loss from Wolf-Rayet Stars Due to Radiation Pressure and Alfvén Waves. *L. C. dos Santos, V. Jatenco-Pereira, & R. Opher.* 410, 732, 122-G11 (1993)

On the Nature of the Polarization Opposition Effect Exhibited by Saturn's Rings. *Michael I. Mishchenko.* 411, 351, 131-F1 (1993)

On the Source Function of the Soft X-Ray Diffuse Background. *David N. Burrows & Ralph P. Kraft.* 411, 685, 138-C1 (1993)

Rigorous Treatment of the Radiative Transfer Problem in Stellar Winds: Significance of the Velocity Law and the Chromosphere in the Hα Profile. *Lydia S. Cidale & Adela E. Ringuelet.* 411, 874, 140-F5 (1993)

The Atmospheres of T Tauri Stars. II. Chromospheric Line Fluxes and Veiling. *C. C. Batalha & Gibor Basri.* 412, 363, 146-E13 (1993)

Spectrum Formation in Supernovae: Numerical Techniques. *Ronald G. Eastman & Philip A. Pinto.* 412, 731, 152-G12 (1993)

Quantitative Modeling and Impersonal Fitting of Algol Polarization Curves. *R. E. Wilson & Jer-Chyi Liou.* 413, 670, 164-G1 (1993)

Anisotropic Comptonization in Thermal Plasmas: Spectral Distribution in Plane-Parallel Geometry. *Francesco Haardt.* 413, 680, 164-G12 (1993)

A Numerical Simulation of Two-dimensional Radiative Equilibrium in Magnetostatic Flux Tubes. II. Computational Results. *V. J. Pizzo, K. B. MacGregor, & P. B. Kunasz.* 413, 764, 166-A1 (1993)

Formation of Quasar Clouds by Thermal Instability in the Presence of Alfvén Wave Heating. *D. R. Gonçalves, V. Jatenco-Pereira, & R. Opher.* 414, 57, 170-F12 (1993)

Effects of Internal Dust on the Narrow-Line Region Lyman and Balmer Decrements. *Luc Binette, John Wang, Montserrat Villar-Martin, Peter G. Martin, & Gladis Magris C.* 414, 535, 177-G9 (1993)

The Embedded Young Stars in the Taurus-Auriga Molecular Cloud. I. Models for Spectral Energy Distributions. *Scott J. Kenyon, Nuria Calvet, & Lee Hartmann.* 414, 676, 179-F1 (1993)

The Embedded Young Stars in the Taurus-Auriga Molecular Cloud. II. Models for Scattered Light Images. *Scott J. Kenyon, Barbara A. Whitney, Mercedes Gomez, & Lee Hartmann.* 414, 773, 180-G9 (1993)

A Semi-Analytic Model for Cyclotron Line Formation. *J. C. L. Wang, I. Wasserman, & D. Q. Lamb.* 414, 815, 181-D2 (1993)

Cooling Functions for Low-Density Astrophysical Plasmas. *Ralph S. Sutherland & M. A. Dopita.* 88, 253, 43-D9 (1993)

On the Geometry, Covering Factor, and Scattering-Emission Properties of QSO Broad Absorption-Line Regions. *Fred Hamann, Kirk T. Korista, & Simon L. Morris.* 415, 541, 194-E11 (1993)

The Relativistic Sobolev Method Applied to Homologously Expanding Atmospheres. *David J. Jeffery.* 415, 734, 197-A5 (1993)

Polarization of Astronomical Maser Radiation. II. Polarization Modes and Unsaturated Growth. *Moshe Elitzur.* 416, 256, 204-C7 (1993)

Proximity Effects in Clusters of Particles. *François Rouleau & P. G. Martin.* 416, 707, 212-B10 (1993)

Formation of P Cygni Line Profiles in Relativistically Expanding Atmospheres. II. The Effect of the Continuum Frequency Shape and Limb Darkening of the Core. *Damien Hutsemékers.* 417, 97, 218-D12 (1993)

Resonance Scattering by Mercurian Sodium. *Donald M. Hunten & Lloyd V. Wallace.* 417, 757, 228-G6 (1993)

Polarized Scattering in the Vicinity of Galaxies. *Brian W. Murphy & David F. Chernoff.* 418, 60, 231-G7 (1993)

Expanding Atmospheric Model Including a Chromosphere. I. Study of the Infrared Excess in Be Stars. *Andrea C. Vázquez, Lydia S. Cidale, & Adela E. Ringuelet.* 419, 286, 249-F10 (1993)

The Faraday Rotation and Linear Polarization of Light in Stellar Atmospheres. *N. A. Silant'ev.* 419, 294, 249-G6 (1993)

Dynamically Comptonized Spectra from Near-critical Accretion onto Neutron Stars. *Luca Zampieri, Roberto Turolla, & Aldo Treves.* 419, 311, 250-B1 (1993)

Secondary Ionization in a Flat Universe. *F. Atrio-Barandela & A. G. Doroshkevich.* 420, 26, 1-D1 (1994)

On the Theory of Astronomical Masers in Three Dimensions. *Moshe Elitzur.* 422, 751, 41-B13 (1994)

Radiation-driven Acceleration in Photospheres of Nonaccreting Magnetic White Dwarfs. *Vladimir V. Zheleznyakov & A. V. Serber.* 90, 783, 13-D13 (1994)

The Evolution of Nonlinear Subhorizon-Scale Entropy Fluctuations in the Early Universe. *Karsten Jedamzik & George M. Fuller.* 423, 33, 46-E2 (1994)

Photoionization of Disk Galaxies: An Explanation of the Sharp Edges in the H I Distribution. *James B. Dove & J. Michael Shull.* 423, 196, 48-E3 (1994)

Very High Energy Gamma Rays from Active Galactic Nuclei: Cascading on the Cosmic Background Radiation Fields and the Formation of Pair Halos. *F. A. Aharonian, P. S. Coppi, & H. J. Völk.* 423, L5, 53-B7 (1994)

A Numerical Study of Viscous Flows in Axisymmetric α-Accretion Disks. *Michał Różyczka, Peter Bodenheimer, & K. R. Bell.* 423, 736, 57-F10 (1994)

The He I λ10830 Line in Classical Cepheids. I. Observations. *Dimitar D. Sasselov & John B. Lester.* 423, 777, 58-C11 (1994)

The He I λ10830 Line in Classical Cepheids. II. Mechanism of Formation. *Dimitar D. Sasselov & John B. Lester.* 423, 785, 58-D7 (1994)

The Chromospheric Structure of Classical Cepheids: Constraints from the He I λ10830 Line. *Dimitar D. Sasselov & John B. Lester.* 423, 795, 58-E6 (1994)

Basic Theory for Polarized, Astrophysical Maser Radiation in a Magnetic Field. *William D. Watson.* 424, L37, 69-E8 (1994)

A Critical Evaluation of Semianalytic Methods in the Study of Centrally Heated, Unresolved, Infrared Sources. *Steven D. Doty & Chun Ming Leung.* 424, 729, 73-G10 (1994)

Analysis of the Early Spectra and Light Curve of SN 1987A. *Peter H. Hauschildt & Lisa M. Ensman.* 424, 905, 76-A10 (1994)

Light Scattering by Porous Dust Particles in the Discrete-Dipole Approximation. *K. Lumme & J. Rahola.* 425, 653, 89-F12 (1994)

Solar Flare Model Atmospheres. *Suzanne L. Hawley & George H. Fisher.* 426, 387, 101-A9 (1994)

Angular Scattering of Solar Radio Emission by Coronal Turbulence. *T. S. Bastian.* 426, 774, 108-B3 (1994)

Polarization Profiles of Scattered Emission Lines. I. General Formalism for Optically Thin Rayleigh Scattering. *W. J. Henney.* 427, 288, 113-E1 (1994)

Observational Tests for Nonequilibrium Ionization in the Solar Corona. *D. Spadaro, P. Leto, & S. K. Antiochos.* 427, 453, 115-E1 (1994)

Circumstellar Dust Emission Models. *Mark G. Wolfire & Ed Churchwell.* 427, 889, 123-F6 (1994)

The Ionization of the Diffuse Ionized Gas. *H. Domgörgen & John S. Mathis.* 428, 647, 138-D1 (1994)

Photoevaporation of Disks around Massive Stars and Application to Ultracompact H II Regions. *David Hollenbach, Doug Johnstone, Susana Lizano, & Frank Shu.* 428, 654, 138-D10 (1994)

An Implicit Integral Method to Solve Selected Radiative Transfer Problems. III. Factorization versus Linearization. *E. Simonneau & L. Crivellari.* 428, 753, 139-E11 (1994)

An Implicit Integral Method to Solve Selected Radiative Transfer Problems. II. LTE Stellar Atmosphere Models. *L. Crivellari & E. Simonneau.* 429, 331, 148-B9 (1994)

On the Spectra of X-Ray Bursters: Expansion and Contraction Stages. *Lev Titarchuk.* 429, 340, 148-C6 (1994)

Photoionization of the Diffuse Interstellar Medium and Galactic Halo by OB Associations. *James B. Dove & J. Michael Shull.* 430, 222, 161-G7 (1994)

Spectroscopic Signatures of Infall in Young Protostellar Systems. *Christopher K. Walker, Gopal Narayanan, & Alan P. Boss.* 431, 767, 188-B5 (1994)

Analytic Lyman-Alpha Wing Diagnostics and the Chromospheric Excitation Balance in Cool Dwarfs. *K. G. Gayley.* 431, 806, 188-F4 (1994)

Diagnostics of Dust Content in Spiral Galaxies: Numerical Simulations of Radiative Transfer. *Y. I. Byun, K. C. Freeman, & N. D. Kylafis.* 432, 114, 194-F1 (1994)

Resonance Line Polarization in Spherical Atmospheres: Partial Redistribution Effects Studied with the Domke-Hubeny Redistribution Matrix. *K. N. Nagendra.* 432, 274, 196-E10 (1994)

The Role of Advection in the Quasi-static Approximation. *Shlomi Pistinner & Giora Shaviv.* 432, 302, 197-A1 (1994)

Dynamic Processes in Be Star Atmospheres. II. He I $2P$–nD Line Formation in λ Eridani (Outburst). *Myron A. Smith, Ivan Hubeny, Thierry Lanz, & Thomas Meylan.* 432, 392, 198-A10 (1994)

Lyα Emission and Absorption Features in the Spectra of Galaxies. *W. L. Chen & David A. Neufeld.* 432, 567, 203-A10 (1994)

The Far-Ultraviolet Dust Albedo in the Upper Scorpius Subgroup of the Scorpius OB2 Association. *Karl D. Gordon, Adolf N. Witt, George R. Carruthers, Susan A. Christensen, & Brian C. Dohne.* 432, 641, 204-A3 (1994)

Winds from Neutron Stars and Strong Type I X-Ray Bursts. *Luciano Nobili, Roberto Turolla, & Iosif Lapidus.* 433, 276, 211-F11 (1994)

Hard X-Rays from NGC 4151: A Thermal Origin? *Lev Titarchuk & Apostolos Mastichiadis.* 433, L33, 215-A7 (1994)

Acceleration Efficiency in Line-driven Flows. *Kenneth G. Gayley & Stanley P. Owocki.* 434, 684, 237-B12 (1994)

The Theoretical Polarization of Pure Scattering Axisymmetric Circumstellar Envelopes. *G. K. Fox.* 435, 372, 248-E1 (1994)

Acoustic Heating of the Chromosphere and Cool Corona in the F Star α Canis Minoris (Procyon). *D. J. Mullan & Q. Q. Cheng.* 435, 435, 249-D7 (1994)

Equilibrium Structure of Solar Magnetic Flux Tubes: Energy Transport with Multistream Radiative Transfer. *S. S. Hasan & W. Kalkofen.* 436, 355, 266-B7 (1994)

Effects of Photoionization on Galaxy Formation. *Masashi Chiba & Biman B. Nath.* 436, 618, 274-B1 (1994)

The Effects of Gravity Darkening on the Ultraviolet Continuum Polarization Produced by Circumstellar Disks. *J. E. Bjorkman & K. S. Bjorkman.* 436, 818, 277-A1 (1994)

An Analytic Solution of the Radiative Transfer Equation for a Gray Scattering Atmosphere in Motion. *Shlomi Pistinner & Giora Shaviv.* 436, 837, 277-B13 (1994)

Modeling Radiative Transfer in Molecular Clouds. I. HCO^+ in the Star-forming Region W49A North. *Hélène R. Dickel & Lawrence H. Auer.* 437, 222, 286-C4 (1994)

X-Ray–induced Ionization in the Winds of Near–Main-Sequence O and B Stars. *J. J. MacFarlane, D. H. Cohen, & P. Wang.* 437, 351, 288-A11 (1994)

X-Ray Reflection from Photoionized Media in Active Galactic Nuclei. *Piotr T. Życki, Julian H. Krolik, Andrzej A. Zdziarski, & Timothy R. Kallman.* 437, 597, 294-A6 (1994)

Non-LTE Effects on the Strength of the Lyman Edge in Quasar Accretion Disks. *H. Störzer, P. H. Hauschildt, & F. Allard.* 437, L91, 298-G8 (1994)

Theoretical Light Curves for the Type Ic Supernova SN 1994I. *Kohichi Iwamoto, Ken'ichi Nomoto, Peter Höflich, Hitoshi Yamaoka, Shiomi Kumagai, & Toshikazu Shigeyama.* 437, L115, 299-C8 (1994)

A Potential Cyclotron Line Signature in Low-Luminosity X-Ray Sources. *Robert W. Nelson, John C. L. Wang, E. E. Salpeter, & Ira Wasserman.* 438, L99, 20-B1 (1995)

Time-dependent Fluorescent H_2 Emission. *O. Goldshmidt & A. Sternberg.* 439, 256, 24-F3 (1995)

Critical Radiation Fluxes and Luminosities of Black Holes and Relativistic Stars. *Frederick K. Lamb & M. Coleman Miller.* 439, 828, 36-A11 (1995)

Non-LTE Line-blanketed Model Atmospheres of Hot Stars. I. Hybrid Complete Linearization/Accelerated Lambda Iteration Method. *I. Hubeny & T. Lanz.* 439, 875, 36-F8 (1995)

The Effect of Oblateness and Gravity Darkening on the Radiation Driving in Winds from Rapidly Rotating B Stars. *Steven R. Cranmer & Stanley P. Owocki.* 440, 308, 45-D6 (1995)

On the Current Status of Maser Polarization Theory. *Moshe Elitzur.* 440, 345, 45-G13 (1995)

Does a Nonmagnetic Solar Chromosphere Exist? *Mats Carlsson & Robert F. Stein.* 440, L29, 48-E8 (1995)

The Sobolev Optical Depth for Time-dependent Relativistic Systems. *David J. Jeffery.* 440, 810, 54-C1 (1995)

Remarks on the Polarization Observed in SN 1993J. *Peter Höflich.* 440, 821, 54-D4 (1995)

Radiative Transfer in a Clumpy Universe: The Colors of High-Redshift Galaxies. *Piero Madau.* 441, 18, 59-D13 (1995)

Polarization from Scattering in Blobs. *Arthur D. Code & Barbara A. Whitney.* 441, 400, 64-G4 (1995)

Infrared Properties of Circumstellar Dust Envelopes of Oxygen-rich Asymptotic Giant Branch Stars. *O. Hashimoto.* 442, 286, 81-B3 (1995)

Line Formation in Collapsing Cloud Cores with Rotation and Applications to B335 and IRAS 16293−2422. *Shudong Zhou.* 442, 685, 89-E11 (1995)

Analysis of the Type Ia Supernova SN 1994D. *P. Höflich.* 443, 89, 96-D9 (1995)

A New Estimate of the Uncertainties in the Primordial Helium Abundance: New Bounds on Ω Baryons. *Dimitar Sasselov & Dalia Goldwirth.* 444, L5, 121-B8 (1995)

Instabilities and the Transport of Polarized Astrophysical Maser Radiation. *Bradley K. Wallin & William D. Watson.* 445, 465, 139-A4 (1995)

On the Spectral Hardening Factor of the X-Ray Emission from Accretion Disks in Black Hole Candidates. *Toshiya Shimura & Fumio Takahara.* 445, 780, 146-A4 (1995)

Semianalytic Continuum Spectra of Type II Supernovae. *Marcos J. Montes & Robert V. Wagoner.* 445, 828, 146-E11 (1995)

Gamma-Ray Transfer and Energy Deposition in Supernovae. *Douglas A. Swartz, Peter G. Sutherland, & Robert P. Harkness.* 446, 766, 166-F1 (1995)

The Subarcsecond 10 Micron Size of LkHα 101: Constraints on Circumstellar Dust. *R. M. Danen, C. R. Gwinn, & E. E. Bloemhof.* 447, 391, 177-F13 (1995)

Destabilization of Compressible Convection by Radiation: Quantitative Evaluation. *Q. Q. Cheng, Murshed Hossain, & D. J. Mullan.* 447, 789, 186-G6 (1995)

The Physics of Early Nova Spectra. *Peter H. Hauschildt, Sumner Starrfield, Steven N. Shore, France Allard, & E. Baron.* 447, 829, 187-D2 (1995)

Constraints on Hydrostatic Models of Soft Gamma-Ray Repeaters. *M. Coleman Miller.* 448, L29, 199-F5 (1995)

Radiative Levitation in Hot White Dwarfs: Equilibrium Theory. *P. Chayer, G. Fontaine, & F. Wesemael.* 99, 189, 36-G5 (1995)

Radiative Instabilities in Three-dimensional Astrophysical Masers. *Gerardo A. Scappaticci & William D. Watson.* 448, 862, 206-G1 (1995)

On the Geometry of the X-Ray–Emitting Region in Seyfert Galaxies. *Boris E. Stern, Juri Poutanen, Roland Svensson, Marek Sikora, & Mitchell C. Begelman.* 449, L13, 216-B9 (1995)

Exact and Approximate Radiative Transfer in Differentially Moving Media. *Wei-Wei Yin & Guy S. Miller.* 449, 826, 224-B8 (1995)

CNO Abundances and the Evolutionary Status of Galactic, A-Type Supergiants. *Kim A. Venn.* 449, 839, 224-C11 (1995)

Radiative Transfer in Stochastic Media. *Yeming Gu, Charles Lindsey, & John T. Jefferies.* 450, 318, 232-D1 (1995)

Effect of Radiative Transport on the Evolution of Jupiter and Saturn. *T. Guillot, G. Chabrier, D. Gautier, & P. Morel.* 450, 463, 234-D4 (1995)

Power-Law Spectra as a Result of Comptonization of the Soft Radiation in a Plasma Cloud. *Lev Titarchuk & Yurij Lyubarskij.* 450, 876, 243-A10 (1995)

The Disruption of Molecular Cloud Cores by Photoionization. *J. A. Rodríguez-Gaspar, G. Tenorio-Tagle, & J. Franco.* 451, 210, 248-G10 (1995)

Iteration Profiles in Radiative Transfer Problems. I. From Vectorial to Scalar Coupling. *L. Crivellari & E. Simonneau.* 451, 328, 250-D6 (1995)

Thermal Balance in Dense Molecular Clouds: Radiative Cooling Rates and Emission-Line Luminosities. *David A. Neufeld, Stephen Lepp, & Gary J. Melnick.* 100, 132, 47-F2 (1995)

Some Remarks about Nova Spectroscopy and Photometry. *Shlomi Pistinner, Giora Shaviv, Peter H. Hauschildt, & Sumner Starrfield.* 451, 724, 257-B12 (1995)

A Comparison of Thermal Comptonization Models. *Lev Titarchuk & Xin-Min Hua.* 452, 226, 265-B9 (1995)

Models of the Optical/Ultraviolet Continuum Polarization in Active Galactic Nuclei: Implications for Unification Schemes. *John F. Kartje.* 452, 565, 272-D8 (1995)

Implications of Gamma-Ray Transparency Constraints in Blazars: Minimum Distances and Gamma-Ray Collimation. *Peter A. Becker & Menas Kafatos.* 453, 83, 282-C12 (1995)

Expanding Atmospheric Model Including a Chromosphere. II. Be Stars: Center-to-Limb Variation of the Emergent Intensity. *Lydia S. Cidale & Andrea C. Vázquez.* 453, 393, 286-E4 (1995)

Disk-Corona Model of Active Galactic Nuclei with Nonthermal Pairs. *Sachiko Tsuruta & Michael Kellen.* 453, L9, 289-C7 (1995)

The Effect of Degeneracy on the Scattering Contribution to the Radiative Opacity. *S. J. Rose.* 453, L45, 290-A4 (1995)

Polarization Profiles of Scattered Emission Lines. III. Effects of Multiple Scattering and Non-Rayleigh Phase Functions. *W. J. Henney & D. J. Axon.* 454, 233, 302-E4 (1995)

Are Wolf-Rayet Stellar Winds Driven by Radiation Forces? *Shlomi Pistinner & David Eichler.* 454, 404, 304-F8 (1995)

Radiative $He^+(1s) + He(1s^2)$ Processes as the Source of the DB White Dwarf Atmosphere Electromagnetic Continuous Spectra. *A. A. Mihajlov, M. S. Dimitrijević, Lj. M Ignjatović, & Z. Djurić.* 454, 420, 305-B3 (1995)

The Ultraviolet Reflectivity of Jupiter at 3.5 Å Resolution from Astro-1 and Astro-2. *Patrick F. Morrissey, Paul D. Feldman, Melissa A. McGrath, Brian C. Wolven, & H. Warren Moos.* 454, L65, 308-E2 (1995)

High-Resolution Far-Infrared Observations and Radiative-Transfer Models of W3 IRS 4 and IRS 5. *M. F. Campbell, H. M. Butner, P. M. Harvey, N. J. Evans II, M. B. Campbell, & C. N. Sabbey.* 454, 831, 313-C6 (1995)

Partial Redistribution in Multilevel Atoms. I. Method and Application to the Solar Hydrogen Line Formation. *I. Hubeny & B. W. Lites.* 455, 376, 323-C8 (1995)

A Novel Iterative Scheme for the Very Fast and Accurate Solution of Non-LTE Radiative Transfer Problems. *J. Trujillo Bueno & P. Fabiani Bendicho.* 455, 646, 330-G6 (1995)

RADIO CONTINUUM: GALAXIES

The Origin of the Optical Emission Lines Associated with Extragalactic Radio Sources. *S. M. Viegas & Elisabete M. de Gouveia Dal Pino.* 384, 467, 8-A1 (1992)

Infrared and Optical Morphologies of Distant Radio Galaxies. *M. A. Rigler, S. J. Lilly, A. Stockton, F. Hammer, & O. Le Fèvre.* 385, 61, 12-G1 (1992)

The Radio Source and Bipolar Nebulosity in the Seyfert Galaxy NGC 3516. *Takamitsu Miyaji, Andrew S. Wilson, & Ismael Pérez-Fournon.* 385, 137, 13-F1 (1992)

Origin of the Structures and Polarization in the Classical Double 3C 219. *David A. Clarke, Alan H. Bridle, Jack O. Burns, Richard A. Perley, & Michael L. Norman.* 385, 173, 14-B1 (1992)

An Improved Method to Derive H I Absorption Spectra through the Disks of Galaxies: Application to the Sculptor Group. *John M. Dickey, Elias Brinks, & Daniel Puche.* 385, 501, 19-D6 (1992)

The Clustering of Radio Galaxies. *Neta A. Bahcall & Arati Chokshi.* 385, L33, 23-B1 (1992)

Infrared Imaging of $z > 2$ Radio Galaxies. *P. J. McCarthy, S. E. Persson, & S. C. West.* 386, 52, 24-F7 (1992)

Rotation Measures of Low-Latitude Extragalactic Sources and the Magnetoionic Structure of the Galaxy. *Andrew W. Clegg, James M. Cordes, John H. Simonetti, & Shrinivas R. Kulkarni.* 386, 143, 26-A1 (1992)

Inverse Compton Scattering and the Alignments Observed in High-Redshift Radio Galaxies. *Ruth A. Daly.* 386, L9, 29-B9 (1992)

Compact Steep Spectrum Sources and Linear Size Evolution. *L. I. Onuora.* 386, 452, 31-A7 (1992)

Optical and Radio Variability in Blazars. *Beth R. Hufnagel & Joel N. Bregman.* 386, 473, 31-C5 (1992)

Luminosity Functions, Relativistic Beaming, and Unified Theories of High-Luminosity Radio Sources. *P. Padovani & C. M. Urry.* 387, 449, 44-C9 (1992)

Reconciling the Image Brightness Ratios in the Gravitational Lens System 0957+561. *Samuel R. Conner, Joseph Lehár, & Bernard F. Burke.* 387, L61, 48-B7 (1992)

A Survey of the Milliarcsecond Polarization Properties of BL Lacertae Objects at 5 GHz. *D. C. Gabuzda, T. V. Cawthorne, D. H. Roberts, & J. F. C. Wardle.* 388, 40, 49-E5 (1992)

Where Have All the Cluster Halos Gone? *Jack O. Burns, Martin E. Sulkanen, Galen R. Gisler, & Rick A. Perley.* 388, L49, 59-B1 (1992)

X-Ray–emitting Filaments in the Cooling Flow Cluster A2029. *Craig L. Sarazin, Robert W. O'Connell, & Brian R. McNamara.* 389, L59, 73-C8 (1992)

The Infrared Properties of Quasars and Radio Galaxies: Testing the Unification Schemes. *Timothy M. Heckman, Kenneth C. Chambers, & Marc Postman.* 391, 39, 86-E3 (1992)

The Structure of Southern Extragalactic Radio Sources. *Paul A. Jones & W. Bruce McAdam.* 80, 137, 24-C3 (1992)

Compact Radio Sources near the Galactic Plane. *D. J. Helfand, S. Zoonematkermani, R. H. Becker, & R. L. White.* 80, 211, 25-B1 (1992)

Statistics of Pencil Beams in Voronoi Foams. *Mark U. SubbaRao & Alexander S. Szalay.* 391, 483, 93-G12 (1992)

Radio Properties of Optically Selected Quasars. *K. L. Visnovsky, C. D. Impey, C. B. Foltz, P. C. Hewett, R. J. Weymann, & S. L. Morris.* 391, 560, 94-G11 (1992)

The Milliarcsecond Structure of Highly Variable Radio Sources. *Ann E. Wehrle, Marshall H. Cohen, Stephen C. Unwin, Hugh D. Aller, Margo F. Aller, & George Nicolson.* 391, 589, 95-C5 (1992)

Polarization in the Radio Galaxy 3C 109—An Obscured Quasar. *Robert W. Goodrich & Marshall H. Cohen.* 391, 623, 95-F12 (1992)

A VLBI Search for AGN Radio Cores in Starburst Galaxies. *Colin J. Lonsdale, Carol J. Lonsdale, & Harding E. Smith.* 391, 629, 95-G6 (1992)

Collective Emission from Rapidly Variable Quasars. *Gregory Benford.* 391, L59, 99-D1 (1992)

Ram-Pressure Confinement of a Hypersonic Jet. *Chris Loken, Jack O. Burns, David A. Clarke, & Michael L. Norman.* 392, 54, 101-F1 (1992)

A 20 Centimeter VLA Survey of Abell Clusters of Galaxies. II. Images and Optical Identifications. *Frazer N. Owen, Richard A. White, & Jack O. Burns.* 80, 501, 30-D13 (1992)

Multicolor Images of Spatially Resolved Structures around High-Redshift Quasars. *Matthew D. Lehnert, Timothy M. Heckman, Kenneth C. Chambers, & George K. Miley.* 393, 68, 114-G12 (1992)

Radio and Infrared Emission from Markarian Starburst Galaxies. *Peter C. Stine.* 81, 49, 35-F9 (1992)

A Compendium of Radio Spectra and Luminosities for Three Complete Samples of Radio Sources. *T. Herbig & A. C. S. Readhead.* 81, 83, 36-B11 (1992)

Using Electron Scattering to Probe the Environment of Cluster Cooling Flows. *Michael W. Wise & Craig L. Sarazin.* 395, 387, 147-B5 (1992)

VLA Observations of the Inner Lobes of Centaurus A. *David A. Clarke, Jack O. Burns, & Michael L. Norman.* 395, 444, 147-G7 (1992)

A Determination of the Mass of Sagittarius A* from Its Radio Spectral and Source Size Measurements. *Fulvio Melia, J. R. Jokipii, & Ajay Narayanan.* 395, L87, 154-A1 (1992)

The Compact Triples 0710+439 and 2352+495: A New Morphology of Radio Galaxy Nuclei. *J. E. Conway, T. J. Pearson, A. C. S. Readhead, S. C. Unwin, W. Xu, & R. L. Mutel.* 396, 62, 155-G7 (1992)

Confusion Noise and Source Clustering. *X. Barcons.* 396, 460, 163-B11 (1992)

The University of Michigan Radio Astronomy Data Base. I. Structure Function Analysis and the Relation between BL Lacertae Objects and Quasi-stellar Objects. *P. A. Hughes, H. D. Aller, & M. F. Aller.* 396, 469, 163-C9 (1992)

The Radio Properties of the Broad-Absorption-Line QSOs. *John T. Stocke, Simon L. Morris, Ray J. Weymann, & Craig B. Foltz.* 396, 487, 163-E5 (1992)

A New Theory for the Alignment Effect. *Stephen A. Eales.* 397, 49, 168-F1 (1992)

Optical Identification, Radio Galaxy Environment, and Statistical Properties for a Homogeneous Sample of 3196 Radio Sources from the Texas Survey. *Elizabeth P. Bozyan.* 82, 1, 49-B1 (1992)

Kinematics of the Parsec-Scale Relativistic Jet in 3C 345. *Stephen C. Unwin & Ann E. Wehrle.* 398, 74, 183-A1 (1992)

The Compactness of Far-Infrared Bright Galaxies. *Zhong Wang & George Helou.* 398, L33, 187-E7 (1992)

Pearson-Readhead Survey Sources: Properties of the Centimeter-Wavelength Flux and Polarization of a Complete Radio Sample. *M. F. Aller, H. D. Aller, & P. A. Hughes.* 399, 16, 195-C8 (1992)

How Old Is the $z = 3.4$ Radio Galaxy B2 0902+34. *Peter Eisenhardt & Mark Dickinson.* 399, L47, 200-E4 (1992)

Discovery of a Synchrotron-emitting Halo around NGC 253. *C. L. Carilli, M. A. Holdaway, P. T. P. Ho, & C. G. De Pree.* 399, L59, 200-F8 (1992)

Morphological Peculiarities of High-Redshift Radio Galaxies: The Role of Relativistic Electrons. *Ruth A. Daly.* 399, 426, 203-C9 (1992)

Hard X-Ray Emission from a Narrow-Line Radio Galaxy IC 5063 and Obscured Active Nucleus. *Katsuji Koyama, Hisamitu Awaki, Kazushi Iwasawa, & Martin J. Ward.* 399, L129, 208-A9 (1992)

New Results on the Radio–Far-Infrared Relation for Galaxies. *Rob Price & Nebojsa Duric.* 401, 81, 222-A11 (1992)

Hubble Space Telescope Imaging of Distant Galaxies: 4C 41.17 at $z = 3.8$. *G. K. Miley, K. C. Chambers, W. J. M. van Breugel, & F. Macchetto.* 401, L69, 232-G10 (1992)

The Evolution of Compact Steep Spectrum Sources. *David S. De Young.* 402, 95, 2-C6 (1993)

Simultaneous *ROSAT*, *GINGA*, VLA, *IUE*, and Optical Observations of the Bright Quasar H1821+643. *Michiel Kolman, Jules P. Halpern, Chris R. Shrader, Alexei V. Filippenko, Henner H. Fink, & Stephan G. Schaeidt.* 402, 514, 9-A1 (1993)

Mapping Cygnus A at 3 Millimeter Wavelength with the MIRIAD System. *M. C. H. Wright & R. J. Sault.* 402, 546, 9-C11 (1993)

The Evolution of Galaxies in Radio-selected Groups. *Jeremy R. Allington-Smith, Richard S. Ellis, Esther L. Zirbel, & Augustus Oemler, Jr.* 404, 521, 35-E1 (1993)

Imaging Polarimetry of High-Redshift Radio Galaxies. *S. di Serego Alighieri, A. Cimatti, & R. A. E. Fosbury.* 404, 584, 36-C3 (1993)

The Starburst-AGN Connection: A Sensitive VLBI Survey of Luminous *IRAS* Galaxies. *Colin J. Lonsdale, Harding E. Smith, & Carol J. Lonsdale.* 405, L9, 47-C1 (1993)

On the Relation between Fanaroff-Riley Types I and II Radio Galaxies. *David S. De Young.* 405, L13, 47-C8 (1993)

Microjansky Source Counts and Spectral Indices at 8.44 GHz. *Rogier A. Windhorst, Edward B. Fomalont, R. Bruce Partridge, & James D. Lowenthal.* 405, 498, 49-C5 (1993)

The Connection between Line Emission and Radio Power in Distant Radio Galaxies. *Ruth A. Daly.* 406, 47, 55-E13 (1993)

The Halo Radio Source Coma C and the Origin of Halo Sources. *G. Giovannini, L. Feretti, T. Venturi, K.-T. Kim, & P. P. Kronberg.* 406, 399, 62-F1 (1993)

The Radio Structure of X-Ray–selected BL Lacertae Objects. *Eric S. Perlman & John T. Stocke.* 406, 430, 63-A13 (1993)

Determining the Shape of Spectra in Extended Radio Sources. *Debora M. Katz-Stone, Lawrence Rudnick, & Martha C. Anderson.* 407, 549, 77-D5 (1993)

VLBI Observations of a Complete Sample of Radio Galaxies. II. The Parsec-Scale Structure of NGC 315. *T. Venturi, G. Giovannini, L. Feretti, G. Comoretto, & A. E. Wehrle.* 408, 81, 84-B4 (1993)

On the Separation of the Flaring Component's Emission in Variable Compact Extragalactic Radio Sources: Results from a Simple Shocked Relativistic Jet Model. *D. J. van der Walt.* 409, 126, 98-E3 (1993)

Molecular Gas in Powerful Radio Galaxies Detected by *IRAS*. *J. M. Mazzarella, J. R. Graham, D. B. Sanders, & S. Djorgovski.* 409, 170, 99-A13 (1993)

An Optically Luminous Radio Galaxy at $z = 3.22$ and the K-z Diagram at High Redshift. *Stephen A. Eales, Steve Rawlings, Mark Dickinson, Hyron Spinrad, Gary J. Hill, & Mark Lacy.* 409, 578, 106-B7 (1993)

A Search for Rapid Variability in the Broad Hα Profiles of Seyfert and Radio Galaxies. *Michael Eracleous & Jules P. Halpern.* 409, 584, 106-C1 (1993)

Quasar X-Ray Spectra Revisited. *P. Shastri, B. J. Wilkes, M. Elvis, & J. McDowell.* 410, 29, 112-D11 (1993)

Is 1308+326 a BL Lacertae Object or a Quasar? *D. C. Gabuzda, R. I. Kollgaard, D. H. Roberts, & J. F. C. Wardle.* 410, 39, 112-E12 (1993)

New 325 MHz Observations of H II Galaxies: The Mechanisms That Shape the Unusual Radio Spectra. *Hans-Jörg Deeg, Elias Brinks, Neb Duric, Uli Klein, & Evan Skillman.* 410, 626, 121-D13 (1993)

Submillimeter Continuum Emission from the Galactic Center Region. *W. R. F. Dent, H. E. Matthews, R. Wade, & W. D. Duncan.* 410, 650, 121-F11 (1993)

VLA Observations of 91 Quasars at $0.35 < z < 1$. *Rob Price, Ann C. Gower, J. B. Hutchings, S. Talon, D. Duncan, & G. Ross.* 86, 365, 19-D9 (1993)

Quasars and Active Galactic Nuclei in Rich Environments. III. The Rapid Evolution of Active Galactic Nucleus Activity in Rich Clusters. *H. K. C. Yee & E. Ellingson.* 411, 43, 127-E13 (1993)

Infrared Spectroscopy of 11 Radio Galaxies at $2 < z < 4$: Evidence That Some High-Redshift Radio Galaxies May Be Protogalaxies. *Stephen A. Eales & Steve Rawlings.* 411, 67, 127-G13 (1993)

Subparsec-Scale Radio Structure in NGC 1275: Complex Structure in the Vicinity of the Central Engine. *T. Venturi, A. C. S. Readhead, J. M. Marr, & D. C. Backer.* 411, 552, 136-E2 (1993)

[Fe II] 1.64 Micron Emission in High-Luminosity and Ultraluminous *IRAS* Galaxies. *Luis Colina.* 411, 565, 136-F3 (1993)

The Radio Properties of High-Redshift Quasars. I. Dual-Frequency Observations of 79 Steep-Spectrum Quasars at $z > 1.5$. *C. J. Lonsdale, P. D. Barthel, & G. K. Miley.* 87, 63, 27-G1 (1993)

A 20 Centimeter VLA Survey of Abell Clusters of Galaxies. III. Images and Optical Identifications. *Frazer N. Owen, Richard A. White, & JingPing Ge.* 87, 135, 28-E5 (1993)

Dynamical and Radiative Effects of Ultrarelativistic Hadronic Interactions in Active Galactic Nuclei. *I. E. Ekejiuba & P. N. Okeke.* 413, 110, 157-D11 (1993)

On the Redshift–Apparent Size Diagram of Double Radio Sources. *K. Nilsson, M. J. Valtonen, J. Kotilainen, & T. Jaakkola.* 413, 453, 162-C1 (1993)

Induced Star Formation in a Radio Lobe of 3C 285? *Wil J. M. van Breugel & Arjun Dey.* 414, 563, 178-C3 (1993)

Millimeter and Submillimeter Continuum Emission from Early-Type Galaxies. *Michel Fich & Paul Hodge.* 415, 75, 186-A1 (1993)

The Highly Polarized Hidden Quasar IRAS 09104+4109: A Double-lobed Radio Source in a Rich Cluster. *Dean C. Hines & Beverley J. Wills.* 415, 82, 186-A10 (1993)

A Physical Model of the Infrared-to-Radio Correlation in Galaxies. *G. Helou & M. D. Bicay.* 415, 93, 186-B9 (1993)

Radio-selected BL Lacertae Objects and Some Correlations. *J. H. Fan, G. Z. Xie, J. J. Li, J. Liu, S. L. Wen, R. R. Huang, Z. M. Tang, & Y. J. Wang.* 415, 113, 186-D12 (1993)

Optical CCD Imaging of GHz-peaked-Spectrum Radio Sources. *C. Stanghellini, C. P. O'Dea, S. A. Baum, & E. Laurikainen.* 88, 1, 40-B1 (1993)

Statistics of QSO Broad Emission-Line Profiles. I. The C IV λ1549 Line and the λ1400 Feature. *Beverley J. Wills, M. S. Brotherton, D. Fang, Charles C. Steidel, & Wallace L. W. Sargent.* 415, 563, 194-G8 (1993)

3C 317: An Amorphous Radio Source in the Cooling Flow Cluster Abell 2052. *Jun-Hui Zhao, Dean M. Sumi, J. O. Burns, & Nebojsa Duric.* 416, 51, 201-F7 (1993)

Polarization of Compact Radio Sources. *C.-I. Björnsson.* 416, 104, 202-C11 (1993)

Superluminal Motion in the Large, Strongly Lobe-dominated Quasar 3C 47. *R. C. Vermeulen, R. A. Bernstein, D. H. Hough, & A. C. S. Readhead.* 417, 541, 226-A11 (1993)

Flux Density of Sagittarius A at $\lambda = 3$ Millimeters. *M. C. H. Wright & D. C. Backer.* 417, 560, 226-C8 (1993)

The Association of Faint Radio Sources with Fluctuations in the X-Ray Background. *T. T. Hamilton & D. J. Helfand.* 418, 55, 231-G1 (1993)

New Evidence for an Anisotropic Radiation Field in NGC 5252. *M. Almudena Prieto & Wolfram Freudling.* 418, 668, 240-G2 (1993)

Confusion Limits to the Measurement of the Sunyaev-Zel'dovich Effects in Clusters of Galaxies at Millimeter Wavelengths. *Marc L. Fischer & Andrew E. Lange.* 419, 433, 253-B8 (1993)

Kiloparsec-Scale Radio Emission in Seyfert Galaxies: Evidence for Starburst-driven Superwinds? *S. A. Baum, C. P. O'Dea, D. Dallacassa, A. G. de Bruyn, & A. Pedlar.* 419, 553, 254-F1 (1993)

The Clumpy Galaxy Markarian 297 and Its Supernova Activity. *Q. F. Yin.* 420, 152, 2-G6 (1994)

Infrared Observations of the $z = 3.8$ Radio Galaxy 4C 41.17, with the W. M. Keck Telescope. *James R. Graham, K. Matthews, B. T. Soifer, J. E. Nelson, W. Harrison, J. G. Jernigan, S. Lin, G. Neugebauer, G. Smith, & C. Ziomkowski.* 420, L5, 7-B1 (1994)

Extended and Compact X-Ray Emission in Powerful Radio Galaxies. *D. M. Worrall, C. R. Lawrence, T. J. Pearson, & A. C. S. Readhead.* 420, L17, 7-C11 (1994)

Bright Radio Continuum Emission from Star Formation in the Cores of Nearby Spiral Galaxies. *Jean L. Turner & Paul T. P. Ho.* 421, 122, 17-E7 (1994)

Relic Radio Emission in 3C 388. *Kurt Roettiger, Jack O. Burns, David A. Clarke, & Wayne A. Christiansen.* 421, L23, 21-F1 (1994)

On the Relationship between BL Lacertae Objects and Fanaroff-Riley I Radio Galaxies. *Geoffrey V. Bicknell.* 422, 542, 38-E8 (1994)

Stellar and Scattered Light in a Radio Galaxy at $z = 2.63$. *Andrea Cimatti, Sperello di Serego Alighieri, George B. Field, & Robert A. E. Fosbury.* 422, 562, 38-G1 (1994)

The Multifrequency Spectral Evolution of Blazar 3C 345 during the 1991 Outburst. *J. R. Webb, C. R. Shrader, T. J. Balonek, D. M. Crenshaw, D. Kazanas, S. Clements, A. G. Smith, A. D. Nair, R. J. Leacock, P. P. Gombola, A. Sadun, H. R. Miller, I. Robson, R. Fujimoto, F. Makino, T. Kii, H. Aller, M. Aller, P. Hughes, E. Valtaoja, H. Teräsranta, E. Salonen, M. Tornikoski, & W. Chism.* 422, 570, 38-G11 (1994)

Do Relativistic Electrons either Gain or Lose Energy, outside of Extragalactic Nuclei? *Lawrence Rudnick, Debora M. Katz-Stone, & Martha C. Anderson.* 90, 955, 15-F6 (1994)

Clumped X-Ray Emission around Radio Galaxies in Abell Clusters. *Jack O. Burns, George Rhee, Frazer N. Owen, & Jason Pinkney.* 423, 94, 47-C9 (1994)

Long-Term Hydrodynamical Simulations of Extragalactic Radio Jets. *Jagbir S. Hooda, Arun V. Mangalam, & Paul J. Wiita.* 423, 116, 47-E5 (1994)

Statistics of QSO Broad Emission-Line Profiles. II. The C IV λ1549, C III] λ1909, and Mg II λ2798 Lines. *M. S. Brotherton, Beverley J. Wills, Charles C. Steidel, & Wallace L. W. Sargent.* 423, 131, 47-F9 (1994)

Complex Radio Structure in the Peculiar Pair of Interacting Starburst Galaxies NGC 3395 and NGC 3396. *Zhen-Ping Huang, Qi-Feng Yin, William C. Saslaw, & David S. Heeschen.* 423, 614, 56-B5 (1994)

Compact Radio Sources in the Starburst Galaxy M82 and the $\Sigma - D$ Relation for Supernova Remnants. *Z. P. Huang, T. X. Thuan, R. A. Chevalier, J. J. Condon, & Q. F. Yin.* 424, 114, 63-D7 (1994)

Do the Compact Radio Sources in NGC 253 and M82 Fade over Time? *James S. Ulvestad & Robert R. J. Antonucci.* 424, L29, 69-D10 (1994)

Apparent Milliarcsecond Sizes of Active Galactic Nuclei and the Geometry of the Universe. *L. I. Gurvits.* 425, 442, 87-C1 (1994)

Evidence for Two Classes of Parsec-Scale Radio Double Source in Active Galactic Nuclei. *J. E. Conway, S. T. Myers, T. J. Pearson, A. C. S. Readhead, S. C. Unwin, & W. Xu.* 425, 568, 88-F10 (1994)

The Radio Counterpart to the Luminous X-Ray Supernova Remnant in NGC 6946. *Schuyler D. Van Dyk, Richard A. Sramek, Kurt W. Weiler, Scott D. Hyman, & Rachel E. Virden.* 425, L77, 94-D1 (1994)

An Optical Study of Compact Steep-Spectrum Radio Sources. I. The Spectroscopic Data. *Richard Gelderman & Mark Whittle.* 91, 491, 26-B1 (1994)

Surface Photometry of Low-Luminosity Radio Galaxies. *Lourdes de Juan, Luis Colina, & Ismael Pérez-Fournon.* 91, 507, 26-C5 (1994)

Cluster Evolution and Microwave Source Counts. *M. Markevitch, G. R. Blumenthal, W. Forman, C. Jones, & R. A. Sunyaev.* 426, 1, 96-B1 (1994)

Cosmology with Powerful Extended Radio Sources. *Ruth A. Daly.* 426, 38, 96-E5 (1994)

Equipartition Brightness Temperature and the Inverse Compton Catastrophe. *Anthony C. S. Readhead.* 426, 51, 96-F6 (1994)

Isolating the Physical Parameters of Synchrotron Sources. *Debora M. Katz-Stone & Lawrence Rudnick.* 426, 116, 97-E2 (1994)

Orientation Modeling of Radio Galaxy and Quasar Properties: Evidence for a Unified Model. *Matthew L. Lister, J. B. Hutchings, & Ann C. Gower.* 427, 125, 111-D13 (1994)

Multiple X-Ray Emission Components in Low-Power Radio Galaxies. *D. M. Worrall & M. Birkinshaw.* 427, 134, 111-E10 (1994)

Luminosity Evolution and Dust Effects in Distant Galaxies: Implications for the Observability of the Early Evolutionary Phases. *Alberto Franceschini, Paola Mazzei, Gianfranco De Zotti, & Luigi Danese.* 427, 140, 111-F4 (1994)

Radio-emitting Dust in the Free Electron Layer of Spiral Galaxies: Testing the Disk/Halo Interface. *A. Ferrara & R.-J. Dettmar.* 427, 155, 111-G7 (1994)

Energetic and Radiative Constraints on Highly Relativistic Jets. *Mitchell C. Begelman, Martin J. Rees, & Marek Sikora.* 429, L57, 157-G13 (1994)

Statistically Efficient Parallel Testing of the Friedmann and Chronometric Flux-Redshift Predictions in the Radio Band. *I. E. Segal, J. F. Nicoll, & E. Blackman.* 430, 63, 159-G1 (1994)

Discovery of a Nuclear Counterjet in NGC 1275: A New Way to Probe the Parsec-Scale Environment. *R. C. Vermeulen, A. C. S. Readhead, & D. C. Backer.* 430, L41, 165-F7 (1994)

Detection of a VLBI Counterjet in NGC 1275: A Possible Probe of the Parsec-Scale Accretion Region. *R. C. Walker, J. D. Romney, & J. M. Benson.* 430, L45, 165-F13 (1994)

Superluminal Motion Statistics and Cosmology. *R. C. Vermeulen & M. H. Cohen.* 430, 467, 167-E3 (1994)

The Properties of X-Ray–selected Active Galactic Nuclei. III. The Radio-quiet versus Radio-loud Samples. *Roberto Della Ceca, Giovanni Zamorani, Tommaso Maccacaro, Anna Wolter, Richard Griffiths, John T. Stocke, & Giancarlo Setti.* 430, 533, 168-D1 (1994)

A Summary of Extreme Scattering Events and a Descriptive Model. *R. Fiedler, B. Dennison, K. J. Johnston, E. B. Waltman, & R. S. Simon.* 430, 581, 169-A13 (1994)

Galactic Structures Associated with Extreme Scattering Events in the Radio Light Curves of NRAO 140, 0954+658, and 2352+495. *R. Fiedler, T. Pauls, K. J. Johnston, & B. Dennison.* 430, 595, 169-C1 (1994)

Relic Sources and Diffuse Cluster Radio Emission. *Oleg Goldshmidt & Yoel Rephaeli.* 431, 586, 185-G6 (1994)

Results of a Five-Year Program of Multifrequency Monitoring of Low-Frequency Variable Radio Sources. *K. J. Mitchell, Brian Dennison, J. J. Condon, Daniel R. Altschuler, H. E. Payne, S. L. O'Dell, & J. J. Broderick.* 93, 441, 48-F6 (1994)

Radio and X-Ray Observations of the Gamma-Ray Bright Quasar PKS 0528+134. *Yun Fei Zhang, Alan P. Marscher, Hugh D. Aller, Margo F. Aller, Harri Teräsranta, & Esko Valtaoja.* 432, 91, 194-D1 (1994)

Inverse-Compton X-Ray Emission from the Superluminal Quasar 3C 345. *S. C. Unwin, A. E. Wehrle, C. M. Urry, D. M. Gilmore, E. J. Barton, B. C. Kjerulf, J. A. Zensus, & C. R. Rabaça.* 432, 103, 194-E1 (1994)

Gravitational Lensing and Superluminal Motions in Quasars: The Linear Approximation. *J. A. Muñoz & M. Portilla.* 432, 448, 201-D13 (1994)

Compact Radio Cores in Seyfert Galaxies. *A. L. Roy, R. P. Norris, M. J. Kesteven, E. R. Troup, & J. E. Reynolds.* 432, 496, 202-B7 (1994)

The Distribution and Nature of Star Formation Regions in NGC 1792. *Michael Dahlem, Dominik J. Bomans, & Jean-Marie Will.* 432, 590, 203-C10 (1994)

Radiative Excitation of Molecules near Powerful Compact Radio Sources. *Philip R. Maloney, Mitchell C. Begelman, & Martin J. Rees.* 432, 606, 203-E3 (1994)

Two-sided Ejection in Powerful Radio Sources: The Compact Symmetric Objects. *P. N. Wilkinson, A. G. Polatidis, A. C. S. Readhead, W. Xu, & T. J. Pearson.* 432, L87, 206-E4 (1994)

Luminosity Functions of BL Lacertae Objects. *Anna Wolter, Alessandro Caccianiga, Roberto Della Ceca, & Tommaso Maccacaro.* 433, 29, 208-E6 (1994)

Emergence of Double-peaked Emission Lines in the Broad-Line Radio Galaxy Pictor A. *Jules P. Halpern & Michael Eracleous.* 433, L17, 214-F5 (1994)

Radio Observations of M83 and Its Supernova Remnants. *John J. Cowan, Douglas A. Roberts, & David Branch.* 434, 128, 226-G10 (1994)

The Cosmic X-Ray Background–*IRAS* Galaxy Correlation and the Local X-Ray Volume Emissivity. *Takamitsu Miyaji, Ofer Lahav, Keith Jahoda, & Elihu Boldt.* 434, 424, 233-E9 (1994)

Simultaneous Synchrotron and Adiabatic Effects in Multiply Shocked Jets in Extended Extragalactic Radio Sources. *Ifeanyi E. Ekejiuba, Paul J. Wiita, & Richard A. Frazin.* 434, 503, 234-F1 (1994)

VLBI Observations of a Complete Sample of Radio Galaxies. IV. The Radio Galaxies NGC 2484, 3C 109, and 3C 382. *G. Giovannini, L. Feretti, T. Venturi, L. Lara, J. Marcaide, M. Rioja, S. R. Spangler, & A. E. Wehrle.* 435, 116, 245-A1 (1994)

Unusual Evolution in the VLBI Structure of 0735+178. *D. C. Gabuzda, J. F. C. Wardle, D. H. Roberts, M. F. Aller, & H. D. Aller.* 435, 128, 245-B3 (1994)

Evolution of the Millarcsecond Total Intensity and Polarization Structures of BL Lacertae Objects. *D. C. Gabuzda, C. M. Mullan, T. V. Cawthorne, J. F. C. Wardle, & D. H. Roberts.* 435, 140, 245-C5 (1994)

Why Do Head-Tail Sources Exist in Poor Clusters of Galaxies? *T. C. A. Venkatesan, David J. Batuski, Robert J. Hanisch, & Jack O. Burns.* 436, 67, 262-B8 (1994)

A Unified Relativistic Beaming Model for BL Lacertae Objects and Flat Spectrum Radio Quasars. *Laura Maraschi & Fausto Rovetti.* 436, 79, 262-C13 (1994)

The Radio Emission from the Ultraluminous Far-Infrared Galaxy NGC 6240. *Edward J. M. Colbert, Andrew S. Wilson, & Jonathan Bland-Hawthorn.* 436, 89, 262-D12 (1994)

Slingshot Ejections from Clusters of Three and Four Black Holes. *M. J. Valtonen, S. Mikkola, P. Heinämäki, & H. Valtonen.* 95, 69, 65-B1 (1994)

The Evolutionary Unified Scheme. I. Quasars and Radio Galaxies in the Viewing Angle–Redshift Plane. *F. Vagnetti & R. Spera.* 436, 611, 274-A4 (1994)

VLA Observations of the Rich X-Ray Cluster Abell 2256. *H. Röttgering, I. Snellen, G. Miley, J. P. de Jong, R. J. Hanisch, & R. Perley.* 436, 654, 274-E4 (1994)

Multifrequency Observations of Blazars. V. Long-Term Millimeter, Submillimeter, and Infrared Monitoring. *J. A. Stevens, S. J. Litchfield, E. I. Robson, D. H. Hughes, W. K. Gear, H. Teräsranta, E. Valtaoja, & M. Tornikoski.* 437, 91, 284-F1 (1994)

The Second Caltech–Jodrell Bank VLBI Survey. I. Observations of 91 of 193 Sources. *G. B. Taylor, R. C. Vermeulen, T. J. Pearson, A. C. S. Readhead, D. R. Henstock, I. W. A. Browne, & P. N. Wilkinson.* 95, 345, 69-B1 (1994)

The Difference between Radio-loud and Radio-quiet Active Galaxies. *A. S. Wilson & E. J. M. Colbert.* 438, 62, 2-B10 (1995)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. IV. Multiwavelength Analysis. *R. Edelson, J. Krolik, G. Madejski, L. Maraschi, G. Pike, C. M. Urry, W. Brinkmann, T. J.-L. Courvoisier, J. Ellithorpe, K. Horne, A. Treves, S. Wagner, W. Wamsteker, R. Warwick, H. D. Aller, M. F. Aller, M. Ashley, A. Blecha, P. Bouchet, P. Bratschi, J. N. Bregman, M. Carini, A. Celotti, M. Donahue, E. Feigelson, A. V. Filippenko, H. Fink, I. George, I. Glass, J. Heidt, J. Hewitt, P. Hughes, R. Kollgaard, Y. Kondo, A. Koratkar, K. Leighly, A. Marscher, P. G. Martin, T. Matheson, H. R. Miller, J. C. Noble, P. O'Brien, E. Pian, G. Reichert, J. M. Saken, J. M. Shull, M. Sitko, P. S. Smith, W.-H. Sun, & G. Tagliaferri.* 438, 120, 3-A4 (1995)

Ultraluminous Infrared Galaxies and the Radio-optical Correlation for Quasars. *Carol J. Lonsdale, Harding E. Smith, & Colin J. Lonsdale.* 438, 632, 12-G8 (1995)

The Spectral Energy Distribution of the $z = 3$ Quasar: HS 1946+7658. *O. Kuhn, J. Bechtold, R. Cutri, M. Elvis, & M. Rieke.* 438, 643, 13-A8 (1995)

Keck Observations of the Most Distant Galaxy: 8C 1435+63 at $z = 4.25$. *Hyron Spinrad, Arjun Dey, & James R. Graham.* 438, L51, 19-B1 (1995)

A Helical Jet in the Orthogonally Misaligned BL Lacertae Object Markarian 501 (B1652+398). *J. E. Conway & J. M. Wrobel.* 439, 98, 22-E3 (1995)

Very Hot Ionized Material in Sagittarius B2 F. *David M. Mehringer, C. G. De Pree, Ralph A. Gaume, W. M. Goss, & Mark J. Claussen.* 442, L29, 85-A5 (1995)

The Parsec-Scale Jet in Quasar 3C 345. *J. Anton Zensus, Marshall H. Cohen, & Stephen C. Unwin.* 443, 35, 95-F9 (1995)

The Nature of the Stellar Continuum in the Radio Galaxy 3C 65. *Alan Stockton, Melinda Kellogg, & Susan E. Ridgway.* 443, L69, 111-F9 (1995)

Star Formation Activity in Spiral Galaxy Disks and the Properties of Radio Halos: Observational Evidence for a Direct Dependence. *Michael Dahlem, Ute Lisenfeld, & Götz Golla.* 444, 119, 115-A3 (1995)

New Superluminal Quasar 1633+382 and the Blazar–Gamma-Ray Connection. *P. D. Barthel, J. E. Conway, S. T. Myers, T. J. Pearson, & A. C. S. Readhead.* 444, L21, 121-D8 (1995)

Time Delay in the Einstein Ring PKS 1830−211. *T. D. van Ommen, D. L. Jones, R. A. Preston, & D. L. Jauncey.* 444, 561, 124-B7 (1995)

The Connection between X-Ray– and Radio-selected BL Lacertae Objects. *Paolo Padovani & Paolo Giommi.* 444, 567, 124-C2 (1995)

Radio Properties of Optically Selected Quasars. *Eric J. Hooper, Chris D. Impey, Craig B. Foltz, & Paul C. Hewett.* 445, 62, 133-C3 (1995)

The First Caltech–Jodrell Bank VLBI Survey. I. $\lambda = 18$ Centimeter Observations of 87 Sources. *A. G. Polatidis, P. N. Wilkinson, W. Xu, A. C. S. Readhead, T. J. Pearson, G. B. Taylor, & R. C. Vermeulen.* 98, 1, 21-B1 (1995)

The First Caltech–Jodrell Bank VLBI Survey. II. $\lambda = 18$ Centimeter Observations of 25 Sources. *D. D. Thakkar, W. Xu, A. C. S. Readhead, T. J. Pearson, G. B. Taylor, R. C. Vermeulen, A. G. Polatidis, & P. N. Wilkinson.* 98, 33, 21-D8 (1995)

The Spatial Variation of the Infrared-to-Radio Ratio in Spiral Galaxies. *K. A. Marsh & G. Helou.* 445, 599, 143-C9 (1995)

The Nature of Radio Emission in QSO 1821+643, A Radio-quiet Quasar with Radio-loud Properties. *Padeli P. Papadopoulos, E. R. Seaquist, J. M. Wrobel, & L. Binette.* 446, 150, 155-C1 (1995)

Evidence for an On-going Cluster/Group Merger in Abell 2255. *Jack O. Burns, Kurt Roettiger, Jason Pinkney, Rick A. Perley, Frazer N. Owen, & Wolfgang Voges.* 446, 583, 164-B8 (1995)

Radio Detection of a Double Nucleus in the Merging Galaxy NGC 3256. *R. P. Norris & Duncan A. Forbes.* 446, 594, 164-C8 (1995)

A Multifrequency Radio Continuum and *IRAS* Faint Source Survey of Markarian Galaxies. *M. D. Bicay, G. Kojoian, J. Seal, D. F. Dickinson, & M. A. Malkan.* 98, 369, 28-B1 (1995)

The Mass Distribution of the Lens Galaxy in MG 1131+0456. *G. H. Chen, C. S. Kochanek, & J. N. Hewitt.* 447, 62, 173-A13 (1995)

Comparison of the Radio, Optical, and X-Ray Structures of the cD Galaxy in Abell 2597. *Craig L. Sarazin, Jack O. Burns, Kurt Roettiger, & Brian R. McNamara.* 447, 559, 183-D13 (1995)

The *Hubble Space Telescope* Sample of Radio-loud Quasars: The Lyα/Hβ Ratio. *Hagai Netzer, M. S. Brotherton, Beverley J. Wills, Mingsheng Han, D. Wills, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 448, 27, 192-E10 (1995)

Two-Point Angular Correlation Function for the Green Bank 4.85 GHz Sky Survey. *Brian L. Kooiman, Jack O. Burns, & Anatoly A. Klypin.* 448, 500, 201-E10 (1995)

On the FR I/FR II Dichotomy in Powerful Radio Sources: Analysis of Their Emission-Line and Radio Luminosities. *Esther L. Zirbel & Stefi A. Baum.* 448, 548, 202-A1 (1995)

Collisions of Ellipticals and the Onset of Fanaroff-Riley Type I Radio Sources. *Luis Colina & Lourdes de Juan.* 448, 548, 202-C4 (1995)

Constraints on the Parsec-Scale Environment in NGC 1275. *A. Levinson, A. Laor, & R. C. Vermeulen.* 448, 589, 202-G4 (1995)

Discovery of Inverse-Compton X-Rays in Radio Lobes. *E. D. Feigelson, S. A. Laurent-Muehleisen, R. I. Kollgaard, & E. B. Fomalont.* 449, L149, 227-E6 (1995)

The First Caltech–Jodrell Bank VLBI Survey. III. VLBI and MERLIN Observations at 5 GHz and VLA Observations at 1.4 GHz. *W. Xu, A. C. S. Readhead, T. J. Pearson, A. G. Polatidis, & P. N. Wilkinson.* 99, 297, 39-B1 (1995)

VLA Maps of Radio Galaxies to $z = 1$. *S. G. Neff, L. Roberts, & J. B. Hutchings.* 99, 349, 39-F1 (1995)

Discovery of an Optical Synchrotron Jet in 3C 78. *William B. Sparks, Daniel Golombek, Stefi A. Baum, John Biretta, Sigrid de Koff, Ferdinando Macchetto, Patrick McCarthy, & George K. Miley.* 450, L55, 244-F1 (1995)

The Linear-Size Evolution of Classical Double Radio Sources. *Mark J. Neeser, Stephen A. Eales, J. Duncan Law-Green, J. Patrick Leahy, & Steve Rawlings.* 451, 76, 247-B12 (1995)

Toward Understanding the Fanaroff-Riley Dichotomy in Radio Source Morphology and Power. *Stefi A. Baum, Esther L. Zirbel, & Christopher P. O'Dea.* 451, 88, 247-C13 (1995)

Unusual Radio Structures in the Cooling Flow Cluster 2A 0335+096. *Craig L. Sarazin, Stefi A. Baum, & Christopher P. O'Dea.* 451, 125, 247-G4 (1995)

The Second Caltech–Jodrell Bank VLBI Survey. II. Observations of 102 of 193 Sources. *D. R. Henstock, I. W. A. Browne, P. N. Wilkinson, G. B. Taylor, R. C. Vermeulen, T. J. Pearson, & A. C. S. Readhead.* 100, 1, 46-B1 (1995)

The Examination of Optical Microvariability in Radio-quiet and Radio-loud Quasi-stellar Objects. *Minhwan Jang & H. Richard Miller.* 452, 582, 272-F1 (1995)

VLBI Observations of a Complete Sample of Radio Galaxies. V. 3C 346 and 4C 31.04: Two Unusual Compact Steep Spectrum Sources. *W. D. Cotton, L. Feretti, G. Giovannini, T. Venturi, L. Lara, J. Marcaide, & A. E. Wehrle.* 452, 605, 273-A6 (1995)

The Interaction between Spiral Galaxies IC 2163 and NGC 2207. I. Observations. *Debra Meloy Elmegreen, Michele Kaufman, Elias Brinks, Bruce G. Elmegreen, & Maria Sundin.* 453, 100, 282-E8 (1995)

The Interaction between Spiral Galaxies IC 2163 and NGC 2207. II. Models. *Bruce G. Elmegreen, Maria Sundin, Michele Kaufman, Elias Brinks, & Debra Meloy Elmegreen.* 453, 139, 283-B2 (1995)

Detection of Inverse-Compton X-Rays from Lobes of the Radio Galaxy Fornax A. *H. Kaneda, M. Tashiro, Y. Ikebe, Y. Ishisaki, H. Kubo, K. Makishima, T. Ohashi, Y. Saito, H. Tabara, & T. Takahashi.* 453, L13, 289-D1 (1995)

Radio and Emission-Line Jets in the Type 2 Seyfert Galaxy Markarian 1066 (UGC 2456). *Gary Bower, Andrew Wilson, Jon A. Morse, Richard Gelderman, Mark Whittle, & John Mulchaey.* 454, 106, 300-F4 (1995)

Powerful Extended Radio Sources as Tools to Estimate Ambient Gas Densities, Jet Luminosities, and Other Key Physical Parameters. *Ruth A. Daly.* 454, 580, 309-E1 (1995)

VLBI Observations of a Complete Sample of Radio Galaxies. VI. The Two FR I Radio Galaxies B2 0836+29 and 3C 465. *T. Venturi, C. Castaldini, W. D. Cotton, L. Feretti, G. Giovannini, L. Lara, J. M. Marcaide, & A. E. Wehrle.* 454, 735, 311-G7 (1995)

Detection of Extended Polarized Ultraviolet Radiation from the $z = 1.82$ Radio Galaxy 3C 256. *Buell T. Jannuzi, Richard Elston, Gary D. Schmidt, Paul S. Smith, & H. S. Stockman.* 454, L111, 316-A1 (1995)

Identification and Spectroscopy of Radio Sources from the B3VLA Survey. *S. G. Djorgovski, D. Thompson, L. Maxfield, M. Vigotti, & G. Grueff.* 101, 255, 57-B1 (1995)

RADIO CONTINUUM: GENERAL

A New Catalog of 30,239 1.4 GHz Sources. *Richard L. White & Robert H. Becker.* 79, 331, 18-G9 (1992)

Identification and Spectroscopy of Radio Sources from the Third Bologna Survey. *D. J. Thompson, S. Djorgovski, M. Vigotti, & G. Grueff.* 81, 1, 35-B1 (1992)

A Direct Gravitational Lensing Test for 10^6 $M_\odot$ Black Holes in Halos of Galaxies. *Joachim Wambsganss & Bohdan Paczyński.* 397, L1, 173-A8 (1992)

Electron Injection in Collisionless Shocks. *Amir Levinson.* 401, 73, 222-A1 (1992)

Limits on the Anisotropy of the Microwave Background Radiation on Arcminute Scales. II. The Ring Experiment. *S. T. Myers, A. C. S. Readhead, & C. R. Lawrence.* 405, 8, 41-B11 (1993)

Further Radio Investigations of Gravitational Lensing in MG 0414+0534. *C. A. Katz & J. N. Hewitt.* 409, L9, 104-B11 (1993)

Radio Transients from Gamma-Ray Bursters. *Bohdan Paczyński & James E. Rhoads.* 418, L5, 238-B1 (1993)

The Parkes-MIT-NRAO (PMN) Map Catalog of Radio Sources Covering $-88° < \delta < -37°$ at 4.85 GHz. *P. C. Gregory, J. D. Vavasour, W. K. Scott, & J. J. Condon.* 90, 173, 3-B12 (1994)

The Parkes-MIT-NRAO (PMN) Surveys. III. Source Catalog for the Tropical Survey ($-29° < \delta < -9.5°$). *Mark R. Griffith, Alan E. Wright, B. F. Burke, & R. D. Ekers.* 90, 179, 3-C6 (1994)

Electron Acceleration in Short-lived Radio Transients. *Lewis Ball.* 90, 889, 14-G4 (1994)

Separation of Foreground Radiation from Cosmic Microwave Background Anisotropy Using Multifrequency Measurements. *W. N. Brandt, C. R. Lawrence, A. C. S. Readhead, J. N. Pakianathan, & T. M. Fiola.* 424, 1, 62-A12 (1994)

The Parkes-MIT-NRAO (PMN) Surveys. II. Source Catalog for the Southern Survey ($-87.5° < \delta < -37°$). *Alan E. Wright, Mark R. Griffith, B. F. Burke, & R. D. Ekers.* 91, 111, 18-E13 (1994)

Absolute Measurement of the Cosmic Microwave Background at 2 GHz. *M. Bersanelli, M. Bensadoun, G. De Amici, S. Levin, M. Limon, G. F. Smoot, & W. Vinje.* 424, 517, 71-B5 (1994)

Cosmology with Powerful Extended Radio Sources. *Ruth A. Daly.* 426, 38, 96-E5 (1994)

A Sensitive 1.5 GHz Radio Survey around the North Ecliptic Pole. *Ronald I. Kollgaard, Wolfgang Brinkmann, Margaret McMath Chester, Eric D. Feigelson, Paul Hertz, Patricia Reich, & Richard Wielebinski.* 93, 145, 43-F10 (1994)

Giant Explosion at the Galactic Center and Huge Shocked Shells in the Halo. *Yoshiaki Sofue.* 431, L91, 191-E8 (1994)

Search for Unresolved Sources in the *COBE*-DMR Two-Year Sky Maps. *A. Kogut, A. J. Banday, C. L. Bennett, G. Hinshaw, K. Loewenstein, P. Lubin, G. F. Smoot, & E. L. Wright.* 433, 435, 216-D1 (1994)

A Sample of Gigahertz Peaked Spectrum Candidate Radio Sources Located South of $\delta = -9.5°$. *J. C. Cersosimo, M. Lebron Santos, S. I. Cintrón, & Z. M. Quiniento.* 95, 157, 66-C1 (1994)

A Search for the Radio Counterpart to the 1994 March 1 Gamma-Ray Burst. *D. A. Frail, S. R. Kulkarni, K. C. Hurley, G. J. Fishman, C. Kouveliotou, C. A. Meegan, M. Sommer, M. Boer, M. Niel, & T. Cline.* 437, L43, 291-G6 (1994)

The Parkes-MIT-NRAO (PMN) Surveys. VI. Source Catalog for the Equatorial Survey ($-9.5° < \delta < +10.0°$). *Mark R. Griffith, Alan E. Wright, B. F. Burke, & R. D. Ekers.* 97, 347, 16-D11 (1995)

The Weakening of the Termination Shocks of Isothermal Winds by Mass Loading. *R. J. R. Williams, T. W. Hartquist, & J. E. Dyson.* 446, 759, 166-E4 (1995)

An Improved Measure of Quasar Orientation. *Beverley J. Wills & M. S. Brotherton.* 448, L81, 209-A1 (1995)

The FIRST Survey: Faint Images of the Radio Sky at Twenty Centimeters. *Robert H. Becker, Richard L. White, & David J. Helfand.* 450, 559, 238-D12 (1995)

Directions for Future X-Ray, Optical, and Radio Follow-up Observations of Gamma-Ray Burst Counterparts. *B. J. McNamara, T. E. Harrison, & C. L. Williams.* 452, L25, 269-F6 (1995)

RADIO CONTINUUM: INTERSTELLAR

Gravitational Lensing by a Massive Black Hole at the Galactic Center. *Mark Wardle & Farhad Yusef-Zadeh.* 387, L65, 48-C1 (1992)

Galactic Worms. I. Catalog of Worm Candidates. *Bon-Chul Koo, Carl Heiles, & William T. Reach.* 390, 108, 75-D6 (1992)

The Optical Emission-Line Background and Accompanying Emissions at Ultraviolet, Infrared, and Millimeter Wavelengths. *R. J. Reynolds.* 392, L35, 106-E1 (1992)

Activity and Radio Spectral Index Variations near the Center of the Crab Nebula. *M. F. Bietenholz & P. P. Kronberg.* 393, 206, 116-F1 (1992)

Riddle and Puzzle of the Optical Region S122 = 2306+1439. *J. P. Vallée & A. G. de Bruyn.* 393, 674, 124-B10 (1992)

Radio Continuum from the Powering Sources of the RNO 43, Haro 4-255 FIR, B335, and PV Cephei Outflows and from the Herbig-Haro Object 32A. *G. Anglada, L. F. Rodríguez, J. Cantó, R. Estalella, & J. M. Torrelles.* 395, 494, 148-G1 (1992)

An *IRAS* Survey of Galactic Supernova Remnants. *Jon M. Saken, Robert A. Fesen, & J. Michael Shull.* 81, 715, 45-F9 (1992)

Electron Acceleration in Tycho's and Kepler's Supernova Remnants: Spectral Evidence of Fermi Shock Acceleration. *Stephen P. Reynolds & Donald C. Ellison.* 399, L75, 201-B1 (1992)

A Surface Brightness Correlation between Carbon Monoxide and Nonthermal Radio Continuum Emission in the Galaxy. *R. J. Allen.* 399, 573, 205-A5 (1992)

Radio Continuum and Radio Recombination Line Observations of Sagittarius B1 and G0.6−0.0. *David M. Mehringer, F. Yusef-Zadeh, Patrick Palmer, & W. M. Goss.* 401, 168, 223-B1 (1992)

The Radio Counterpart of the Hard X-Ray Source GRS 1758−258. *L. F. Rodríguez, I. F. Mirabel, & J. Martí.* 401, L15, 227-C1 (1992)

608 MHz VLBI Observations of the Compact Double Radio Source 2050+364: Constraints on Interstellar Scattering. *Alan L. Fey & Robert L. Mutel.* 404, 197, 30-D1 (1993)

Spatial Spectral Index Variations in Galactic Shell Supernova Remnants G39.2−0.3 and G41.1−0.3. *Martha C. Anderson & Lawrence Rudnick.* 408, 514, 91-E9 (1993)

Deep VLA Imaging of Pulsar-powered Nebulae and the Beaming Fraction of Young Pulsars. *Dale A. Frail & David A. Moffett.* 408, 637, 93-B5 (1993)

Further Studies on the Champagne Phase of GM 24 (IRAS 17136−3617). *J. F. Gómez, J. M. Torrelles, M. Tapia, Y. Gómez, L. F. Rodríguez, M. Roth, & P. T. P. Ho.* 409, 269, 100-D10 (1993)

Radio and X-Ray Observations of OH 231.8+4.2. *Gregory B. Taylor & Mark Morris.* 409, 720, 108-A9 (1993)

A VLA Survey of Optically Visible Galactic H II Regions. *Michel Fich.* 86, 475, 20-F7 (1993)

The Radio Structure of Supernova Remnant 0540−693. *R. N. Manchester, L. Staveley-Smith, & M. J. Kesteven.* 411, 756, 139-B8 (1993)

Radio Continuum and Radio Recombination Line Observations of Sagittarius B2. *David M. Mehringer, Patrick Palmer, W. M. Goss, & F. Yusef-Zadeh.* 412, 684, 152-C11 (1993)

The Triple Radio Continuum Source in Serpens: The Birth of a Herbig-Haro System? *S. Curiel, L. F. Rodríguez, J. M. Moran, & J. Cantó.* 415, 191, 187-D5 (1993)

Further Observations of the Peculiar Galactic Radio Source G318.9+0.4. *Jonathan B. Z. Whiteoak.* 415, 701, 196-E3 (1993)

HH 80–81: A Highly Collimated Herbig-Haro Complex Powered by a Massive Young Star. *J. Martí, L. F. Rodríguez, & B. Reipurth.* 416, 208, 203-F1 (1993)

High-Resolution Centimeter Radio Continuum and Ammonia Maser Observations of the W51 Region of Star Formation. *R. A. Gaume, K. J. Johnston, & T. L. Wilson.* 417, 645, 227-D1 (1993)

VLA Radio Recombination Line Observations of Ionized Gas in the -30 Kilometers per Second Molecular Cloud (G0.04+0.03) near the Galactic Center. I. The Discrete Radio Sources. *Jun-Hui Zhao, K. Desai, W. M. Goss, & F. Yusef-Zadeh.* 418, 235, 234-A1 (1993)

VLA Observations of Strong *IRAS* Point Sources Associated with Compact H II Regions. *Guido Garay, Luis F. Rodríguez, James M. Moran, & Ed Churchwell.* 418, 368, 235-E11 (1993)

The Discovery of a Supernova Remnant Embedded in a Giant H II Region of M33. *Shawn M. Gordon, Robert P. Kirshner, Nebojsa Duric, & Knox S. Long.* 418, 743, 241-F10 (1993)

Interstellar Magnetic Bubbles. *J. P. Vallée.* 419, 670, 256-A12 (1993)

The 150 AU Structure of the Radio Continuum and the Ammonia Bipolar Outflow in CRL 618. *Jesús Martín-Pintado, Ralph Gaume, Rafael Bachiller, & Ken Johnson.* 419, 725, 256-F4 (1993)

RADIO CONTINUUM: ISM

The Structure and Nature of NGC 2071 IRS 1: High-Resolution Radio Continuum Maps. *Howard A. Smith & Sara C. Beck.* 420, 643, 10-F7 (1994)

A Radio Candidate for the Exciting Source of the L1287 Bipolar Outflow. *Guillem Anglada, Luis F. Rodríguez, José M. Girart, Robert Estalella, & José M. Torrelles.* 420, L91, 15-F7 (1994)

Radio Emission from SNR 1987A. *J. G. Kirk, P. Duffy, & Lewis Ball.* 90, 807, 13-F13 (1994)

The W3 IRS 5 Cluster: Radio Continuum and Water Maser Observations. *M. J. Claussen, R. A. Gaume, K. J. Johnston, & T. L. Wilson.* 424, L41, 69-E13 (1994)

Multifrequency Studies of Bright Radio Supernova Remnants. I. 3C 391. *David A. Moffett & Stephen P. Reynolds.* 425, 668, 90-A1 (1994)

The Radio Counterpart to the Luminous X-Ray Supernova Remnant in NGC 6946. *Schuyler D. Van Dyk, Richard A. Sramek, Kurt W. Weiler, Scott D. Hyman, & Rachel E. Virden.* 425, L77, 94-D1 (1994)

Ultracompact H II Regions. II. New High-Resolution Radio Images. *S. Kurtz, E. Churchwell, & D. O. S. Wood.* 91, 659, 28-D1 (1994)

Radio Continuum and Radio Recombination Line Observations of W51. *David M. Mehringer.* 91, 713, 29-A2 (1994)

Radio Continuum, Ammonia, and Water Maser Observations of Bright, Unassociated *IRAS* Point Sources. *Mari Paz Miralles, Luis F. Rodríguez, & Eugenio Scalise.* 92, 173, 33-F3 (1994)

An Analysis of *IRAS*-identified H II Regions and Their Radio Properties. *V. A. Hughes & G. C. MacLeod.* 427, 857, 123-C11 (1994)

Subarcsecond VLA Maps of the Disk and the Jet in HL Tauri. *L. F. Rodríguez, J. Cantó, J. M. Torrelles, J. F. Gómez, G. Anglada, & P. T. P. Ho.* 427, L103, 127-C3 (1994)

Multiwavelength Approach to Gamma-Ray Sources in the Galactic Center Region. *I. F. Mirabel.* 92, 369, 36-F12 (1994)

High-Resolution Images of the Dust and Ionized Gas Distribution in the Carina Nebula. *Jonathan B. Z. Whiteoak.* 429, 225, 146-G7 (1994)

Survey of Local CO Emission toward Compact Extragalactic Millimeter-Wave Continuum Sources and Implications for Local Galactic Structure. *Harvey S. Liszt.* 429, 638, 153-F3 (1994)

Ammonia Downstream from HH 80 North. *José M. Girart, Luis F. Rodriíguez, Guillem Anglada, Robert Estalella, José M. Torrelles, Josep Martí, Miriam Peña, Sandra Ayala, Salvador Curiel, & Alberto Noriega-Crespo.* 435, L145, 260-D4 (1994)

Multifrequency Studies of Bright Radio Supernova Remnants. II. W49B. *David A. Moffett & Stephen P. Reynolds.* 437, 705, 295-D9 (1994)

The Radio Lifetime of Supernova Remnants and the Distribution of Pulsar Velocities at Birth. *D. A. Frail, W. M. Goss, & J. B. Z. Whiteoak.* 437, 781, 296-D2 (1994)

Radio and *IRAS* Observations of Two Nebulae around WO Stars: G2.4+1.4 in the Galaxy and Sandage H II Region 3 in IC 1613. *W. M. Goss & Tatiana A. Lozinskaya.* 439, 637, 33-B8 (1995)

The Polarization and Depolarization of Radio Emission from Supernova Remnant Cassiopeia A. *M. C. Anderson, J. W. Keohane, & L. Rudnick.* 441, 300, 63-D7 (1995)

Influence of Galactic Dust on the Accuracy of Cosmic Microwave Anisotropy Measurements. *Gianfranco Guarini, Bianca Melchiorri, & Francesco Melchiorri.* 442, 23, 77-E1 (1995)

Electron Density Power Spectrum in the Local Interstellar Medium. *J. W. Armstrong, B. J. Rickett, & S. R. Spangler.* 443, 209, 98-A6 (1995)

Time Variations of H_2O Maser Emission at W31A and W75S. *E. E. Lekht, E. Mendoza-Torres, & R. L. Sorochenko.* 443, 222, 98-B8 (1995)

Synchrotron Emission from the H_2O Maser Source in W3(OH). *M. J. Reid, A. L. Argon, C. R. Masson, K. M. Menten, & J. M. Moran.* 443, 238, 98-D3 (1995)

Measurements of the Millimeter-Wave Spectrum of Interstellar Dust Emission. *M. L. Fischer, A. Clapp, M. Devlin, J. O. Gundersen, A. E. Lange, P. M. Lubin, P. R. Meinhold, P. L. Richards, & G. F. Smoot.* 444, 226, 116-E7 (1995)

The Relativistic ISM in M33: Role of the Supernova Remnants. *N. Duric, S. M. Gordon, W. M. Goss, F. Viallefond, & C. Lacey.* 445, 173, 134-G8 (1995)

The Disruption of the Dense Disk in CRL 618. *Jesús Martín-Pintado, Ralph A. Gaume, Kenneth J. Johnston, & Rafael Bachiller.* 446, 687, 165-E4 (1995)

ROSAT Observations of the Supernova Remnant W51C. *Bon-Chul Koo, Kee-Tae Kim, & Frederick D. Seward.* 447, 211, 175-B8 (1995)

Multifrequency Radio Studies of G359.1−00.2. *Andrew D. Gray, Jenniger Nicholls, Ron D. Ekers, & Lawrence E. Cram.* 448, 164, 194-D4 (1995)

Large Proper Motions and Ejection of New Condensations in the HH 80–81 Thermal Radio Jet. *J. Martí, L. F. Rodríguez, & Bo Reipurth.* 449, 184, 212-F6 (1995)

The Sagittarius B2 Star-forming Region. I. Sensitive 1.3 Centimeter Continuum Observations. *R. A. Gaume, M. J. Claussen, C. G. De Pree, W. M. Goss, & D. M. Mehringer.* 449, 663, 221-G5 (1995)

Far-Infrared Spectral Observations of the Galaxy by *COBE*. *W. T. Reach, E. Dwek, D. J. Fixsen, T. Hewagama, J. C. Mather, R. A. Shafer, A. J. Banday, C. L. Bennett, E. S. Cheng, R. E. Eplee, Jr., D. Leisawitz, P. M. Lubin, S. M. Read, L. P. Rosen, F. G. D. Shuman, G. F. Smoot, T. J. Sodroski, & E. L. Wright.* 451, 188, 248-E10 (1995)

ARGO 1993 Observations of Interstellar Dust Emission. *S. Masi, E. Aquilini, A. Boscaleri, P. de Bernardis, M. De Petris, M. Gervasi, L. Martinis, V. Natale, P. Palumbo, & F. Scaramuzzi.* 452, 253, 265-E9 (1995)

Constraints on Circumstellar Disk Masses in the Trapezium Cluster. *Lee G. Mundy, Leslie W. Looney, & Elizabeth A. Lada.* 452, L137, 280-D12 (1995)

The Continuum Structure of 11 Galactic H II Regions. *Dana S. Balser, T. M. Bania, Robert T. Rood, & T. L. Wilson.* 100, 371, 51-C6 (1995)

Near-Infrared and Very High Sensitivity VLA 2 Centimeter Continuum Observations of the H II Region G29.96−0.02. *Alan L. Fey, Ralph A. Gaume, Mark J. Claussen, & Frederick J. Vrba.* 453, 308, 285-C14 (1995)

Radio Continuum Detection of the Exciting Sources of the DG Tauri B and L1551NE Outflows. *Luis F. Rodríguez, Guillem Anglada, & Alejandro Raga.* 454, L149, 316-F5 (1995)

Evidence for Thermal Absorption inside Cassiopeia A. *N. E. Kassim, R. A. Perley, K. S. Dwarakanath, & W. C. Erickson.* 455, L59, 325-C8 (1995)

RADIO CONTINUUM: SOLAR SYSTEM

Subsurface Emissions from Mercury: VLA Radio Observations at 2 and 6 Centimeters. *Michael J. Ledlow, Jack O. Burns, Galen R. Gisler, Jun-Hui Zhao, Michael Zeilik, & Daniel N. Baker.* 384, 640, 10-B1 (1992)

Detection of Fundamental and Harmonic Type III Radio Emission and the Associated Langmuir Waves at the Source Region. *M. J. Reiner, R. G. Stone, & J. Fainberg.* 394, 340, 132-B12 (1992)

Jupiter Radio Bursts and Particle Acceleration. *Michael D. Desch.* 90, 541, 10-D10 (1994)

RADIO CONTINUUM: STARS

A VLA 3.6 Centimeter Survey of N-Type Carbon Stars. *Donald G. Luttermoser & Alexander Brown.* 384, 634, 10-A7 (1992)

Simultaneous X-Ray and Radio Observations of GX 5−1. *J. Tan, W. H. G. Lewin, R. M. Hjellming, W. Penninx, J. van Paradijs, M. van der Klis, & K. Mitsuda.* 385, 314, 15-G1 (1992)

Gamma-Ray Bursts and Radio Pulsar Glitches. *D. Hartmann, K. Hurley, & M. Niel.* 387, 622, 46-D1 (1992)

Observations of Symbiotic Stars at Millimeter and Submillimeter Wavelengths. *E. R. Seaquist & A. R. Taylor.* 387, 624, 46-D5 (1992)

First Conclusive Evidence for Rotational Modulation of Stellar Radio Emission. *Jeremy Lim, Graham J. Nelson, Catarina Castro, David Kilkenny, & François van Wyk.* 388, L27, 52-C7 (1992)

Probing the Circumstellar Environments of Very Young Low-Mass Stars Using Water Masers. *S. Terebey, S. N. Vogel, & P. C. Myers.* 390, 181, 76-C1 (1992)

Coordinated *Ginga*, *IUE*, and VLA Observations of Stellar Activity in σ^2 Coronae Borealis. *R. A. Stern, Y. Uchida, F. Walter, O. Vilhu, D. Hannikainen, A. Brown, A. Veale, & B. M. Haisch.* 391, 760, 97-D7 (1992)

The Wolf-Rayet System WR 147: A Binary Radio Source with Thermal and Nonthermal Components. *E. Churchwell, J. H. Bieging, K. A. van der Hucht, P. M. Williams, T. A. Th. Spoelstra, & D. C. Abbott.* 393, 329, 118-C1 (1992)

Radio Emission from Chemically Peculiar Stars. *Jeffrey L. Linsky, Stephen A. Drake, & T. S. Bastian.* 393, 341, 118-D1 (1992)

The 20 and 6 Centimeter Radio Light Curves for SN 1981K: A Type II Radio Supernova. *Schuyler D. Van Dyk, Kurt W. Weiler, Richard A. Sramek, & Nino Panagia.* 396, 195, 157-E4 (1992)

Limits on Detectability of Mass Loss from Cool Dwarfs. *D. J. Mullan, J. G. Doyle, R. O. Redman, & M. Mathioudakis.* 397, 225, 170-F12 (1992)

Radio Continuum and X-Ray Properties of the Coronae of RS Canum Venaticorum and Related Active Binary Systems. *Stephen A. Drake, Theodore Simon, & Jeffrey L. Linsky.* 82, 311, 53-F5 (1992)

Full Evolution of the 6 and 20 Centimeter Radio Emission from SN 1980K. *Kurt W. Weiler, Schuyler D. Van Dyk, Nino Panagia, & Richard A. Sramek.* 398, 248, 184-G9 (1992)

Radio Observations of the 1989 Transient Event in V404 Cygni (= GS 2023+338). *Xiaohong Han & R. M. Hjellming.* 400, 304, 212-F6 (1992)

VLBI Survey of ρ Ophiuchi: A Population of Magnetized, Diskless Young Stellar Objects. *Philippe André, Bryan D. Deeney, Robert B. Phillips, & Jean-François Lestrade.* 401, 667, 230-G1 (1992)

Particle Acceleration and Nonthermal Radio Emission in Binaries of Early-Type Stars. *D. Eichler & V. Usov.* 402, 271, 4-D11 (1993)

Magnetic Nonthermal Activity in the T Tauri System. *Robert B. Phillips, Colin J. Lonsdale, & Eric D. Feigelson.* 403, L43, 20-E5 (1993)

Discovery of Remarkably Intense Radio Emission from a Young and Rapidly Rotating dMe Star. *Jeremy Lim.* 405, L33, 47-F1 (1993)

X-Ray/Microwave Relation of Different Types of Active Stars. *Manuel Güdel & Arnold O. Benz.* 405, L63, 54-C13 (1993)

Submillimeter Continuum Observations of ρ Ophiuchi A: The Candidate Protostar VLA 1623 and Prestellar Clumps. *Philippe André, Derek Ward-Thompson, & Mary Barsony.* 406, 122, 56-F3 (1993)

Detection of Radio Continuum Emission from Procyon. *Stephen A. Drake, Theodore Simon, & Alexander Brown.* 406, 247, 58-B5 (1993)

The Spectrum and Variability of Radio Emission from AE Aquarii. *Meil Abada-Simon, Alain Lecacheux, Tim S. Bastian, Jay A. Bookbinder, & George A. Dulk.* 406, 692, 66-D12 (1993)

Circularly Polarized Radio Emission from the T Tauri Star Hubble 4. *Stephen L. Skinner.* 408, 660, 93-D6 (1993)

The Radio Emission from the Type Ic Supernova SN 1990B. *Schuyler D. Van Dyk, Richard A. Sramek, Kurt W. Weiler, & Nino Panagia.* 409, 162, 99-A3 (1993)

A Highly Sensitive Radio Survey of Symbiotic Stars at 3.6 Centimeters. *E. R. Seaquist, M. Krogulec, & A. R. Taylor.* 410, 260, 115-C12 (1993)

Flaring and Quiescent Radio Emission of UX Arietis: A Time-dependent Model. *F. Chiuderi Drago & E. Franciosini.* 410, 301, 115-G3 (1993)

VLBI Astrometric Identification of the Radio-emitting Region in Algol and Determination of the Orientation of the Close Binary. *Jean-François Lestrade, Robert B. Phillips, Mark W. Hodges, & Robert A. Preston.* 410, 808, 123-G1 (1993)

Synthesis Images of 6.7 GHz Methanol Masers. *R. P. Norris, J. B. Whiteoak, J. L. Caswell, M. H. Wieringa, & R. G. Gough.* 412, 222, 144-G8 (1993)

A High-Sensitivity Survey of Radio Continuum Emission from Herbig Ae/Be Stars. *Stephen L. Skinner, Alexander Brown, & Ron T. Stewart.* 87, 217, 29-G13 (1993)

What are the Mass-Loss Rates of O Stars? *Henny J. G. L. M. Lamers & Claus Leitherer.* 412, 771, 153-D5 (1993)

The Contribution of Disks and Envelopes to the Millimeter Continuum Emission from Very Young Low-Mass Stars. *S. Terebey, C. J. Chandler, & P. André.* 414, 759, 180-F6 (1993)

A Tight Correlation between Radio and X-Ray Luminosities of M Dwarfs. *Manuel Güdel, Jürgen H. M. M. Schmitt, Jay A. Bookbinder, & Thomas A. Fleming.* 415, 236, 188-A1 (1993)

The Dust Content of Evolved Circumstellar Envelopes and the Optical Properties of Dust at Submillimeter to Radio Wavelengths. *G. R. Knapp, G. Sandell, & E. I. Robson.* 88, 173, 42-E7 (1993)

Gamma-Ray and Radio Observations of PSR B1509−58. *M. P. Ulmer, S. M. Matz, R. B. Wilson, M. J. Finger, K. S. Hagedon, D. A. Grabelsky, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, W. R. Purcell, M. S. Strickman, V. M. Kaspi, S. Johnston, R. N. Manchester, A. G. Lyne, & N. D'Amico.* 417, 738, 228-E8 (1993)

Proto–Brown Dwarfs. I. Methods and Results for High-Latitude Clouds. *Marc W. Pound & Leo Blitz.* 418, 328, 235-B9 (1993)

SN 1988Z: The Most Distant Radio Supernova. *Schuyler D. Van Dyk, Kurt W. Weiler, Richard A. Sramek, & Nino Panagia.* 419, L69, 259-D6 (1993)

From T Tauri Stars to Protostars: Circumstellar Material and Young Stellar Objects in the ρ Ophiuchi Cloud. *Philippe André & Thierry Montmerle.* 420, 837, 13-C12 (1994)

Mapping the Radio Emission from Massive Young Stellar Objects. *Melvin G. Hoare, Janet E. Drew, Tom B. Muxlow, & Richard J. Davis.* 421, L51, 22-B7 (1994)

Radio Constraints on Coronal Models for dMe Stars. *S. M. White, J. Lim, & M. R. Kundu.* 422, 293, 33-F11 (1994)

Physical Processes in Eclipsing Pulsars: Eclipse Mechanisms and Diagnostics. *C. Thompson, R. D. Blandford, Charles R. Evans, & E. S. Phinney.* 422, 304, 33-G10 (1994)

Quiescent Microwave Emission from Late-Type Stars. *Manuel Güdel.* 90, 743, 13-A8 (1994)

Radio Evidence for Nonthermal Particle Acceleration on Stars of Late Spectral Type. *Kenneth R. Lang.* 90, 753, 13-B5 (1994)

Gamma-Ray Observations of Pulsars. *M. P. Ulmer.* 90, 789, 13-E6 (1994)

Radio-Size Estimates of SN 1993J. *J. M. Marcaide, A. Alberdi, P. Elósegui, J. C. Guirado, F. Mantovani, E. Pérez, M. I. Ratner, A. Rius, A. E. E. Rogers, B. P. Schmidt, I. I. Shapiro, & A. R. Whitney.* 424, L25, 69-D6 (1994)

The Radio Source around η Carinae. *S. M. White, R. A. Duncan, J. Lim, G. J. Nelson, S. A. Drake, & M. R. Kundu.* 429, 380, 148-G1 (1994)

Directivity of the Radio Emission from the K1 Dwarf Star AB Doradus. *Jeremy Lim, Stephen M. White, Graham J. Nelson, & Arnold O. Benz.* 430, 332, 163-C9 (1994)

Cepheus A HW2: A Powerful Thermal Radio Jet. *Luis F. Rodríguez, Guido Garay, Salvador Curiel, Solange Ramírez, José M. Torrelles, Yolanda Gómez, & Arturo Velázquez.* 430, L65, 166-B2 (1994)

Observations of 1E 1740.7−2942 with *ROSAT* and the VLA. *William A. Heindl, Thomas A. Prince, & John M. Grunsfeld.* 430, 829, 172-B12 (1994)

Multiwavelength Study of the Magnetically Active T Tauri Star HD 283447. *Eric D. Feigelson, Alan D. Welty, Catherine L. Imhoff, Jeffrey C. Hall, Paul B. Etzel, Robert B. Phillips, & Colin J. Lonsdale.* 432, 373, 197-G1 (1994)

SN 1993J: The Early Radio Emission and Evidence for a Changing Presupernova Mass-Loss Rate. *Schuyler D. Van Dyk, Kurt W. Weiler,*

Richard A. Sramek, Michael P. Rupen, & Nino Panagia. 432, L115, 207-A9 (1994)

Correlation between X-Ray Intensity and Radio Outbursts of Cygnus X-3. *Hiroaki Watanabe, Shunji Kitamoto, Sigenori Miyamoto, R. L. Fiedler, E. B. Waltman, K. J. Johnston, & F. D. Ghigo.* 433, 350, 212-F1 (1994)

The Early Ultraviolet, Optical, and Radio Evolution of the Soft X-Ray Transient GRO J0422+32. *C. R. Shrader, R. Mark Wagner, R. M. Hjellming, X. H. Han, & S. G. Starrfield.* 434, 698, 237-D4 (1994)

RE 0044+09: A New K Dwarf Rapid Rotator with a White Dwarf Companion? *Barry J. Kellett, Gordon E. Bromage, Alexander Brown, Robin D. Jeffries, David J. James, David Kilkenny, Russell M. Robb, David Wonnacott, Christopher Lloyd, & C. Clayton.* 438, 364, 6-D13 (1995)

Interstellar Scattering toward Cygnus X-3: Measurements of Anisotrophy and of the Inner Scale. *L. A. Molnar, R. L. Mutel, M. J. Reid, & K. J. Johnston.* 438, 708, 14-A2 (1995)

Millimeter-Wave Continuum Measurements of Young Stars. *M. Osterloh & V. W. Beckwith.* 439, 288, 25-B8 (1995)

RY Scuti: Infrared and Radio Observations of the Mass-Loss Wind of a Massive Binary Star System. *R. D. Gehrz, T. L. Hayward, J. R. Houck, J. W. Miles, R. M. Hjellming, T. J. Jones, Charles E. Woodward, Ricarda Prentice, W. J. Forrest, S. Libonate, & S. Solomon.* 439, 417, 26-G11 (1995)

Correlations between the Flaring Radio Emission and Starspot Distribution of UX Arietis. *Nicholas M. Elias II, Andreas Quirrenbach, Arno Witzel, Christian E. Naundorf, Ralf Wegner, Edward F. Guinan, & George P. McCook.* 439, 983, 38-B13 (1995)

The Velocity of the Emitting Plasma of the Superluminal Galactic Source GRS 1915+105. *Gianluigi Bodo & Gabriele Ghisellini.* 441, L69, 75-G13 (1995)

The Active Phase of the Hot Component of Z Andromedae. *T. Fernández-Castro, R. González-Riestra, A. Cassatella, A. R. Taylor, & E. R. Seaquist.* 442, 366, 82-B4 (1995)

Temporal Variation of Pulsar Dispersion Measure. *Xinji Wu & Abraham C.-L. Chian.* 443, 261, 98-G1 (1995)

Much Ado about Nothing: Several Large-Area Surveys for Radio Pulsars from Arecibo. *Paul S. Ray, W. T. S. Deich, S. R. Kulkarni, Thomas A. Prince, S. E. Thorsett, Gautam Vasisht, A. Wolszczan, Donald C. Backer, John H. Holliman II, & John Middleditch.* 443, 265, 98-G8 (1995)

The Radio Detection of SN 1968D in NGC 6946. *Scott D. Hyman, Schuyler D. Van Dyk, Kurt W. Weiler, & Richard A. Sramek.* 443, L77, 112-A2 (1995)

Circular Polarization in the Radio Emission of RS Canum Venaticorum Binaries. *Stephen M. White & Elena Franciosini.* 444, 342, 118-C1 (1995)

A Model for the Radio Emission from SNR 1987A. *P. Duffy, Lewis Ball, & J. G. Kirk.* 447, 364, 177-D7 (1995)

A Search for Fast Pulsars along the Galactic Plane. *D. J. Nice, A. S. Fruchter, & J. H. Taylor.* 449, 156, 212-C11 (1995)

Further Mapping of the Radio Emission from Massive Young Stellar Objects. *Melvin G. Hoare & Simon T. Garrington.* 449, 874, 224-F11 (1995)

Dust Emission from Protostars: The Disk and Envelope of HH 24 MMS. *Claire J. Chandler, David W. Koerner, Anneila I. Sargent, & Douglas O. S. Wood.* 449, L139, 227-D1 (1995)

Radio Continuum Measurements of Southern Early-Type Stars. *Claus Leitherer, Jessica M. Chapman, & Bärbel Koribalski.* 450, 289, 232-A7 (1995)

An Eight-Year Study of the Radio Emission from the Wolf-Rayet Binary HD 193793 = WR 140. *Richard L. White & Robert H. Becker.* 451, 352, 250-F8 (1995)

Pulsar Eclipses due to Induced Scattering in Magnetized Plasmas. *Qinghuan Luo & D. B. Melrose.* 452, 346, 266-G11 (1995)

Radio Detection of Late-Type (G–K) Dwarf Stars in the Pleiades. *Jeremy Lim & Stephen M. White.* 453, 207, 284-A5 (1995)

Radio Observations of SN 1987A at 843 MHz. *Lewis Ball, D. Campbell-Wilson, D. F. Crawford, & A. J. Turtle.* 453, 864, 295-G8 (1995)

Radio-Frequency Continuum Emission from Evolved Stars. *G. R. Knapp, P. F. Bowers, K. Young, & T. G. Phillips.* 455, 293, 322-B12 (1995)

Subarcsecond-Resolution 86 GHz Continuum Maps of Orion KL. *R. L. Plambeck, M. C. H. Wright, L. G. Mundy, & L. W. Looney.* 455, L189, 334-G10 (1995)

RADIO LINES: ATOMIC

An Improved Method to Derive H I Absorption Spectra through the Disks of Galaxies: Application to the Sculptor Group. *John M. Dickey, Elias Brinks, & Daniel Puche.* 385, 501, 19-D6 (1992)

Physical Properties of Neutral Gas in M31 and the Galaxy. *Robert Braun & René A. M. Walterbos.* 386, 120, 25-E10 (1992)

Positions of the Radio Recombination Line Masers in MWC 349. *P. Planesas, J. Martín-Pintado, & E. Serabyn.* 386, L23, 29-D1 (1992)

A Study of a 21 Centimeter–selected Sample of Galaxies. I. The Survey. *P. A. Henning.* 78, 365, 7-D3 (1992)

Luminosity–Line Width Relations and the Extragalactic Distance Scale. I. Absolute Calibration. *Michael J. Pierce & R. Brent Tully.* 387, 47, 37-E8 (1992)

Atomic and Molecular Outflow in DR 21. *A. P. G. Russell, J. Bally, R. Padman, & R. E. Hills.* 387, 219, 39-E13 (1992)

Interstellar Matter in Early-Type Galaxies. II. The Relationship between Gaseous Components and Galaxy Types. *Joel N. Bregman, David E. Hogg, & Morton S. Roberts.* 387, 484, 44-F9 (1992)

The Sharpless 187 Gas Complex: A Multifrequency Study. *G. Joncas, D. Durand, & R. S. Roger.* 387, 591, 46-A9 (1992)

Time Variations in Millimeter-Wave Radio Recombination Lines from the Be Star MWC 349A. *M. A. Gordon.* 387, 701, 47-D5 (1992)

Detection of the H92α Radio Recombination Line from the Symbiotic Star H1–36 Arae. *T. S. Bastian.* 387, L77, 48-D1 (1992)

The Bell Laboratories H I Survey. *Antony A. Stark, Charles F. Gammie, Robert W. Wilson, John Bally, Richard A. Linke, Carl Heiles, & Mark Hurwitz.* 79, 77, 13-D1 (1992)

H I Observations of Galaxies in the Hercules Supercluster. II. Additional UGC Galaxies and Galaxies in Selected CGCG Fields. *Wolfram Freudling, Martha P. Haynes, & Riccardo Giovanelli.* 79, 157, 16-B1 (1992)

Properties of the Redshift. IV. Reference Data. *W. G. Tifft.* 79, 183, 16-D13 (1992)

Galactic Worms. I. Catalog of Worm Candidates. *Bon-Chul Koo, Carl Heiles, & William T. Reach.* 390, 108, 75-D6 (1992)

The Separation between Gas and Dust Filaments at the Edge of the Expanding Shell in Eridanus. *G. L. Verschuur, L. J Rickard, F. Verter, M. W. Pound, & D. Leisawitz.* 390, 514, 81-F7 (1992)

The Evolutionary History of the Interacting Galaxy System NGC 7714/7715 (Arp 284). *Beverly J. Smith & John F. Wallin.* 393, 544, 122-E7 (1992)

Anomalously High Apparent Abundances of Singly Ionized Helium in the Galactic H II Region W3A. *P. R. Roelfsema, W. M. Goss, & D. C. V. Mallik.* 394, 188, 130-C13 (1992)

Northern Dwarf and Low Surface Brightness Galaxies. II. The Green Bank Neutral Hydrogen Survey. *Stephen E. Schneider, Trinh X. Thuan, Jeffrey G. Mangum, & John Miller.* 81, 5, 35-B13 (1992)

Ultraviolet and Radio Observations of Milky Way Halo Gas. *Laura Danly, Felix J. Lockman, Marilyn R. Meade, & Blair D. Savage.* 81, 125, 36-F9 (1992)

Determination of the He^+/H^+ Ratio from α, β, and γ Radio Recombination Lines. *M. Peimbert, L. F. Rodríguez, T. M. Bania, R. T. Rood, & T. L. Wilson.* 395, 484, 148-E9 (1992)

Peculiar Velocities of Clusters in the Perseus-Pisces Supercluster. *M. Han & J. R. Mould.* 396, 453, 163-B1 (1992)

A High-Resolution 21 Centimeter Line Study of Infrared Cirrus. *G. Joncas, F. Boulanger, & P. E. Dewdney.* 397, 165, 170-A10 (1992)

Neutral Winds from Protostars. *Carlo Giovanardi, Susana Lizano, Antonella Natta, Neal J. Evans II, & Carl Heiles.* 397, 214, 170-E13 (1992)

[C I] Emission at $z = 2.286$ in the Protogalaxy IRAS F10214+4724. *Robert L. Brown & Paul A. Vanden Bout.* 397, L11, 173-B10 (1992)

Submillimeter Detection of Extragalactic C I Emission: IC 342. *Thomas H. Büttgenbach, Jocelyn Keene, T. G. Phillips, & Christopher K. Walker.* 397, L15, 173-C1 (1992)

H I Imaging of Four Quasar-Galaxy Pairs: The Parent Galaxies of Low-Redshift Quasar Absorption Systems. *C. L. Carilli & J. H. van Gorkom.* 399, 373, 202-E7 (1992)

NGC 4027: An Interacting One-armed Spiral Galaxy with a Warped Ring. *Bikram Phookun, Lee G. Mundy, Peter J. Teuben, & Richard J. Wainscoat.* 400, 516, 216-F10 (1992)

Radio Continuum and Radio Recombination Line Observations of Sagittarius B1 and G0.6–0.0. *David M. Mehringer, F. Yusef-Zadeh, Patrick Palmer, & W. M. Goss.* 401, 168, 223-B1 (1992)

Heating of H II Regions with Application to the Galactic Center. *Philip R. Maloney, David J. Hollenbach, & Charles H. Townes.* 401, 559, 229-E5 (1992)

RADIO LINES: GALAXIES

21 Centimeter Study of Spiral Galaxies in Clusters. III. Neutral Gas Content, Star Formation, and Radio Continuum Properties. *Marco Scodeggio & Giuseppe Gavazzi.* 409, 110, 98-C8 (1993)

Detection of CO Emission from Massive Molecular Clouds in the Inner Disk of M31. *Ronald J. Allen & J. Lequeux.* 410, L15, 117-G7 (1993)

Neutral Hydrogen 21 Centimeter Absorption at $z = 0.6847$ toward the "Smallest Einstein Ring." *C. L. Carilli, M. P. Rupen, & Brian Yanny.* 412, L59, 155-C10 (1993)

Velocity Functions of Galaxies and Clusters of Galaxies. *Kazuhiro Shimasaku.* 413, 59, 156-G3 (1993)

Aperture Synthesis Mapping of CO (2–1) in IC 342. *Jean L. Turner, Robert L. Hurt, & David Y. Hudson.* 413, L19, 162-D1 (1993)

Molecular Gas Mass and Far-Infrared Emission from Distant Luminous Galaxies. *D. Downes, P. M. Solomon, & S. J. E. Radford.* 414, L13, 175-D6 (1993)

Neutral Hydrogen Absorption and Emission in the Quasar/Galaxy Pair 3C 275.1/NGC 4651. *Stephen E. Schneider & Edvige Corbelli.* 414, 500, 177-D7 (1993)

Arecibo Observation of B2 0902+343 in the 21 Centimeter Line at Redshift 3.4. *F. H. Briggs, E. Sorar, & A. Taramopoulos.* 415, L99, 200-A2 (1993)

Kinematical Modeling of Warps in the H I Disks of Galaxies. *Dimitris M. Christodoulou, Joel E. Tohline, & Thomas Y. Steiman-Cameron.* 416, 74, 202-A7 (1993)

Star Formation in the Spiral Arms of NGC 4321. II. H I Distribution and Kinematics. *Johan H. Knapen, Jordi Cepa, John E. Beckman, M. Soledad del Rio, & Alan Pedlar.* 416, 563, 210-D1 (1993)

H I 21 Centimeter Observations and *I*-Band CCD Surface Photometry of Spiral Galaxies behind the Virgo Cluster and toward Its Antipode. *N. Y Lu, G. L. Hoffman, T. Groff, T. Roos, & C. Lamphier.* 88, 383, 45-D1 (1993)

The Shape of the H I Mass Function for Late-Type Galaxies over the Range $M_{H\,I} \approx 10^7$–$10^{10}\ M_\odot$. *F. H. Briggs & S. Rao.* 417, 494, 225-D12 (1993)

Atomic Carbon in M82. *Peter Schilke, John E. Carlstrom, Jocelyn Keene, & T. G. Phillips.* 417, L67, 230-C3 (1993)

NGC 4254: A Spiral Galaxy with an $m = 1$ Mode and Infalling Gas. *Bikram Phookun, Stuart N. Vogel, & Lee G. Mundy.* 418, 113, 232-D12 (1993)

H I Spin Temperatures and Heating Requirements in Outer Regions of Disk Galaxies. *Edvige Corbelli & Edwin E. Salpeter.* 419, 94, 247-C9 (1993)

Sharp H I Edges in the Outskirts of Disk Galaxies. *Edvige Corbelli & Edwin E. Salpeter.* 419, 104, 247-D7 (1993)

Neutral Hydrogen in Galaxies at the Present Epoch. *Sandhya Rao & Frank Briggs.* 419, 515, 254-B12 (1993)

Detection of H92α Recombination Line from the Galaxies NGC 3628, IC 694, and NGC 1365. *K. R. Anantharamaiah, Jun-Hui Zhao, W. M. Goss, & F. Viallefond.* 419, 585, 255-A9 (1993)

Stimulated Raman Scattering as an Explanation for the Extreme High-Velocity Features of Water Maser Emission. *Shuji Deguchi.* 420, 551, 9-D11 (1994)

Counterrotating Gaseous Disks in NGC 4826. *Robert Braun, René A. M. Walterbos, Robert C. Kennicutt, Jr., & Linda J. Tacconi.* 420, 558, 9-E6 (1994)

Neutral Hydrogen Absorption in NGC 1068 and NGC 3079. *J. F. Gallimore, S. A. Baum, C. P. O'Dea, E. Brinks, & A. Pedlar.* 422, L13, 36-C9 (1994)

An H I Survey of High-Velocity Clouds in Nearby Disk Galaxies. *Eric Schulman, Joel N. Bregman, & Morton S. Roberts.* 423, 180, 48-C9 (1994)

Photoionization of Disk Galaxies: An Explanation of the Sharp Edges in the H I Distribution. *James B. Dove & J. Michael Shull.* 423, 196, 48-E3 (1994)

Neutral Hydrogen and Optical Properties of Three Amorphous Galaxies. *Deidre A. Hunter, Hugo van Woerden, & John S. Gallagher III.* 91, 79, 18-A2 (1994)

Measuring the Hubble Constant and Our Virgo-Infall Velocity Independently. *Nanyao Y. Lu, E. E. Salpeter, & G. Lyle Hoffman.* 426, 473, 104-C4 (1994)

Modified Dynamics Predictions Agree with Observations of the H I Kinematics in Faint Dwarf Galaxies Contrary to the Conclusions of Lo, Sargent, and Young. *Mordehai Milgrom.* 429, 540, 152-D5 (1994)

Millimeter Recombination Lines and the State of Ionized Gas in M82. *E. R. Seaquist, C. R. Kerton, & M. B. Bell.* 429, 612, 153-C13 (1994)

Arcs and Bridges in the Interacting Galaxies NGC 5775/NGC 5774. *Judith A. Irwin.* 429, 618, 153-D7 (1994)

Testing for Interaction between the Galaxies NGC 450 and UGC 807. *Mariano Moles, Isabel Márquez, Josefa Masegosa, Ascensión del Olmo, Jaime Perea, & Halton Arp.* 432, 135, 194-G12 (1994)

Evidence for Axisymmetric Halos: The Case of IC 2006. *Marijn Franx, J. H. van Gorkom, & Tim de Zeeuw.* 436, 642, 274-D3 (1994)

Detection of Extended H I Absorption toward PKS 2322−123 in Abell 2597. *Christopher P. O'Dea, Stefi A. Baum, & Jack Gallimore.* 436, 669, 274-F9 (1994)

Water Maser Emission from X-Ray–heated Circumnuclear Gas in Active Galaxies. *David A. Neufeld, Philip R. Maloney, & Sarah Conger.* 436, L127, 281-A13 (1994)

The Discovery of Five New H_2O Megamasers in Active Galaxies. *J. A. Braatz, A. S. Wilson, & C. Henkel.* 437, L99, 299-A8 (1994)

The Mass-to-Light Ratios of Low Surface Brightness Spiral Galaxies: Clues from the Tully-Fisher Relation. *D. Sprayberry, G. M. Bernstein, C. D. Impey, & G. D. Bothun.* 438, 72, 2-C10 (1995)

Neutral Hydrogen Profiles of Cluster Galaxies. *Jeremy Mould, Sarah Martin, Greg Bothun, John Huchra, & Bob Schommer.* 96, 1, 1-B1 (1995)

The Large-Scale Distribution of Late-Type Galaxies between Virgo and the Great Wall. *G. Lyle Hoffman, B. M. Lewis, & E. E. Salpeter.* 441, 28, 59-F2 (1995)

Disk Galaxies near the Line of Sight to 3C 273 and Conjectures on Lyman-Alpha Absorption. *E. E. Salpeter & G. Lyle Hoffman.* 441, 51, 60-A7 (1995)

Detection of an H I Disk in Hydra A? *K. S. Dwarakanath, F. N. Owen, & J. H. van Gorkom.* 442, L1, 84-D1 (1995)

The Tully-Fisher Relation of the *IRAS* Minisurvey Galaxies. *W. van Driel, A. C. van den Broek, & W. A. Baan.* 444, 80, 114-D4 (1995)

The Barred Spiral Galaxy NGC 1398 and Its Pattern Speed. *E. M. Moore & S. T. Gottesman.* 447, 159, 174-C8 (1995)

Anomalously Excited OH and Competition between Maser Transitions toward Centaurus A. *Huib Jan van Langevelde, Ewine F. van Dishoeck, Maartje N. Sevenster, & Frank P. Israel.* 448, L123, 209-F2 (1995)

Large-Scale Structures in the Zone of Avoidance: The Galactic Anticenter Region. *Nanyao Y. Lu & Wolfram Freudling.* 449, 527, 220-B2 (1995)

Dust and Molecular Gas in the Barred Spiral Galaxy NGC 1530. *Michael W. Regan, Stuart N. Vogel, & Peter J. Teuben.* 449, 576, 220-F10 (1995)

H I Absorption Toward the Nucleus of the Powerful Radio Galaxy Cygnus A: Evidence for an Atomic Obscuring Torus? *J. E. Conway & P. R. Blanco.* 449, L131, 227-C1 (1995)

An H I/Optical Atlas of H II Galaxies and Their Companions. *Christopher L. Taylor, Elias Brinks, Randy M. Grashuis, & Evan D. Skillman.* 99, 427, 41-A2 (1995)

A Study of a 21 Centimeter–selected Sample of Galaxies. II. Analysis of the Sample. *P. A. Henning.* 450, 578, 238-F6 (1995)

Zeeman Effect Observations of H I Emission Profiles. II. Results of an Attempt to Confirm Previous Claims of Field Detections. *Gerrit L. Verschuur.* 451, 645, 256-B6 (1995)

New Observations and a New Interpretation of CO(3–2) in IRAS F10214+4724. *D. Downes, P. M. Solomon, & S. J. E. Radford.* 453, L65, 298-B6 (1995)

RADIO LINES: GENERAL

The IRAS 16293−2422 Cloud Core: A Study of a Young Binary System. *Christopher K. Walker, John E. Carlstrom, & John H. Bieging.* 402, 655, 10-F11 (1993)

The Velocity Field of Clusters of Galaxies within 100 Megaparsecs. II. Northern Clusters. *J. R. Mould, R. L. Akeson, G. D. Bothun, M. Han, J. P. Huchra, J. Roth, & R. A. Schommer.* 409, 14, 97-C1 (1993)

Multiconfiguration VLA H92α Observations of Sagittarius A West at 1 Arcsecond Resolution. *D. A. Roberts & W. M. Goss.* 86, 133, 15-E1 (1993)

A Spectral-Line Survey of W51 from 17.6 to 22.0 GHz. *M. B. Bell, L. W. Avery, & J. K. G. Watson.* 86, 211, 16-F7 (1993)

Five Years of Project META: An All-Sky Narrow-Band Radio Search for Extraterrestrial Signals. *Paul Horowitz & Carl Sagan.* 415, 218, 187-F8 (1993)

The Laboratory Spectrum of Acetaldehyde at 1 Millimeter (230–325 GHz). *W. L. Barclay, Jr., M. A. Anderson, L. M. Ziurys, I. Kleiner, & J. T. Hougen.* 89, 221, 51-G3 (1993)

A VLA Search for Neutral Hydrogen in Cooling Flow Clusters. *K. S. Dwarakanath, J. H. van Gorkom, & F. N. Owen.* 432, 469, 201-G1 (1994)

RADIO LINES: ISM

Ammonia in the W3(OH) Region. *T. L. Wilson, R. A. Gaume, & K. J. Johnston.* 402, 230, 4-A1 (1993)

OH and H_2O Masers in Sagittarius B1: Evidence for Ongoing Star Formation. *David M. Mehringer, Patrick Palmer, & W. M. Goss.* 402, L69, 13-A1 (1993)

The Morphology of a Bright Rim in NGC 2264: Early Stages of High-Mass Star Formation. *Jan A. Tauber, Dariusz C. Lis, & Paul F. Goldsmith.* 403, 202, 16-D10 (1993)

Survey of Galactic CO Emission toward Compact Extragalactic Millimeter-Wave Continuum Sources. *Harvey S. Liszt & Robert W. Wilson.* 403, 663, 23-G11 (1993)

Dark Matter and Dynamics in the Hercules Cluster (A2151). *Christina M. Bird, John M. Dickey, & E. E. Salpeter.* 404, 81, 29-A11 (1993)

PIG (Partially Ionized Globule) Anatomy: Density and Temperature Structure of the Bright-rimmed Globule IC 1396E. *E. Serabyn, R. Güsten, & L. Mundy.* 404, 247, 31-A1 (1993)

A Molecular Spiral Arm Segment of M51 at 3.5 Arcsecond Resolution. *Richard J. Rand.* 404, 593, 36-C14 (1993)

Molecular Cloud Cores in the Orion A Cloud. I. Nobeyama CS (1–0) Survey. *Ken'ichi Tatematsu, Tomofumi Umemoto, Osamu Kameya, Naomi Hirano, Tetsuo Hasegawa, Masahiko Hayashi, Takahiro Iwata, Norio Kaifu, Hitomi Mikami, Yasuhiro Murata, Makoto Nakano, Takenori Nakano, Nagayoshi Ohashi, Kazuyoshi Sunada, Hiroshi Takaba, & Satoshi Yamamoto.* 404, 643, 37-A5 (1993)

The Scale Height and Radial Distribution of Molecular Gas in NGC 891. *N. Z. Scoville, D. Thakkar, J. E. Carlstrom, & A. I. Sargent.* 404, L59, 40-D7 (1993)

An H I Absorption Survey of M31 and M33: The Mixture of Warm and Cool Phases in the Interstellar Media of Spiral Galaxies. *John M. Dickey & Elias Brinks.* 405, 153, 43-A1 (1993)

On the Nature of the Molecular Cores in High-Latitude Cirrus Clouds. III. ^{13}CO Observations and Tests of CO Chemistry Models. *B. E. Turner.* 405, 229, 44-A3 (1993)

CO Lines toward NGC 2024 and Other Star-forming Regions: A Closer Look at the Warm Gas Component. *U. U. Graf, A. Eckart, R. Genzel, A. I. Harris, A. Poglitsch, A. P. G. Russell, & J. Stutzki.* 405, 249, 44-B13 (1993)

Structure and Chemistry of Orion S. *Joseph P. McMullin, Lee G. Mundy, & Geoffrey A. Blake.* 405, 599, 50-E5 (1993)

A Flattened Cloud Core in NGC 2024. *Paul T. P. Ho, Yun-Lou Peng, José M. Torrelles, José F. Gómez, Luis F. Rodríguez, & Jorge Cantó.* 408, 565, 92-C1 (1993)

Laboratory Detection of a New Free Radical C_4S ($^3\Sigma^-$). *Yasuhiro Hirahara, Yasuhiro Ohshima, & Yasuki Endo.* 408, L113, 95-F13 (1993)

Detection of Magnetohydrodynamic Shocks in the L1551 Outflow. *M. Barsony, N. Z. Scoville, & C. J. Chandler.* 409, 275, 100-E4 (1993)

Detection of Circumstellar Gas Associated with GG Tauri. *M. F. Skrutskie, R. L. Snell, K. M. Strom, S. E. Strom, S. Edwards, Y. Fukui, A. Mizuno, M. Hayashi, & N. Ohashi.* 409, 422, 102-C1 (1993)

A Spectral-Line Survey of W51 from 17.6 to 22.0 GHz. *M. B. Bell, L. W. Avery, & J. K. G. Watson.* 86, 211, 16-F7 (1993)

Modeling the Structure of H I in the Galactic Disk. *Joel N. Bregman, Daniel D. Kelson, & Gregory A. Ashe.* 409, 682, 107-D9 (1993)

Density Wave Kinematics and Giant Molecular Association Formation in M51. *Richard J. Rand.* 410, 68, 113-A3 (1993)

High-Resolution H I Observations of H II Regions. III. Photodissociation Regions and the Magnetic Field near Orion B. *Paul P. van der Werf, W. M. Goss, Carl Heiles, R. M. Crutcher, & T. H. Troland.* 411, 247, 130-C8 (1993)

HCO^+, $H^{13}CN$, and $H^{12}CN$ Aperture Synthesis Observations of the Circumnuclear Molecular Ring in the Galactic Center. *J. M. Marr, M. C. H. Wright, & D. C. Backer.* 411, 667, 138-A8 (1993)

VLA Zeeman Observations of W3. *D. A. Roberts, R. M. Crutcher, T. H. Troland, & W. M. Goss.* 412, 675, 152-B12 (1993)

Radio Continuum and Radio Recombination Line Observations of Sagittarius B2. *David M. Mehringer, Patrick Palmer, W. M. Goss, & F. Yusef-Zadeh.* 412, 684, 152-C11 (1993)

Fragmentation and Kinematics of the W49N Cloud Core. *E. Serabyn, R. Güsten, & A. Schulz.* 413, 571, 163-E9 (1993)

The Detection of a New Methanol Maser Transition at 9.9 GHz. *V. I. Slysh, S. V. Kalenskii, & I. E. Val'tts.* 413, L133, 169-C6 (1993)

A High-Resolution H I Survey of the Rosette Nebula. *Thomas A. Kuchar & T. M. Bania.* 414, 664, 179-D12 (1993)

A High-Resolution Optical and Radio Study of Milky Way Halo Gas. *C. E. Albert, J. C. Blades, D. C. Morton, Felix J. Lockman, M. Proulx, & L. Ferrarese.* 88, 81, 41-C7 (1993)

High Spatial Resolution Observations of CO in CRL 618. *Katsunori M. Shibata, Shuji Deguchi, Naomi Hirano, Osamu Kameya, & Shin'ichi Tamura.* 415, 708, 196-F1 (1993)

A Determination of the Distance to the High-Velocity Cloud Complex M. *Laura Danly, C. E. Albert, & K. D. Kuntz.* 416, L29, 207-D13 (1993)

Refrigeration of the 18.3 GHz C_3H_2 Transition in Dark Cloud G1.6−0.25. *T. B. H. Kuiper, J. B. Whiteoak, R.-S. Peng, W. L Peters III, & J. E. Reynolds.* 416, L33, 207-E7 (1993)

Detection of the Interstellar NH_2 Radical. *Ewine F. van Dishoeck, David J. Jansen, Peter Schilke, & T. G. Phillips.* 416, L83, 216-E10 (1993)

Interaction between the Supernova Remnant CTB 80 and the Ambient Interstellar Medium: H I and CO Observations. *Bon-Chul Koo, Min-Su Yun, Paul T. P. Ho, & Youngung Lee.* 417, 196, 219-G10 (1993)

New VLA Observations of NH_3 in S140. *Shudong Zhou, Neal J. Evans II, Lee G. Mundy, & Marc L. Kutner.* 417, 613, 227-A7 (1993)

The Spectrum of Orion-KL at 2 Millimeters (150–160 GHz). *L. M. Ziurys & Douglas McGonagle.* 89, 155, 50-G13 (1993)

Structure of Dense Cores in M17 SW. I. A Multitransition CS and $C^{34}S$ Study. *Yangsheng Wang, Daniel T. Jaffe, Neal J. Evans II, Masahiko Hayashi, Ken'ichi Tatematsu, & Shudong Zhou.* 419, 707, 256-D12 (1993)

Radio Observations of D I and Fractionation. *Carl Heiles, Peter R. McCullough, & Alfred E. Glassgold.* 89, 271, 53-C11 (1993)

The Physics and Chemistry of Small Molecular Clouds in the Galactic Plane. I. Physical Conditions from $C^{18}O$ and ^{13}CO Observations. *B. E. Turner.* 420, 661, 11-A1 (1994)

Detection of a New Molecular Ion HC_3NH^+ in TMC-1. *Kentarou Kawaguchi, Yasuko Kasai, Shin-ichi Ishikawa, Masatoshi Ohishi, Norio Kaifu, & Takayoshi Amano.* 420, L95, 15-F12 (1994)

Anatomy of a Photodissociation Region: High Angular Resolution Images of Molecular Emission in the Orion Bar. *Jan A. Tauber, A. G. G. M. Tielens, Margaret Meixner, & Paul F. Goldsmith.* 422, 136, 31-F13 (1994)

The HH 83 Molecular Cloud: Gone with the Wind. *John Bally, Alain Castets, & Gilles Duvert.* 423, 310, 50-A3 (1994)

On the Distance Determination and Ionization of the High-Velocity Clouds. *A. Ferrara & G. B. Field.* 423, 665, 56-G5 (1994)

A Measurement of the $J = 2 \leftarrow 1$ Fine-Structure Interval for ^{28}Si and ^{29}Si in the Ground ^3P State. *John M. Brown, Lyndon R. Zink, & K. M. Evenson.* 423, L151, 61-D13 (1994)

The Magnetic Field in the Ophiuchus Dark Cloud Complex. *Alyssa A. Goodman & Carl Heiles.* 424, 208, 64-E1 (1994)

High-Resolution Measurements of NH_3 Absorption toward Cassiopeia A. *R. A. Gaume, T. L. Wilson, & K. J. Johnston.* 425, 127, 81-G1 (1994)

Observations of Large-Scale [C I] Emission from S140. *René Plume, D. T. Jaffe, & Jocelyn Keene.* 425, L49, 85-G3 (1994)

Radio Continuum and Radio Recombination Line Observations of W51. *David M. Mehringer.* 91, 713, 29-A2 (1994)

A $C^{18}O$ (J = 1–0) Survey of Protostellar Candidates Embedded in the Taurus Molecular Cloud. *Masahiko Hayashi, Tetsuo Hasegawa, Nagayoshi Ohashi, & Kazuyoshi Sunada.* 426, 234, 99-A8 (1994)

Aperture Synthesis Imaging of Partially Ionized Gas in W48. *Joseph S. Onello, J. A. Phillips, P. Benaglia, W. M. Goss, & Yervant Terzian.* 426, 249, 99-B13 (1994)

Optical and H I Observations of High-Velocity Gas toward HD 203664. *J. E. Little, P. L. Dufton, F. P. Keenan, E. S. Conlon, & R. D. Davies.* 427, 267, 113-C8 (1994)

Detection of a New Interstellar Molecule, H_2CN. *Masatoshi Ohishi, Douglas McGonagle, William M. Irvine, Satoshi Yamamoto, & Shuji Saito.* 427, L51, 117-G5 (1994)

Outflows from Young Stellar Objects in Bok Globules: Maps. *João Lin Yun & Dan P. Clemens.* 92, 145, 33-C5 (1994)

Carbon Recombination Lines as a Diagnostic of Photodissociation Regions. *A. Natta, C. M. Walmsley, & A. G. G. M. Tielens.* 428, 209, 130-F12 (1994)

Discovery of $^{14}NH_3(3, 3)$ Maser Emission in the Interstellar Medium. *Jeffrey G. Mangum & Alwyn Wootten.* 428, L33, 134-E8 (1994)

The Fine-Structure Intervals of $^{14}N^{+}$ by Far-Infrared Laser Magnetic Resonance. *John M. Brown, Thomas D. Varberg, Kenneth M. Evenson, & Andrew L. Cooksy.* 428, L37, 134-E13 (1994)

A Bipolar Outflow of Ionized Gas in K3-50A: H76α Radio Recombination Line and Continuum Observations of K3-50. *C. G. De Pree, W. M. Goss, Patrick Palmer, & Robert H. Rubin.* 428, 670, 138-F1 (1994)

A Multiwavelength Study of IRAS 19550+3248: A Protostar Possibly Formed by a Cloud-Cloud Collision. *Bon-Chul Koo, Youngung Lee, G. A. Fuller, Myung Gyoon Lee, Suk-Minn Kwon, & Jae-Hoon Jung.* 429, 233, 147-A7 (1994)

The Velocity Structure of the Cometary H II Regions G13.87+0.28, G32.80+0.19B, and G61.48+0.09B1. *Guido Garay, Susana Lizano, & Yolanda Gómez.* 429, 268, 147-D6 (1994)

Atomic and Molecular Gas in Interstellar Cirrus Clouds. *William T. Reach, Bon-Chul Koo, & Carl Heiles.* 429, 672, 154-B1 (1994)

The Molecular Gas Associated with the Orion Bright Bar. *Toshihiro Omodaka, Masahiko Hayashi, Tetsuo Hasegawa, & Saeko S. Hayashi.* 430, 256, 162-C7 (1994)

Soft X-Ray and H I Surveys of the Low N_H Region in Ursa Major. *S. L. Snowden, G. Hasinger, K. Jahoda, Felix J. Lockman, D. McCammon, & W. T. Sanders.* 430, 601, 169-C9 (1994)

The Cosmic Abundance of ^{3}He. III. Improved Line Parameters for Selected Sources. *Dana S. Balser, T. M. Bania, Charles J. Brockway, Robert T. Rood, & T. L. Wilson.* 430, 667, 170-B8 (1994)

High Rydberg State Carbon Recombination Lines toward Cassiopeia A: 332 MHz VLA Observations and Comparison with H I and Molecular Lines. *K. R. Anantharamaiah, W. C. Erickson, H. E. Payne, & Nimisha G. Kantharia.* 430, 682, 170-C11 (1994)

High Rydberg State Carbon Recombination Lines toward Cassiopeia A: Physical Conditions and a New Class of Models. *H. E. Payne, K. R. Anantharamaiah, & W. C. Erickson.* 430, 690, 170-D7 (1994)

New Detections of Interstellar HNO at 2 and 1.2 Millimeters: More N–O Bonds. *L. M. Ziurys, J. M. Hollis, & L. E. Snyder.* 430, 706, 170-E11 (1994)

Detection of Formaldehyde Maser Emission near the Ultracompact H II Region G29.96−0.02. *Preethi Pratap, Karl M. Menten, & Lewis E. Snyder.* 430, L129, 175-A13 (1994)

A Comparison of CO ($J = 1 \rightarrow 0$) and CO ($J = 2 \rightarrow 1$) Emission in the Milky Way Molecular Ring. *Jean E. Chiar, Marc L. Kutner, Frances Verter, & James Leous.* 431, 658, 186-F13 (1994)

A Millimeter-Wave Study and Astronomical Search for the HCCCS Radical. *M. C. McCarthy, J. M. Vrtilek, E. W. Gottlieb, F.-M. Tao, C. A. Gottlieb, & P. Thaddeus.* 431, L127, 192-B13 (1994)

Atomic Sulfur: Frequency Measurement of the $J = 0 \leftarrow 1$ Fine-Structure Transition at 56.3 Microns by Laser Magnetic Resonance. *John M. Brown, Kenneth M. Evenson, & Lyndon R. Zink.* 431, L147, 192-E2 (1994)

Excitation of Interstellar Hydrogen Chloride. *David A. Neufeld & Sheldon Green.* 432, 158, 195-B11 (1994)

The Cold, Massive Molecular Cloud G216−2.5. II. Structure and Kinematics. *Youngung Lee, Ronald L. Snell, & Robert L. Dickman.* 432, 167, 195-C8 (1994)

VLA Recombination Line Observations of the Cometary H II Region G34.3+0.2: Dynamics and Physical Properties. *Ralph A. Gaume, Alan L. Fey, & Mark J. Claussen.* 432, 648, 204-B1 (1994)

Dense Cores in Dark Clouds. X. Ammonia Emission in the Perseus Molecular Cloud Complex. *E. F. Ladd, P. C. Myers, & A. A. Goodman.* 433, 117, 209-F10 (1994)

A Search for Dense Gas in Quiescent Bok Globules. *Brian D. Kane, Dan P. Clemens, & Philip C. Myers.* 433, L49, 215-C9 (1994)

The Molecular Emission-Line Spectrum of IRC +10216 between 330 and 358 GHz. *T. D. Groesbeck, T. G. Phillips, & Geoffrey A. Blake.* 94, 147, 53-F12 (1994)

Filaments of Neutral Hydrogen toward the Galactic Anticenter. *Christopher M. Tamanaha.* 433, 648, 219-B3 (1994)

On the Analysis of Para-Ammonia Observations. *T. B. H. Kuiper.* 433, 712, 219-G11 (1994)

The Association of High-Latitude Molecular Clouds with H I Gas. *Be-Young Gir, Leo Blitz, & Loris Magnani.* 434, 162, 227-C13 (1994)

New Formaldehyde Masers in Sagittarius B2. *David M. Mehringer, W. M. Goss, & Patrick Palmer.* 434, 237, 228-F6 (1994)

Three Millimeter Molecular Line Observations in Sagittarius B2. I. Full Synthesis Mapping Study of HNO, CCS, and $HC^{13}CCN$. *Yi-Jehng Kuan & Lewis E. Snyder.* 94, 651, 61-A8 (1994)

VLA Spectral Line Observations of the H II Complex G34.3+0.2. *Alan L. Fey, Ralph A. Gaume, Gerald E. Nedoluha, & Mark J. Claussen.* 435, 738, 256-C3 (1994)

A Massive Young Embedded Object Associated with the UC H II Region G31.41+0.31. *R. Cesaroni, L. Olmi, C. M. Walmsley, E. Churchwell, & P. Hofner.* 435, L137, 260-C3 (1995)

Kinematic Distances of Galactic H II Regions from H I Absorption Studies. *Thomas A. Kuchar & T. M. Bania.* 436, 117, 262-G9 (1994)

Probing the Interstellar Medium with Pulsars on AU Scales. *Dale A. Frail, Joel M. Weisberg, James M. Cordes, & Corey Mathers.* 436, 144, 263-C1 (1994)

The Physics and Chemistry of Small Molecular Clouds in the Galactic Plane. II. H_2CO. *B. E. Turner.* 437, 658, 294-G12 (1994)

A Multiline, Multiresolution VLA Study of the Ultracompact H II Region G29.96−0.02. *A. Afflerbach, E. Churchwell, P. Hofner, & S. Kurtz.* 437, 697, 295-C12 (1994)

An Accurate Galactic N_H Map of the North Ecliptic Pole. *Martin Elvis, Felix J. Lockman, & C. Fassnacht.* 95, 413, 70-A6 (1994)

Single-Sideband Calibration for CO, ^{13}CO, HCN, and CS Lines near 345 GHz. *Yangsheng Wang, Daniel T. Jaffe, Urs U. Graf, & Neal J. Evans II.* 95, 503, 71-C7 (1994)

Detection of C_3N in the Spiral Arm Gas Clouds in the Direction of Cassiopeia A. *M. B. Bell & H. E. Matthews.* 438, 223, 4-D10 (1995)

The NGC 7538 IRS 1 Region of Star Formation: Observations of the H66α Recombination Line with a Spatial Resolution of 300 AU. *R. A. Gaume, W. M. Goss, H. R. Dickel, T. L. Wilson, & K. J. Johnston.* 438, 776, 15-A1 (1995)

A Multitransition CO Study of GL 490. *George F. Mitchell, Siow Wang Lee, Jean-Pierre Maillard, Henry Matthews, Tatsuhiko I. Hasegawa, & Andrew I. Harris.* 438, 794, 15-B12 (1995)

EGRET Observations of Gamma-Ray Emission from the Interstellar Gas in Orion. *S. W. Digel, S. D. Hunter, & R. Mukherjee.* 441, 270, 63-A11 (1995)

Atomic Iron in Its ^{5}D Ground State: A Direct Measurement of the $J = 0 \leftarrow 1$ and $J = 1 \leftarrow 2$ Fine-Structure Intervals. *John M. Brown & Kenneth M. Evenson.* 441, L97, 76-D11 (1995)

Widespread Molecular Emission in the Galactic Plane from Species Other Than ^{12}CO. *Harvey S. Liszt.* 442, 163, 79-D8 (1995)

Observations of Magnetic Fields in Diffuse Clouds. *P. C. Myers, A. A. Goodman, R. Güsten, & C. Heiles.* 442, 177, 79-E11 (1995)

The Relationship of Dense Gas to Star Formation in the Monoceros OB1 Dark Cloud. *Grace A. Wolf-Chase, Christopher K. Walker, & Charles J. Lada.* 442, 197, 79-G9 (1995)

The Distribution of Molecular and Neutral Gas and Magnetic Fields near the Bipolar H II Region S106. *D. A. Roberts, R. M. Crutcher, & T. H. Troland.* 442, 208, 80-A9 (1995)

Very Hot Ionized Material in Sagittarius B2 F. *David M. Mehringer, C. G. De Pree, Ralph A. Gaume, W. M. Goss, & Mark J. Claussen.* 442, L29, 85-A5 (1995)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. X. Galactic H I 21 Centimeter Emission toward 143 Quasars and Active Galactic Nuclei. *Felix J. Lockman & Blair D. Savage.* 97, 1, 11-B1 (1995)

H110α Observations of Sagittarius A West: Ionized Gas at Peculiar Velocities at the Galactic Center. *Farhad Yusef-Zadeh, Jun-Hui Zhao, & W. M. Goss.* 442, 646, 88-G9 (1995)

A Fast Expanding H I Shell in W44: A Preexisting Wind-blown Shell Overtaken by a Supernova Remnant. *Bon-Chul Koo & Carl Heiles.* 442, 679, 89-E1 (1995)

A New Method for Determining the CO to H_2 Conversion Factor for Translucent Clouds. *Loris Magnani & Joseph S. Onello.* 443, 169, 97-D9 (1995)

The Molecular Environment of the HH 34 System. *G. Anglada, R. Estalella, R. Mauersberger, J. M. Torrelles, L. F. Rodríguez, J. Cantó, P. T. P. Ho, & P. D'Alessio.* 443, 682, 107-C9 (1995)

The Distribution of Molecules in the Core of OMC-1. *E. C. Sutton, R. Peng, W. C. Danchi, P. A. Jaminet, G. Sandell, & A. P. G. Russell.* 97, 455, 18-E12 (1995)

6 Centimeter Formaldehyde Absorption toward the Sagittarius B Star-forming Complex. *David M. Mehringer, Patrick Palmer, & W. M. Goss.* 97, 497, 19-B1 (1995)

Line Broadening in the W3(OH) Champagne Flow. *E. R. Keto, W. J. Welch, M. J. Reid, & P. T. P. Ho.* 444, 765, 127-A8 (1995)

Composition of Interstellar Clouds in the Disk and Halo. III. HD 149881. *Lyman Spitzer, Jr., & Edward L. Fitzpatrick.* 445, 196, 135-C3 (1995)

A Cold Massive Interstellar Cloud within 120 Parsecs of the Sun: K I Optical and H I Radio Observations. *Joaquín Trapero, John E. Beckman, Miquel Serra-Ricart, Rodney D. Davies, Robert A. Watson, & Ramón J. García López.* 445, 231, 135-F9 (1995)

An Extremely High Velocity Multipolar Outflow around IRAS 20050+2720. *R. Bachiller, A. Fuente, & M. Tafalla.* 445, L51, 141-A13 (1995)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. II. The $4° < |b| < 5°$ Strips. *H. Izumiura, R. Catchpole, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, K. Sekiguchi, N. Ukita, & I. Yamamura.* 98, 271, 25-E14 (1995)

The Magnetic Fields in the Galactic Center: Detection of H I Zeeman Splitting. *R. L. Plante, K. Y. Lo, & R. M. Crutcher.* 445, L113, 151-B4 (1995)

CS(2–1) Emission from Dense Gas in the Bipolar Outflow of CRL 618. *Arsen R. Hajian, J. A. Phillips, & Yervant Terzian.* 446, 244, 156-E7 (1995)

Ammonia Observations of NGC 6334 I(N). *T. B. H. Kuiper, W. L. Peters III, J. R. Forster, F. F. Gardner, & J. B. Whiteoak.* 446, 692, 165-E13 (1995)

Patterns of High-Velocity Molecular Gas near Sagittarius A*. *H. S. Liszt & W. B. Burton.* 98, 679, 32-F4 (1995)

Neutral Hydrogen Absorption Measurements of Four Distant Pulsars and the Electron Density in the Inner Galaxy. *J. M. Weisberg, M. H. Siegel, D. A. Frail, & S. Johnston.* 447, 204, 175-A10 (1995)

The Dense Gas Component of Outflows in the Monoceros OB1 Dark Cloud. *Grace A. Wolf-Chase & Christopher K. Walker.* 447, 244, 175-F4 (1995)

A Sensitive Search for Galactic High-Velocity H I Clouds. *Edward M. Murphy, Felix J. Lockman, & Blair D. Savage.* 447, 642, 185-A4 (1995)

The Large-Scale Structure, Kinematics, and Evolution of IC 1396. *Nimesh A. Patel, Paul F. Goldsmith, Ronald L. Snell, Thomas Hezel, & Taoling Xie.* 447, 721, 186-A4 (1995)

Thermal Structure of Mixing Layers in Bipolar Outflows. *Susana Lizano & Carlo Giovanardi.* 447, 742, 186-C1 (1995)

Radiative Hyperfine Transitions. *R. H. Garstang.* 447, 962, 189-B6 (1995)

The Vertical Distribution and Kinematics of H I and Mass Models of the Galactic Disk. *Sangeeta Malhotra.* 448, 138, 194-A11 (1995)

Physical Properties of Dense Cores: DCO^+ Observations. *Harold M. Butner, Elizabeth A. Lada, & Robert B. Loren.* 448, 207, 195-A11 (1995)

A Comparison of Diffuse Ionized and Neutral Hydrogen Away from the Galactic Plane: Hα-emitting H I Clouds. *R. J. Reynolds, S. L. Tufte, D. T. Kung, P. R. McCullough, & C. Heiles.* 448, 715, 204-E12 (1995)

Radio Recombination Line Observations of Partially Ionized Gas in Galactic H II Regions. *Joseph S. Onello & J. A. Phillips.* 448, 727, 204-G1 (1995)

Detection of a Circumstellar Gas around DM Tauri: A Protoplanetary Disk around a Single Star? *Toshihiro Handa, Shoken M. Miyama, Takuya Yamashita, Toshihiro Omodaka, Yoshimi Kitamura, Masahiko Hayashi, Toshikazu Onishi, Ronald L. Snell, Stephen E. Strom, Karen M. Strom, Michael F. Skrutskie, Suzan Edwards, Nagayoshi Ohashi, Kazuyoshi Sunada, Masao Saito, Yasuo Fukui, Akira Mizuno, Jun-ichi Watanabe, & Hirokazu Kataza.* 449, 894, 225-B1 (1995)

VLA Spectral Line Observations of a Shocked Cold H II Region in G70.7+1.2. *Joseph S. Onello, C. G. DePree, J. A. Phillips, & W. M. Goss.* 449, L127, 227-B8 (1995)

H I Absorption Toward the Nucleus of the Powerful Radio Galaxy Cygnus A: Evidence for an Atomic Obscuring Torus? *J. E. Conway & P. R. Blanco.* 449, L131, 227-C1 (1995)

VLA OH Observations of High Negative Velocity Gas toward Sagittarius A West: A High-Velocity Cloud Interacting with the Galactic Center. *Jun-Hui Zhao, W. M. Goss, & Paul T. P. Ho.* 450, 122, 229-F9 (1995)

The Collision Origin of Cohen's Stream. *Christopher M. Tamanaha.* 450, 638, 239-E12 (1995)

Observation of Infrared and Radio Lines of Molecules toward GL 2591 and Comparison to Physical and Chemical Models. *John S. Carr, Neal J. Evans II, J. H. Lacy, & Shudong Zhou.* 450, 667, 240-A7 (1995)

Fourier Transform Spectroscopy of the Orion Molecular Cloud Core. *E. Serabyn & E. W. Weisstein.* 451, 238, 249-C3 (1995)

The Sagittarius B2 Star-forming Region. II. High-Resolution H66α Observations of Sagittarius B2 North. *C. G. De Pree, R. A. Gaume, W. M. Goss, & M. J. Claussen.* 451, 284, 249-G6 (1995)

Thermal Balance in Dense Molecular Clouds: Radiative Cooling Rates and Emission-Line Luminosities. *David A. Neufeld, Stephen Lepp, & Gary J. Melnick.* 100, 132, 47-F2 (1995)

Discovery of Highly Ionized High-Velocity Clouds toward Markarian 509. *Kenneth R. Sembach, Blair D. Savage, Limin Lu, & Edward M. Murphy.* 451, 616, 255-F12 (1995)

Zeeman Effect Observations of H I Emission Profiles. I. Magnetic Field Limits for Three Regions Based on Observations Corrected for Polarized Beam Structure. *Gerrit L. Verschuur.* 451, 624, 255-G10 (1995)

Search for 6 Centimeter Formaldehyde Masers in 22 Galactic Star-forming Regions. *David M. Mehringer, W. M. Goss, & Patrick Palmer.* 452, 304, 266-C8 (1995)

Dense Gas in the DR 21 Region: High-Resolution Imaging of the NH_3 Inversion Lines. *T. L. Wilson, R. A. Gaume, K. J. Johnston, & A. R. Tieftrunk.* 452, 693, 274-C4 (1995)

Study of Structure and Small-Scale Fragmentation in TMC-1. *W. D. Langer, T. Velusamy, T. B. H. Kuiper, S. Levin, E. Olsen, & V. Migenes.* 453, 293, 285-B9 (1995)

A Long-lived Disk around the Red Rectangle? *M. Jura, S. P. Balm, & C. Kahane.* 453, 721, 293-F13 (1995)

Warm Molecular Gas Associated with Cometary H II Regions. *Yolanda Gómez, Guido Garay, & Susana Lizano.* 453, 727, 293-G8 (1995)

The Infrared Nebula and Outflow in Lynds 483. *G. A. Fuller, E. A. Lada, C. R. Masson, & P. C. Myers.* 453, 754, 294-C3 (1995)

Independent Confirmation of the 8.665 GHz Hyperfine Line of $^3He^+$ in W51. *M. B. Bell.* 453, 773, 294-E7 (1995)

Low-Frequency Carbon Recombination Lines in the Central Regions of the Galaxy. *W. C. Erickson, D. McConnell, & K. R. Anantharamaiah.* 454, 125, 301-A4 (1995)

Radio Monitoring of GRS 1915+105. *L. F. Rodríguez, E. Gerard, I. F. Mirabel, Y. Gómez, & A. Velázquez.* 101, 173, 55-A5 (1995)

BIMA Array CS $J = 2 \rightarrow 1$ Observations of Sagittarius B2. *David M. Mehringer.* 454, 782, 312-E8 (1995)

Silicon Monoxide in Sagittarius B2. *Y. Peng, Stuart N. Vogel, & J. E. Carlstrom.* 455, 223, 321-B14 (1995)

RADIO LINES: MOLECULAR: CIRCUMSTELLAR

Radial Velocities of Carbon Stars: CO versus Optical Measurements. *Cecilia Barnbaum.* 385, 694, 21-F10 (1992)

Detection of SiN in IRC +10216. *B. E. Turner.* 388, L35, 52-D1 (1992)

The Magnetic Collimation of Bipolar Outflows. I. Adiabatic Simulations. *James M. Stone & Michael L. Norman.* 389, 297, 63-F1 (1992)

Near-Infrared Polarized Images of a Nebula around T Tauri. *David A. Weintraub, Joel H. Kastner, B. Zuckerman, & Ian Gatley.* 391, 784, 97-F7 (1992)

Discovery of Hot Ammonia in the Proto–Planetary Nebulae CRL 618 and CRL 2688. *Jesús Martín-Pintado & Rafael Bachiller.* 391, L93, 99-G12 (1992)

Upper Limits for CO in the Old Galactic Novae NQ Vulpeculae, QU Vulpeculae, and Nova Vulpeculae 1987 from IRAM Observations. *Steven N. Shore & Jonathan Braine.* 392, L59, 113-C1 (1992)

SO and SO_2 in Mass-Loss Envelopes of Red Giants: Probes of Nonequilibrium Circumstellar Chemistry and Mass-Loss Rates. *Raghvendra Sahai & Peter G. Wannier.* 394, 320, 132-A3 (1992)

Evidence for a Wind-swept Cavity in HH 34? *Alexander Rudolph & William J. Welch.* 395, 488, 148-F3 (1992)

A Sensitive Search for Rotational Lines of Vibrationally Excited HC_5N in IRC +10°216. *M. B. Bell, P. A. Feldman, & L. W. Avery.* 396, 643, 165-D1 (1992)

High-Velocity HCO^+ Emission from L1551 IRS 5: Evidence for Wind-Cloud Interactions. *Alexander Rudolph.* 397, L111, 181-D13 (1992)

Laboratory Measurement of the Millimeter and Submillimeter Wave Spectrum of $C_2H_3^+$. *M. Bogey, M. Cordonnier, C. Demuynck, & J. L. Destombes.* 399, L103, 201-E3 (1992)

The Excitation Temperature of HC_9N in the Circumstellar Envelope of IRC +10216. *M. B. Bell, L. W. Avery, J. M. MacLeod, & H. E. Matthews.* 400, 551, 217-B12 (1992)

Mass-Loss Rates for *IRAS*-bright Red Giants: A Revised Model of Circumstellar CO Emission. *Joel H. Kastner.* 401, 337, 225-B11 (1992)

CO in the Cometary Globules of the Helix Nebula. *P. J. Huggins, R. Bachiller, P. Cox, & T. Forveille.* 401, L43, 227-F7 (1992)

A Spectral Line Survey of IRC +10216 at Millimeter and Submillimeter Wavelengths. *L. W. Avery, T. Amano, M. B. Bell, P. A. Feldman, J. W. C.*

Johns, J. M. MacLeod, H. E. Matthews, D. C. Morton, J. K. G. Watson, B. E. Turner, S. S. Hayashi, G. D. Watt, & A. S. Webster. 83, 363, 62-G3 (1992)

RADIO LINES: MOLECULAR: INTERSTELLAR

Dense Cores in Dark Clouds. VII. Line Width–Size Relations. *G. A. Fuller & P. C. Myers.* 384, 523, 8-F1 (1992)

The Molecular Core in G34.3+0.2: Millimeter Interferometric Observations of HCO^+, $H^{13}CN$, $HC^{15}N$, and SO. *Patricia Carral & William J. Welch.* 385, 244, 15-A4 (1992)

Strongly Shocked Interstellar Gas in IC 443. I. High-Resolution Molecular Observations. *Z. Wang & N. Z. Scoville.* 386, 158, 26-B3 (1992)

A CO $J = 2 \rightarrow 1$ Study of the Outflow Sources GL 490, GS 2591, M8E-IR, and W3 IRS 5. *George F. Mitchell, Tatsuhiko I. Hasegawa, & Jason Schella.* 386, 604, 32-G6 (1992)

A CO Study of Sharpless 171: Evidence for Interaction between the H II Region and Its Neighboring Molecular Cloud. *Ji Yang & Yasuo Fukui.* 386, 618, 33-A8 (1992)

Interstellar Matter in Early-Type Galaxies. II. The Relationship between Gaseous Components and Galaxy Types. *Joel N. Bregman, David E. Hogg, & Morton S. Roberts.* 387, 484, 44-F9 (1992)

Kinematics and Morphology of Material Occulting ζ Ophiuchi. *H. S. Liszt.* 390, 226, 76-G1 (1992)

Global Star Formation in the L1630 Molecular Cloud. *Elizabeth A. Lada.* 393, L25, 120-D7 (1992)

Problems with the Standard Theory of Three-dimensional Masers. *David A. Neufeld.* 393, L37, 120-F1 (1992)

IRAS 14070+0525: An OH Gigamaser at $z = 0.265$. *Willem A. Baan, James Rhoads, Karl Fisher, Daniel R. Altschuler, & Aubrey Haschick.* 396, L99, 167-E1 (1992)

First-Order Fermi Acceleration in Spherically Symmetric Flows: Solutions Including Quadratic Losses. *Peter A. Becker.* 397, 88, 169-B6 (1992)

Submillimeter Detection of Extragalactic C I Emission: IC 342. *Thomas H. Büttgenbach, Jocelyn Keene, T. G. Phillips, & Christopher K. Walker.* 397, L15, 173-C1 (1992)

IRAS F10214+4724: An Extended CO Emission Source at $z = 2.2867$. *Robert L. Brown & Paul A. Vanden Bout.* 397, L19, 173-C6 (1992)

Aperture Synthesis CO ($J = 3$–2) Observations of a Protogalaxy Candidate IRAS F10214+4724. *R. Kawabe, K. Sakamoto, S. Ishizuki, & M. Ishiguro.* 397, L23, 173-C12 (1992)

The Detection of a New, Nonmasing Transition of Methanol at 28.3 GHz. *V. I. Slysh, S. V. Kalenskii, & I. E. Val'tts.* 397, L43, 173-F3 (1992)

Detection of the Quadrupole Hyperfine Structure in $HCNH^+$. *L. M. Ziurys, A. J. Apponi, & J. T. Yoder.* 397, L123, 181-F6 (1992)

Laboratory Measurement of the Rotational Spectrum of HCCS. *J. M. Vrtilek, C. A. Gottlieb, E. W. Gottlieb, W. Wang, & P. Thaddeus.* 398, L73, 188-C7 (1992)

Laboratory Measurement of the Millimeter and Submillimeter Wave Spectrum of $C_2H_3^+$. *M. Bogey, M. Cordonnier, C. Demuynck, & J. L. Destombes.* 399, L103, 201-E3 (1992)

Interstellar H_3O^+ and Its Relation to the O_2 and H_2O Abundances. *T. G. Phillips, Ewine F. van Dishoeck, & Jocelyn Keene.* 399, 533, 204-E1 (1992)

Discovery of Neutral Hydrogen 21 Centimeter Absorption at Redshift 0.25 toward PKS 1413+135. *C. L. Carilli, Eric S. Perlman, & John T. Stocke.* 400, L13, 214-C1 (1992)

VLBI Observations of the 6.7 GHz Methanol Masers toward W3(OH). *K. M. Menten, M. J. Reid, P. Pratap, J. M. Moran, & T. L. Wilson.* 401, L39, 227-F1 (1992)

The Environments of Young Stars: Mid-Infrared and Molecular Line Imaging. *Eric Keto, Deanne Proctor, Roger Ball, John Arens, & Garrett Jernigan.* 401, L113, 233-E11 (1992)

RADIO LINES: STARS

An *IRAS* Survey of Star-forming Regions toward Cygnus. *Sten F. Odenwald & Phil R. Schwartz.* 405, 706, 51-G7 (1993)

Laboratory Spectroscopy of MgNC: The First Radioastronomical Identification of Mg-bearing Molecule. *Kentarou Kawaguchi, Eriko Kagi, Tsuneo Hirano, Shuro Takano, & Shuji Saito.* 406, L39, 61-B1 (1993)

High-Excitation SiO Maser Emission in VY Canis Majoris: Detection of the $v = 4$ $J = 5$–4 Transition. *J. Cernicharo, V. Bujarrabal, & J. L. Santarén.* 407, L33, 75-D6 (1993)

Atomic Carbon in the Envelope of IRC +10216. *Jocelyn Keene, K. Young, T. G. Phillips, Thomas H. Büttgenbach, & John E. Carlstrom.* 415, L131, 200-E1 (1993)

The Location of Warm HC_3N and Warm HC_5N Gas in the Circumstellar Envelope of IRC +10216. *M. B. Bell.* 417, 305, 221-C9 (1993)

C_3S and C_5S in IRC +10216. *M. B. Bell, L. W. Avery, & P. A. Feldman.* 417, L37, 223-C1 (1993)

New OH/IR Stars from Color-selected *IRAS* Sources. III. A Complete Survey. *Jayaram N. Chengalur, B. M. Lewis, J. Eder, & Yervant Terzian.* 89, 189, 51-D3 (1993)

The Nature of the Radio Recombination Line Emission from MWC 349A. *M. A. Gordon.* 421, 314, 19-G7 (1994)

The Discrimination between O- and C-rich Circumstellar Envelopes from Molecular Observations. *V. Bujarrabal, A. Fuente, & A. Omont.* 421, L47, 22-B1 (1994)

A Millimeter-Wavelength Survey of S Stars for Mass Loss and Chemistry. *John H. Bieging & William B. Latter.* 422, 765, 41-D1 (1994)

The Spatial Size of the SiO Masers in R Leonis Derived from Lunar Occultations. *J. Cernicharo, W. Brunswig, G. Paubert, & S. Liechti.* 423, L143, 61-C13 (1994)

Modeling of the Hydrogen Maser Disk in MWC 349. *Victor O. Ponomarev, Howard A. Smith, & Vladimir S. Strelnitski.* 424, 976, 77-A1 (1994)

Three-dimensional Structure of the Circumstellar Envelope of CRL 618 based on the ^{13}CO $J = 1$–0 Mapping Observations. *Issei Yamamura, Katsunori M. Shibata, Takashi Kasuga, & Shuji Deguchi.* 427, 406, 114-G13 (1994)

Rotation in the Ionized Envelope of MWC 349A. *Luis F. Rodríguez & Timothy S. Bastian.* 428, 324, 132-B12 (1994)

Supplement to the Arecibo 1612 MHz Survey of Color-selected *IRAS* Sources. *B. M. Lewis.* 93, 549, 50-D9 (1994)

Exotic Fluoride Molecules in IRC +10216: Confirmation of AlF and Searches for MgF and CaF. *L. M. Ziurys, A. J. Apponi, & T. G. Phillips.* 433, 729, 220-B7 (1994)

The Circumstellar Environment of IRAS 05338−0624. *Joseph P. McMullin, Lee G. Mundy, & Geoff A. Blake.* 437, 305, 287-D6 (1994)

Observations of Molecular Envelopes of Late-Type Stars: CRL 618, CRL 2688, CRL 3068, and CIT 6. *Sadafumi Fukasaku, Yasuhiro Hirahara, Akimasa Masuda, Kentarou Kawaguchi, Shin-ichi Ishikawa, Norio Kaifu, & William M. Irvine.* 437, 410, 288-F13 (1994)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. I. The $7° < |B| < 8°$ Strips. *H. Izumiura, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, N. Ukita, & I. Yamamura.* 437, 419, 288-G11 (1994)

Full Synthesis Maps of Circumstellar SiC_2 in IRC +10216. *P. D. Gensheimer, Lauren Likkel, & L. E. Snyder.* 439, 445, 27-C3 (1995)

^{13}CO Interferometric Observations of the Central Core of CRL 2688. *Issei Yamamura, Takashi Onaka, Fumio Kamijo, Shuji Deguchi, & Nobuharu Ukita.* 439, L13, 29-G4 (1995)

H I Line Measurements of Eight Southern Pulsars. *Bärbel Koribalski, Simon Johnston, J. M. Weisberg, & W. Wilson.* 441, 756, 72-C13 (1995)

Intense Radio Outburst from the Supermassive Star η Carinae. *R. A. Duncan, S. M. White, J. Lim, G. J. Nelson, S. A. Drake, & M. R. Kundu.* 441, L73, 76-A6 (1995)

Detection of MgCN in IRC +10216: A New Metal-bearing Free Radical. *L. M. Ziurys, A. J. Apponi, M. Guélin, & J. Cernicharo.* 445, L47, 141-A5 (1995)

A CO(3–2) Survey of Nearby Mira Variables. *K. Young.* 445, 872, 147-C1 (1995)

High-Velocity Gas Associated with the Massive, Evolved Star G25.5+0.2. *D. S. Shepherd, E. Churchwell, & W. M. Goss.* 448, 426, 198-A9 (1995)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. III. Kinematics of the Bulge Stars. *H. Izumiura, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, N. Ukita, & I. Yamamura.* 453, 837, 295-D7 (1995)

RADIO SOURCES: EXTENDED

Correlated Radio and Optical Asymmetries in Powerful Radio Sources. *Patrick J. McCarthy, Wil van Breugel, & Vijay K. Kapahi.* 371, 478, 67-D11 (1991)

Diffuse Galactic Emission at Millimetric Wavelengths. *P. Andreani, G. Dall'Oglio, L. Martinis, L. Piccirillo, L. Pizzo, L. Rossi, & C. Venturino.* 375, 148, 112-G5 (1991)

The Brightness Temperature of the South Celestial Pole and the Temperature of the Cosmic Background Radiation Measured at 36.6 and 12 Centimeter Wavelength. *G. Sironi, G. Bonelli, & M. Limon.* 378, 550, 159-C1 (1991)

Cosmic Microwave Background and Galactic Quadrupoles in the Millimeter Region. *Paolo de Bernardis, Silvia Masi, & Nicola Vittorio.* 382, 515, 208-A1 (1991)

RADIO SOURCES: GALAXIES

H II Regions in M82: High-Resolution Millimeter Continuum Observations. *J. E. Carlstrom & Philipp P. Kronberg.* 366, 422, 8-B1 (1991)

Detection of Polarized Ultraviolet Emission from the High-Redshift Radio Galaxy 3C 265. *Buell T. Jannuzi & Richard Elston.* 366, L69, 11-C5 (1991)

A Change in the Cluster Environments of Radio Galaxies with Cosmic Epoch. *G. J. Hill & S. J. Lilly.* 367, 1, 12-A13 (1991)

A Technique for Using Radio Jets as Extended Gravitational Lensing Probes. *Philipp P. Kronberg, Charles C. Dyer, E. Margaret Burbidge, & Vesa T. Junkkarinen.* 367, L1, 17-B1 (1991)

Lyman-α Companions to High-z Quasars. *Esther M. Hu, Antoinette Songaila, Lennox L. Cowie, & Alan Stockton.* 368, 28, 23-D9 (1991)

Fanaroff-Riley I Galaxies as the Parent Population of BL Lacertae Objects. II. Optical Constraints. *P. Padovani & C. M. Urry.* 368, 373, 29-F6 (1991)

A Nonthermal Radio Halo Surrounding M82. *E. R. Seaquist & Nils Odegard.* 369, 320, 41-F13 (1991)

First Results from the Faint Object Camera: Observations of PKS 0521−36. *F. Macchetto, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 369, L55, 46-A1 (1991)

The Escape of Lyman-Alpha Radiation from a Multiphase Interstellar Medium. *David A. Neufeld.* 370, L85, 59-D13 (1991)

Multifrequency VLA, VLBI, and Single-Dish Observations of the Quasar 4C 39.25. *Alan P. Marscher, Yun Fei Zhang, David B. Shaffer, Hugh D. Aller, & Margo F. Aller.* 371, 491, 67-E12 (1991)

Statistical Analysis of Power-Size-Redshift Distributions of Extragalactic Jets. *Alexander Rosen & Paul J. Wiita.* 371, 501, 67-F10 (1991)

OX 169: Evidence for a Recent Merger. *Alan Stockton & Tony Farnham.* 371, 525, 68-A13 (1991)

The Influence of High-Density Environment on the Radio–Far-Infrared Correlation of Spiral Galaxies. *T. K. Menon.* 372, 419, 81-A7 (1991)

Gaseous Halos of Elliptical Galaxies, the Cosmic Evolution of Their Radio Sizes, and the Phenomenon of Compact Steep-Spectrum Sources. *Gopal-Krishna & Paul J. Wiita.* 373, 325, 92-B1 (1991)

HST Observations of 3C 66B: A Double-stranded Optical Jet. *F. Macchetto, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, & G. K. Miley.* 373, L55, 97-C10 (1991)

Deep Spectroscopy under High Spatial Resolution of the High-Redshift Radio Source 3CR 368: The Monster Elucidated. *F. Hammer, O. Le Fèvre, & D. Proust.* 374, 91, 99-B7 (1991)

The Complete Sample of 1 Jansky BL Lacertae Objects. I. Summary Properties. *M. Stickel, P. Padovani, C. M. Urry, J. W. Fried, & H. Kühr.* 374, 431, 104-E1 (1991)

Optical Polarization of a Complete Sample of Radio Sources. *C. D. Impey, C. R. Lawrence, & S. Tapia.* 375, 46, 111-E10 (1991)

The Interstellar Medium of the Hot-Spot Galaxy NGC 2903. *James M. Jackson, Andreas Eckart, Murray Cameron, Wolfgang Wild, Paul T. P. Ho, Richard W. Pogge, & Andrew I. Harris.* 375, 105, 112-C9 (1991)

Correlations between Far-Infrared, Radio, and Blue Luminosities of Spiral Galaxies. *J. J. Condon, M. L. Anderson, & G. Helou.* 376, 95, 126-B7 (1991)

Radio Source Orientation and the Angular Diameter–Redshift Relation. *L. I. Onuora.* 377, 36, 138-E1 (1991)

Compact Starbursts in Ultraluminous Infrared Galaxies. *J. J. Condon, Z.-P. Huang, Q. F. Yin, & T. X. Thuan.* 378, 65, 151-G5 (1991)

Superclustering at High Redshifts. *Michael J. West.* 379, 19, 163-C7 (1991)

What Are the Gigahertz Peaked-Spectrum Radio Sources? *C. P. O'Dea, S. A. Baum, & C. Stanghellini.* 380, 66, 176-G5 (1991)

The Discovery of a Young Radio Galaxy at $z = 2.390$: Probing Initial Star Formation at $z \leq 3.0$. *Rogier A. Windhorst, David Burstein, Doug F. Mathis, Lyman W. Neuschaefer, F. Bertola, L. M. Buson, David C. Koo, Keith Matthews, Peter D. Barthel, & K. C. Chambers.* 380, 362, 182-G1 (1991)

Bounds on Intergalactic Compact Objects from Observations of Compact Radio Sources. *Aggeliki Kassiola, Israel Kovner, & Roger D. Blandford.* 381, 6, 189-B4 (1991)

The Starburst Ring around the Seyfert Nucleus in NGC 7469. *A. S. Wilson, T. T. Helfer, C. A. Haniff, & M. J. Ward.* 381, 79, 190-A6 (1991)

3C 390.3: Modeling Variable Profile Humps. *Wei Zheng, Sylvain Veilleux, & Steven A. Grandi.* 381, 418, 196-A1 (1991)

Polarized Radio Emission from the Edge-on Spiral Galaxies NGC 891 and NGC 4565. *S. Sukumar & R. J. Allen.* 382, 100, 201-D1 (1991)

The Extraordinary Radio Source 3C 442. *Neil F. Comins & Frazer N. Owen.* 382, 108, 201-E1 (1991)

The Relationship between the Carbon Monoxide Intensity and the Radio Continuum Emission in Spiral Galaxies. *David S. Adler, Ronald J. Allen, & K. Y. Lo.* 382, 475, 207-D12 (1991)

Fanaroff-Riley I Galaxies as the Parent Population of BL Lacertae Objects. III. Radio Constraints. *C. M. Urry, P. Padovani, & M. Stickel.* 382, 501, 207-F13 (1991)

The Confinement and Cosmological Evolution of Extragalactic Radio Source Components. *A. A. Ubachukwu, S. E. Okoye, & L. I. Onuora.* 383, 56, 212-F7 (1991)

The Ultraviolet Spectra of Nearby Radio Galaxies. *William C. Keel & Rogier A. Windhorst.* 383, 135, 213-F3 (1991)

Multifrequency Radio Observations of Cygnus A: Spectral Aging in Powerful Radio Galaxies. *C. L. Carilli, R. A. Perley, J. W. Dreher, & J. P. Leahy.* 383, 554, 221-B9 (1991)

RADIO SOURCES: GENERAL

Comparison of VLBI Radio-Core and X-Ray Flux Densities of Extragalactic Radio Sources. *Steven D. Bloom & Alan P. Marscher.* 366, 16, 1-C5 (1991)

A New Catalog of 53,522 4.85 GHz Sources. *Robert H. Becker, Richard L. White, & Alan L. Edwards.* 75, 1, 1-B1 (1991)

BL Lacertae Objects and Radio-loud Quasars within an Evolutionary Unified Scheme. *F. Vagnetti, E. Giallongo, & A. Cavaliere.* 368, 366, 29-E11 (1991)

The Fourth MIT–Green Bank 5 GHz Survey. *Mark Griffith, Glen Langston, Mike Heflin, Sam Conner, & Bernard Burke.* 75, 801, 12-C5 (1991)

The 87GB Catalog of Radio Sources Covering $0° < \delta < +75°$ at 4.85 GHz. *P. C. Gregory & J. J. Condon.* 75, 1011, 17-A1 (1991)

VLA and VLBI Angular Broadening Measurements: The Distribution of Interstellar Scattering at Low Galactic Latitudes. *A. L. Fey, S. R. Spangler, & J. M. Cordes.* 372, 132, 75-F1 (1991)

Discovery of an Infrared Nucleus in Cygnus A: An Obscured Quasar Revealed? *S. Djorgovski, N. Weir, K. Matthews, & J. R. Graham.* 372, L67, 85-C5 (1991)

The Expansion of the Crab Nebula. *M. F. Bietenholz, P. P. Kronberg, D. E. Hogg, & A. S. Wilson.* 373, L59, 97-D5 (1991)

The Emission-Line Properties of Steep Radio Spectrum Quasars. *Michael R. Corbin.* 375, 503, 119-A11 (1991)

A Double Radio Source at the Center of the Outflow in L723. *Guillem Anglada, Robert Estalella, Luis F. Rodríguez, José M. Torrelles, Rosario López, & Jorge Cantó.* 376, 615, 134-A7 (1991)

Does the Vela Pulsar Have "Wisps"? *M. F. Bietenholz, D. A. Frail, & T. H. Hankins.* 376, L41, 137-C1 (1991)

An X-Ray and Radio Study of Steep-Spectrum Radio Sources. II. Four Fields from a 22 MHz Polar Cap Survey. *P. E. Dewdney, C. H. Costain, I. McHardy, A. G. Willis, D. E. Harris, & C. P. Stern.* 76, 1055, 40-D1 (1991)

Location of the Thermal Continuum Source Sagittarius D. *Dariusz C. Lis.* 379, L53, 175-B10 (1991)

The Galactic Center Radio Source Shines below the Compton Limit. *C. R. Gwinn, R. M. Danen, J. Middleditch, L. M. Ozernoy, & T. Kh. Tran.* 381, L43, 199-B7 (1991)

Emission-Line and Continuum Properties of 92 Bright QSOs: Luminosity Dependence and Differences between Radio-selected and Optically Selected Samples. *Charles C. Steidel & Wallace L. W. Sargent.* 382, 433, 207-A1 (1991)

Hubble Space Telescope Sample of Radio-loud Quasars: Ultraviolet Spectra of the First 31 Quasars. *Beverley J. Wills, Keith L. Thompson, Mingsheng Han, H. Netzer, D. Wills, J. A. Baldwin, G. J. Ferland, I. W. A. Browne, & M. S. Brotherton.* 447, 139, 174-A11 (1995)

RADIO SOURCES: IDENTIFICATIONS

Optical and Radio Observations of the Binary Pulsar 1855+09: Evolution of Pulsar Magnetic Fields and Low-Mass White Dwarf Cooling. *S. R. Kulkarni, S. Djorgovski, & A. R. Klemola.* 367, 221, 14-G4 (1991)

The Fourth MIT–Green Bank 5 GHz Survey. *Mark Griffith, Glen Langston, Mike Heflin, Sam Conner, & Bernard Burke.* 75, 801, 12-C5 (1991)

Deep Spectroscopy under High Spatial Resolution of the High-Redshift Radio Source 3CR 368: The Monster Elucidated. *F. Hammer, O. Le Fèvre, & D. Proust.* 374, 91, 99-B7 (1991)

Diffuse Galactic Emission at Millimetric Wavelengths. *P. Andreani, G. Dall'Oglio, L. Martinis, L. Piccirillo, L. Pizzo, L. Rossi, & C. Venturino.* 375, 148, 112-G5 (1991)

An X-Ray and Radio Study of Steep-Spectrum Radio Sources. II. Four Fields from a 22 MHz Polar Cap Survey. *P. E. Dewdney, C. H. Costain, I. McHardy, A. G. Willis, D. E. Harris, & C. P. Stern.* 76, 1055, 40-D1 (1991)

Detection of a New Carbon-Chain Molecule, CCO. *Masatoshi Ohishi, Hiroko Suzuki, Shin-ichi Ishikawa, Chikashi Yamada, Hideto Kanamori, William M. Irvine, Ronald D. Brown, Peter D. Godfrey, & Norio Kaifu.* 380, L39, 181-E11 (1991)

RADIO SOURCES: LINES

VLA Radio Recombination Line Observations of Sagittarius A West. *D. A. Roberts, W. W. Goss, J. H. van Gorkom, & J. P. Leahy.* 366, L15, 6-B13 (1991)

A Search for Vibrationally Excited H_2O at 68 GHz. *S. J. Petuchowski & C. L. Bennett.* 367, 168, 14-B4 (1991)

Detection of ^{13}C Isotopomers of HC_5N ($J = 9–8$) in the Circumstellar Envelope of IRC +10216. *M. B. Bell & P. A. Feldman.* 367, L33, 17-E8 (1991)

The Millimeter-Wave Spectrum of Highly Vibrationally Excited SiO. *R. Mollaaghababa, C. A. Gottlieb, J. M. Vrtilek, & P. Thaddeus.* 368, L19, 28-D1 (1991)

Astronomical Detection of H_2CCC. *J. Cernicharo, C. A. Gottlieb, M. Guélin, T. C. Killian, G. Paubert, P. Thaddeus, & J. M. Vrtilek.* 368, L39, 35-C7 (1991)

Astronomical Detection of H_2CCCC. *J. Cernicharo, C. A. Gottlieb, M. Guélin, T. C. Killian, P. Thaddeus, & J. M. Vrtilek.* 368, L43, 35-C11 (1991)

Radio Recombination Lines from Diffuse Interstellar Gas in the Galaxy. *J. C. Cersosimo & J. S. Onello.* 370, 225, 50-A5 (1991)

Laboratory Detection of HC_9N Using a Fourier Transform Microwave Spectrometer. *Minoru Iida, Yasuhiro Ohshima, & Yasuki Endo.* 371, L45, 66-F7 (1991)

The Dynamics and Physical Properties of the Cometary Nebula G29.96−0.02. *Douglas O. S. Wood & Ed Churchwell.* 372, 199, 76-D8 (1991)

VLBI Observations of Interstellar Ammonia Masers. *Preethi Pratap, Karl M. Menten, Mark J. Reid, James M. Moran, & C. Malcolm Walmsley.* 373, L13, 91-B12 (1991)

Interstellar Scattering Effects on the Detection of Narrow-Band Signals. *James M. Cordes & T. Joseph Lazio.* 376, 123, 126-D10 (1991)

Molecular Outflows Associated with Young Stellar Objects in the L1641 Region of Orion. *James A. Morgan, F. Peter Schloerb, Ronald L. Snell, & John Bally.* 376, 618, 134-A12 (1991)

The Dense Molecular Envelope around the Compact H II Region G5.89−0.39 (W28 A2). *Yolanda Gómez, Luis F. Rodríguez, Guido Garay, & James M. Moran.* 377, 519, 146-B9 (1991)

The Discovery of a New, Very Strong, and Widespread Interstellar Methanol Maser Line. *Karl M. Menten.* 380, L75, 188-E1 (1991)

High-Resolution Spectroscopy of Partially Ionized Gas around H II Regions. *Joseph S. Onello, J. A. Phillips, & Yervant Terzian.* 383, 693, 222-G6 (1991)

High-Velocity OH in Absorption: A New Tracer of Shocked Gas in Outflows? *A. Ruiz, L. F. Rodríguez, J. Cantó, & I. F. Mirabel.* 398, 139, 183-F3 (1992)

Rotation and Outflow in Compact H II Regions: VLA Observations of the Molecular and Ionized Gas in NGC 6334A and NGC 6334F. *C. G. De Pree, L. F. Rodríguez, H. R. Dickel, & W. M. Goss.* 447, 220, 175-C8 (1995)

RADIO SOURCES: SPECTRA

Theoretical Determination of the Spectroscopic Constants of the MgC Molecule. *Marcos A. Castro, Sylvio Canuto, & Florian Müller-Plathe.* 367, L69, 22-D3 (1991)

Lyman-α Companions to High-z Quasars. *Esther M. Hu, Antoinette Songaila, Lennox L. Cowie, & Alan Stockton.* 368, 28, 23-D9 (1991)

Circular Polarization in 1612 MHz OH Maser Emission from OH/IR Stars. *Philip J. Zell & John D. Fix.* 369, 506, 44-A9 (1991)

Multifrequency VLA Observations of Radio Continuum from IRAS 16293−2422. *R. Estalella, G. Anglada, L. F. Rodríguez, & G. Garay.* 371, 626, 69-C12 (1991)

Relativistic Electron Populations in Cassiopeia A. *M. Anderson, L. Rudnick, P. Leppik, R. Perley, & R. Braun.* 373, 146, 87-G4 (1991)

An X-Ray and Radio Study of Steep-Spectrum Radio Sources. II. Four Fields from a 22 MHz Polar Cap Survey. *P. E. Dewdney, C. H. Costain, I. McHardy, A. G. Willis, D. E. Harris, & C. P. Stern.* 76, 1055, 40-D1 (1991)

A Spectral Study of Four Millisecond Pulsars. *R. S. Foster, L. Fairhead, & D. C. Backer.* 378, 687, 161-A1 (1991)

What Are the Gigahertz Peaked-Spectrum Radio Sources? *C. P. O'Dea, S. A. Baum, & C. Stanghellini.* 380, 66, 176-G5 (1991)

First Absolute Wind Measurements in the Middle Atmosphere of Mars. *Emmanuel Lellouch, Jeffrey J. Goldstein, Stephen W. Bougher, Gabriel Paubert, & Jan Rosenqvist.* 383, 401, 217-C5 (1991)

RADIO SOURCES: 21 CM RADIATION

Warm Neutral Halos around Molecular Clouds. III. Interpretation of H I and CO $J = 1–0$ Data. *B-G Andersson, Peter G. Wannier, & Mark Morris.* 366, 464, 8-F1 (1991)

Properties of the Redshift. II. Radial Variation. *W. G. Tifft.* 368, 105, 24-D1 (1991)

The Shape of the Galaxy. *Leo Blitz & David N. Spergel.* 370, 205, 49-F11 (1991)

IRAS 23545+6508, a Dissociating Star: Prototype for a New Observational Class? *P. E. Dewdney, R. S. Roger, C. R. Purton, & W. H. McCutcheon.* 370, 243, 50-C1 (1991)

Interstellar Matter in Early-Type Galaxies. I. The Catalog. *Morton S. Roberts, David E. Hogg, Joel N. Bregman, William R. Forman, & Christine Jones.* 75, 751, 11-F5 (1991)

The Neutral Hydrogen Distribution of NGC 3079. *Judith A. Irwin & E. R. Seaquist.* 371, 111, 61-D9 (1991)

Warm Neutral Halos around Molecular Clouds. II. H I and CO ($J = 1–0$) Observations. *Peter G. Wannier, B-G Andersson, Mark Morris, & Steven M. Lichten.* 75, 987, 16-B1 (1991)

VLA Observations of 21 Centimeter H I Absorption toward Cassiopeia A. *John H. Bieging, W. Miller Goss, & Eric M. Wilcots.* 75, 999, 16-F5 (1991)

The Distribution and Kinematics of Neutral Gas in M31. *Robert Braun.* 372, 54, 74-F6 (1991)

On the Population of H I Dwarf Galaxies. *David H. Weinberg, Arpad Szomoru, P. Guhathakurta, & J. H. van Gorkom.* 372, L13, 79-B11 (1991)

H I Mapping of Galaxies in the Cluster A1367. *John M. Dickey & Giuseppe Gavazzi.* 373, 347, 92-C12 (1991)

H I Deficiency in Cluster Spiral Galaxies: Dependence on Galaxy Size. *Monica Valluri & Chanda J. Jog.* 374, 103, 99-C7 (1991)

Observation of Neutral Hydrogen in the Globular Cluster NGC 2808. *D. J. Faulkner, Tania R. Scott, P. R. Wood, & Alan E. Wright.* 374, L45, 110-C6 (1991)

The Distance to the Coma Cluster Using the *B*-Band Tully-Fisher Relation. *M. Fukugita, S. Okamura, K. Tarusawa, H. J. Rood, & B. A. Williams.* 376, 8, 125-B9 (1991)

Neutral Hydrogen in the Outer Galaxy. *Athanassios Diplas & Blair D. Savage.* 377, 126, 139-E5 (1991)

A Search for Redshifted Neutral Hydrogen from Protoclusters of Galaxies. *Juan M. Uson, Durgadas S. Bagri, & Timothy J. Cornwell.* 377, L65, 150-B1 (1991)

H I Studies of the Sculptor Group Galaxies. VII. Implications on the Distribution and Nature of Dark Matter in Groups. *Daniel Puche & Claude Carignan.* 378, 487, 158-E1 (1991)

The H I Content of the Local Group Dwarf (Spheroidal or Irregular?) Galaxy Phoenix. *Claude Carignan, Serge Demers, & Stéphanie Côté.* 381, L13, 194-C1 (1991)

H I Absorption Measurements toward 15 Pulsars and the Radial Distribution of Diffuse Ionized Gas in the Galaxy. *D. A. Frail, J. M. Cordes, T. H. Hankins, & J. M. Weisberg.* 382, 168, 202-C10 (1991)

Vertical Distribution and Support of Galactic H I. *Felix J. Lockman & Curtis S. Gehman.* 382, 182, 202-D12 (1991)

A Survey of H I 21 Centimeter Emission Lines toward Supernova Remnants. *Bon-Chul Koo & Carl Heiles.* 382, 204, 202-F11 (1991)

Neutral Hydrogen Observations of Galaxies in Superclusters. *M. P. Haynes & R. Giovanelli.* 77, 331, 49-B1 (1991)

Properties of the Redshift. III. Temporal Variation. *W. G. Tifft.* 382, 396, 206-E1 (1991)

The Velocity Field of Clusters of Galaxies within 100 Megaparsecs. I. Southern Clusters. *J. R. Mould, L. Staveley-Smith, R. A. Schommer, G. D. Bothun, P. J. Hall, Ming Sheng Han, J. P. Huchra, J. Roth, W. Walsh, & A. E. Wright.* 383, 467, 220-B7 (1991)

The Relation of Dust and Atomic Gas Properties of Galaxies. *John G. Spitzak & Stephen E. Schneider.* 393, 126, 115-F1 (1992)

RADIO SOURCES: VARIABLE

Correlated Radio and Optical Variability in the BL Lacertae Object 0716+714. *A. Quirrenbach, A. Witzel, S. Wagner, F. Sanchez-Pons, T. P. Krichbaum, R. Wegner, K. Anton, U. Erkens, M. Haehnelt, J. A. Zensus, & K. J. Johnston.* 372, L71, 85-C9 (1991)

Variability of Interstellar Hydroxyl Masers. *Andrew W. Clegg & James M. Cordes.* 374, 150, 99-G11 (1991)

A Model for the Spectral Variability of BL Lacertae Objects at High Frequencies. *A. Celotti, L. Maraschi, & A. Treves.* 377, 403, 144-G1 (1991)

Coherent Radiation from Energetic Electron Streams via Collisionless Bremsstrahlung in Strong Plasma Turbulence. *James C. Weatherall & Gregory Benford.* 378, 543, 159-B8 (1991)

Daily Observations of Compact Radio Sources at 2.7 and 8.1 GHz: 1979–1987. *E. B. Waltman, R. L. Fiedler, K. J. Johnston, J. H. Spencer, D. R. Florkowski, F. J. Josties, D. D. McCarthy, & D. N. Matsakis.* 77, 379, 49-G5 (1991)

Multifrequency Observations of BL Lacertae in 1988. *N. Kawai, M. Matsuoka, J. N. Bregman, H. D. Aller, M. F. Aller, P. A. Hughes, S. A. Balbus, T. J. Balonek, K. C. Chambers, R. E. S. Clegg, S. D. Clements, R. J. Leacock, A. G. Smith, R. Goodrich, J. S. Miller, M. Hereld, M. G. Hoare, V. A. Hughes, G. K. Miley, G. H. Moriarty-Schieven, K. Matthews, G. Neugebauer, T. Ohashi, P. F. Roche, H. A. Thronson, E. Valtaoja, H. Terasranta, J. R. Webb, B. J. Wills, & D. Wills.* 382, 508, 207-G8 (1991)

Time-dependent Radio Sources in the Star-forming Region Cepheus A (East). *V. A. Hughes.* 383, 280, 215-F1 (1991)

X-Ray and Radio Pulse Phase Comparison for PSR 1509−58. *N. Kawai, R. Okayasu, W. Brinkmann, R. Manchester, A. G. Lyne, & N. D'Amico.* 383, L65, 226-D12 (1991)

REFERENCE SYSTEMS

The Analysis of Star Catalogs. I. An Intercomparison among the FK3, the FK4, and the FK5. *B. Bucciarelli, M. G. Lattanzi, & L. G. Taff.* 433, 831, 221-D13 (1994)

The Analysis of Star Catalogs. II. An Intercomparison among the GC, the N30, and the FK5 (B1950.0/FK4). *L. G. Taff & B. Bucciarelli.* 433, 845, 221-F1 (1994)

The Intercomparison of Star Catalogs. III. Comparing the AGK3, the AGK3U, the ACRS (Part 1), and the PPM to the General Catalog. *D. Daou, J. E. Morrison, & L. G. Taff.* 451, 768, 257-F12 (1995)

RELATIVITY

On the Orbital Period Change of the Binary Pulsar PSR 1913+16. *Thibault Damour & J. H. Taylor.* 366, 501, 9-C1 (1991)

Application of a General Relativistic Accretion Disk Model to LMC X-1, LMC X-3, X1608−522, and X1636−536. *Ken Ebisawa, Kazuhisa Mitsuda, & Tomoyuki Hanawa.* 367, 213, 14-F8 (1991)

Olbers's Paradox and the Spectral Intensity of the Extragalactic Background Light. *Paul S. Wesson.* 367, 399, 18-D5 (1991)

Numerical Study of a Perturbed Einstein–de Sitter Cosmological Model. *H. V. Fagundes & S. F. Kwok.* 368, 337, 29-C4 (1991)

The Appearance of Highly Relativistic, Spherically Symmetric Stellar Winds. *Marek A. Abramowicz, Igor D. Novikov, & Bohdan Paczyński.* 369, 175, 38-B5 (1991)

A Relativistic Model of Pulsar Polarization. *M. Blaskiewicz, J. M. Cordes, & I. Wasserman.* 370, 643, 56-D9 (1991)

Stability of a Collapsed Star in Bimetric General Relativity. II. *Amos Harpaz & Nathan Rosen.* 371, 254, 63-C9 (1991)

The Relativistic Rotation Transformation and the Corotating Source Model. *S. Kichenassamy & R. A. Krikorian.* 371, 277, 63-E7 (1991)

Near-critical Spherical Accretion by Neutron Stars: General Relativistic Treatment. *Myeong-Gu Park & Guy S. Miller.* 371, 708, 70-D1 (1991)

High-Precision Timing of Millisecond Pulsars. I. Astrometry and Masses of the PSR 1855+09 System. *M. F. Ryba & J. H. Taylor.* 371, 739, 70-F9 (1991)

Numerical Solution of the General Relativistic Boltzmann Equation for Massive and Massless Particles. *Hugh Harleston & Katherine A. Holcomb.* 372, 225, 76-F13 (1991)

Coincidence Probabilities for Spacecraft Gravitational Wave Experiments: Massive Coalescing Binaries. *Massimo Tinto & J. W. Armstrong.* 372, 545, 82-E1 (1991)

Hard X-Ray Spectra from Gap Accretion onto Neutron Stars. *Włodzimierz Kluźniak & James R. Wilson.* 372, L87, 85-E1 (1991)

Relativistic Motion in Gamma-Ray Bursts. *Julian H. Krolik & Edward A. Pier.* 373, 277, 89-D8 (1991)

Structure and Stability of Rotating Relativistic Neutron Stars. *F. Weber, N. K. Glendenning, & M. K. Weigel.* 373, 579, 95-B10 (1991)

Voyager 2 Test of the Radar Time-Delay Effect. *Timothy P. Krisher, John D. Anderson, & Anthony H. Taylor.* 373, 665, 96-C1 (1991)

Post-Newtonian Effects on the Modes of Rotating Stars. *Curt Cutler.* 374, 248, 101-C1 (1991)

Cyclotron Resonant Scattering and Absorption. *Alice K. Harding & Joseph K. Daugherty.* 374, 687, 107-E8 (1991)

Gamma-Ray Bursts from Colliding Strange Stars. *P. Haensel, B. Paczyński, & P. Amsterdamski.* 375, 209, 113-E10 (1991)

Perturbations of the Robertson-Walker Space: Multicomponent Sources and Generalized Gravity. *Jai-chan Hwang.* 375, 443, 118-C7 (1991)

Perturbations in a Singularity-free Cosmological Model. *Mark Israelit & Nathan Rosen.* 375, 463, 118-E1 (1991)

The Evolution of Discontinuities in Radiating Spheres in the Diffusion Approximation. *W. Barreto, L. Herrera, & L. Núñez.* 375, 663, 121-A1 (1991)

The Effects of Thermal Radiation on Some General Relativistic Stellar Models. *J. M. Aguirregabiria, J. Ibáñez, A. Di Prisco, & L. Herrera.* 376, 662, 134-E8 (1991)

Solar Gravitational Redshift from the Infrared Oxygen Triplet. *James C. LoPresto, Charles Schrader, & A. Keith Pierce.* 376, 757, 135-F11 (1991)

A New Approach to Gravitational Microlensing: Time Delays and the Galactic Mass Distribution. *Lawrence M. Krauss & Todd A. Small.* 378, 22, 151-C8 (1991)

A Determination of Relativistic Shock Jump Conditions Using Monte Carlo Techniques. *Donald C. Ellison & Stephen P. Reynolds.* 378, 214, 153-F1 (1991)

The Contribution of Light Bending and Redshift to the Pulse Characteristics of a Pulsar in the Case of Smaller Neutron Stars. *R. C. Kapoor.* 378, 227, 153-G1 (1991)

Cosmological Constraints on the Zero-Point Electromagnetic Field. *Paul S. Wesson.* 378, 466, 158-C1 (1991)

Polarization Properties of Emission Lines from Relativistic Accretion Disks. *Kaiyou Chen & Douglas M. Eardley.* 382, 125, 201-F10 (1991)

Gravitational Effects of Light Scalar Particles. *Thomas Helbig.* 382, 223, 203-A7 (1991)

Diffusion Processes in the Collapse of a Radiating Spherical Body. *R. Chan, L. Herrera, J. A. F. Pacheco, & N. O. Santos.* 382, 255, 203-D1 (1991)

Gauge-invariant Joining Conditions for Cosmological Perturbations. *Jai-chan Hwang & Ethan T. Vishniac.* 382, 363, 206-B1 (1991)

Physically Permitted Cosmological Models with Nonzero Cosmological Constant. *M. Moles.* 382, 369, 206-B9 (1991)

Testing Einstein's Theory of Gravity by Analyzing Lunar Laser Ranging Data. *J. Müller, M. Schneider, M. Soffel, & H. Ruder.* 382, L101, 211-E12 (1991)

Hubble Spheres and Particle Horizons. *Edward Harrison.* 383, 60, 212-G1 (1991)

Spherical Accretion onto Black Holes: A Complete Analysis of Stationary Solutions. *Luciano Nobili, Roberto Turolla, & Luca Zampieri.* 383, 250, 215-C9 (1991)

The Effects of Radiation Drag on Radial, Relativistic Hydromagnetic Winds. *Zhi-yun Li, Mitchell C. Begelman, & Tzihong Chiueh.* 384, 567, 9-C1 (1992)

The Magnitude-Redshift Relation. *Allen I. Janis.* 385, 391, 18-B1 (1992)

Astrophysical Jets and Theories of Gravitation. *Mario Livio & Nathan Rosen.* 387, 458, 44-D5 (1992)

On Modeling a Relativistic Hierarchical (Fractal) Cosmology by Tolman's Spacetime. I. Theory. *Marcelo B. Ribeiro.* 388, 1, 49-B1 (1992)

Light Curves of Rotating, Oscillating Neutron Stars. *T. E. Strohmayer.* 388, 138, 50-F9 (1992)

Equilibrium Stellar Systems with Spindle Singularities. *Stuart L. Shapiro & Saul A. Teukolsky.* 388, 287, 53-G10 (1992)

Rotational Properties of Strange Stars. *M. Colpi & J. C. Miller.* 388, 513, 56-F1 (1992)

On the Pulsations of Relativistic Accretion Disks and Rotating Stars: The Cowling Approximation. *James R. Ipser & Lee Lindblom.* 389, 392, 64-G1 (1992)

A Description of Semidegenerate Self-gravitating Spheres of Fermions. *M. Membrado, A. F. Pacheco, & J. Sañudo.* 390, 88, 75-B7 (1992)

PSR 0655+64: An Astrophysical Laboratory for Testing Relativistic Gravity Theories. *Itzhak Goldman.* 390, 494, 81-D11 (1992)

Application of the Improved Hartle Method for the Construction of General Relativistic Rotating Neutron Star Models. *F. Weber & N. K. Glendenning.* 390, 541, 82-B1 (1992)

On the Thermal Conductivity due to Collisions between Relativistic Degenerate Electrons. *F. X. Timmes.* 390, L107, 85-D9 (1992)

Cosmic Curvature and Condensation. *Martin Harwit.* 392, 394, 107-C1 (1992)

Neutron Stars and Gravitational Scalars. *Helmut W. Zaglauer.* 393, 685, 124-D1 (1992)

Diskoseismology: Probing Accretion Disks. II. *G*-Modes, Gravitational Radiation Reaction, and Viscosity. *Michael A. Nowak & Robert V. Wagoner.* 393, 697, 124-E1 (1992)

A Physical Interpretation of Kaluza-Klein Cosmology. *Paul S. Wesson.* 394, 19, 128-C9 (1992)

Cosmological Perturbations and the Physical Meaning of Gauge-invariant Variables. *Marco Bruni, Peter K. S. Dunsby, & George F. R. Ellis.* 395, 34, 140-E7 (1992)

Covariant Perturbations in a Multifluid Cosmological Medium. *Peter K. S. Dunsby, Marco Bruni, & George F. R. Ellis.* 395, 54, 140-G1 (1992)

First-Order Fermi Acceleration in Spherically Symmetric Flows: Solutions Including Quadratic Losses. *Peter A. Becker.* 397, 88, 169-B6 (1992)

Three-dimensional Magnetic Field Configurations in Relativistic Magnetohydrodynamic Outflows. *Yu-Qing Lou.* 397, L67, 174-A10 (1992)

Angle-dependent Green's Functions for Relativistic Compton Reflection. *Xin-Min Hua & Richard E. Lingenfelter.* 397, 591, 178-D1 (1992)

The Perihelion Problem in Kaluza-Klein Gravity. *Paul H. Lim & Paul S. Wesson.* 397, L91, 181-B8 (1992)

Relativistic Two-Moment Neutrino Transport. *J. Cernohorsky & Ch. G. van Weert.* 398, 190, 184-C1 (1992)

Spin-up of a Rapidly Rotating Star by Angular Momentum Loss: Effects of General Relativity. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 398, 203, 184-D1 (1992)

Radiative Equilibrium in Rapidly Expanding Shells. *P. H. Hauschildt.* 398, 224, 184-E9 (1992)

Nonstationary Gravitational Lenses and the Fermat Principle. *Valerio Faraoni.* 398, 425, 189-D1 (1992)

Determining the Nuclear Equation of State from Neutron-Star Masses and Radii. *Lee Lindblom.* 398, 569, 191-C1 (1992)

Newton's Laws in a Cosmological Model. *Mark Israelit & Nathan Rosen.* 400, 21, 209-C7 (1992)

Radiation from a Relativistic Magnetized Star. *V. Belinsky & R. Ruffini.* 401, L27, 227-D7 (1992)

Cylindrical Universes with Heat and Null Radiation Flow. *L. K. Patel & Naresh Dadhich.* 401, 433, 228-B1 (1992)

General Relativistic Structure of Star-Toroid Systems. *Shogo Nishida, Yoshiharu Eriguchi, & Antonio Lanza.* 401, 618, 230-C1 (1992)

Relativistic Matter Distribution around a Black Hole: Astrophysical Consequences. *Ran Zamir.* 403, 278, 17-C12 (1993)

Smoothed Particle Hydrodynamics near a Black Hole. *Pablo Laguna, Warner A. Miller, & Wojciech H. Zurek.* 404, 678, 37-D3 (1993)

Relativistic Frequency-dependent Transfer in Spherical Flows. I. Method and Numerical Tests. *Luciano Nobili, Roberto Turolla, & Luca Zampieri.* 404, 686, 37-D12 (1993)

Trajectories of Nonzero–Rest-Mass Particles in Curved Spacetime. *P. S. Negi, A. K. Pande, & M. C. Durgapal.* 406, 1, 55-B1 (1993)

Fitting Pulse Profiles of X-Ray Pulsars: The Effects of Relativistic Light Deflection. *H. Riffert, H.-P. Nollert, U. Kraus, & H. Ruder.* 406, 185, 57-D1 (1993)

Cosmological Time Evolution in the Newtonian Dynamics of Compact Celestial Bodies. *K. Nordtvedt.* 407, 5, 69-B6 (1993)

Relativistic Bulk Motion in Active Galactic Nuclei. *G. Ghisellini, P. Padovani, A. Celotti, & L. Maraschi.* 407, 65, 70-A1 (1993)

The Boltzmann Equation in General Relativistic Rotating Systems: Cooling of Rotating Neutron Stars. *Juan A. Miralles, Kenneth A. Van Riper, & James M. Lattimer.* 407, 687, 79-B1 (1993)

Second Post-Newtonian Order Renormalization of First Post-Newtonian Order Gravity in the Solar System. *Ken Nordtvedt.* 407, 758, 80-A1 (1993)

A Two-dimensional Relativistic ($\Gamma = 3.25$) Jet Simulation. *Maurice H. P. M. van Putten.* 408, L21, 88-G8 (1993)

A Static Stable Universe. *David F. Crawford.* 410, 488, 119-F9 (1993)

Tidal Disruptions by Supermassive Black Holes: Hydrodynamic Evolution of Stars on a Schwarzschild Background. *Pablo Laguna, Warner A. Miller, Wojciech H. Zurek, & Melvyn B. Davies.* 410, L83, 125-G9 (1993)

A General Relativistic Hydrostatic Model for a Galaxy. *Roberto Hojman, Leda Peña, & Nelson Zamorano.* 411, 541, 136-D3 (1993)

Effect of Radiation Forces on Disk Accretion by Weakly Magnetic Neutron Stars. *M. Coleman Miller & Frederick K. Lamb.* 413, L43, 162-F9 (1993)

Stability of Dense Stellar Clusters against Relativistic Collapse. *G. S. Bisnovatyi-Kogan, M. Merafina, R. Ruffini, & E. Vesperini.* 414, 187, 172-C13 (1993)

Normal Modes of Relativistic Stars in Slow Rotation Limit. *Yasufumi Kojima.* 414, 247, 173-B3 (1993)

Deflection of Light by the Earth. *Andrew Gould.* 414, L37, 175-F11 (1993)

Constraints on Axions from the Extragalactic Background Light. *J. M. Overduin & P. S. Wesson.* 414, 449, 176-F10 (1993)

Alfvénic Fluctuations in a Relativistic Wind with a Spiral Magnetic Field and Random Magnetic Field Structures in the Crab Nebula. *Yu-Qing Lou.* 414, 656, 179-D2 (1993)

The Einsteinian Gravitational Field of the Rigidly Rotating Disk of Dust. *G. Neugebauer & R. Meinel.* 414, L97, 185-G5 (1993)

The Relativistic Sobolev Method Applied to Homologously Expanding Atmospheres. *David J. Jeffery.* 415, 734, 197-A5 (1993)

Formation of P Cygni Line Profiles in Relativistically Expanding Atmospheres. II. The Effect of the Continuum Frequency Shape and Limb Darkening of the Core. *Damien Hutsemékers.* 417, 97, 218-D12 (1993)

Gravitational Wave Detection: A Nonmechanical Effect. *Redouane Fakir.* 418, 202, 233-E4 (1993)

γ-γ Attenuation and Relativisitic Beaming in Gamma-Ray Bursts. *Matthew G. Baring.* 418, 391, 235-G8 (1993)

Radio Transients from Gamma-Ray Bursters. *Bohdan Paczyński & James E. Rhoads.* 418, L5, 238-B1 (1993)

Thin Shells in Flat McVittie Spacetimes. *Paul Haines & Joseph D. Harris.* 418, 579, 239-F3 (1993)

Three-dimensional Propagation of Transverse Magnetohydrodynamic Perturbations in Relativistic Winds. *Yu-Qing Lou.* 418, 709, 241-C12 (1993)

Formation of a Jet in the Galactic Center Black Hole Candidate 1E 1740.7−2942. *Ranjeev Misra & Fulvio Melia.* 419, L25, 252-D9 (1993)

Relativistic Stellar Systems with Spindle Singularities. *Stuart L. Shapiro & Saul A. Teukolsky.* 419, 622, 255-D10 (1993)

Relativistic Stellar Systems with Rotation. *Stuart L. Shapiro & Saul A. Teukolsky.* 419, 636, 255-E12 (1993)

Optical Caustics in a Kerr Spacetime and the Origin of Rapid X-Ray Variability in Active Galactic Nuclei. *Kevin P. Rauch & Roger D. Blandford.* 421, 46, 16-F1 (1994)

Radiating, Slowly Rotating Bodies in General Relativity. *L. Herrera, A. Melfo, L. A. Núñez, & A. Patiño.* 421, 677, 26-F3 (1994)

Relativistic Precession of the Orbit of a Star near a Supermassive Black Hole. *V. Karas & D. Vokrouhlický.* 422, 208, 32-F6 (1994)

Rapidly Rotating Polytropes in General Relativity. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 422, 227, 33-A1 (1994)

Stellar and Scattered Light in a Radio Galaxy at $z = 2.63$. *Andrea Cimatti, Sperello di Serego Alighieri, George B. Field, & Robert A. E. Fosbury.* 422, 562, 38-G1 (1994)

Gravitational Collapse of an Inhomogeneous Dust Sphere in Higher Dimensional Spacetime. *A. Banerjee, A. Sil, & S. Chatterjee.* 422, 681, 40-C12 (1994)

Relativistic Equation of State of Nuclear Matter for the Supernova Explosion and the Birth of Neutron Stars. *K. Sumiyoshi & H. Toki.* 422, 700, 40-E7 (1994)

Relativistic Particle Acceleration in Plerions. *Jonathan Arons & Marco Tavani.* 90, 797, 13-F1 (1994)
Applying the Zel'dovich Approximation to General Relativity. *K. M. Croudace, J. Parry, D. S. Salopek, & J. M. Stewart.* 423, 22, 46-D1 (1994)
Recycling Pulsars to Millisecond Periods in General Relativity. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 423, L117, 60-G3 (1994)
Rapidly Rotating Neutron Stars in General Relativity: Realistic Equations of State. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 424, 823, 75-A11 (1994)
Relativistic Beaming and Gamma-Ray Bursts. *Shude Mao & Insu Yi.* 424, L131, 79-E11 (1994)
Multiple Images and Light Curves of an Emitting Source on a Relativistic Eccentric Orbit around a Black Hole. *G. Bao, P. Hadrava, & E. Østgaard.* 425, 63, 81-A5 (1994)
General Relativistic Corrections in the Gamma-Ray Emission from Pulsars. *P. L. Gonthier & A. K. Harding.* 425, 767, 91-C10 (1994)
Gravity Wave Watching. *Redouane Fakir.* 426, 74, 97-A5 (1994)
Asymptotic Domination of Cold Relativistic MHD Winds by Kinetic Energy Flux. *Mitchell C. Begelman & Zhi-Yun Li.* 426, 269, 99-D9 (1994)
A General Relativistic Toroid around a Black Hole. *Shogo Nishida & Yoshiharu Eriguchi.* 427, 429, 115-B13 (1994)
Study of the Matching of Solutions of the Einstein Equations according to Darmois. *Armando Bernui & Edwin Portocarrero.* 427, 947, 124-D5 (1994)
The Post-Keplerian Orbital Representations of the Relativistic Two-Body Problem. *S. A. Klioner & S. M. Kopeikin.* 427, 951, 124-D10 (1994)
High-Precision Timing of Millisecond Pulsars. III. Long-Term Monitoring of PSRs B1855+09 and B1937+21. *V. M. Kaspi, J. H. Taylor, & M. F. Ryba.* 428, 713, 139-B9 (1994)
Gravitional Lenses and Unconventional Gravity Theories. *Jacob D. Bekenstein & Robert H. Sanders.* 429, 480, 151-F6 (1994)
Superluminal Motion Statistics and Cosmology. *R. C. Vermeulen & M. H. Cohen.* 430, 467, 167-E3 (1994)
Gauge-invariant Cosmological Perturbations in Generalized Einstein Theories. *T. Hirai & K. Maeda.* 431, 6, 176-C8 (1994)
Gravitational Radiation from Pairs of Realistic, Nonaccreting Compact Stars. *N. K. Spyrou & K. D. Kokkotas.* 431, 254, 179-C8 (1994)
The Relativistic Rotation Transformation and Pulsar Electrodynamics. *S. Kichenassamy & R. A. Krikorian.* 431, 715, 187-D8 (1994)
Multipole Moments of Stellar Oscillation Modes. *Andreas Reisenegger.* 432, 296, 196-G6 (1994)
Relativistic Tidal Interaction of a White Dwarf with a Massive Black Hole. *V. P. Frolov, A. M. Khokhlov, I. D. Novikov, & C. J. Pethick.* 432, 680, 204-D13 (1994)
Hard X-Rays from NGC 4151: A Thermal Origin? *Lev Titarchuk & Apostolos Mastichiadis.* 433, L33, 215-A7 (1994)
Stability of Fireballs and Gamma-Ray Bursts. *Eli Waxman & Tsvi Piran.* 433, L85, 224-A9 (1994)
Supplementary Parameters in the Parameterized Post-Keplerian Formalism. *S. M. Kopeikin.* 434, L67, 241-F9 (1994)
Emission-Line Profiles from a Relativistic Accretion Disk and the Role of Its Multiple Images. *G. Bao, P. Hadrava, & E. Østgaard.* 435, 55, 244-A8 (1994)
The Gravitomagnetic Dynamo Effect in Accretion Disks of Rotating Black Holes. *Ramon Khanna & Max Camenzind.* 435, L129, 260-B3 (1994)
Large-Scale Structure Effects on the Gravitational Lens Image Positions and Time Delay. *Uroš Seljak.* 436, 509, 272-D13 (1994)
An Embedding for the Big Bang. *Paul S. Wesson.* 436, 547, 273-A9 (1994)
Simulations of Relativistic Extragalactic Jets. *G. Comer Duncan & Philip A. Hughes.* 436, L119, 280-G1 (1994)
Relativistic Fireworks: Not a Viable Model for Cosmology. *Lennart Widlund.* 437, 27, 283-E6 (1994)
Radiating Scalar Soliton-like Stars in a Pressurized Environment. *M. Esculpi & L. Herrera.* 437, 317, 287-E7 (1994)
High-Precision Timing of PSR J1713+0747: Shapiro Delay. *F. Camilo, R. S. Foster, & A. Wolszczan.* 437, L39, 291-F13 (1994)
The Classical Tests in Kaluza-Klein Gravity. *D. Kalligas, P. S. Wesson, & C. W. F. Everitt.* 439, 548, 31-G9 (1995)
Relativistic, Hot Stellar Winds with Anisotropic Pressure. *Elgouja G. Tsikarishvili, Andria D. Rogava, & David G. Tsiklauri.* 439, 822, 36-A1 (1995)
Critical Radiation Fluxes and Luminosities of Black Holes and Relativistic Stars. *Frederick K. Lamb & M. Coleman Miller.* 439, 828, 36-A11 (1995)
Fully Covariant Cosmology and Its Astrophysical Implications. *Paul S. Wesson & Hongya Liu.* 440, 1, 41-C1 (1995)
The Sobolev Optical Depth for Time-dependent Relativistic Systems. *David J. Jeffery.* 440, 810, 54-C1 (1995)
Optically Thin Accretion Disks in the Kerr Metric. *Gunnlaugur Björnsson.* 441, 765, 72-D12 (1995)
The Velocity of the Emitting Plasma of the Superluminal Galactic Source GRS 1915+105. *Gianluigi Bodo & Gabriele Ghisellini.* 441, L69, 75-G13 (1995)
Dynamics of Gravitational Instability Is Nonlocal. *Lev Kofman & Dmitry Pogosyan.* 442, 30, 77-E12 (1995)
The Effects of Redshifts and Focusing on the Spectrum of an Accretion Disk in the Galactic Center Black Hole Candidate Sagittarius A*. *J. M. Hollywood & Fulvio Melia.* 443, L17, 102-D6 (1995)
Geometry and Pulse Profiles of X-Ray Pulsars: Asymmetric Relativistic Fits to 4U 1538−52 and Vela X-1. *T. Bulik, H. Riffert, P. Mészáros, K. Makishima, T. Mihara, & B. Thomas.* 444, 405, 119-B3 (1995)
Does Gravitational Radiation Limit the Angular Velocities of Superfluid Neutron Stars? *Lee Lindblom & Gregory Mendell.* 444, 804, 127-E6 (1995)
Dynamics of Silent Universes. *Marco Bruni, Sabino Matarrese, & Ornella Pantano.* 445, 958, 148-D13 (1995)
Mining Energy in an Expanding Universe. *Edward R. Harrison.* 446, 63, 154-B2 (1995)
Force-free Self-similar Magnetically Driven Relativistic Jets. *J. Contopoulos.* 446, 67, 154-B9 (1995)
Thermal Comptonization in Mildly Relativistic Pair Plasmas. *J. G. Skibo, C. D. Dermer, R. Ramaty, & J. M. McKinley.* 446, 86, 154-D6 (1995)
A Redshift-Magnitude Relation for Nonuniform Pressure Universes. *Mariusz P. Dąbrowski.* 447, 43, 172-G2 (1995)
Time and Its Evolution in an Inhomogeneous Universe. *Martin Harwit.* 447, 482, 182-D10 (1995)
Relativistic Electron Energy Spectra of Active Galactic Nuclei in the Thin Synchrotron Limit. I. The Method. *Luis Salas, Irene Cruz-González, & Luis Carrasco.* 447, 505, 182-G1 (1995)
Neutrino Pair Synchrotron Radiation from Relativistic Electrons in Strong Magnetic Fields. *A. Vidaurre, A. Pérez, H. Sivak, J. Bernabéu, & J. Mª Ibáñez.* 448, 264, 195-G6 (1995)
Variation of Gravitational Delay in Pulsar Timing Observations due to Proper Motion of Foreground Stars and Measurement of Stellar Mass. *Kouji Ohnishi, Mizuhiko Hosokawa, Toshio Fukushima, & Mine Takeuti.* 448, 271, 196-A1 (1995)
General Relativistic Flux Modulations in the Galactic Center Black Hole Candidate Sagittarius A*. *J. M. Hollywood, Fulvio Melia, Laird M. Close, Donald W. McCarthy, Jr., & Tatia A. DeKeyser.* 448, L21, 199-E1 (1995)
Morphology and Dynamics of Highly Supersonic Relativistic Jets. *J. M^a. Martí, E. Müller, J. A. Font, & J. M^a. Ibá nez.* 448, L105, 209-D1 (1995)
Matching Exterior to Interior Solutions in Weyl Gravity: Comment on "Exact Vacuum Solution to Conformal Weyl Gravity and Galactic Rotation Curves." *Volker Perlick & Chongming Xu.* 449, 47, 210-G7 (1995)
General Relativistic Effects on the Induced Electric Field Exterior to Pulsars. *S. Sengupta.* 449, 224, 213-C6 (1995)
Parsec-Scale Synchrotron Emission from Hydrodynamic Relativistic Jets in Active Galactic Nuclei. *J. L. Gómez, J. M^a. Martí, A. P. Marscher, J. M^a. Ibáñez, & J. M. Marcaide.* 449, L19, 216-C3 (1995)
Relativistic Accretion Disk Structure Revisited. *H. Riffert & H. Herold.* 450, 508, 237-F11 (1995)
Averaging Einstein's Equations over a Hierarchy of Bound and Unbound Fragments. *Natalia V. Zotov & William R. Stoeger, S.J.* 453, 574, 291-G3 (1995)
Relativistic Collisionless Clusters with Arbitrarily Large Central Redshift. *M. Merafina & R. Ruffini.* 454, L89, 315-E4 (1995)
Calculation of the Kinetic Sunyaev-Zeldovich Effect from the Boltzmann Equation. *Peter R. Phillips.* 455, 419, 327-E13 (1995)
Einstein's Radiation Formula and Modifications to the Einstein Equation. *C. Y. Lo.* 455, 421, 327-F4 (1995)
MOND and the Seven Dwarfs. *Mordehai Milgrom.* 455, 439, 328-A1 (1995)
Hydrodynamic Timescales and Temporal Structure of Gamma-Ray Bursts. *Re'em Sari & Tsvi Piran.* 455, L143, 334-A11 (1995)

ROTATION

Nonaxisymmetric Instabilities in Rotating Shear Flows: Internal Gravity Modes in Stratified Media and Analogies with Plane Flows. *P. Ghosh & M. A. Abramowicz.* 366, 221, 3-F13 (1991)

SCATTERING

Imaging with Ultra-Resolution in the Presence of Strong Scattering. *T. J. Cornwell & Ramesh Narayan.* 408, L68, 89-G1 (1993)

Compton Scattering and the Gamma-Ray Power-Law Spectrum in Markarian 421. *Andrzej A. Zdziarski & Julian H. Krolik.* 409, L33, 111-B1 (1993)

Stellar Core Collapse: A Boltzmann Treatment of Neutrino-Electron Scattering. *Anthony Mezzacappa & Stephen W. Bruenn.* 410, 740, 123-A7 (1993)

Disks around Pre–Main-Sequence Binary Systems: The Case of Haro 6-10. *François Ménard, Jean-Louis Monin, Françoise Angelucci, & Daniel Rouan.* 414, L117, 186-B5 (1993)

Partially Coherent Scattering in Stellar Chromospheres. IV. Analytic Wing Approximations. *K. G. Gayley.* 415, 811, 198-A1 (1993)

Compton Backscattered Annihilation Radiation and the Mass of Nova Muscae. *Xin-Min Hua & Richard E. Lingenfelter.* 416, L17, 207-C11 (1993)

Anisotropic Scattering of OH/IR Stars toward the Galactic Center. *Dale A. Frail, Philip J. Diamond, James M. Cordes, & Huib Jan Van Langevelde.* 427, L43, 117-F6 (1994)

Scattered Halos around H_2O Masers. *C. R. Gwinn.* 431, L123, 192-B7 (1994)

Small-Scale Structure and Position of Sagittarius A* from VLBI at 3 Millimeter Wavelength. *Alan E. E. Rogers, Sheperd Doeleman, Melvyn C. H. Wright, Geoffrey C. Bower, Donald C. Backer, Stephen Padin, J. A. Philips, Darrel T. Emerson, Lincoln Greenhill, James M. Moran, & Kenneth I. Kellermann.* 434, L59, 241-E8 (1994)

The Effects of Gravity Darkening on the Ultraviolet Continuum Polarization Produced by Circumstellar Disks. *J. E. Bjorkman & K. S. Bjorkman.* 436, 818, 277-A1 (1994)

Polarization from Scattering in Blobs. *Arthur D. Code & Barbara A. Whitney.* 441, 400, 64-G4 (1995)

Fokker-Planck Equations of Stochastic Acceleration: Green's Functions and Boundary Conditions. *Brian T. Park & Vahé Petrosian.* 446, 699, 165-F10 (1995)

Line-driven Instability Growth Rates in Wolf-Rayet Winds. *Kenneth G. Gayley & Stanely P. Owocki.* 446, 801, 167-B4 (1995)

A Model of the Diffuse Ultraviolet Radiation Field. *Jayant Murthy & R. C. Henry.* 448, 848, 206-E7 (1995)

Power-Law Spectra as a Result of Comptonization of the Soft Radiation in a Plasma Cloud. *Lev Titarchuk & Yurij Lyubarskij.* 450, 876, 243-A10 (1995)

Scattering of *p*-Modes by Sunspots. I. Observations. *D. C. Braun.* 451, 859, 259-A12 (1995)

Scattering of *p*-Modes by Sunspots. II. Calculations of Phase Shifts from a Phenomenological Model. *Y. Fan, D. C. Braun, & D.-Y. Chou.* 451, 877, 259-C6 (1995)

Pulsar Eclipses due to Induced Scattering in Magnetized Plasmas. *Qinghuan Luo & D. B. Melrose.* 452, 346, 266-G11 (1995)

Models of the Optical/Ultraviolet Continuum Polarization in Active Galactic Nuclei: Implications for Unification Schemes. *John F. Kartje.* 452, 565, 272-D8 (1995)

The Effect of Degeneracy on the Scattering Contribution to the Radiative Opacity. *S. J. Rose.* 453, L45, 290-A4 (1995)

Polarization Profiles of Scattered Emission Lines. III. Effects of Multiple Scattering and Non-Rayleigh Phase Functions. *W. J. Henney & D. J. Axon.* 454, 233, 302-E4 (1995)

SHOCK WAVES

Nonthermal X-Ray Emission from Winds of OB Supergiants. *Wan Chen & Richard L. White.* 366, 512, 9-D1 (1991)

Oblique Mixed Shocks in Extragalactic Jets. *D. Fraix-Burnet & G. Pelletier.* 367, 86, 13-B1 (1991)

Instabilities and Clumping in SN 1987A. I. Early Evolution in Two Dimensions. *Bruce Fryxell, Ewald Müller, & David Arnett.* 367, 619, 21-A5 (1991)

The Dynamic Instability of Adiabatic Blast Waves. *Dongsu Ryu & Ethan T. Vishniac.* 368, 411, 30-B12 (1991)

The Effect of Viscosity on Steady Transonic Flow with a Nodal Solution Topology. *S. P. Owocki & G. P. Zank.* 368, 491, 31-C1 (1991)

Bow Shock Models of Ultracompact H II Regions. *Mordecai-Mark Mac Low, Dave Van Buren, Douglas O. S. Wood, & Ed Churchwell.* 369, 395, 42-F1 (1991)

Narrow-Band Imaging of the Inner R Aquarii Nebula: Further Evidence for Shock Excitation. *Denis Burgarella & Francesco Paresce.* 370, 590, 55-G1 (1991)

Shock Waves and Nucleosynthesis in Type II Supernovae. *M. B. Aufderheide, E. Baron, & F.-K. Thielemann.* 370, 630, 56-C8 (1991)

Near-Infrared Emission-Line Images of Three Herbig-Haro Objects. *Karl R. Stapelfeldt, Charles A. Beichman, J. Jeff Hester, Nicholas Z. Scoville, & Thomas N. Gautier III.* 371, 226, 63-A1 (1991)

The Shock Process and Light-Element Production in Supernova Envelopes. *Lawrence E. Brown, David S. Dearborn, David N. Schramm, Jon T. Larsen, & Shin Kurokawa.* 371, 648, 69-F1 (1991)

Supernova Remnant 1987A. *Ding Luo & Richard McCray.* 372, 194, 76-D1 (1991)

The H_2 Line Profiles in the Cygnus Loop: Evidence for J-Shocks with Magnetic Precursors. *James R. Graham, Gillian S. Wright, & T. R. Geballe.* 372, L21, 79-C7 (1991)

Atmospheric Gradients and the Stability of Expanding Jets. *Philip E. Hardee, Michael L. Norman, Theodoros Koupelis, & David A. Clarke.* 373, 8, 86-B10 (1991)

W28 and 3C 400.2: Two Shell-like Radio Supernova Remnants with Centrally Peaked X-Ray Morphologies. *Knox S. Long, William P. Blair, Richard L. White, & Yutaka Matsui.* 373, 567, 95-A10 (1991)

Solar Particle Abundances at Energies Greater than 1 MeV per Nucleon and the Role of Interplanetary Shocks. *H. V. Cane, D. V. Reames, & T. T. von Rosenvinge.* 373, 675, 96-D1 (1991)

The Hydrodynamics of Relict Cosmological H II Regions and the Formation of Objects at High Redshift. *Piero Madau & Avery Meiksin.* 374, 6, 98-B7 (1991)

Synchrotron Emission from Shocked Relativistic Jets. III. Models for the Centimeter Wave Band Quiescent and Burst Emission from 3C 279 and OT 081. *P. A. Hughes, H. D. Aller, & M. F. Aller.* 374, 57, 98-F5 (1991)

Far-Ultraviolet Mapping of the Cygnus Loop with the *Voyager 2* Ultraviolet Spectrometer. *William P. Blair, Knox S. Long, Olaf Vancura, & J. B. Holberg.* 374, 202, 100-E5 (1991)

Observations of [Si II] (35 Micron) and [S I] (25 Micron) in Orion: Evidence for a Wind Shock near IRc2. *Michael R. Haas, David Hollenbach, & Edwin F. Erickson.* 374, 555, 106-B1 (1991)

Expansion of a Superbubble in a Uniform Magnetic Field. *Katia M. Ferrière, Mordecai-Mark Mac Low, & Ellen G. Zweibel.* 375, 239, 114-A4 (1991)

Siphon Flows in Isolated Magnetic Flux Tubes. IV. Critical Flows with Standing Tube Shocks. *John H. Thomas & Benjamin Montesinos.* 375, 404, 115-G11 (1991)

Noise-driven Radiative Shocks: A New Model for the Optical Quasi-periodic Oscillations of the AM Herculis Objects. *Michael T. Wolff, Kent S. Wood, & James N. Imamura.* 375, L31, 117-D6 (1991)

Probing Shock Models of CH^+ Formation. *Isabel Hawkins & Nahide Craig.* 375, 642, 120-F1 (1991)

Six Balmer-dominated Supernova Remnants. *R. Chris Smith, Robert P. Kirshner, William P. Blair, & P. Frank Winkler.* 375, 652, 120-G1 (1991)

The Evolution of Discontinuities in Radiating Spheres in the Diffusion Approximation. *W. Barreto, L. Herrera, & L. Núñez.* 375, 663, 121-A1 (1991)

Proto–Planetary Nebulae. II. The Shock-heated Bipolar Nebulae GL 618 and M2-56. *Robert W. Goodrich.* 376, 654, 134-D12 (1991)

Neutrino-Nucleus Interactions in Core-Collapse Supernovae. *Stephen W. Bruenn & W. C. Haxton.* 376, 678, 134-G1 (1991)

The Interaction of Collisionless Shocks in Astrophysical Plasmas. *P. J. Cargill.* 376, 771, 136-A1 (1991)

Parametric Study of the Formation of Magnetohydrodynamic Shocks. I. Model. *Y. C. Whang.* 377, 250, 141-B1 (1991)

Parametric Study of the Formation of Magnetohydrodynamic Shocks. II. Slow Shocks. *Y. C. Whang.* 377, 255, 141-B7 (1991)

Partially Dissociative Jump Shocks in Molecular Hydrogen. *C. A. Chang & P. G. Martin.* 378, 202, 153-E1 (1991)

A Determination of Relativistic Shock Jump Conditions Using Monte Carlo Techniques. *Donald C. Ellison & Stephen P. Reynolds.* 378, 214, 153-F1 (1991)

The Optical Emission from Oscillating White Dwarf Radiative Shock Waves. *James N. Imamura, Hussain Rashed, & Michael T. Wolff.* 378, 665, 160-F5 (1991)

Solar Gamma-Ray-Line Flares, Type II Radio Bursts, and Coronal Mass Ejections. *E. W. Cliver, H. V. Cane, D. J. Forrest, M. J. Koomen, R. A. Howard, & C. S. Wright.* 379, 741, 174-A2 (1991)

On the Distribution of the Diffuse Galactic Gamma-Ray Line Emissions at 1809 keV and 511 keV. *P. von Ballmoos.* 380, 98, 177-C1 (1991)

Predicted Extreme-Ultraviolet Line Emission for Nearby Main-Sequence B Stars. *J. J. MacFarlane, J. P. Cassinelli, B. Y. Welsh, P. W. Vedder, J. V. Vallerga, & W. L. Waldron.* 380, 564, 185-C1 (1991)

Outflow Hydrodynamics in the Eclipsing Millisecond Pulsar Binaries PSR 1957+20 and PSR 1744−24A. *Marco Tavani & Leigh Brookshaw.* 381, L21, 194-C13 (1991)

Parametric Study of the Formation of Magnetohydrodynamic Shocks. III. Fast and Slow Shocks. *Y. C. Whang.* 381, 559, 197-E10 (1991)

Electron Acceleration in a Nonlinear Shock Model with Applications to Supernova Remnants. *Donald C. Ellison & Stephen P. Reynolds.* 382, 242, 203-C1 (1991)

Molecular Line Emission Models of Herbig-Haro Objects. I. H_2 Emission. *Mark G. Wolfire & Arieh Königl.* 383, 205, 214-E9 (1991)

Evidence for a Thermally Unstable Shock Wave in the Vela Supernova Remnant. *John C. Raymond, George Wallerstein, & Bruce Balick.* 383, 226, 214-G5 (1991)

Magnetized Supernova Remnants with Cosmic Rays. *Katia M. Ferrière & Ellen G. Zweibel.* 383, 602, 221-F11 (1991)

Supernova Remnants in Dense Clouds. I. Blast-Wave Dynamics and X-Ray Irradiation. *B. T. Draine & D. T. Woods.* 383, 621, 222-A6 (1991)

Spherically Symmetric, Polytropic Flow. *T. Theuns & M. David.* 384, 587, 9-D9 (1992)

Acoustic Instability in Cosmic-Ray Mediated Shocks. *Hyesung Kang, T. W. Jones, & Dongsu Ryu.* 385, 193, 14-D1 (1992)

Strongly Shocked Interstellar Gas in IC 443. I. High-Resolution Molecular Observations. *Z. Wang & N. Z. Scoville.* 386, 158, 26-B3 (1992)

Knots in Stellar Jets from Time-dependent Sources. *A. C. Raga & Lev Kofman.* 386, 222, 27-A1 (1992)

Radiative Shocks and Hydrogen Molecules in Pregalactic Gas: The Effects of Postshock Radiation. *Hyesung Kang & Paul R. Shapiro.* 386, 432, 30-F13 (1992)

Instabilities in Astrophysical Jets. I. Linear Analysis of Body and Surface Waves. *Jun-Hui Zhao, Jack O. Burns, Philip E. Hardee, & Michael L. Norman.* 387, 69, 37-G7 (1992)

Instabilities in Astrophysical Jets. II. Numerical Simulations of Slab Jets. *Jun-Hui Zhao, Jack O. Burns, Michael L. Norman, & Martin E. Sulkanen.* 387, 83, 38-B1 (1992)

Standing Shocks in Accretion Disks and the Spectra of Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 387, L21, 43-C4 (1992)

The Molecular Hydrogen Emission around L1551 IRS 5: Shock- Heated Molecular Gas at the Base of the Molecular Outflow. *Takuya Yamashita & Motohide Tamura.* 387, L93, 48-E5 (1992)

Dynamics of Wind Bubbles and Superbubbles. I. Slow Winds and Fast Winds. *Bon-Chul Koo & Christopher F. McKee.* 388, 93, 50-C1 (1992)

Dynamics of Wind Bubbles and Superbubbles. II. Analytic Theory. *Bon-Chul Koo & Christopher F. McKee.* 388, 103, 50-C12 (1992)

Magnetic Fields and Radiative Shocks in Protogalaxies and the Origin of Globular Clusters. *Paul R. Shapiro, Alejandro Clocchiatti, & Hyesung Kang.* 389, 269, 63-C11 (1992)

Can a Closure Mass Neutrino Help Solve the Supernova Shock Reheating Problem? *George M. Fuller, R. Mayle, Bradley S. Meyer, & James R. Wilson.* 389, 517, 67-G10 (1992)

Stellar Wind Collision and X-Ray Generation in Massive Binaries. *V. V. Usov.* 389, 635, 69-C10 (1992)

Alfvénically Driven Slow Shocks in the Solar Chromosphere and Corona. *Joseph V. Hollweg.* 389, 731, 70-D10 (1992)

Switch Shocks in Molecular Clouds. I. Plane-parallel Magnetohydrodynamic Analysis. *Michael D. Smith.* 390, 447, 81-A1 (1992)

Relativistic Magnetosonic Shock Waves in Synchrotron Sources: Shock Structure and Nonthermal Acceleration of Positrons. *Masahiro Hoshino, Jonathan Arons, Yves A. Gallant, & A. Bruce Langdon.* 390, 454, 81-A9 (1992)

Spiral Shocks and Subday Variability in SS 433. *Sandip K. Chakrabarti & T. Matsuda.* 390, 639, 83-C1 (1992)

Relativistic, Perpendicular Shocks in Electron-Positron Plasmas. *Yves A. Gallant, Masahiro Hoshino, A. Bruce Langdon, Jonathan Arons, & Claire E. Max.* 391, 73, 87-A1 (1992)

Velocity Structure in Optical CH^+ Lines toward HD 190603 and Implications for the Formation of CH^+. *M. M. Allen & Theodore P. Snow.* 391, 152, 87-G13 (1992)

The Influence of the Large-Scale Interplanetary Shock Structure on a Low-Energy Particle Event. *A. M. Heras, B. Sanahuja, Z. K. Smith, T. Detman, & M. Dryer.* 391, 359, 90-C13 (1992)

Infrared Morphology of Mass Outflow from GL 2591. *Motohide Tamura & Takuya Yamashita.* 391, 710, 96-G4 (1992)

Ram-Pressure Confinement of a Hypersonic Jet. *Chris Loken, Jack O. Burns, David A. Clarke, & Michael L. Norman.* 392, 54, 101-F1 (1992)

Hydrodynamic Instabilities in Supernova Remnants: Self-similar Driven Waves. *Roger A. Chevalier, John M. Blondin, & Robert T. Emmering.* 392, 118, 102-D9 (1992)

Two-dimensional Slow Shock Reconnection. *Y. C. Whang.* 392, 637, 110-B9 (1992)

The Outflow in the L1157 Dark Cloud: Evidence for Shock Heating of the Interacting Gas. *T. Umemoto, T. Iwata, Y. Fukui, H. Mikami, S. Yamamoto, O. Kameya, & N. Hirano.* 392, L83, 113-E6 (1992)

Detection of SiO Emission in the L1157 Dark Cloud. *Hitomi Mikami, Tomofumi Umemoto, Satoshi Yamamoto, & Shuji Saito.* 392, L87, 113-E11 (1992)

The 0623+71 Bow Shock Nebula. *J. M. Hollis, R. J. Oliversen, R. M. Wagner, & W. A. Feibelman.* 393, 217, 116-G3 (1992)

Constraints on the Acceleration of Anomalous Cosmic Rays. *J. R. Jokipii.* 393, L41, 120-F8 (1992)

Shock Breakout in SN 1987A. *Lisa Ensman & Adam Burrows.* 393, 742, 125-A10 (1992)

A Multiwavelength Study of the Supernova Remnant N49 in the Large Magellanic Cloud. *Olaf Vancura, William P. Blair, Knox S. Long, & John C. Raymond.* 394, 158, 130-A1 (1992)

Viscous and Inertial Effects at Cosmic-Ray Shocks. *J. R. Jokipii & L. L. Williams.* 394, 184, 130-C8 (1992)

Bow Shock Models for the Velocity Structure of Ultracompact H II Regions. *Dave Van Buren & Mordecai-Mark Mac Low.* 394, 534, 136-A7 (1992)

Global Aspects of Dynamics and Star Formation in Taurus. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 395, 501, 148-G13 (1992)

Pulsar Nebulae in Supernovae. *Roger A. Chevalier & Claes Fransson.* 395, 540, 149-E3 (1992)

Ion Injection and Fermi Acceleration at Earth's Bow Shock: The 1984 September 12 Event Revisited. *M. Scholer, K. J. Trattner, & H. Kucharek.* 395, 675, 151-F1 (1992)

Extremely High Velocity CO Emission from NGC 2071. *Lawrence M. Chernin & Colin R. Masson.* 396, L35, 160-F8 (1992)

Diffusive Acceleration of Electrons in SN 1987A. *Lewis Ball & J. G. Kirk.* 396, L39, 160-G1 (1992)

Wave Diffraction in Weak Cosmic-Ray–modified Shocks. *G. M. Webb & G. P. Zank.* 396, 549, 164-C9 (1992)

Cosmic-Ray–modified Supernova Remnant Shocks. *T. W. Jones & Hyesung Kang.* 396, 575, 164-E9 (1992)

Interplanetary Lyman-α Spectra as a Diagnostic of the Local Interstellar Plasma Density: The Baranov Two-Shocks Heliosphere Case. *R. Lallement, Y. G. Malama, E. Quemerais, J. L. Bertaux, & N. A. Zaitzev.* 396, 696, 166-A7 (1992)

A Three-dimensional Axisymmetric Photochemical Flow Model of the Cometary "Inner" Shock Layer. *M. C. Damas & D. A. Mendis.* 396, 704, 166-B1 (1992)

Global O VI Line Emission from the Cygnus Loop Supernova Remnant and Direct Kinematic Measurement of the Associated Shock. *Andrew Rasmussen & Christopher Martin.* 396, L103, 167-E7 (1992)

Detection of Interstellar SO^+: A Diagnostic of Dissociative Shock Chemistry. *B. E. Turner.* 396, L107, 167-F1 (1992)

Steady and Nonsteady Siphon Flow in Hot Coronal Loops. *T. D. Robb & P. S. Cally.* 397, 329, 172-A1 (1992)

Non-LTE Radiating Acoustic Shocks and Ca II K2V Bright Points. *Mats Carlsson & Robert F. Stein.* 397, L59, 173-G11 (1992)

Inhomogeneous Cosmologies with Shock Waves. *Anna Curir, Mauro Francaviglia, & Enric Verdaguer.* 397, 390, 175-E3 (1992)

An Off-Center Point Explosion in a Radially Stratified Medium: Kompaneets Approximation. *D. G. Korycansky.* 398, 184, 184-B9 (1992)

Relativistic Two-Moment Neutrino Transport. *J. Cernohorsky & Ch. G. van Weert.* 398, 190, 184-C1 (1992)

Noise-driven Radiative Shocks. II. Further Implications for the Quasi-periodic Oscillations of the AM Herculis Objects. *Kent S. Wood, James N. Imamura, & Michael T. Wolff.* 398, 593, 191-E1 (1992)

Tests of Shock Chemistry in IC 443G. *B. E. Turner, Kin-Wing Chan, S. Green, & D. A. Lubowich.* 399, 114, 196-E12 (1992)

A Comparison of Models for Supernova Remnants Including Cosmic Rays. *Hyesung Kang & L. O'C. Drury.* 399, 182, 197-D11 (1992)

The Bow Shock and Mach Disk of HH 34. *Jon A. Morse, Patrick Hartigan, Gerald Cecil, John C. Raymond, & Steve Heathcote.* 399, 231, 198-B3 (1992)

Electron Acceleration in Tycho's and Kepler's Supernova Remnants: Spectral Evidence of Fermi Shock Acceleration. *Stephen P. Reynolds & Donald C. Ellison.* 399, L75, 201-B1 (1992)

Evidence for Transonic Flows in the Solar Granulation. *A. Nesis, T. J. Bogdan, F. Cattaneo, A. Hanslmeier, M. Knölker, & A. Malagoli.* 399, L99, 201-D10 (1992)

Mid-Infrared Rotational Line Emission from Interstellar Molecular Hydrogen. *Michael G. Burton, D. J. Hollenbach, & A. G. G. M. Tielens.* 399, 563, 204-G7 (1992)

Band Splitting in Solar Type II Radio Bursts. *R. A. Treumann & J. LaBelle.* 399, L167, 208-E7 (1992)

Shock Wave Emergence at the Stellar Surface and the Subsequent Gas Expansion into a Vacuum: The Sphericity Involvement. *Ya. M. Kazhdan & Marina Murzina.* 400, 192, 211-C9 (1992)

Spectroscopy of a Balmer-dominated Filament in the Cygnus Loop with the Hopkins Ultraviolet Telescope. *Knox S. Long, William P. Blair, Olaf Vancura, Charles W. Bowers, Arthur F. Davidsen, & John C. Raymond.* 400, 214, 211-E8 (1992)

Spectacular Herbig-Haro Objects in the Carina Region. *K. Ogura & J. R. Walsh.* 400, 248, 212-A7 (1992)

Magnetohydrodynamic Wave Damping by Cosmic-Ray Viscosity. *Ahmed Boulares & Gregor Morfill.* 400, 622, 218-B6 (1992)

Spectroscopy of the Companion and Bow-Shock Nebula of PSR 1957+20. *Thomas L. Aldcroft, Roger W. Romani, & James M. Cordes.* 400, 638, 218-C13 (1992)

Electron Injection in Collisionless Shocks. *Amir Levinson.* 401, 73, 222-A1 (1992)

Far-Ultraviolet Observations of the Supernova Remnant N49 Using the Hopkins Ultraviolet Telescope. *Olaf Vancura, William P. Blair, Knox S. Long, Arthur F. Davidsen, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Henry C. Ferguson, Richard C. Henry, Randy A. Kimble, Gerard A. Kriss, Jeffrey W. Kruk, & H. Warren Moos.* 401, 220, 223-G1 (1992)

The Parsec-Scale Radio Jet of 4C 39.25. *A. Alberdi, J. M. Marcaide, A. P. Marscher, Y. F. Zhang, P. Elósegui, J. L. Gómez, & D. B. Shaffer.* 402, 160, 3-A13 (1993)

Ion Injection and Acceleration at Parallel Shocks: Comparisons of Self-consistent Plasma Simulations with Existing Theories. *J. Giacalone, D. Burgess, S. J. Schwartz, & Donald C. Ellison.* 402, 550, 9-D1 (1993)

Cosmic-Ray Acceleration during the Impact of Shocks on Dense Clouds. *T. W. Jones & Hyesung Kang.* 402, 560, 9-E1 (1993)

High-Energy Emission from the Eclipsing Millisecond Pulsar PSR 1957+20. *Jonathan Arons & Marco Tavani.* 403, 249, 17-A8 (1993)

Observations of SO and SiO in the Outflow from NGC 2071. *Lawrence Chernin & Colin Masson.* 403, L21, 20-C6 (1993)

The Stability of Cosmic-Ray–dominated Shocks: A Secondary Instability. *Dongsu Ryu, Hyesung Kang, & T. W. Jones.* 405, 199, 43-E7 (1993)

Relativistic Fireballs and Their Impact on External Matter: Models for Cosmological Gamma-Ray Bursts. *P. Mészáros & M. J. Rees.* 405, 278, 44-E9 (1993)

The Gradient of Galactic Cosmic Rays at the Solar-Wind Termination Shock. *J. R. Jokipii, J. Kóta, & E. Merényi.* 405, 782, 52-G1 (1993)

Particle Injection and the Structure of Energetic-Particle–modified Shocks. *G. P. Zank, G. M. Webb, & D. J. Donohue.* 406, 67, 56-A1 (1993)

Shock Propagation in a Turbulent Cloud. *Toshiya Kimura & Makoto Tosa.* 406, 512, 64-B10 (1993)

Switch Shocks in Molecular Clouds. II. Implications. *Michael D. Smith.* 406, 520, 64-C7 (1993)

The Impact of Supernova Fragments on the Evolution of Multisupernova Remnants. *J. Franco, A. Ferrara, M. Różyczka, G. Tenorio-Tagle, & D. P. Cox.* 407, 100, 70-C11 (1993)

G-Star Astropauses: A Test for Interstellar Pressure. *P. C. Frisch.* 407, 198, 71-E1 (1993)

Nonlinear Growth of Dynamical Overstabilities in Blast Waves. *Mordecai-Mark Mac Low & Michael L. Norman.* 407, 207, 71-E11 (1993)

On the Separation of the Flaring Component's Emission in Variable Compact Extragalactic Radio Sources: Results from a Simple Shocked Relativistic Jet Model. *D. J. van der Walt.* 409, 126, 98-E3 (1993)

Interstellar Matter near the Pleiades. IV. The Wake of the Pleiades through the Interstellar Medium in Taurus. *Richard E. White & John Bally.* 409, 234, 99-G13 (1993)

Detection of Magnetohydrodynamic Shocks in the L1551 Outflow. *M. Barsony, N. Z. Scoville, & C. J. Chandler.* 409, 275, 100-E4 (1993)

The Injection and Acceleration of Particles in Oblique Shocks: A Unified Monte Carlo Description. *Matthew G. Baring, Donald C. Ellison, & Frank C. Jones.* 409, 327, 101-B8 (1993)

Ram Pressure Stripping from Elliptical Galaxies. I. The Mass Contained in the Galaxy. *D. Portnoy, S. Pistinner, & G. Shaviv.* 86, 95, 15-B3 (1993)

The Formation and Evolution of Shocks in Stellar Jets from a Variable Wind. *Patrick Hartigan & John Raymond.* 409, 705, 107-G5 (1993)

The Origin of Forbidden Line Emission from Young Stellar Objects. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 409, 748, 108-D3 (1993)

Chromospheric Heating by Acoustic Shocks: A Confrontation of GHRS Observations of α Tauri (K5 III) with Ab Initio Calculations. *P. G. Judge & M. Cuntz.* 409, 776, 108-F13 (1993)

Three-dimensional Simulations of Protostellar Jets. *Elisabete M. de Gouveia Dal Pino & Willy Benz.* 410, 686, 122-B13 (1993)

The Bow Shock and Mach Disk of HH 111V. *Jon A. Morse, Steve Heathcote, Gerald Cecil, Patrick Hartigan, & John C. Raymond.* 410, 764, 123-C5 (1993)

Nuclear Winds in Active Elliptical Galaxies. I. Interaction. *Steven J. Smith, C. F. Kennel, & F. V. Coroniti.* 411, 581, 136-G9 (1993)

Spiral Shocks in Accretion Disks As a Contributor to Variability in Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 411, 602, 137-B6 (1993)

Oscillatory Instability of Radiative Shocks with Transverse Magnetic Field: Linear Analysis and Nonlinear Simulations. *G. Tóth & B. T. Draine.* 413, 176, 158-C8 (1993)

Numerical Simulations of Protostellar Jets with Nonequilibrium Cooling. II. Models of Pulsed Jets. *James M. Stone & Michael L. Norman.* 413, 210, 158-F13 (1993)

Alfvén Wave Transport Effects in the Time Evolution of Parallel Cosmic-Ray–modified Shocks. *T. W. Jones.* 413, 619, 164-C1 (1993)

A Cosmological Hydrodynamic Code Based on the Total Variation Diminishing Scheme. *Dongsu Ryu, Jeremiah P. Ostriker, Hyesung Kang, & Renyue Cen.* 414, 1, 170-B1 (1993)

Chromospheric Heating by Acoustic Shock Waves. *Stuart D. Jordan.* 414, 337, 174-B12 (1993)

Shock Excitation of the Emission-Line Filaments in Centaurus A. *Ralph S. Sutherland, Geoffrey V. Bicknell, & Michael A. Dopita.* 414, 510, 177-E7 (1993)

Strong [Fe II] Emission from NGC 1275. *Richard J. Rudy, Ross D. Cohen, George S. Rossano, Peter Erwin, R. C. Puetter, Matthew A. Greenhouse, & Charles E. Woodward.* 414, 527, 177-F13 (1993)

Observations of Entrainment and Time Variability in the HH 47 Jet. *Patrick Hartigan, Jon A. Morse, Steve Heathcote, & Gerald Cecil.* 414, L121, 186-B11 (1993)

Convection above the Neutrinosphere in Type II Supernovae. *D. S. Miller, J. R. Wilson, & R. W. Mayle.* 415, 278, 188-D12 (1993)

Radio and Near-Infrared [Fe II] Emission from Active Galaxies. *Duncan A. Forbes & Martin J. Ward.* 416, 150, 202-G12 (1993)

Discovery of Interstellar Water Lines at 437, 439, and 471 GHz: Strong Case for Water Maser Formation behind C-Type Shocks. *Gary J. Melnick, Karl M. Menten, Thomas G. Phillips, & Todd Hunter.* 416, L37, 207-E13 (1993)

A Theory of Supernova Explosions. *Adam Burrows & John Goshy.* 416, L75, 216-E1 (1993)

Propagation and Stability Properties of Radio Jets in Cluster Cooling Flow Atmospheres. *Chris Loken, Jack O. Burns, Michael L. Norman, & David A. Clarke.* 417, 515, 225-F9 (1993)

A Far-Ultraviolet Study of the Cygnus Loop Using the *Voyager* Ultraviolet Spectrometers. *Olaf Vancura, William P. Blair, Knox S. Long, John C. Raymond, & J. B. Holberg.* 417, 663, 227-E11 (1993)

Smoothed Particle Hydrodynamics Confronts Theory: Formation of Standing Shocks in Accretion Disks and Winds around Black Holes. *Sandip K. Chakrabarti & Diego Molteni.* 417, 671, 227-F7 (1993)

Numerical Simulations of Shock-driven Accretion. *M. Różyczka & H. C. Spruit.* 417, 677, 227-G1 (1993)

A Convective Trigger for Supernova Explosions. *Adam Burrows & Burce A. Fryxell.* 418, L33, 238-D11 (1993)

Preservation of the Supernova Shock. *Hans A. Bethe.* 419, 197, 248-E14 (1993)

Forbidden Line Formation in Hydromagnetic Disk Winds. I. Oblique Shocks. *Rachid Ouyed & Ralph E. Pudritz.* 419, 255, 249-C13 (1993)

Star Formation at Compressed Interfaces in Turbulent Self-gravitating Clouds. *B. G. Elmegreen.* 419, L29, 252-E1 (1993)

Effects of Coronal and Shock-produced X-Rays on the Ionization Distribution in Hot Star Winds. *J. J. MacFarlane, W. L. Waldron, M. F. Corcoran, M. J. Wolff, P. Wang, & J. P. Cassinelli.* 419, 813, 257-F11 (1993)

Hydrodynamical Models for X-Ray Emissions from SN 1993J in M81. *Tomoharu Suzuki, Shiomi Kumagai, Toshikazu Shigeyama, Ken'ichi Nomoto, Hitoshi Yamaoka, & Hideyuki Saio.* 419, L73, 259-D11 (1993)

Mass Stripping of Lyman-Alpha Clouds by Ram Pressure under the Minihalo Model. *Izumi Murakami & Satoru Ikeuchi.* 420, 68, 1-G8 (1994)

Higher Order Godunov Schemes for Isothermal Hydrodynamics. *Dinshaw S. Balsara.* 420, 197, 3-D1 (1994)

On the Hydrodynamic Interaction of Shock Waves with Interstellar Clouds. I. Nonradiative Shocks in Small Clouds. *Richard I. Klein, Christopher F. McKee, & Philip Colella.* 420, 213, 3-E5 (1994)

High-Resolution Spectroscopy of Balmer-dominated Shocks in the Large Magellanic Cloud. *R. Chris Smith, John C. Raymond, & J. Martin Laming.* 420, 286, 4-D7 (1994)

Emission Lines in the Long-Period Cepheid *l* Carinae. *Erika Böhm-Vitense & Stanley G. Love.* 420, 401, 5-G5 (1994)

Fabry-Perot Imaging of Molecular Hydrogen Emission in Orion-KL Region. *Hajime Sugai, Tomonori Usuda, Hirokazu Kataza, Masuo Tanaka, Motoko Y. Inoue, Hironobu Kawabata, Hideki Takami, Tetsuo Aoki, & Norihisa Hiromoto.* 420, 746, 12-B12 (1994)

Enhanced Cosmic-Ray Acceleration Rates in Highly Inclined Astrophysical Shocks. *R. Lieu, J. J. Quenby, B. Drolias, & K. Naidu.* 421, 211, 18-E11 (1994)

The Dynamical and Radiative Evolution of Clumpy Supernova Ejecta. *M. C. Anderson, T. W. Jones, L. Rudnick, I. L. Tregillis, & Hyesung Kang.* 421, L31, 21-G1 (1994)

AFGL 5376: A Strong, Large-Scale Shock near the Galactic Center. *Keven I. Uchida, Mark R. Morris, E. Serabyn, & John Bally.* 421, 505, 24-D9 (1994)

Spectroscopy of Chromospheric Lines of Giants in the Globular Cluster NGC 6752. *A. K. Dupree, Lee Hartmann, Graeme H. Smith, A. W. Rodgers, W. H. Roberts, & D. B. Zucker.* 421, 542, 24-G9 (1994)

High-Resolution Images of Shocked Molecular Clumps in the Supernova Remnant IC 443. *Jan A. Tauber, Ronald L. Snell, Robert L. Dickman, & L. M. Ziurys.* 421, 570, 25-C4 (1994)

X-Ray Emission from Near–Main-Sequence B Stars. *J. P. Cassinelli, D. H. Cohen, J. J. MacFarlane, W. T. Sanders, & B. Y. Welsh.* 421, 705, 27-A8 (1994)

Monte Carlo Simulations of Particle Acceleration at Oblique Shocks. *Matthew G. Baring, Donald C. Ellison, & Frank C. Jones.* 90, 547, 10-E6 (1994)

A Theoretical Review of Diffusive Shock Acceleration. *Frank C. Jones.* 90, 561, 10-F10 (1994)

Electron Acceleration at Quasi-parallel Shocks in the Solar Corona and Its Signature in Solar Type II Radio Bursts. *G. Mann & H. Lühr.* 90, 577, 11-A1 (1994)

Acceleration of Electrons at a Curved Shock. *M. Vandas.* 90, 583, 11-A8 (1994)

On the Asymmetry of the Distribution of the Anomalous Cosmic-Ray Component in the Heliosphere. *Horst Fichtner, S. Ranga Sreenivasan, Hans-Jörg Fahr, Daniel Rucinski, & Stanislaw Grzedzielski.* 90, 595, 11-B9 (1994)

Relativistic Particle Acceleration in Plerions. *Jonathan Arons & Marco Tavani.* 90, 797, 13-F1 (1994)

Radio Emission from SNR 1987A. *J. G. Kirk, P. Duffy, & Lewis Ball.* 90, 807, 13-F13 (1994)

Evolution of Supernova Remnants with Cosmic Rays and Radiative Cooling. *E. A. Dorfi.* 90, 841, 14-B14 (1994)

Model Images of Radio Halos around Supernova Remnants. *Stephen P. Reynolds.* 90, 845, 14-C6 (1994)

Particle Acceleration in High-Energy Gamma-Ray Sources. *David Eichler.* 90, 877, 14-F3 (1994)

Cosmic-Ray Transport and Acceleration. *Reinhard Schlickeiser.* 90, 929, 15-D1 (1994)

The Origins of High-Energy Cosmic Rays. *W. I. Axford.* 90, 937, 15-D11 (1994)

Time-dependent Simulation of Cosmic-Ray Shocks, Including Alfvén Transport. *T. W. Jones.* 90, 969, 15-G10 (1994)

Oblique Magnetohydrodynamic Cosmic-Ray–modified Shocks: Two-Fluid Numerical Simulations. *Adam Frank, T. W. Jones, & Dongsu Ryu.* 90, 975, 16-A4 (1994)

Bohm Diffusion and Cosmic-Ray–Modified Shocks. *Peter Duffy.* 90, 981, 16-A12 (1994)

On the Distance Determination and Ionization of the High-Velocity Clouds. *A. Ferrara & G. B. Field.* 423, 665, 56-G5 (1994)

Forbidden-Line Formation in Hydromagnetic Disk Winds. II. Line Profiles. *Rachid Ouyed & Ralph E. Pudritz.* 423, 753, 58-A3 (1994)

Time-dependent Evolution of Cosmic-Ray–modified Shock Structure: Transition to Steady State. *D. J. Donohue, G. P. Zank, & G. M. Webb.* 424, 263, 65-B9 (1994)

CH^+ in the Interstellar Medium. *M. Marsha Allen.* 424, 754, 74-B11 (1994)

Simulation of Thick Accretion Disks with Standing Shocks by Smoothed Particle Hydrodynamics. *Diego Molteni, Giuseppe Lanzafame, & Sandip K. Chakrabarti.* 425, 161, 82-B13 (1994)

Numerical Study of Two-Fluid C-Type Shock Waves. *Gábor Tóth.* 425, 171, 82-C11 (1994)

The Role of the Equation of State in the "Prompt" Phase of Type II Supernovae. *F. Douglas Swesty, James M. Lattimer, & Eric S. Myra.* 425, 195, 82-F3 (1994)

Fabry-Perot Observations and New Models of the HH 47A and HH 47D Bow Shocks. *Jon A. Morse, Patrick Hartigan, Steve Heathcote, John C. Raymond, & Gerald Cecil.* 425, 738, 91-A1 (1994)

Momentum Transfer by Astrophysical Jets. *Lawrence Chernin, Colin Masson, Elisabete M. de Gouveia Dal Pino, & Willy Benz.* 426, 204, 98-F2 (1994)

Electron Injection and Acceleration at Nonlinear Shocks: Results of Numerical Simulations. *Amir Levinson.* 426, 327, 100-C1 (1994)

Structure of Steady State Accretion Shocks with Several Cooling Functions: Closed Integral-Form Solution. *Kinwah Wu, G. Chanmugan, & G. Shaviv.* 426, 664, 106-F5 (1994)

Three-dimensional Hydrodynamic Bondi-Hoyle Accretion. II. Homogeneous Medium at Mach 3 with $\gamma = 5/3$. *Maximilian Ruffert & David Arnett.* 427, 351, 114-C3 (1994)

Dense Molecular Shocks and Accretion onto Protostellar Disks. *David A. Neufeld & David J. Hollenbach.* 428, 170, 130-C11 (1994)

Nonlinear Instabilities in Shock-bounded Slabs. *Ethan T. Vishniac.* 428, 186, 130-E1 (1994)

Particle Acceleration in an Evolving Active Region by an Ensemble of Shock Waves. *Anastasios Anastasiadis & Loukas Vlahos.* 428, 819, 140-D11 (1994)

Diffusive Shock Acceleration in the Presence of Current Sheets. *J. Kóta & J. R. Jokipii.* 429, 385, 148-G8 (1994)

The Evolution of Cosmic-Ray–mediated Magnetohydrodynamic Shocks: A Two-Fluid Approach. *Byung-Il Jun, David A. Clarke, & Michael L. Norman.* 429, 748, 155-A3 (1994)

A General Class of Self-similar Self-gravitating Fluids. *Ue-Li Pen.* 429, 759, 155-B2 (1994)

Explosions of Infalling Comets in Jupiter's Atmosphere. *Roger A. Chevalier & Craig L. Sarazin.* 429, 863, 156-D6 (1994)

The Molecular Gas Associated with the Orion Bright Bar. *Toshihiro Omodaka, Masahiko Hayashi, Tetsuo Hasegawa, & Saeko S. Hayashi.* 430, 256, 162-C7 (1994)

The Impact of SN 1987A with Its Circumstellar Ring. *Ding Luo, Richard McCray, & Jonathan Slavin.* 430, 264, 162-D3 (1994)

High-Resolution Simulations of Compressible Convection Using the Piecewise-parabolic Method. *David H. Porter & Paul R. Woodward.* 93, 309, 45-G1 (1994)

Interstellar SO^+. *B. E. Turner.* 430, 727, 170-G9 (1994)

An X-Ray and Optical Study of the Supernova Remnant W44. *Jeonghee Rho, R. Petre, Eric M. Schlegel, & J. Jeff Hester.* 430, 757, 171-C8 (1994)

Shocked Pure-rotational Emission from H_2 in Orion. *Parvinder S. Parmar, John H. Lacy, & Jeffrey M. Achtermann.* 430, 786, 171-F3 (1994)

A Study of X-Ray and Infrared Emissions from Dusty Nonradiative Shock Waves. *Olaf Vancura, John C. Raymond, Eli Dwek, William P. Blair, Knox S. Long, & Scott Foster.* 431, 188, 178-D13 (1994)

The Physics of Grain-Grain Collisions and Gas-Grain Sputtering in Interstellar Shocks. *A. G. G. M. Tielens, C. F. McKee, C. G. Seab, & D. J. Hollenbach.* 431, 321, 180-B3 (1994)

Giant Explosion at the Galactic Center and Huge Shocked Shells in the Halo. *Yoshiaki Sofue.* 431, L91, 191-E8 (1994)

Spectral Properties of Blast-Wave Models of Gamma-Ray Burst Sources. *P. Mészáros, M. J. Rees, & H. Papathanassiou.* 432, 181, 195-D10 (1994)

Cosmic Bullets as Particle Accelerators and Radio Sources. *T. W. Jones, Hyesung Kang, & I. L. Tregillis.* 432, 194, 195-E11 (1994)

Shock Propagation and the Generation of Magnetohydrodynamic Wave Fields in Inhomogeneous Molecular Clouds. *Mark S. Miesch & Ellen G. Zweibel.* 432, 622, 203-F9 (1994)

Chromospheric Heating and Metal Deficiency in Cool Giants: Theoretical Results versus Observations. *M. Cuntz, W. Rammacher, & P. Ulmschneider.* 432, 690, 204-E12 (1994)

An Ultraviolet and Visible Spectroscopic Study of a Pulsational Cycle of RY Sagittarii. *Geoffrey C. Clayton, W. A. Lawson, P. L. Cottrell, Barbara A. Whitney, S. Adam Stanford, & Frank de Ruyter.* 432, 785, 205-F13 (1994)

Low-Frequency Spectra of Gamma-Ray Bursts. *J. I. Katz.* 432, L107, 206-G11 (1994)

Shock Interactions with Magnetized Interstellar Clouds. I. Steady Shocks Hitting Nonradiative Clouds. *Mordecai-Mark Mac Low, Christopher F. McKee, Richard I. Klein, James M. Stone, & Michael L. Norman.* 433, 757, 220-E2 (1994)

Grain Destruction in Shocks in the Interstellar Medium. *A. P. Jones, A. G. G. M. Tielens, D. J. Hollenbach, & C. F. McKee.* 433, 797, 221-A12 (1994)

Radiative Shock Overstability of Finite-sized Objects. *Ruth Dgani & Noam Soker.* 434, 262, 229-A11 (1994)

Variable Emission Lines as Evidence of Spiral Shocks in Accretion Disks around Active Galactic Nuclei. *Sandip K. Chakrabarti & Paul J. Wiita.* 434, 518, 234-G9 (1994)

Structure of Relativistic Shocks in Pulsar Winds: A Model of the Wisps in the Crab Nebula. *Yves A. Gallant & Jonathan Arons.* 435, 230, 246-E4 (1994)

Thin Shell Formation in Radiative Shocks. I. Supernova Remnants in Low-Density Media. *José Franco, Walter Warren Miller III, S. J. Arthur, Guillermo Tenorio-Tagle, & Roberto Terlevich.* 435, 805, 257-B10 (1994)

Nonlinear Instability of Accelerating Shock Waves with Application to Supernovae. *Ding Luo & Roger A. Chevalier.* 435, 815, 257-C9 (1994)

Mass-Loss Rates, Ionization Fractions, Shock Velocities, and Magnetic Fields of Stellar Jets. *Patrick Hartigan, Jon A. Morse, & John Raymond.* 436, 125, 263-A6 (1994)

High-Velocity Sulfur Monoxide Emission from Protostellar Outflows. *Lawrence M. Chernin, Colin R. Masson, & Gary A. Fuller.* 436, 741, 275-F3 (1994)

Interactions between Magnetohydrodynamical Shocks and Denser Clouds. *Wenlong Dai & Paul R. Woodward.* 436, 776, 276-B13 (1994)

Shocked Molecular Gas around the Extremely Young Source IRAS 03282+3035. *R. Bachiller, S. Terebey, T. Jarrett, J. Martín-Pintado, C. A. Beichman, & D. Van Buren.* 437, 296, 287-C2 (1994)

Radiating Scalar Soliton-like Stars in a Pressurized Environment. *M. Esculpi & L. Herrera.* 437, 317, 287-E7 (1994)

A Multiline, Multiresolution VLA Study of the Ultracompact H II Region G29.96−0.02. *A. Afflerbach, E. Churchwell, P. Hofner, & S. Kurtz.* 437, 697, 295-C12 (1994)

Nonequilibria in Thermal Emission from Supernova Remnants. *Kuniaki Masai.* 437, 770, 296-C2 (1994)

Tidal-Shock Relaxation: A Reexamination of Tidal Shocks in Stellar Systems. *Tomislav Kundić & Jeremiah P. Ostriker.* 438, 702, 13-G7 (1995)

On the Wind-powered Nebula NGC 2359 and the WN Star HD 56925. *Yang Chen, Zhen-ru Wang, & Qin-yue Qu.* 438, 950, 17-C1 (1995)

Collapse and Fragmentation of Molecular Cloud Cores. II. Collapse Induced by Stellar Shock Waves. *Alan P. Boss.* 439, 224, 24-C7 (1995)

Interstellar Clouds in High-Speed, Supersonic Flows: Two-dimensional Simulations. *A. V. R. Schiano, Wayne A. Christiansen, & Jeffrey M. Knerr.* 439, 237, 24-D9 (1995)

Young Oxygen-rich Supernova Remnants. II. An Oxygen-rich Emission Mechanism. *Ralph S. Sutherland & Michael A. Dopita.* 439, 381, 26-D4 (1995)

Shock-excited NH_3 (3,3) Masers in the NGC 6334 Star-forming Region. *Kathleen E. Kraemer & James M. Jackson.* 439, L9, 29-F7 (1995)

Hot Shocked Gas along the Jets of NGC 4258 (M106). *G. Cecil, A. S. Wilson, & C. De Pree.* 440, 181, 43-F3 (1995)

High-Velocity, High-Excitation Neutral Carbon in a Cloud in the Vela Supernova Remnant. *Edward B. Jenkins & George Wallerstein.* 440, 227, 44-C13 (1995)

Does a Nonmagnetic Solar Chromosphere Exist? *Mats Carlsson & Robert F. Stein.* 440, L29, 48-E8 (1995)

Convergence Properties of Finite-Difference Hydrodynamics Schemes in the Presence of Shocks. *Paul A. Kimoto & David F. Chernoff.* 96, 627, 10-D9 (1995)

Velocity Profile of the Ionized Disk and the Mass of the Black Hole in M87. *Sandip K. Chakrabarti.* 441, 576, 70-A6 (1995)

Simulation of the Instability of Mach 2 and Mach 4 Gaseous Jets in Two and Three Dimensions. *Gene M. Bassett & Paul R. Woodward.* 441, 582, 70-B1 (1995)

Time-dependent Simulation of Oblique MHD Cosmic-Ray Shocks Using the Two-Fluid Model. *Adam Frank, T. W. Jones, & Dongsu Ryu.* 441, 629, 70-F11 (1995)

The Stability and Collimation of Three-dimensional Jets. *Philip E. Hardee, David A. Clarke, & D. Andrew Howell.* 441, 644, 71-A1 (1995)

Evidence for Elemental Variation in the Ejecta of the Tycho Supernova Remnant. *O. Vancura, P. Gorenstein, & John P. Hughes.* 441, 680, 71-D1 (1995)

The Homunculus of η Carinae: An Interacting Stellar Winds Paradigm. *Adam Frank, Bruce Balick, & Kris Davidson.* 441, L77, 76-B2 (1995)

Numerical Magnetohydrodynamics in Astrophysics: Algorithm and Tests for One-dimensional Flow. *Dongsu Ryu & T. W. Jones.* 442, 228, 80-C5 (1995)

Velocity Field of the Orion-KL Region in Molecular Hydrogen Emission. *Hajime Sugai, Hironobu Kawabata, Tomonori Usuda, Motoko Y. Inoue, Hirokazu Kataza, & Masuo Tanaka.* 442, 674, 89-D3 (1995)

Incorporation of Ambipolar Diffusion into the ZEUS Magnetohydrodynamics Code. *Mordecai-Mark Mac Low, Michael L. Norman, Arieh Königl, & Mark Wardle.* 442, 726, 90-B10 (1995)

Ammonia Emission from Bow Shocks in the L1157 Outflow. *M. Tafalla & R. Bachiller.* 443, L37, 102-G4 (1995)

Hydrodynamic Instabilities in Supernova Remnants: Early Radiative Cooling. *Roger A. Chevalier & John M. Blondin.* 444, 312, 117-F11 (1995)

Optical Continuum Signature of the Jet in the Spiral Galaxy NGC 4258. *Yvan Dutil, Dominique Beauchamp, & Jean-René Roy.* 444, L85, 130-E8 (1995)

Radio Jet Propagation and Wide-Angle Tailed Radio Sources in Merging Galaxy Cluster Environments. *Chris Loken, Kurt Roettiger, Jack O. Burns, & Michael Norman.* 445, 80, 133-D11 (1995)

Three Low-Energy Particle Events: Modeling the Influence of the Parent Interplanetary Shock. *A. M. Heras, B. Sanahuja, D. Lario, Z. K. Smith, T. Detman, & M. Dryer.* 445, 497, 139-D4 (1995)

Implicit General Relativistic Hydrodynamic Methods for Modeling the Late-Time Explosion Mechanism in Core Collapse Supernovae. *F. Douglas Swesty.* 445, 811, 146-D4 (1995)

Observations of the Clumpy Shell of the L1551 Bipolar Outflow. *R. L. Plambeck & R. L. Snell.* 446, 234, 156-D6 (1995)

Infrared Spectroscopy of Herbig-Haro Objects. *Richard D. Schwartz, A. S. B. Schultz, Martin Cohen, & Peredur M. Williams.* 446, 318, 157-E8 (1995)

Dynamo-generated Turbulence and Large-Scale Magnetic Fields in a Keplerian Shear Flow. *Axel Brandenburg, Åke Nordlund, Robert F. Stein, & Ulf Torkelsson.* 446, 741, 166-C7 (1995)

Similarity Solution for a Supernova Remnant Evolving in an Inhomogeneous Stellar Wind. *Yang Chen, Ning Liu, & Zhen-ru Wang.* 446, 755, 166-D11 (1995)

The Weakening of the Termination Shocks of Isothermal Winds by Mass Loading. *R. J. R. Williams, T. W. Hartquist, & J. E. Dyson.* 446, 759, 166-E4 (1995)

A Model for the Radio Emission from SNR 1987A. *P. Duffy, Lewis Ball, & J. G. Kirk.* 447, 364, 177-D7 (1995)

Diffusive Shock Acceleration Simulations: Comparison with Particle Methods and Bow Shock Measurements. *Hyesung Kang & T. W. Jones.* 447, 944, 188-G13 (1995)

Evidence for Shock Acceleration in the Binary Pulsar System PSR B1259−63. *J. E. Grove, M. Tavani, W. R. Purcell, W. N. Johnson, J. D. Kurfess, M. S. Strickman, & J. Arons.* 447, L113, 191-B1 (1995)

Protostellar Collapse with a Shock. *John C. Tsai & Juliana J. L. Hsu.* 448, 774, 205-D8 (1995)

The First Second of a Type II Supernova: Convection, Accretion, and Shock Propagation. *H.-Thomas Janka & Ewald Müller.* 448, L109, 209-D9 (1995)

Detection of Pure Rotational H_2 Emission from the Supernova Remnant IC 443: Further Evidence for a Partially Dissociating J-Shock. *Matthew J. Richter, James. R. Graham, Gillian S. Wright, Douglas M. Kelly, & John H. Lacy.* 449, L83, 217-D2 (1995)

The Supernova Shock. *Hans A. Bethe.* 449, 714, 222-F2 (1995)

Numerical Analysis of the Dynamic Stability of Radiative Shocks. *Russell Strickland & John M. Blondin.* 449, 727, 222-G5 (1995)

Giant Bow Shock Pairs Associated with Herbig-Haro Jets. *Katsuo Ogura.* 450, L23, 235-F6 (1995)

Discovery of Diffuse X-Ray Emission in 47 Tucanae. *Martin Krockenberger & Jonathan E. Grindlay.* 451, 200, 248-F11 (1995)

The Disruption of Molecular Cloud Cores by Photoionization. *J. A. Rodríguez-Gaspar, G. Tenorio-Tagle, & J. Franco.* 451, 210, 248-G10 (1995)

Sequential Star Formation in OB Associations: The Role of Molecular Cloud Turbulence. *Bruce G. Elmegreen, Toshiya Kimura, & Makoto Tosa.* 451, 675, 256-E1 (1995)

Stable and Unstable Accretion Flows with Angular Momentum near a Point Mass. *Dongsu Ryu, Garry L. Brown, Jeremiah P. Ostriker, & Abraham Loeb.* 452, 364, 267-B7 (1995)

Galactic Cosmic-Ray Mediation of a Spherical Solar Wind Flow. II. The Steady State Hydromagnetic Approximation. *J. A. le Roux & V. S. Ptuskin.* 452, 423, 267-G11 (1995)

Spectral Evidence for Shock-ionized Gas along the Jets of NGC 4258. *Gerald Cecil, Jon A. Morse, & Sylvain Veilleux.* 452, 613, 273-B4 (1995)

Hubble Space Telescope Observations of the SN 1987A Triple Ring Nebula. *Christopher J. Burrows, John Krist, J. Jeff Hester, Raghvendra Sahai, John T. Trauger, Karl R. Stapelfeldt, John S. Gallagher III, Gilda E. Ballester, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, Richard E. Griffiths, John G. Hoessel, Jon A. Holtzman, Jeremy R. Mould, Paul A. Scowen, Alan M. Watson, & James A. Westphal.* 452, 680, 274-A11 (1995)

Numerical Magnetohydrodynamics in Astrophysics: Algorithm and Tests for Multidimensional Flow. *Dongsu Ryu, T. W. Jones, & Adam Frank.* 452, 785, 275-D7 (1995)

Multidimensional Green's Functions and the Statistics of Diffusive Shock Acceleration. *G. M. Webb, G. P. Zank, C. M. Ko, & D. J. Donohue.* 453, 178, 283-F1 (1995)

Molecular H_2 Emission in HH 47A: *Hubble Space Telescope* GHRS and FOC Observations. *Salvador Curiel, John C. Raymond, Mark Wolfire, Patrick Hartigan, Jon Morse, Richard D. Schwartz, & Peter Nisenson.* 453, 322, 285-E10 (1995)

Acceleration Rates and Injection Efficiencies in Oblique Shocks. *Donald C. Ellison, Matthew G. Baring, & Frank C. Jones.* 453, 873, 296-A7 (1995)

The Origin of Cosmic Rays above $10^{18.5}$ eV. *Colin A. Norman, Donald B. Melrose, & Abraham Achterberg.* 454, 60, 300-A12 (1995)

The Hydrodynamics of Shock-Cloud Interactions in Three Dimensions. *Jianjun Xu & James M. Stone.* 454, 172, 301-E12 (1995)

The Corrugation Instability in Slow Magnetosonic Shock Waves. *James M. Stone & Mark Edelman.* 454, 182, 301-G7 (1995)

Infrared Imaging and Spectroscopy of the Molecular Shock in IC 443. *Matthew J. Richter, James R. Graham, & Gillian S. Wright.* 454, 277, 303-B1 (1995)

Detection of Ultraviolet Emission Lines in SN 1006 with the Hopkins Ultraviolet Telescope. *John C. Raymond, William P. Blair, & Knox S. Long.* 454, L31, 307-G2 (1995)

A Far-Ultraviolet Spectrum of the Puppis A Supernova Remnant Using the Hopkins Ultraviolet Telescope. *William P. Blair, John C. Raymond, Knox S. Long, & Gerard A. Kriss.* 454, L35, 307-G12 (1995)

Spectral Signatures of Fast Shocks. II. Optical Diagnostic Diagrams. *Michael A. Dopita & Ralph S. Sutherland.* 455, 468, 328-D5 (1995)

Spectral Properties of Accretion Disks around Galactic and Extragalactic Black Holes. *Sandip Chakrabarti & Lev G. Titarchuk.* 455, 623, 330-E1 (1995)

X-Rays from SN 1993J and Structures of Ejecta and Circumstellar Medium. *Tomoharu Suzuki & Ken'ichi Nomoto.* 455, 658, 331-A8 (1995)

SKY PHOTOGRAPHS

The Imaging Performance of the *Hubble Space Telescope*. *Christopher J. Burrows, Jon A. Holtzman, S. M. Faber, Pierre Y. Bely, Hashima Hasan, C. R. Lynds, & Daniel Schroeder.* 369, L21, 45-C1 (1991)

SOLAR SYSTEM: FORMATION

Large Electric Fields in Acoustic Waves and the Stimulation of Lightning Discharges. *W. Pilipp, T. W. Hartquist, & G. E. Morfill.* 387, 364, 41-D13 (1992)

On the Detectability of the Gas of Other Solar Nebulae. *Toshihiro Omodaka, Yoshimi Kitamura, & Eiko Kawazoe.* 396, L87, 167-C7 (1992)

^{26}Al and Time Scales of the Solar Nebula. *Kurt Liffman.* 398, L111, 194-F1 (1992)

Observational Constraints on Solar Nebula Nitrogen Chemistry: N_2/NH_3. *Maria Womack, Susan Wyckoff, & L. M. Ziurys.* 401, 728, 231-E6 (1992)

Evolution of Planetesimals. I. Dynamics: Relaxation in a Thin Disk. *P. L. Palmer, D. N. C. Lin, & S. J. Aarseth.* 403, 336, 18-A12 (1993)

Evolution of Planetesimals. II. Numerical Simulations. *S. J. Aarseth, D. N. C. Lin, & P. L. Palmer.* 403, 351, 18-C1 (1993)

The Formation of Protostellar Disks. I. 1 $M_\odot$. *Harold W. Yorke, Peter Bodenheimer, & Gregory Laughlin.* 411, 274, 130-E13 (1993)

Evolution of the Solar Nebula. II. Thermal Structure during Nebula Formation. *Alan P. Boss.* 417, 351, 222-A1 (1993)

On the Wave Excitation and a Generalized Torque Formula for Lindblad Resonances Excited by External Potential. *Paweł Artymowicz.* 419, 155, 248-B1 (1993)

An Observational Estimate of the Probability of Encounters between Mass-losing Evolved Stars and Molecular Clouds. *Joel H. Kastner & P. C. Myers.* 421, 605, 25-G3 (1994)

Further Studies of Gravitationally Unstable Protostellar Disks. *Leslie Tomley, Thomas Y. Steiman-Cameron, & Patrick Cassen.* 422, 850, 42-D8 (1994)

Asymptotic Giant Branch Stars as a Source of Short-lived Radioactive Nuclei in the Solar Nebula. *G. J. Wasserburg, M. Busso, R. Gallino, & C. M. Raiteri.* 424, 412, 67-A6 (1994)

Extreme ^{26}Mg and ^{17}O Enrichments in an Orgueil Corundum: Identification of a Presolar Oxide Grain. *I. D. Hutcheon, G. R. Huss, A. J. Fahey, & G. J. Wasserburg.* 425, L97, 94-F7 (1994)

Oxygen Isotopes in Circumstellar Al_2O_3 Grains from Meteorites and Stellar Nucleosynthesis. *Gary R. Huss, Albert J. Fahey, Roberto Gallino, & G. J. Wasserburg.* 430, L81, 166-C13 (1994)

The Possibility of Forming an Inhomogeneous Sun and the Solar Neutrino Deficit. *E. H. Levy & T. V. Ruzmaikina.* 431, 881, 189-F1 (1994)

Nonaxisymmetric Evolution in Protostellar Disks. *Gregory Laughlin & Peter Bodenheimer.* 436, 335, 265-G13 (1994)

Isotopically Distinct Reservoirs in the Solar Nebula: Isotope Anomalies in Vigarano Meteorite Inclusions. *R. D. Loss, G. W. Lugmair, A. M. Davis, & G. J. MacPherson.* 436, L193, 282-D13 (1994)

Disk Tides and Accretion Runaway. *William R. Ward & Joseph M. Hahn.* 440, L25, 48-E1 (1995)

Injection of Freshly Synthesized ^{41}Ca in the Early Solar Nebula by an Asymptotic Giant Branch Star. *G. J. Wasserburg, R. Gallino, M. Busso, J. N. Goswami, & C. M. Raiteri.* 440, L101, 58-D1 (1995)

Dust Particle Settling in Passive Disks around T Tauri Stars: Models and *IRAS* Observations. *Kotaro Miyake & Yoshitsugu Nakagawa.* 441, 361, 64-C13 (1995)

Cosmic Dust Synthesis by Accretion and Coagulation. *G. Praburam & J. Goree.* 441, 830, 73-D4 (1995)

Numerical Simulations of Stratified Compressible Convection with Internal Heating and Disklike Variable Gravity. *W. Cabot, K. W. Thompson, & J. B. Pollack.* 98, 315, 26-C4 (1995)

Massive Supernovae, Orion Gamma Rays, and the Formation of the Solar System. *A. G. W. Cameron, P. Höflich, P. C. Myers, & D. D. Clayton.* 447, L53, 181-D7 (1995)

Detection of $H_2{}^{18}O$ in Jupiter. *Keith S. Noll, T. R. Geballe, & Roger F. Knacke.* 453, L49, 290-A11 (1995)

SOLAR SYSTEM: GENERAL

Gravitational Diffusion of Solar System WIMPs. *Andrew Gould.* 368, 610, 32-F7 (1991)

^{26}Al and ^{16}O in the Early Solar System: Clues from Meteoritic Al_2O_3. *Edward Anders, Alois Virag, Ernst Zinner, & Roy S. Lewis.* 373, L77, 97-F6 (1991)

The Dynamical Evolution of the Protosolar Nebula. *Steven P. Ruden & James B. Pollack.* 375, 740, 121-G11 (1991)

Testing Einstein's Theory of Gravity by Analyzing Lunar Laser Ranging Data. *J. Müller, M. Schneider, M. Soffel, & H. Ruder.* 382, L101, 211-E12 (1991)

The Perihelion Problem in Kaluza-Klein Gravity. *Paul H. Lim & Paul S. Wesson.* 397, L91, 181-B8 (1992)

The Gravitational Sculpting of the Kuiper Belt. *Harold F. Levison & Martin J. Duncan.* 406, L35, 61-A8 (1993)

Second Post-Newtonian Order Renormalization of First Post-Newtonian Order Gravity in the Solar System. *Ken Nordtvedt.* 407, 758, 80-A1 (1993)

Encounters with Protostellar Disks. I. Disk Tilt and the Nonzero Solar Obliquity. *Clayton H. Heller.* 408, 337, 87-C11 (1993)

Our Sun. III. Present and Future. *I.-Juliana Sackmann, Arnold I. Boothroyd, & Kathleen E. Kraemer.* 418, 457, 236-F6 (1993)

Disk-Satellite Interaction via Density Waves and the Eccentricity Evolution of Bodies Embedded in Disks. *Paweł Artymowicz.* 419, 166, 248-C1 (1993)

On the Apparent Velocity of Integrated Sunlight. II. 1983–1992 and Comparisons with Magnetograms. *Drake Deming & Claude Plymate.* 426, 382, 101-A2 (1994)

COBE DIRBE Near-Infrared Polarimetry of the Zodiacal Light: Initial Results. *G. B. Berriman, N. W. Boggess, M. G. Hauser, T. Kelsall, C. M. Lisse, S. H. Moseley, W. T. Reach, & R. F. Silverberg.* 431, L63, 183-C1 (1994)

^{41}Ca in the Early Solar System. *G. Srinivasan, A. A. Ulyanov, & J. N. Goswami.* 431, L67, 183-C9 (1994)

A Potential New Test for Unseen Matter in the Outer Solar System. *Timothy P. Krisher.* 433, 666, 219-C13 (1994)

The Classical Tests in Kaluza-Klein Gravity. *D. Kalligas, P. S. Wesson, & C. W. F. Everitt.* 439, 548, 31-G9 (1995)

The Carbon Isotope Abundance Ratio in Comet Halley. *Marvin Kleine, Susan Wyckoff, Peter A. Wehinger, & Bruce A. Peterson.* 439, 1021, 38-F13 (1995)

Improved Bounds on Nonluminous Matter in Solar Orbit. *John D. Anderson, Eunice L. Lau, Timothy P. Krisher, Duane A. Dicus, Doris C. Rosenbaum, & Vigdor L. Teplitz.* 448, 885, 207-B7 (1995)

Model of a Kuiper Belt Small Grain Population and Resulting Far-Infrared Emission. *D. E. Backman, A. Dasgupta, & R. E. Stencel.* 450, L35, 236-A11 (1995)

Gamma Rays, Cosmic Rays, and Extinct Radioactivity in Molecular Clouds. *Donald D. Clayton & Liping Jin.* 451, 681, 256-E10 (1995)

The Discovery of Halley-sized Kuiper Belt Objects Using the *Hubble Space Telescope*. *Anita L. Cochran, Harold F. Levison, S. Alan Stern, & Martin J. Duncan.* 455, 342, 322-G3 (1995)

SPACE VEHICLES

A Survey of Bidirectional $\geq$ 1 MeV Ion Flows during the *Helios 1* and *Helios 2* Missions: Observations from the Goddard Space Flight Center Instruments. *I. G. Richardson.* 420, 926, 14-D5 (1994)

The Infrared Telescope in Space (IRTS). *H. Murakami, J. Bock, M. M. Freund, H. Guo, T. Hirao, A. E. Lange, H. Matsuhara, T. Matsumoto, S. Matsuura, T. J. McMahon, M. Murakami, T. Nakagawa, M. Noda, K. Noguchi, H. Okuda, K. Okumura, T. Onaka, T. L. Roellig, S. Sato, H. Shibai, T. Tanabé, T. Watabe, T. Yagi, N. Yajima, & M. Yui.* 428, 354, 132-E8 (1994)

Near-Infrared Spectrometer on the Infrared Telescope in Space. *Manabu Noda, Toshio Matsumoto, Shuji Matsuura, Kunio Noguchi, Masahiro Tanaka, Mark A. Lim, & Hiroshi Murakami.* 428, 363, 132-F5 (1994)

The Mid-Infrared Spectrometer on the Infrared Telescope in Space (IRTS) Mission. *Thomas L. Roellig, Takashi Onaka, Thomas J. McMahon, & T. Tanabé.* 428, 370, 132-G1 (1994)

Far-Infrared Line Mapper (FILM) on the Infrared Telescope in Space. *Hiroshi Shibai, Masao Yui, Hideo Matsuhara, Norihisa Hiromoto, Takao Nakagawa, & Haruyuki Okuda.* 428, 377, 132-G11 (1994)

The Far-Infrared Photometer on the Infrared Telescope in Space. *A. E. Lange, M. M. Freund, S. Sato, T. Hirao, T. Matsumoto, & T. Watabe.* 428, 384, 133-A6 (1994)

INTEGRAL: Overview and Mission Concept. *Christoph Winkler.* 92, 327, 36-B9 (1994)

INTEGRAL: Mission and Satellite. *Oscar Pace, Dominique Pawlak, & Chris Winkler.* 92, 339, 36-C13 (1994)

The *Compton Gamma Ray Observatory*. *N. Gehrels, E. Chipman, & D. Kniffen.* 92, 351, 36-E1 (1994)

The Cosmic-Ray Oxygen and Helium Spectra Measured at *Pioneer 10* over the Time of the 1987 Modulation Minimum, and Implications for the He/O Source Ratio. *W. R. Webber & F. B. McDonald.* 435, 464, 249-G2 (1994)

The On-Orbit Performance of WFPC2. *John T. Trauger, Gilda E. Ballester, Christopher J. Burrows, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, John S. Gallagher III, Richard E. Griffiths, J. Jeff Hester, John G. Hoessel, Jon A. Holtzman, John E. Krist, Jeremy R. Mould, Paul A. Scowen, Karl R. Stapelfeldt, Alan M. Watson, & James A. Westphal.* 435, L3, 251-B5 (1994)

In-Orbit Performance of the COSTAR-corrected Faint Object Camera. *R. I. Jedrzejewski, G. Hartig, P. Jakobsen, J. H. Crocker, & H. C. Ford.* 435, L7, 251-B12 (1994)

The Faint Limit of the *Hubble Space Telescope* Faint Object Spectrograph and Rejection of the Cosmic-Ray Background. *David Tytler & Christopher Davis.* 438, 420, 7-C5 (1995)

Calibrating the Broad Band X-Ray Telescope. *K. A. Weaver, K. A. Arnaud, E. A. Boldt, D. Christian, M. Corcoran, S. S. Holt, K. Jahoda, R. Kelley, F. E. Marshall, R. F. Mushotzky, R. Petre, G. Rawley, P. J. Serlemitsos, E. M. Schlegel, A. P. Smale, J. H. Swank, A. E. Szymkowiak, & S. Yamauchi.* 96, 303, 5-D13 (1995)

Performance and Preliminary Calibration of the Hopkins Ultraviolet Telescope on the Astro-2 Mission. *Jeffrey W. Kruk, Samuel T. Durrance, Gerard A. Kriss, Arthur F. Davidsen, William P. Blair, Brian R. Espey, & David S. Finley.* 454, L1, 307-C1 (1995)

Statistical Studies of *ISEE 3/ICE* Observations of Impulsive Hard X-Ray Solar Flares. *Kenneth R. Bromund, James M. McTiernan, & Sharad R. Kane.* 455, 733, 332-A8 (1995)

SPECTROPHOTOMETRY

Southern *IRAS* Quasar with Extreme Fe II Emission. *S. Lípari, F. D. Macchetto, & D. Golombek.* 366, L65, 11-C1 (1991)

ESO 207-61: A Brown Dwarf Candidate in the Hyades Moving Group. *María Teresa Ruiz, Marianne Y. Takamiya, & Miguel Roth.* 367, L59, 22-C7 (1991)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. II. An Intensive Study of NGC 5548 at Optical Wavelengths. *B. M. Peterson, T. J. Balonek, E. S. Barker, J. Bechtold, R. Bertram, N. G. Bochkarev, M. J. Bolte, D. Bond, T. A. Boroson, M. T. Carini, T. E. Carone, J. A. Christensen, S. D. Clements, A. L. Cochran, R. D. Cohen, D. Crampton, M. Dietrich, M. Elvis, A. Ferguson, A. V. Filippenko, K. J. Fricke, C. M. Gaskell, J. P. Halpern, J. P. Huchra, J. B. Hutchings, W. Kollatschny, A. P. Koratkar, K. T. Korista, J. H. Krolik, N. J. Lame, A. Laor, R. J. Leacock, G. M. MacAlpine, M. A. Malkan, D. Maoz, H. R. Miller, S. L. Morris, H. Netzer, C. L. M. Oliveira, J. Penfold, M. V. Penston, E. Pérez, R. W. Pogge, M. W. Richmond, W. Romanishin, E. I. Rosenblatt, L. Saddlemyer, A. Sadun, S. R. Sawyer, J. C. Shields, A. I. Shapovalova, A. G. Smith, H. A. Smith, P. S. Smith, W.-H. Sun, U. Thiele, T. J. Turner, S. Veilleux, R. M. Wagner, R. J. Weymann, B. J. Wilkes, B. J. Wills, D. Wills, & P. F. Younger.* 368, 119, 24-E3 (1991)

A Spectrophotometric Atlas of White Dwarfs Compiled from the *IUE* Archives. *Gary Wegner & Steven R. Swanson.* 75, 507, 7-E13 (1991)

Young Stellar Objects Detected by *IRAS*. *Frank O. Clark.* 75, 611, 9-B5 (1991)

The Shape of the Ultraviolet Continuum of Quasars and Intergalactic Dust. *F. H. Cheng, C. Martin Gaskell, & Anuradha P. Koratkar.* 370, 487, 54-D9 (1991)

The Origin of the Far-Infrared Continuum in Active Galactic Nuclei. *L. K. Hunt.* 370, 511, 54-F9 (1991)

The Ultraviolet Continuum and the Fluorescent H_2 Lines in Low-Excitation Herbig-Haro Objects. *K.-H. Böhm, D. M. Scott, & J. Solf.* 371, 248, 63-C1 (1991)

Ultramassive ($\sim 10^{11}$ $M_\odot$) Dark Core in the Luminous Infrared Galaxy NGC 6240? *Jonathan Bland-Hawthorn, Andrew S. Wilson, & R. Brent Tully.* 371, L19, 66-C7 (1991)

The Ultraviolet Spectrum and Continuum Energy Distribution of the Bright Quasar H1821+643. *Michiel Kolman, Jules P. Halpern, Chris R. Shrader, & Alexei V. Filippenko.* 373, 57, 86-F8 (1991)

The Bumps in the Spectral Energy Distribution of Active Galactic Nuclei. *Marcella Contini & Sueli M. Viegas.* 373, 405, 93-A9 (1991)

Imaging Spectrophotometry of Ionized Gas in NGC 1068. II. Global Ionization of the Inner Disk. *Jonathan Bland-Hawthorn, James Sokolowski, & Gerald Cecil.* 375, 78, 112-A1 (1991)

IUE Observations of Early-Type Stars at High Galactic Latitudes. *D. A. Quin, P. J. F. Brown, E. S. Conlon, P. L. Dufton, & F. P. Keenan.* 375, 342, 115-B7 (1991)

Imaging Spectrophotometry of Ionized Gas in NGC 1068. III. Anisotropic Excitation of the Large-Scale Disk by Scattering of Nuclear Continuum.

James Sokolowski, Jonathan Bland-Hawthorn, & Gerald Cecil. 375, 583, 120-A1 (1991)

Absolute Far-Ultraviolet Spectrophotometry of Hot Subluminous Stars from *Voyager*. *J. B. Holberg, B. Ali, T. E. Carone, & R. S. Polidan.* 375, 716, 121-E11 (1991)

The Featureless Continua and Hydrogen Lines of Seyfert 2 Galaxies. *A. L. Kinney, R. R. J. Antonucci, M. J. Ward, A. S. Wilson, & M. Whittle.* 377, 100, 139-C5 (1991)

Narrow-Band Photometry and the Evolution of Galaxies. III. The Intermediate-Redshift Sample. *Karl D. Rakos, James M. Schombert, & Tobias J. Kreidl.* 377, 382, 144-E7 (1991)

Multidirectional Views of the Active Nucleus of NGC 1068. *J. S. Miller, R. W. Goodrich, & William G. Mathews.* 378, 47, 151-E13 (1991)

Galactic Bulge M Giants. IV. 0.5–2.5 Micron Spectrophotometry and Abundances for Stars in Baade's Window. *D. M. Terndrup, Jay A. Frogel, & A. E. Whitford.* 378, 742, 161-E5 (1991)

Search for Starbursts among X-Ray–selected Galaxies: Optical Spectroscopy. *Antonella Fruscione & Richard E. Griffiths.* 380, L13, 181-C1 (1991)

The Discovery of a Young Radio Galaxy at $z = 2.390$: Probing Initial Star Formation at $z \leq 3.0$. *Rogier A. Windhorst, David Burstein, Doug F. Mathis, Lyman W. Neuschaefer, F. Bertola, L. M. Buson, David C. Koo, Keith Matthews, Peter D. Barthel, & K. C. Chambers.* 380, 362, 182-G1 (1991)

Catalog of SN 1987A Polarimetry Corrected for Interstellar Polarization. *David J. Jeffery.* 77, 405, 50-B5 (1991)

Emission-Line and Continuum Properties of 92 Bright QSOs: Luminosity Dependence and Differences between Radio-selected and Optically Selected Samples. *Charles C. Steidel & Wallace L. W. Sargent.* 382, 433, 207-A1 (1991)

Asymptotic Theory for the Spatial Distribution of Protostellar Emission. *Fred C. Adams.* 382, 544, 208-C8 (1991)

Far-Infrared and Submillimeter Wavelength Observations of Star-forming Dense Cores. II. Images. *E. F. Ladd, Fred C. Adams, S. Casey, J. A. Davidson, G. A. Fuller, D. A. Harper, P. C. Myers, & R. Padman.* 382, 555, 208-D7 (1991)

Optical Excess Emission in T Tauri Stars. *Patrick Hartigan, Scott J. Kenyon, Lee Hartmann, Stephen E. Strom, Suzan Edwards, Alan D. Welty, & John Stauffer.* 382, 617, 209-C1 (1991)

Near-Infrared [Fe II] Emission of M82 Supernova Remnants: Implications for Tracing the Supernova Content of Galaxies. *Matthew A. Greenhouse, Charles E. Woodward, Harley A. Thronson, Jr., Richard J. Rudy, George S. Rossano, Peter Erwin, & R. C. Puetter.* 383, 164, 214-B1 (1991)

On the Near-Infrared Spectrum of FU Orionis. *Nuria Calvet, Lee Hartmann, & Scott J. Kenyon.* 383, 752, 223-E6 (1991)

An Interactive Companion to the S Star HD 35155. *Thomas B. Ake III, Hollis R. Johnson, & Mudhaffer M. Ameen.* 383, 842, 224-F7 (1991)

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Application of Oxygen-enhanced Evolutionary Sequences to the Horizontal Branch of M15. *Ben Dorman, Young-Wook Lee, & Don A. VandenBerg.* 366, 115, 2-D11 (1991)

On the [O/Fe] versus [Fe/H] Relationship and the Progenitors of Type I Supernovae. *C. Abia, R. Canal, & J. Isern.* 366, 198, 3-E1 (1991)

Evidence for CNO Processed Material in the Accretion Disk of GP Comae. *T. R. Marsh, Keith Horne, & Simon Rosen.* 366, 535, 9-F1 (1991)

A Crucial Test of the Diffusion Model: 53 Camelopardalis. *J. Babel & G. Michaud.* 366, 560, 10-A5 (1991)

s-Process Nucleosynthesis in Massive Stars and the Weak Component. I. Evolution and Neutron Captures in a 25 $M_\odot$ Star. *C. M. Raiteri, M. Busso, R. Gallino, G. Picchio, & L. Pulone.* 367, 228, 14-G13 (1991)

PW Vulpeculae: A Nova with Nearly Solar Abundances. *Pedro Saizar, Sumner Starrfield, Gary J. Ferland, R. Mark Wagner, James W. Truran, Scott J. Kenyon, Warren M. Sparks, Robert E. Williams, & L. L. Stryker.* 367, 310, 15-G11 (1991)

Abundances in the Red Giants of M13 and M22. *M. D. Lehnert, R. A. Bell, & J. G. Cohen.* 367, 514, 19-F9 (1991)

Metal Abundances of RR Lyrae Variables in Selected Galactic Star Fields. V. The Lick Astrographic Fields at Intermediate Galactic Latitudes. *Nicholas B. Suntzeff, T. D. Kinman, & Robert P. Kraft.* 367, 528, 19-G13 (1991)

Chemical Abundances for Cyanogen-weak Giants. *R. Earle Luck.* 75, 579, 8-F11 (1991)

The Response of Main-Sequence Stars within a Common Envelope. *Michael S. Hjellming & Ronald E. Taam.* 370, 709, 57-C1 (1991)

Lithium in the Most Extreme Halo Stars; Trends with Metallicity. *Constantine P. Deliyannis & Pierre Demarque.* 370, L89, 59-E5 (1991)

Lithium, Age, and Metallicity in Open Clusters. *Ann Merchant Boesgaard.* 370, L95, 59-E12 (1991)

Echelle Spectroscopy of CD −41° 13967: The Young Central Star of a New Planetary Nebula. *James K. McCarthy, R. Michael Rich, S. R. Becker, K. Butler, D. Husfeld, & H. G. Groth.* 371, 380, 64-G1 (1991)

Carbon Isotope Ratios along the Giant Branch of M67. *Kalpana Krishnaswamy Gilroy & Jeffery A. Brown.* 371, 578, 68-F7 (1991)

Diffusion and Mixing of Lithium and Helium in Population II Dwarfs. *Charles R. Proffitt & Georges Michaud.* 371, 584, 68-G1 (1991)

s-Process Nucleosynthesis in Massive Stars and the Weak Component. II. Carbon Burning and Galactic Enrichment. *C. M. Raiteri, M. Busso, R. Gallino, & G. Picchio.* 371, 665, 69-G6 (1991)

How Much Hydrogen Is There in a White Dwarf? *James MacDonald & Stéphane Vennes.* 371, 719, 70-E1 (1991)

Multicolor CCD Photometry of Globular Clusters in Two Virgo Elliptical Galaxies. *Jean Couture, William E. Harris, & J. W. B. Allwright.* 372, 97, 75-C1 (1991)

A Simple Accretion/Diffusion Model for λ Bootis Stars. *Paul Charbonneau.* 372, L33, 79-D13 (1991)

Non–LTE Analysis of the Ofpe/WN9 Star HDE 269227 (R84). *Werner Schmutz, Claus Leitherer, Ivan Hubeny, Manfred Vogel, Wolf-Rainer Hamann, & Ulf Wessolowski.* 372, 664, 84-A1 (1991)

Photoerosion and the Abundances of ^{7}Li, ^{9}Be, ^{10}B, and ^{11}B near Active Galactic Nuclei. *R. N. Boyd & H. S. Fencl.* 373, 84, 87-A13 (1991)

Si IV and C IV Resonance Lines as Indicators of Massive Stars in Starburst Galaxies. *Claus Leitherer & Henny J. G. L. M. Lamers.* 373, 89, 87-B6 (1991)

The Lithium Abundance of M67 Blue Stragglers: A Constraint on the Blue Straggler Phenomenon. *C. J. Pritchet & J. W. Glaspey.* 373, 105, 87-C12 (1991)

The Lithium Abundance of the T Tauri Star BP Tauri. *Douglas K. Duncan.* 373, 250, 89-B1 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

C and N Abundances among 47 Tucanae Main-Sequence Stars. *Michael M. Briley, James E. Hesser, & R. A. Bell.* 373, 482, 94-A1 (1991)

An Extreme Population II Dwarf without Lithium. *L. M. Hobbs, D. E. Welty, & J. A. Thorburn.* 373, L47, 97-B13 (1991)

Isochrones for H-burning Globular Cluster Stars. II. The Metallicity Range $-2.3 <$ [Fe/H] < -0.5. *Oscar Straniero & Alessandro Chieffi.* 76, 525, 32-D1 (1991)

A Critical Appraisal of Published Values of [Fe/H] for K II–IV Stars. *Benjamin J. Taylor.* 76, 715, 34-E12 (1991)

The Lithium Abundance in Extreme Halo Stars. *L. M. Hobbs & J. A. Thorburn.* 375, 116, 112-D8 (1991)

Diffusion and Mixing in Classical Nova Precursors. *Icko Iben, Jr., Masayuki Y. Fujimoto, & Jim MacDonald.* 375, L27, 117-D1 (1991)

Diameters of Galactic Globular Clusters. *Sidney van den Bergh, Christopher Morbey, & John Pazder.* 375, 594, 120-B1 (1991)

On the Formation of Globular Clusters. I. Dynamical Limits on Globular Cluster Metallicities. *J. H. Brown, A. Burkert, & James W. Truran.* 376, 115, 126-D1 (1991)

The White Dwarf Mass Distribution in Classical Nova Systems. *Hans Ritter, Michael Politano, Mario Livio, & Ronald F. Webbink.* 376, 177, 127-B10 (1991)

Inhomogeneous Halo Collapse and Early Galactic Chemical Evolution: Globular Cluster Metallicities. *G. Malinie, D. H. Hartmann, & G. J. Mathews.* 376, 520, 132-G9 (1991)

Li Depletion in F Stars by Internal Gravity Waves. *Ramón J. García López & Hendrik C. Spruit.* 377, 268, 141-C7 (1991)

First Results from the Goddard High-Resolution Spectrograph: High-Resolution Observations of the 1942 Å Resonance Line of Hg II in the Chemically Peculiar B Star, χ Lupi. *David S. Leckrone, Glenn M. Wahlgren, & Sveneric G. Johansson.* 377, L37, 143-E1 (1991)

Metallicity and Velocity Distribution of Giants toward the Galactic Poles. *Kavan U. Ratnatunga & Kenneth M. Yoss.* 377, 442, 145-C3 (1991)

Lithium Abundances in Carbon Stars. *Grant R. Denn, R. Earle Luck, & David L. Lambert.* 377, 657, 147-G5 (1991)

First Detection of Beryllium in a Very Metal Poor Star: A Test of the Standard Big Bang Model. *Gerard Gilmore, Bengt Edvardsson, & P. E. Nissen.* 378, 17, 151-C1 (1991)

The Metallicity of RR Lyrae Stars in Baade's Window. *Alistair R. Walker & Donald M. Terndrup.* 378, 119, 152-D13 (1991)

Galactic Bulge M Giants. IV. 0.5–2.5 Micron Spectrophotometry and Abundances for Stars in Baade's Window. *D. M. Terndrup, Jay A. Frogel, & A. E. Whitford.* 378, 742, 161-E5 (1991)

Extragalactic Globular Clusters. III. Metallicity Comparisons and Anomalies. *Jean P. Brodie & John P. Huchra.* 379, 157, 165-A1 (1991)

Lithium in Halo Stars: Constraining the Effects of Helium Diffusion on Globular Cluster Ages and Cosmology. *Constantine P. Deliyannis & Pierre Demarque.* 379, 216, 165-F7 (1991)

On the Sodium Excess in the Atmospheres of Yellow Supergiants. *N. Prantzos, A. Coc, & J. P. Thibaud.* 379, 729, 173-G1 (1991)

The Stellar Content and Structure of the Globular Cluster NGC 5053. *Gregory G. Fahlman, Harvey B. Richer, & James Nemec.* 380, 124, 177-E11 (1991)

Three Newly Recognized Dwarf Carbon Stars. *Paul J. Green, Bruce Margon, & D. Jack MacConnell.* 380, L31, 181-E1 (1991)

The Galactic Globular Cluster System: Theoretical Constraints for α-enhanced Compositions. *D. Bencivenni, F. Caputo, M. Manteiga, & M. L. Quarta.* 380, 484, 184-C1 (1991)

Abundances in Red Giant Stars: Nitrogen Isotopes in Carbon-rich Molecular Envelopes. *P. G. Wannier, B-G Andersson, H. Olofsson, N. Ukita, & K. Young.* 380, 593, 185-E8 (1991)

A Non–Local Thermodynamic Equilibrium, Line-blanketed Synthetic Spectrum of Iota Herculis: C, Al, and Si Lines. *James A. Grigsby.* 380, 606, 185-F9 (1991)

Carbon Isotopic Abundances in Giant Stars in the CN-bimodal Globular Clusters NGC 6752 and M4. *Nicholas B. Suntzeff & Verne V. Smith.* 381, 160, 191-A8 (1991)

Abundances of Tc and Related Elements in Stars of Type M, MS, and S. *Andrew D. Vanture, George Wallerstein, Jeffery A. Brown, & Grant Bazan.* 381, 278, 192-D7 (1991)

Advanced Evolutionary Phases of Large-Metallicity Low-Mass Stars and the Problem of the Ultraviolet Excess of Elliptical Galaxies. *Marco Castellani & Amedeo Tornambè.* 381, 393, 195-E9 (1991)

Metal Opacities and Convective Core Overshooting in Population I Stars. *Richard B. Stothers & Chao-wen Chin.* 381, L67, 199-E7 (1991)

Wide Binaries in the Woolley Catalog. *Ira Wasserman & Martin D. Weinberg.* 382, 149, 202-A12 (1991)

CN and HCN in the Infrared Spectrum of IRC +10216. *G. R. Wiedemann, Kenneth H. Hinkle, John J. Keady, D. Deming, & D. E. Jennings.* 382, 321, 204-B10 (1991)

Metal-rich Giant Branches of Bulge Clusters: Application to Color-Magnitude Diagrams of M31 and M32. *E. Bica, B. Barbuy, & S. Ortolani.* 382, L15, 205-B12 (1991)

Massive Star Evolution and SN 1987A. *David Arnett.* 383, 295, 215-G8 (1991)

Effects of Negatively Charged Massive Particles on Primordial Stars. *R. N. Boyd & G. M. Fuller.* 383, 615, 221-G12 (1991)

About the Stage of Evolution of Wolf-Rayet Stars. *Anne B. Underhill.* 383, 729, 223-C6 (1991)

Observational Tests of Convective Core Overshooting in Stars of Intermediate to High Mass in the Galaxy. *Richard B. Stothers.* 383, 820, 224-D8 (1991)

Implications of Helium Diffusion for Globular Cluster Isochrones and Luminosity Functions. *Charles R. Proffitt & Don A. VandenBerg.* 77, 473, 51-C10 (1991)

Subgiant CH Stars. II. Chemical Compositions and the Evolutionary Connection with Barium Stars. *R. Earle Luck & Howard E. Bond.* 77, 515, 51-G1 (1991)

Evolutionary Models of Halo Stars with Rotation. II. Effects of Metallicity on Lithium Depletion, and Possible Implications for the Primordial Lithium Abundance. *M. H. Pinsonneault, Constantine P. Deliyannis, & P. Demarque.* 78, 179, 4-B3 (1992)

Non–LTE, Line-blanketed Model Atmospheres for Late O- and Early B-Type Stars. *James A. Grigsby, Nancy D. Morrison, & Lawrence S. Anderson.* 78, 205, 4-D9 (1992)

Classical Nova Models with Accretion Heating at Accretion Rates of 10^{-9} and 10^{-10} $M\odot$ per Year. *Dina Prialnik & Attay Kovetz.* 385, 665, 21-D1 (1992)

The Chemical Composition of Blue Horizontal Branch Stars in M4 and NGC 6397. *David L. Lambert, Andrew McWilliam, & Verne V. Smith.* 386, 685, 33-G1 (1992)

The Evolution through H and He Burning of Galactic Cluster Stars. *Vittorio Castellani, Alessandro Chieffi, & Oscar Straniero.* 78, 517, 9-G11 (1992)

Chemical Composition of Open Clusters. III. Iron and Carbon in F Dwarfs in Coma, Praesepe, and M67. *Eileen D. Friel & Ann Merchant Boesgaard.* 387, 170, 39-A13 (1992)

HEAO 3 Limits on the ^{44}Ti Yield in Galactic Supernovae. *W. A. Mahoney, J. C. Ling, W. A. Wheaton, & J. C. Higdon.* 387, 314, 40-G5 (1992)

CN and CH Variations on the M5 Subgiant Branch. *Michael M. Briley, Graeme H. Smith, R. A. Bell, J. B. Oke, & James H. Hesser.* 387, 612, 46-C5 (1992)

Carbon, Nitrogen, and Oxygen Abundances in Early B-Type Stars. *Douglas R. Gies & David L. Lambert.* 387, 673, 47-B1 (1992)

The Evolution of High-Metallicity Horizontal-Branch Stars and the Origin of the Ultraviolet Light in Elliptical Galaxies. *E. Horch, P. Demarque, & M. Pinsonneault.* 388, L53, 59-B7 (1992)

The Chemical Composition of Magellanic Cloud Cepheids and Nonvariable Supergiants. *R. Earle Luck & David L. Lambert.* 79, 303, 18-E3 (1992)

Carbon and Nitrogen Abundances Determined from Transition Layer Lines. *Erika Böhm-Vitense & José Mena-Werth.* 390, 253, 77-B4 (1992)

The Identification of Highly Ionized Metal Species in the Hot DA1 White Dwarf G191-B2B with the *Hubble Space Telescope* Faint Object Spectrograph. *Edward M. Sion, Ralph C. Bohlin, Richard W. Tweedy, & Gerard P. Vauclair.* 391, L29, 92-B11 (1992)

Evolution of Heavy-Element Abundances as a Constraint on Sites for Neutron-Capture Nucleosynthesis. *G. J. Mathews, G. Bazan, & J. J. Cowan.* 391, 719, 97-A1 (1992)

Discovery of Hot Ammonia in the Proto–Planetary Nebulae CRL 618 and CRL 2688. *Jesús Martín-Pintado & Rafael Bachiller.* 391, L93, 99-G12 (1992)

Lithium Abundances in Classical and Weak T Tauri Stars. *Antonio Magazzù, Rafael Rebolo, & Yakov V. Pavlenko.* 392, 159, 103-A1 (1992)

A Measurement of the Primordial Helium Abundance Using μ Cassiopeiae. *James W. Haywood, Dennis J. Hegyi, & Donald H. Gudehus.* 392, 172, 103-B1 (1992)

Iron Abundance in the Hot DA White Dwarfs Feige 24 and G191 B2B. *Stéphane Vennes, Pierre Chayer, John R. Thorstensen, Stuart Bowyer, & Harry L. Shipman.* 392, L27, 106-D5 (1992)

The Creation of Superrich Lithium Giants. *I.-Juliana Sackmann & Arnold I. Boothroyd.* 392, L71, 113-D3 (1992)

The Structure of Horizontal-Branch Models. I. The Zero-Age Horizontal Branch. *Ben Dorman.* 80, 701, 33-B5 (1992)

A 2.18 to 2.28 Micron Study of the Stellar Population in the Nucleus of M82. *Niall I. Gaffney & Dan F. Lester.* 394, 139, 129-F9 (1992)

The Coolest DA White Dwarfs Detected at Soft X-Ray Wavelengths. *K. M. Kidder, J. B. Holberg, M. A. Barstow, R. W. Tweedy, & F. Wesemael.* 394, 288, 131-E7 (1992)

Hot Post–Asymptotic Giant Branch Stars at High Galactic Latitudes. *R. J. H. McCausland, E. S. Conlon, P. L. Dufton, & F. P. Keenan.* 394, 298, 131-F5 (1992)

SO and SO_2 in Mass-Loss Envelopes of Red Giants: Probes of Nonequilibrium Circumstellar Chemistry and Mass-Loss Rates. *Raghvendra Sahai & Peter G. Wannier.* 394, 320, 132-A3 (1992)

Oxygen-enhanced Models for Globular Cluster Stars. II. Isochrones and Luminosity Functions. *Peter A. Bergbusch & Don A. VandenBerg.* 81, 163, 37-C11 (1992)

Light-Curve Analysis of Classical Novae. *Mariko Kato & Icko Iben, Jr.* 394, L47, 139-C7 (1992)

Mass Loss and a Possible Population II Lithium Dip. *David S. P. Dearborn, David N. Schramm, & L. M. Hobbs.* 394, L61, 139-E1 (1992)

Abundances for Giant Stars in the Draco Dwarf Galaxy. *Matthew D. Lehnert, R. A. Bell, James E. Hesser, & J. B. Oke.* 395, 466, 148-C9 (1992)

Lithium Dilution through Main-Sequence Mass Loss. *Fritz J. Swenson & John Faulkner.* 395, 654, 151-D3 (1992)

Sodium, Aluminum, and Oxygen Abundance Variations in Giants in the Globular Cluster M4. *Jeremy J. Drake, Verne V. Smith, & Nicholas B. Suntzeff.* 395, L95, 154-A10 (1992)

Hubble Space Telescope FOS Observations of KPD 0005+5106: A Subluminous WN-WC Descendant with Ongoing Mass Outflow? *Edward M. Sion & Ronald A. Downes.* 396, L79, 167-B7 (1992)

Analysis of the Photospheric Epoch Spectra of Type Ia Supernovae SN 1990N and SN 1991T. *David J. Jeffery, Bruno Leibundgut, Robert P. Kirshner, Stefano Benetti, David Branch, & George Sonneborn.* 397, 304, 171-F4 (1992)

Helium Gravitational Settling in the Envelopes of Evolving Main-Sequence A and F Stars. *Jacques Richer, Georges Michaud, & Charles R. Proffitt.* 82, 329, 54-A1 (1992)

Infrared Colors of Low-Mass Stars. *S. K. Leggett.* 82, 351, 54-C1 (1992)

Sodium Abundance Variations in Metal-poor Dwarfs. *William J. Spiesman.* 397, L103, 181-D1 (1992)

The Neutrino Process and ^{9}Be in the Early Universe. *R. A. Malaney.* 398, L45, 187-G1 (1992)

A Multiwavelength Study of Nova QU Vulpeculae 1984. *Pedro Saizar, Sumner Starrfield, Gary J. Ferland, R. Mark Wagner, James W. Truran, Scott J. Kenyon, Warren M. Sparks, Robert E. Williams, & L. L. Stryker.* 398, 651, 192-B13 (1992)

A Study of Metal Abundance Patterns in Cool White Dwarfs. I. Time-dependent Calculations of Gravitational Settling. *J. Dupuis, G. Fontaine, C. Pelletier, & F. Wesemael.* 82, 505, 56-A7 (1992)

Two New Lithium-deficient Population II Dwarfs. *J. A. Thorburn.* 399, L83, 201-B13 (1992)

Chemical Evolution of the Orion Association. I. The Oxygen Abundance of Main-Sequence B Stars. *Katia Cunha & David L. Lambert.* 399, 586, 205-B7 (1992)

The Origin of Distant B-Type Stars in the Galactic Halo. *E. S. Conlon, P. L. Dufton, F. P. Keenan, R. J. H. McCausland, & D. Holmgren.* 400, 273, 212-C13 (1992)

Core Velocity Dispersions and Metallicities of Three Globular Clusters Belonging to the Fornax Dwarf Spheroidal Galaxy. *P. Dubath, G. Meylan, & M. Mayor.* 400, 510, 216-F1 (1992)

A Distance-independent Calibration of the Luminosity of Type Ia Supernovae and the Hubble Constant. *Bruno Leibundgut & Philip A. Pinto.* 401, 49, 221-F1 (1992)

The Galactic Globular Cluster System: Empirical Relationship between Light-to-Mass Ratio and Metallicity. *Filippina Caputo & Renato De Santis.* 401, 260, 224-C1 (1992)

An Interpretation of the Spectral Properties of Hot Hydrogen-rich White Dwarfs with Stratified H/He Model Atmospheres. *Stéphane Vennes & Gilles Fontaine.* 401, 288, 224-E7 (1992)

The Abundance of Boron in Three Halo Stars. *Douglas K. Duncan, David L. Lambert, & Michael Lemke.* 401, 584, 229-G6 (1992)

Oxygen-rich Semiregular and Irregular Variables. *M. Jura & S. G. Kleinmann.* 83, 329, 62-D5 (1992)

Companions to Bright S and MS Stars: Technetium Deficiency and Binarity. *Hollis R. Johnson, Thomas B. Ake, & Mudhaffer M. Ameen.* 402, 667, 10-G11 (1993)

A Deep Envelope Composition for TX Piscium? *J. H. Goebel, D. Goorvitch, H. P. Larson, & D. R. Alexander.* 402, 680, 11-B1 (1993)

The Distant Future of Solar Activity: A Case Study of β Hydri. I. Stellar Evolution, Lithium Abundance, and Photospheric Structure. *D. Dravins, L. Lindegren, Å. Nordlund, & D. A. VandenBerg.* 403, 385, 18-E10 (1993)

A Study of Metal Abundance Patterns in Cool White Dwarfs. II. Simulations of Accretion Episodes. *J. Dupuis, G. Fontaine, C. Pelletier, & F. Wesemael.* 84, 73, 2-B5 (1993)

Lithium and Rapid Rotation in Chromospherically Active Single Giants. *Francis C. Fekel & Suchitra Balachandran.* 403, 708, 24-E4 (1993)

The Nonsolar Abundance Ratios of Arcturus Deduced from Spectrum Synthesis. *Ruth C. Peterson, Cristina M. Dalle Ore, & Robert L. Kurucz.* 404, 333, 32-A8 (1993)

New Lithium Observations of Two [Fe/H] $\leq$ -3.5 Dwarfs. *J. A. Thorburn & Timothy C. Beers.* 404, L13, 33-E1 (1993)

A Spectroscopic Test for Substellar Objects. *Antonio Magazzù, Eduardo L. Martín, & Rafael Rebolo.* 404, L17, 33-E7 (1993)

Evidence for Processed Material in the Atmospheres of Large Magellanic Cloud B Supergiants. *Edward L. Fitzpatrick & Bruce Bohannan.* 404, 734, 38-B1 (1993)

Particle Transport and the λ Bootis Phenomenon. I. The Diffusion/Mass-Loss Model Revisited. *P. Charbonneau.* 405, 720, 52-A9 (1993)

The Abundance of Lithium in Metal-poor Subgiant Stars. *C. A. Pilachowski, C. Sneden, & J. Booth.* 407, 699, 79-C1 (1993)

Evolution of Cosmic Rays in the Early Galaxy. *R. A. Malaney & M. N. Butler.* 407, L73, 82-D11 (1993)

Light-induced Drift and Abundance Anomalies. *F. LeBlanc & G. Michaud.* 408, 251, 86-C1 (1993)

The ^{6}Li/^{7}Li Ratio in the Metal-poor Halo Dwarfs HD 19445 and HD 84937. *Verne V. Smith, David L. Lambert, & Poul E. Nissen.* 408, 262, 86-D1 (1993)

High-Resolution Mid-Infrared Spectra of Co II, Ni I, and Fe II in SN 1987A. *D. E. Jennings, R. J. Boyle, G. R. Wiedemann, & S. H. Moseley.* 408, 277, 86-E5 (1993)

LSIV $-12^{\circ}111$: A Candidate Halo Proto–Planetary Nebula. *E. S. Conlon, P. L. Dufton, R. J. H. McCausland, & F. P. Keenan.* 408, 593, 92-E11 (1993)

Imaging of Fields in the Inner Halo and Outer Disk of M31. *T. J. Davidge.* 409, 190, 99-C8 (1993)

Old Stellar Populations. IV. Empirical Fitting Functions for Features in the Spectra of G and K Stars. *Javier Gorgas, S. M. Faber, David Burstein, J. Jesús Gonzalez, Stéphane Courteau, & Charles Prosser.* 86, 153, 15-F13 (1993)

Reddening Errors and the Post–Main-Sequence Distribution of Stars in the H-R Diagram of the Large Magellanic Cloud. *N. Rathnasree.* 410, L99, 126-B5 (1993)

The Physical Properties of a Slow Nova in the Bulge of M31. *Austin B. Tomaney & Allen W. Shafter.* 411, 640, 137-F3 (1993)

Radiative Accelerations on Iron Using Opacity Project Data. *G. Alecian, G. Michaud, & J. Tully.* 411, 882, 140-G1 (1993)

Oxygen Abundances in F-Type Stars of the Hyades and the Ursa Major Group. *Ramón J. García López, Rafael Rebolo, Artemio Herrero, & John E. Beckman.* 412, 173, 144-C1 (1993)

Iron and Molecular Opacities and the Evolution of Population I Stars. *Richard B. Stothers & Chao-wen Chin.* 412, 294, 145-F13 (1993)

A Study of Circumstellar Envelopes around Bright Carbon Stars. II. Molecular Abundances. *H. Olofsson, K. Eriksson, B. Gustafsson, & U. Carlström.* 87, 305, 31-A5 (1993)

A Study of Metal Abundance Patterns in Cool White Dwarfs. III. Comparison of the Predictions of the Two-Phase Accretion Model with the Observations. *J. Dupuis, G. Fontaine, & F. Wesemael.* 87, 345, 31-E3 (1993)

Abundance Inhomogeneities and Atmospheric Structure in CN-Bimodal Globular Cluster Giants. *Jeremy J. Drake, Bertrand Plez, & Verne V. Smith.* 412, 612, 151-D1 (1993)

On the Li and Be Tests for Brown Dwarfs. *L. A. Nelson, S. Rappaport, & E. Chiang.* 413, 364, 160-G1 (1993)

Lithium in the Binary Halo Star HD 89499. *Suchitra Balachandran, Bruce W. Carney, Anne M. Fry, Laura K. Fullton, & Ruth C. Peterson.* 413, 368, 160-G7 (1993)

Particle Transport and the λ Bootis Phenomenon. II. An Accretion/Diffusion Model. *S. Turcotte & P. Charbonneau.* 413, 376, 161-A3 (1993)

High-Dispersion Spectroscopy of Giants in Metal-poor Globular Clusters. I. Iron Abundances. *Dante Minniti, Doug Geisler, Ruth C. Peterson, & Juan J. Claria.* 413, 548, 163-C8 (1993)

The Boron-to-Beryllium Ratio in Halo Stars: A Signature of Cosmic-Ray Nucleosynthesis in the Early Galaxy. *T. P. Walker, G. Steigman, D. N. Schramm, K. A. Olive, & B. Fields.* 413, 562, 163-D12 (1993)

Inhomogeneous Chemical Evolution of the Galactic Disk. *Guy Malinie, Dieter H. Hartmann, Donald D. Clayton, & Grant J. Mathews.* 413, 633, 164-D1 (1993)

CNO Abundances and the Evolutionary Status of Three A-Type Supergiants. *Kim A. Venn.* 414, 316, 174-A1 (1993)

The α-enhanced !sochrones and Their Impact on the Fits to the Galactic Globular Cluster System. *Maurizio Salaris, Alessandro Chieffi, & Oscar Straniero.* 414, 580, 178-D10 (1993)

Reaction Rates of the *s*-Process Neutron Sources ^{22}Ne(α, *n*)^{25}Mg and ^{13}C(α, *n*)^{16}O. *H. W. Drotleff, A. Denker, H. Knee, M. Soiné, G. Wolf, J. W. Hammer, U. Greife, C. Rolfs, & H. P. Trautvetter.* 414, 735, 180-D3 (1993)

Evidence for a Dispersion in the Lithium Abundances of Extreme Halo Stars. *Constantine P. Deliyannis, M. H. Pinsonneault, & Douglas K. Duncan.* 414, 740, 180-D10 (1993)

Lithium in the Hyades. I. New Observations. *J. A. Thorburn, L. M. Hobbs, Constantine P. Deliyannis, & M. H. Pinsonneault.* 415, 150, 186-G12 (1993)

Population II ^{6}Li as a Probe of Nucleosynthesis and Stellar Structure and Evolution. *Gary Steigman, Brian D. Fields, Keith A. Olive, David N. Schramm, & Terry P. Walker.* 415, L35, 192-B1 (1993)

Abundances of Four Ultra–Metal-Deficient Stars. *John E. Norris, Ruth C. Peterson, & Timothy C. Beers.* 415, 797, 197-F13 (1993)

Diffusion of Lithium and Beryllium in Evolving, Nonrotating Main-Sequence A and F Stars. *Jacques Richer & Georges Michaud.* 416, 312, 205-A5 (1993)

The Mount Wilson Observatory Metallicity Index, C_{RV}: Comparison with Other Photometric Systems. *W. H. Soon, Q. Zhang, S. L. Baliunas, & R. L. Kurucz.* 416, 787, 213-C1 (1993)

Two New Extremely Iron-rich Hot DA White Dwarfs and the Nature of the EUV Opacity. *J. B. Holberg, M. A. Barstow, D. A. H. Buckley, A. Chen, S. Dreizler, M. C. Marsh, D. O'Donoghue, E. M. Sion, R. W. Tweedy, G. Vauclair, & K. Werner.* 416, 806, 213-D13 (1993)

Abundances in CH Subgiants: Evidence of Mass Transfer onto Main-Sequence Companions. *Verne V. Smith, Howard Coleman, & David L. Lambert.* 417, 287, 221-A13 (1993)

C_3S and C_5S in IRC +10216. *M. B. Bell, L. W. Avery, & P. A. Feldman.* 417, L37, 223-C1 (1993)

Model Atmosphere and Kinematical Analyses of Early-Type, High Galactic Latitude Stellar Candidates from the UKST *UBVRI* Survey. *N. C. Hambly, E. S. Conlon, P. L. Dufton, F. P. Keenan, J. E. Little, & L. Miller.* 417, 706, 228-B10 (1993)

The Abundances of the Elements in Sharp-lined Early-Type Stars from *IUE* High-Dispersion Spectrograms. I. Cr, Mn, Fe, Ni, and Co. *Saul J. Adelman, Charles R. Cowley, David S. Leckrone, Scott W. Roby, & Glenn M. Wahlgren.* 419, 276, 249-E11 (1993)

Observations of 13.5 Micron Rotation-Vibration Lines of SiS in IRC +10216. *R. J. Boyle, J. J. Keady, D. E. Jennings, K. L. Hirsch, & G. R. Wiedemann.* 420, 863, 13-E12 (1994)

The Primordial Lithium Abundance from Extreme Subdwarfs: New Observations. *J. A. Thorburn.* 421, 318, 19-G12 (1994)

New Pre–Main-Sequence Tracks for $M \leq 2.5 M\odot$ as Tests of Opacities and Convection Model. *Francesca D'Antona & Italo Mazzitelli.* 90, 467, 8-D14 (1994)

The Temporal Evolution of the 4–14 Micron Spectrum of V1974 Cygni (Nova Cygni 1992). *R. D. Gehrz, Charles E. Woodward, M. A. Greenhouse, S. Starrfield, D. H. Wooden, F. C. Witteborn, S. A. Sandford, L. J. Allamandola, J. D. Bregman, & M. Klapisch.* 421, 762, 27-F6 (1994)

Comparison of New Experimental and Astrophysical *f*-Values for Some Ru II Lines, Observed in *HST* Spectra of χ Lupi. *Sveneric G. Johansson, Ali Joueizadeh, Ulf Litzén, Jörgen Larsson, Anders Persson, Claes-Göran Wahlström, Sune Svanberg, David S. Leckrone, & Glenn M. Wahlgren.* 421, 809, 28-C8 (1994)

Element Diffusion in the Solar Interior. *Anne A. Thoul, John N. Bahcall, & Abraham Loeb.* 421, 828, 28-E3 (1994)

Non–LTE Model Atmosphere Analysis of Nova Cygni 1992. *P. H. Hauschildt, S. Starrfield, S. Austin, R. M. Wagner, S. N. Shore, & G. Sonneborn.* 422, 831, 42-C1 (1994)

The Classical Hyades Lithium Problem Resolved? *Fritz J. Swenson, John Faulkner, Carlos A. Iglesias, Forrest J. Rogers, & David R. Alexander.* 422, L79, 45-B6 (1994)

Lithium Abundances in the Most Metal-deficient Stars. *John E. Norris, Sean G. Ryan, & Guy S. Stringfellow.* 423, 386, 51-A1 (1994)

Constraints on the Origin of Dwarf Carbon Stars. *Paul J. Green & Bruce Margon.* 423, 723, 57-E7 (1994)

Cool Zero-Metallicity Stellar Atmospheres. *D. Saumon, P. Bergeron, J. I. Lunine, W. B. Hubbard, & A. Burrows.* 424, 333, 66-A8 (1994)

Open Cluster Chemical Composition. I. Later Type Stars in Eight Clusters. *R. Earle Luck.* 91, 309, 22-F4 (1994)

Isotopic Carbon Ratios among M71 Bright Red Giants. *Michael M. Briley, Verne V. Smith, & David L. Lambert.* 424, L119, 79-D7 (1994)

The Hyades Lithium Problem Revisited. *Fritz J. Swenson, John Faulkner, Forrest J. Rogers, & Carlos A. Iglesias.* 425, 286, 83-G3 (1994)

Detection of Lithium in the Cool Halo Dwarfs Groombridge 1830 and HD 134439: Implications for Internal Stellar Mixing and Cosmology. *Constantine P. Deliyannis, Sean G. Ryan, Timothy C. Beers, & Julie A. Thorburn.* 425, L21, 85-D3 (1994)

On the Interpretation and Implications of Nova Abundances: An Abundance of Riches or an Overabundance of Enrichments. *Mario Livio & James W. Truran.* 425, 797, 91-F6 (1994)

The Discovery of Ni V in the Photospheres of the Hot DA White Dwarfs RE 2214−492 and G191-B2B. *J. B. Holberg, I. Hubeny, M. A. Barstow, T. Lanz, E. M. Sion, & R. W. Tweedy.* 425, L105, 94-G5 (1994)

The First Detailed Abundance Analysis of Galactic Bulge K Giants in Baade's Window. *Andrew McWilliam & R. Michael Rich.* 91, 749, 29-D1 (1994)

Chemical Evolution of the Orion Association. II. The Carbon, Nitrogen, Oxygen, Silicon, and Iron Abundances of Main-Sequence B Stars. *Katia Cunha & David L. Lambert.* 426, 170, 98-C5 (1994)

The Metallicity Dependence of Inferred Cepheid Distances. *Andrew Gould.* 426, 542, 105-B7 (1994)

The Effectiveness of Oscillation Frequencies in Constraining Stellar Model Parameters. *Timothy M. Brown, J. Christensen-Dalsgaard, Barbara Weibel-Mihalas, & Ronald L. Gilliland.* 427, 1013, 125-C3 (1994)

Lithium Isotope Ratios in Six Halo Stars. *L. M. Hobbs & J. A. Thorburn.* 428, L25, 134-D8 (1994)

A Search for Lithium in Pleiades Brown Dwarf Candidates Using the Keck Hires Echelle. *Geoffrey W. Marcy, Gibor Basri, & James R. Graham.* 428, L57, 142-E7 (1994)

Surface Brightness Fluctuations in Globular Clusters and Stellar Populations in Galaxies. *Edward A. Ajhar & John L. Tonry.* 429, 557, 152-F2 (1994)

Opacity, Metallicity, and Cepheid Period Ratios in the Galaxy and Magellanic Clouds. *Norman R. Simon & Shashi M. Kanbur.* 429, 772, 155-C8 (1994)

A Calibration of Mg_2 versus [Fe/H] and [Mg/Fe]. *B. Barbuy.* 430, 218, 161-G1 (1994)

Predictions of Oxygen Isotope Ratios in Stars and of Oxygen-rich Interstellar Grains in Meteorites. *Arnold I. Boothroyd, I.-Juliana Sackmann, & G. J. Wasserburg.* 430, L77, 166-C7 (1994)

CCD Photometry for Six Metal-rich Galactic Globular Clusters. *Ata Sarajedini & John E. Norris.* 93, 161, 44-A2 (1994)

Summary of ΔS Metallicity Measurements for Bright RR Lyrae Variables Observed at Lick Observatory and KPNO between 1972 and 1987. *Nicholas B. Suntzeff, Robert P. Kraft, & T. D. Kinman.* 93, 271, 45-D2 (1994)

The Metallicity of M4: Accurate Spectroscopic Fundamental Parameters for Four Giants. *J. J. Drake, V. V. Smith, & N. B. Suntzeff.* 430, 610, 169-D8 (1994)

A Pulsational Approach to the Luminosity of RR Lyrae Variables. *V. Castellani & R. De Santis.* 430, 624, 169-E11 (1994)

Ultra–Metal-poor Halo Stars: The Remarkable Spectrum of CS 22892−052. *Christopher Sneden, George W. Preston, Andrew McWilliam, & Leonard Searle.* 431, L27, 182-E13 (1994)

A Spectroscopic Analysis of DAO and Hot DA White Dwarfs: The Implications of the Presence of Helium and the Nature of DAO Stars. *P. Bergeron, F. Wesemael, A. Beauchamp, M. A. Wood, R. Lamontagne, G. Fontaine, & James Liebert.* 432, 305, 197-A6 (1994)

The Primordial Abundance of ^{6}Li and ^{9}Be. *Brian Chaboyer.* 432, L47, 199-G1 (1994)

Widespread Water Vapor Emission in Orion. *J. Cernicharo, E. González-Alfonso, J. Alcolea, R. Bachiller, & D. John.* 432, L59, 200-A5 (1994)

Chromospheric Heating and Metal Deficiency in Cool Giants: Theoretical Results versus Observations. *M. Cuntz, W. Rammacher, & P. Ulmschneider.* 432, 690, 204-E12 (1994)

Convection, Nucleosynthesis, and Core Collapse. *Grant Bazan & David Arnett.* 433, L41, 215-B9 (1994)

^{7}Li Abundances in Halo Stars: Testing Stellar Evolution Models and the Primordial ^{7}Li Abundance. *Brian Chaboyer & P. Demarque.* 433, 510, 217-C11 (1994)

Analysis of Helium-rich Subdwarf O Stars. I. NLTE Models, Methods, and Fits for 21 Palomar Green Survey sdO's. *P. Thejll, F. Bauer, R. Saffer, J. Liebert, D. Kunze, & H. L. Shipman.* 433, 819, 221-C12 (1994)

An Optical Region Elemental Abundance Analysis of the Chemically Peculiar HgMn Star χ Lupi. *Glenn M. Wahlgren, Saul J. Adelman, & Richard D. Robinson.* 434, 349, 230-C3 (1994)

Lithium in a Short-Period Tidally Locked Binary of M67: Implications for Stellar Evolution, Galactic Lithium Evolution, and Cosmology. *Constantine P. Deliyannis, Jeremy R. King, Ann M. Boesgaard, & Sean G. Ryan.* 434, L71, 241-G1 (1994)

Old Stellar Populations. V. Absorption Feature Indices for the Complete Lick/IDS Sample of Stars. *Guy Worthey, S. M. Faber, J. Jesús González, & D. Burstein.* 94, 687, 61-E4 (1994)

The Pursuit of Heavy Elements in the HgMn-Type Star χ Lupi: Observations with the GHRS in the COSTAR Era. *Glenn M. Wahlgren, Tomas Brage, Ronald L. Gilliland, Sveneric G. Johansson, David S. Leckrone, Don J. Lindler, & Ulf Litzén.* 435, L67, 252-F3 (1994)

Li Abundances in Late-Type Companions to Neutron Stars and Black Hole Candidates. *Eduardo L. Martín, Rafael Rebolo, Jorge Casares, & Philip A. Charles.* 435, 791, 257-A4 (1994)

Sodium in Weak G-Band Giants. *Jeremy J. Drake & David L. Lambert.* 435, 797, 257-A13 (1994)

Constraints to the Masses of Brown Dwarf Candidates from the Lithium Test. *Eduardo L. Martín, Rafael Rebolo, & Antonio Magazzù.* 436, 262, 264-G9 (1994)

Stellar Oxygen Abundances. III. The Oxygen Abundance of the Very Metal Poor Halo Star BD −13°3442. *Jeremy R. King.* 436, 331, 265-G6 (1994)

ASCA Observations of the Coronal X-Ray Emission of Algol. *A. Antunes, F. Nagase, & N. E. White.* 436, L83, 269-G3 (1994)

ASCA X-Ray Spectra of the Active Single Stars β Ceti and π^1 Ursae Majoris. *S. A. Drake, K. P. Singh, N. E. White, & Theodore Simon.* 436, L87, 269-G11 (1994)

An *ASCA* Observation of the Castor System. *Eric V. Gotthelf, Lalit Jalota, Koji Mukai, & Nicholas E. White.* 436, L91, 270-A5 (1994)

On the Predicted Abundances of Iron and Nickel Supported by Radiative Levitation in the Atmospheres of Hot DA White Dwarfs. *P. Chayer, F. LeBlanc, G. Fontaine, F. Wesemael, G. Michaud, & S. Vennes.* 436, L161, 281-F7 (1994)

The Chemical Composition of the RV Tauri Variable IW Carinae. *Sunetra Giridhar, N. Kameswara Rao, & David L. Lambert.* 437, 476, 289-F1 (1994)

Optical Spectroscopy of Carbon-rich Proto–Planetary Nebulae. *Bruce J. Hrivnak.* 438, 341, 6-B10 (1995)

The Temporal Evolution of the 1–5 Micron Spectrum of V1974 Cygni (Nova Cygni 1992). *Charles E. Woodward, Matthew A. Greenhouse, R. D. Gehrz, Y. J. Pendleton, R. R. Joyce, D. Van Buren, J. Fischer, N. J. Jennerjohn, & C. D. Kaminski.* 438, 921, 16-G7 (1995)

Lithium in Halo Dwarfs: The Undoing of Diffusion by Mass Loss. *Fritz J. Swenson.* 438, L87, 19-G8 (1995)

Non-LTE Line-blanketed Model Atmospheres of Hot Stars. II. Hot, Metal-rich White Dwarfs. *T. Lanz & I. Hubeny.* 439, 905, 37-B1 (1995)

Lithium Abundances in Strong Lithium K Giant Stars: LTE and Non-LTE Analyses. *Ramiro de la Reza & Licio da Silva.* 439, 917, 37-C3 (1995)

Evidence of Heavy Element Nucleosynthesis Early in the History of the Galaxy: The Ultra–metal-poor Star CS 22892−052. *John J. Cowan, Debra L. Burris, Christopher Sneden, Andrew McWilliam, & George W. Preston.* 439, L51, 40-E3 (1995)

Time-dependent Behavior and Physical Conditions of the LMC Planetary Nebula N66. *M. Peña, M. Peimbert, S. Torres-Peimbert, M. T. Ruiz, & J. Maza.* 441, 343, 64-B1 (1995)

A Survey of Lithium in the Red Giants of the Magellanic Clouds. *Verne V. Smith, Bertrand Plez, David L. Lambert, & D. A. Lubowich.* 441, 735, 72-A13 (1995)

Stellar Models with Microscopic Diffusion and Rotational Mixing. II. Application to Open Clusters. *Brian Chaboyer, P. Demarque, & M. H. Pinsonneault.* 441, 876, 74-A13 (1995)

The Sodium/Aluminum–Oxygen Anticorrelation in ω Centauri and Other Clusters. *John E. Norris & G. S. Da Costa.* 441, L81, 76-B11 (1995)

The RR Lyrae Fundamental Red Edge. *G. Bono, F. Caputo, V. Castellani, M. Marconi, L. Staiano, & R. F. Stellingwerf.* 442, 159, 79-D1 (1995)

Hot Bottom Burning in Asymptotic Giant Branch Stars and Its Effect on Oxygen Isotopic Abundances. *Arnold I. Boothroyd, I.-Juliana Sackmann, & G. J. Wasserburg.* 442, L21, 84-G4 (1995)

On the Nature of the Spectral Features in Peculiar "DQ" White Dwarfs. *Gary D. Schmidt, P. Bergeron, & Bruce Fegley, Jr.* 443, 274, 99-A10 (1995)

New Model Atmospheres for Very Cool White Dwarfs with Mixed H/He and Pure He Compositions. *P. Bergeron, D. Saumon, & F. Wesemael.* 443, 764, 108-D1 (1995)

The Abundances of Pt, Au, and Hg in the Chemically Peculiar HgMn-Type Stars κ Cancri and χ Lupi. *Glenn M. Wahlgren, David S. Leckrone, Sveneric G. Johansson, Maria Rosberg, & Tomas Brage.* 444, 438, 119-E11 (1995)

EUVE Observations of Algol: Detection of a Continuum and Implications for the Coronal [Fe/H] Abundance. *Robert A. Stern, James R. Lemen, Jürgen H. M. M. Schmitt, & John P. Pye.* 444, L45, 121-G7 (1995)

On the Discrepancy between the Cepheid and RR Lyrae Distance Scales. *Sidney van den Bergh.* 446, 39, 153-F3 (1995)

The Lithium Dip in M67: Comparison with the Hyades, Praesepe, and NGC 752 Clusters. *Suchitra Balachandran.* 446, 203, 156-A6 (1995)

The Uncertainties in the Age of Globular Clusters from Their Helium Abundance and Mass Loss. *Xiangdong Shi.* 446, 637, 165-A1 (1995)

Beryllium and Boron Abundances of Metal-deficient Halo Stars and Accretion of Interstellar Matter. *Y. Yoshii, G. J. Mathews, & T. Kajino.* 447, 184, 174-F8 (1995)

Deep Circulation in Red Giant Stars: A Solution to the Carbon and Oxygen Isotope Puzzles? *G. J. Wasserburg, Arnold I. Boothroyd, & I.-Juliana Sackmann.* 447, L37, 181-A11 (1995)

The Giant Branch of ω Centauri. IV. Abundance Patterns Based on Echelle Spectra of 40 Red Giants. *John E. Norris & G. S. Da Costa.* 447, 680, 185-D9 (1995)

A 325 Square Degree Survey of B-Type Stars at High Galactic Latitudes. *J. E. Little, P. L. Dufton, F. P. Keenan, N. C. Hambly, E. S. Conlon, P. J. F. Brown, & L. Miller.* 447, 783, 186-F11 (1995)

Binary Models for the Solar Neighborhood and Magellanic Cloud W-R Populations. *William W. Dalton & Craig L. Sarazin.* 448, 369, 197-C6 (1995)

Carbon Isotope Ratios in Very Lithium-rich K Giants. *L. da Silva, R. de la Reza, & B. Barbuy.* 448, L41, 200-A1 (1995)

Radiative Levitation in Hot White Dwarfs: Equilibrium Theory. *P. Chayer, G. Fontaine, & F. Wesemael.* 99, 189, 36-G5 (1995)

CNO Abundances and the Evolutionary Status of Galactic, A-Type Supergiants. *Kim A. Venn.* 449, 839, 224-C11 (1995)

Equivalent Widths for 54 Red Giants in 47 Tucanae, ω Centauri, NGC 6397, M22, and NGC 6752. *John E. Norris, G. S. Da Costa, & S. J. Tingay.* 99, 637, 43-F9 (1995)

Atmospheric Parameters and LTE Abundances for 22 Galactic, A-Type Supergiants. *Kim A. Venn.* 99, 659, 44-A6 (1995)

The Chemical Composition of Red Giants. IV. The Neutron Density at the *s*-Process Site. *David L. Lambert, Verne V. Smith, Maurizio Busso, Roberto Gallino, & Oscar Straniero.* 450, 302, 232-B9 (1995)

Accurate Multiconfiguration Hartree-Fock Calculations of Oscillator Strengths in Light Atoms: The Boron (B II) Line at 1362 Å. *Michel Godefroid, Jeppe Olsen, Per Jönsson, & Charlotte Froese Fischer.* 450, 473, 234-E3 (1995)

Lithium Abundances in δ Scuti Stars and Their Relationship with the Lithium Dip. *Stephen C. Russell.* 451, 747, 257-D13 (1995)

The First Generation of Stars: First Steps toward Chemical Evolution of Galaxies. *Jean Audouze & Joseph Silk.* 451, L49, 260-E2 (1995)

Explosions of Sub–Chandrasekhar Mass White Dwarfs in Two Dimensions. *Eli Livne & David Arnett.* 452, 62, 263-A6 (1995)

The Primordial Lithium Abundance. *Robert L. Kurucz.* 452, 102, 263-E2 (1995)

Empirical Approach to Cepheid Period-Luminosity-Color and Period-Luminosity Relations by Surface Brightness. *G. P. Di Benedetto.* 452, 195, 264-F7 (1995)

Evidence of Higher Primordial Lithium from Keck Observations of M92. *Constantine P. Deliyannis, Ann Merchant Boesgaard, & Jeremy R. King.* 452, L13, 269-D10 (1995)

Chemical Evolution of the Orion Association. III. The Lithium Abundance of F and G Stars. *Katia Cunha, Verne V. Smith, & David L. Lambert.* 452, 634, 273-D11 (1995)

Rotation and Oxygen Line Strengths in Blue Horizontal-Branch Stars. *Ruth C. Peterson, Robert T. Rood, & Deborah A. Crocker.* 453, 214, 284-B1 (1995)

A Consistent Explanation for $^{12}C/^{13}C$, ^7Li, and ^3He Anomalies in Red Giant Stars. *C. Charbonnel.* 453, L41, 289-G10 (1995)

The *r*-Process Element Europium in Galactic Disk F and G Dwarf Stars. *Vincent M. Woolf, Jocelyn Tomkin, & David L. Lambert.* 453, 660, 293-A1 (1995)

Flare Production of ^6Li in Population II Stars. *Constantine P. Deliyannis & Robert A. Malaney.* 453, 810, 295-A14 (1995)

Lithium in Short-Period Tidally Locked Binaries: A Test of Rotationally Induced Mixing. *Sean G. Ryan & Constantine P. Deliyannis.* 453, 819, 295-B12 (1995)

Improved Calculations of the Equilibrium Abundances of Heavy Elements Supported by Radiative Levitation in the Atmospheres of Hot DA White Dwarfs. *P. Chayer, S. Vennes, A. K. Pradhan, P. Thejll, A. Beauchamp, G. Fontaine, & F. Wesemael.* 454, 429, 305-D4 (1995)

A Reconnaissance of the 900–1200 Å Spectra of Early O Stars in the Magellanic Clouds. *Nolan R. Walborn, Knox S. Long, Daniel J. Lennon, & Rolf-Peter Kudritzki.* 454, L27, 307-F9 (1995)

Stellar Abundances and Winds of A-Type Supergiant Stars in M33: First Results from the Keck HIRES Spectrograph. *James K. McCarthy, Daniel J. Lennon, Kim A. Venn, Rolf-Peter Kudritzki, Joachim Puls, & Francisco Najarro.* 455, L135, 333-G11 (1995)

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Spectroscopy of FO Aquarii: Evidence for Reprocessing in a Hot Wind. *Phillip J. Martell & Ronald H. Kaitchuck.* 366, 286, 4-E5 (1991)

Monte Carlo Simulation of Comptonization in Plasma Accreting onto Neutron Stars. *Tomoyuki Hanawa.* 366, 495, 9-B9 (1991)

Application of a General Relativistic Accretion Disk Model to LMC X-1, LMC X-3, X1608−522, and X1636−536. *Ken Ebisawa, Kazuhisa Mitsuda, & Tomoyuki Hanawa.* 367, 213, 14-F8 (1991)

Ginga Observation of an AM Herculis Type Source H0538+608. *M. Ishida, A. Silber, H. V. Bradt, R. A. Remillard, K. Makishima, & T. Ohashi.* 367, 270, 15-D6 (1991)

Interpreting Epsilon Aurigae. *Sean M. Carroll, Edward F. Guinan, George P. McCook, & Robert A. Donahue.* 367, 278, 15-E1 (1991)

Conditions for Accretion-induced Collapse of White Dwarfs. *Ken'ichi Nomoto & Yoji Kondo.* 367, L19, 17-D1 (1991)

Accretion Powered Pulsars: Continuum Spectra and Light Curves of Settling Accretion Mounds. *David J. Burnard, Jonathan Arons, & Richard I. Klein.* 367, 575, 20-D10 (1991)

Dynamic Effects on Cyclotron Scattering in Pulsar Accretion Columns. *J. J. Brainerd & P. Mészáros.* 369, 179, 38-B11 (1991)

A Search for Periodicities in the X-Ray Emission from Cataclysmic Variables. *Michael Eracleous, Joseph Patterson, & Jules Halpern.* 370, 330, 51-D1 (1991)

Problems of Ultra–High-Energy Particle Acceleration in Cygnus X-3: A Critical Reappraisal. *Abhas Mitra.* 370, 345, 51-E7 (1991)

The High State of the FU Orionis Variable Z Canis Majoris. *F. V. Hessman, J. Eislöffel, R. Mundt, L. W. Hartmann, W. Herbst, & J. Krautter.* 370, 384, 52-A10 (1991)

Disk Accretion onto Magnetic T Tauri Stars. *Arieh Königl.* 370, L39, 53-E13 (1991)

A Polytropic Model of an Accretion Disk, a Boundary Layer, and a Star. *Bohdan Paczyński.* 370, 597, 55-G11 (1991)

Does Accretion Cease When a Star Approaches Breakup? *Robert Popham & Ramesh Narayan.* 370, 604, 56-A6 (1991)

The Response of Main-Sequence Stars within a Common Envelope. *Michael S. Hjellming & Ronald E. Taam.* 370, 709, 57-C1 (1991)

The Ultraviolet Spectrum of Scorpius X-1 as Observed by *IUE*: 1978–1988. *T. R. Kallman, J. C. Raymond, & S. D. Vrtilek.* 370, 717, 57-C11 (1991)

The Discovery of an X-Ray Burst and a Study of Aperiodic Variability from SMC X-1. *L. Angelini, L. Stella, & N. E. White.* 371, 332, 64-C1 (1991)

Accretion in Wind-driven X-Ray Sources. *Ronald E. Taam, Albert Fu, & B. A. Fryxell.* 371, 696, 70-C1 (1991)

Near-critical Spherical Accretion by Neutron Stars: General Relativistic Treatment. *Myeong-Gu Park & Guy S. Miller.* 371, 708, 70-D1 (1991)

A Simple Accretion/Diffusion Model for λ Bootis Stars. *Paul Charbonneau.* 372, L33, 79-D13 (1991)

Magnetic Two-Photon Scattering and Two-Photon Emission: Cross Sections and Redistribution Functions. *S. G. Alexander & P. Mészáros.* 372, 554, 82-E11 (1991)

Cyclotron Harmonics in Accreting Pulsars and Gamma-Ray Bursters: Effect of Two-Photon Processes. *S. G. Alexander & P. Mészáros.* 372, 565, 82-F9 (1991)

Nonlinear Evolution of Accretion Disks Induced by Radiative Feedback Processes. *K. R. Bell, D. N. C. Lin, & Steven P. Ruden.* 372, 633, 83-E7 (1991)

Stationary Accelerators around Keplerian Disks of Aligned Magnetized Collapsed Objects: Pair Production and Gamma-Ray Emission. *K. S. Cheng & M. Ruderman.* 373, 187, 88-C9 (1991)

High-Energy X-Ray Production in a Boundary Layer of an Accreting Neutron Star. *Tomoyuki Hanawa.* 373, 222, 88-F9 (1991)

The Near-Infrared Spectra of Low-Mass X-Ray Binaries and Related Objects. *A. P. Cowley, P. C. Schmidtke, D. Crampton, J. B. Hutchings, & M. Bolte.* 373, 228, 88-G1 (1991)

Inefficient Accretion by the DA2 White Dwarf in V471 Tauri. *D. J. Mullan, H. L. Shipman, E. M. Sion, & J. MacDonald.* 374, 707, 107-G8 (1991)

The Effects of X-Ray Illumination on Accretion Disk Interiors. *Yuan-Kuen Ko & Timothy R. Kallman.* 374, 721, 108-A10 (1991)

Flux-limited Diffusion in a Scattering Medium. *Fulvio Melia & Gregory J. Zylstra.* 374, 732, 108-B9 (1991)

Rotation and Emission Lines in Stars and Accretion Disks. *Keith Horne & Steven H. Saar.* 374, L55, 110-D6 (1991)

V1500 Cygni: A Prediction. *J. I. Katz.* 374, L59, 110-D11 (1991)

Noise-driven Radiative Shocks: A New Model for the Optical Quasi-periodic Oscillations of the AM Herculis Objects. *Michael T. Wolff, Kent S. Wood, & James N. Imamura.* 375, L31, 117-D6 (1991)

A Powerful Local Shear Instability in Weakly Magnetized Disks. II. Nonlinear Evolution. *John F. Hawley & Steven A. Balbus.* 376, 223, 127-F8 (1991)

Steady Spherical Hypercritical Accretion onto Neutron Stars. *John C. Houck & Roger A. Chevalier.* 376, 234, 127-G6 (1991)

The X-Ray Properties of GX 301−2 (4U 1223−62). *F. Haberl.* 376, 245, 128-A5 (1991)

NGC 1333 IRAS 4: A Very Young, Low-Luminosity Binary System. *Göran Sandell, Colin Aspin, William D. Duncan, Adrian P. G. Russell, & E. Ian Robson.* 376, L17, 130-C1 (1991)

Isothermal, Compton-heated Coronae above Accretion Disks. *Eve C. Ostriker, Christopher F. McKee, & Richard I. Klein.* 377, 593, 147-B3 (1991)

Radiative-hydrodynamical Simulations of Accretion Disk Coronae. *Fulvio Melia, Gregory J. Zylstra, & Bruce Fryxell.* 377, L101, 150-E11 (1991)

Diskoseismology: Probing Accretion Disks. I. Trapped Adiabatic Oscillations. *Michael A. Nowak & Robert V. Wagoner.* 378, 656, 160-E9 (1991)

The Optical Emission from Oscillating White Dwarf Radiative Shock Waves. *James N. Imamura, Hussain Rashed, & Michael T. Wolff.* 378, 665, 160-F5 (1991)

Spin Evolution and Magnetic Fields in Cataclysmic Variables. *Andrew R. King & Jean-Pierre Lasota.* 378, 674, 160-G1 (1991)

A Model for the 35 Day Variations in the Pulse Profile of Hercules X-1. *J. A. Petterson, R. E. Rothschild, & D. E. Gruber.* 378, 696, 161-A11 (1991)

SN 1988A in M58: Departure from ^{56}Co Decay 700 Days after Explosion. *P. Ruiz-Lapuente, M. Kidger, G. Gómez, R. Canal, & R. López.* 378, L41, 162-E1 (1991)

On the Adiabatic Pulsations of Accretion Disks and Rotating Stars. *James R. Ipser & Lee Lindblom.* 379, 285, 166-E7 (1991)

Very High Energy Gamma-Ray Emission from Accreting X-Ray Pulsars. *K. S. Cheng, K. N. Yu, T. Cheung, & M. M. Lau.* 379, 290, 166-F1 (1991)

Dynamo Magnetic Field Modes in Thin Astrophysical Disks: An Adiabatic Computational Approximation. *T. F. Stepinski & E. H. Levy.* 379, 343, 167-C9 (1991)

Magnetically Driven Jets and Winds. *R. V. E. Lovelace, H. L. Berk, & J. Contopoulos.* 379, 696, 173-D1 (1991)

Does SV Centauri Harbor an Accretion Disk? *Albert P. Linnell & Xania Scheick.* 379, 721, 173-F7 (1991)

Irradiation of Accretion Disks around Young Objects. I. Near-Infrared CO Bands. *Nuria Calvet, Alberto Patiño, Gladis Magris C., & Paola D'Alessio.* 380, 617, 185-G8 (1991)

The Statistics of Slow Interstellar Accretion onto Neutron Stars. *O. Blaes & M. Rajagopal.* 381, 210, 191-E10 (1991)

Spectroscopy of Z Camelopardalis in Outburst with the Hopkins Ultraviolet Telescope. *Knox S. Long, William P. Blair, Arthur F. Davidsen, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Richard C. Henry, Gerard A. Kriss, Jeffrey W. Kruk, H. Warren Moos, Olaf Vancura, Henry C. Ferguson, & Randy A. Kimble.* 381, L25, 194-D5 (1991)

Three-dimensional Simulations of Black Hole Tori. *John F. Hawley.* 381, 496, 196-G9 (1991)

X-Ray Spectra of Cataclysmic Variables from the *Einstein Observatory*. *Michael Eracleous, Jules Halpern, & Joseph Patterson.* 382, 290, 203-G1 (1991)

Optical Excess Emission in T Tauri Stars. *Patrick Hartigan, Scott J. Kenyon, Lee Hartmann, Stephen E. Strom, Suzan Edwards, Alan D. Welty, & John Stauffer.* 382, 617, 209-C1 (1991)

Spectral Signatures of the MeV–PeV Radiation from Accreting Neutron Stars. *B. Rudak & P. Mészáros.* 383, 269, 215-E3 (1991)

On the Near-Infrared Spectrum of FU Orionis. *Nuria Calvet, Lee Hartmann, & Scott J. Kenyon.* 383, 752, 223-E6 (1991)

The Vertical Structure of T Tauri Accretion Disks. I. Heating by the Central Star. *Fabien Malbet & Claude Bertout.* 383, 814, 224-D1 (1991)

STARS: ACTIVITY

First Conclusive Evidence for Rotational Modulation of Stellar Radio Emission. *Jeremy Lim, Graham J. Nelson, Catarina Castro, David Kilkenny, & François van Wyk.* 388, L27, 52-C7 (1992)

Evidence of Differential Surface Rotation in the Solar-Type Star HD 114710. *Robert A. Donahue & Sallie L. Baliunas.* 393, L63, 127-D1 (1992)

Detection of a Proton Beam during the Impulsive Phase of a Stellar Flare. *Bruce E. Woodgate, Richard D. Robinson, Kenneth G. Carpenter, Stephen P. Maran, & Steven N. Shore.* 397, L95, 181-C1 (1992)

The Activity Cycle of σ Draconis. *David F. Gray, Sallie L. Baliunas, G. W. Lockwood, & Brian A. Skiff.* 400, 681, 219-A1 (1992)

Rotation and Activity among Solar-Type Stars of the Ursa Major Group. *David R. Soderblom & Michel Mayor.* 402, L5, 6-B9 (1993)

The Far-Infrared and X-Ray Radiation of Active Late-Type Stars: Suggestions for Strong Spottedness. *M. M. Katsova & V. Tsikoudi.* 402, L9, 6-C1 (1993)

Discovery of Remarkably Intense Radio Emission from a Young and Rapidly Rotating dMe Star. *Jeremy Lim.* 405, L33, 47-F1 (1993)

An Interpretation of Cycle Periods of Stellar Chromospheric Activity. *W. H. Soon, S. L. Baliunas, & Q. Zhang.* 414, L33, 175-F6 (1993)

A Search for Proton Beams during Flares on AU Microscopii. *R. D. Robinson, K. G. Carpenter, B. E. Woodgate, & S. P. Maran.* 414, 872, 182-B5 (1993)

HR 1362: The Evolved 53 Camelopardalis. *K. Stępień.* 416, 368, 205-E11 (1993)

ROSAT X-Ray Study of the Chamaeleon I Dark Cloud. I. The Stellar Population. *Eric D. Feigelson, Sophie Casanova, Thierry Montmerle, & Jean Guibert.* 416, 623, 211-B8 (1993)

Optical Spectroscopy of the Dusty K5 V Star HD 98800. *Francis C. Fekel & Bernard W. Bopp.* 419, L89, 259-F3 (1993)

Long-Term Starspot Activity of Short-Period RS Canum Venaticorum Stars. V. CG Cygni. *M. Zeilik, S. Gordon, E. Jaderlund, M. Ledlow, D. L. Summers, P. A. Heckert, E. Budding, & T. S. Banks.* 421, 303, 19-F8 (1994)

Detection of Rotational Modulation in the Coronal Extreme-Ultraviolet Emission from V711 Tauri? *Jeremy J. Drake, Alex Brown, Robert J. Patterer, Peter W. Vedder, Stuart Bowyer, & Edward F. Guinan.* 421, L43, 22-A10 (1994)

Observing Stellar Coronae with the Goddard High Resolution Spectrograph. I. The dMe Star AU Microscopii. *S. P. Maran, R. D. Robinson, S. N. Shore, J. W. Brosius, K. G. Carpenter, B. E. Woodgate, J. L. Linsky, A. Brown, P. B. Byrne, M. R. Kundu, S. White, J. C. Brandt, R. A. Shine, & F. M. Walter.* 421, 800, 28-B10 (1994)

Quiescent Microwave Emission from Late-Type Stars. *Manuel Güdel.* 90, 743, 13-A8 (1994)

Optical Variability in the Unusual K5 V Infrared-Excess Star HD 98800. *Gregory W. Henry & Douglas S. Hall.* 425, L25, 85-D9 (1994)

The Activity Cycle of τ Ceti. *David F. Gray & Sallie L. Baliunas.* 427, 1042, 125-E8 (1994)

A Method of Determining Possible Brightness Variations of the Sun in Past Centuries from Observations of Solar-Type Stars. *Q. Zhang, W. H. Soon, S. L. Baliunas, G. W. Lockwood, B. A. Skiff, & R. R. Radick.* 427, L111, 127-D3 (1994)

A Search for Chromospheric Emission in A-Type Stars Using the Goddard High-Resolution Spectrograph. *Theodore Simon, Wayne B. Landsman, & Ronald L. Gilliland.* 428, 319, 132-B5 (1994)

The Temperature and Granulation Stability of η Cephei. *David F. Gray.* 428, 765, 139-F13 (1994)

HD 129333: The Sun in Its Infancy. *J. David Dorren & Edward F. Guinan.* 428, 805, 140-C9 (1994)

Directivity of the Radio Emission from the K1 Dwarf Star AB Doradus. *Jeremy Lim, Stephen M. White, Graham J. Nelson, & Arnold O. Benz.* 430, 332, 163-C9 (1994)

Zeeman Enhancement of Lines in Extremely Active K Dwarfs. *Gibor Basri & Geoffrey W. Marcy.* 431, 844, 189-B11 (1994)

Chromospheric Variations in Main-Sequence Stars. II. *S. L. Baliunas, R. A. Donahue, W. H. Soon, J. H. Horne, J. Frazer, L. Woodard-Eklund, M. Bradford, L. M. Rao, O. C. Wilson, Q. Zhang, W. Bennett, J. Briggs, S. M. Carroll, D. K. Duncan, D. Figueroa, H. H. Lanning, T. Misch, J. Mueller, R. W. Noyes, D. Poppe, A. C. Porter, C. R. Robinson, J. Russell, J. C. Shelton, T. Soyumer, A. H. Vaughan, & J. H. Whitney.* 438, 269, 5-B12 (1995)

RE 0044+09: A New K Dwarf Rapid Rotator with a White Dwarf Companion? *Barry J. Kellett, Gordon E. Bromage, Alexander Brown, Robin D. Jeffries, David J. James, David Kilkenny, Russell M. Robb, David Wonnacott, Christopher Lloyd, & C. Clayton.* 438, 364, 6-D13 (1995)

The Solar-Stellar Spectrograph: Project Description, Data Calibration, and Initial Results. *Jeffrey C. Hall & G. W. Lockwood.* 438, 404, 7-A12 (1995)

A Method for Estimating the Fractional Area Coverage of Active Regions on Dwarf F and G Stars. *Vincenzo Andretta & Mark S. Giampapa.* 439, 405, 26-F10 (1995)

Infrared Zeeman Analysis of ϵ Eridani. *Jeff A. Valenti, Geoffrey W. Marcy, & Gibor Basri.* 439, 939, 37-E9 (1995)

Can the Variability of Solar-like Spotted Stars be Detected Polarimetrically? *Geoffrey K. Fox.* 441, 408, 65-A1 (1995)

Magnetic Activity Variations of ϵ Eridani. *David F. Gray & Sallie L. Baliunas.* 441, 436, 65-D4 (1995)

Intense Radio Outburst from the Supermassive Star η Carinae. *R. A. Duncan, S. M. White, J. Lim, G. J. Nelson, S. A. Drake, & M. R. Kundu.* 441, L73, 76-A6 (1995)

Activity Cycles in Cool Stars. I. Observation and Analysis Methods and Case Studies of Four Well-observed Examples. *Jeffrey C. Hall, G. W. Lockwood, & Erika L. Gibb.* 442, 778, 91-A1 (1995)

Starspot Evolution, Differential Rotation, and Magnetic Cycles in the Chromospherically Active Binaries λ Andromedae, σ Geminorum, II Pegasi, and V711 Tauri. *Gregory W. Henry, Joel A. Eaton, Jamesia Hamer, & Douglas S. Hall.* 97, 513, 19-C6 (1995)

Multiple Starspots and the Solar Analogy: A New Approach and Applications to HD 12545. *Zeki Eker.* 445, 526, 142-C10 (1995)

First Detection of X-Ray Variability of η Carinae. *M. F. Corcoran, G. L. Rawley, J. H. Swank, & R. Petre.* 445, L121, 151-C9 (1995)

Einstein Observations of T Tauri Stars in Taurus-Auriga. I. Properties of X-Ray Emission. *F. Damiani, G. Micela, S. Sciortino, & F. R. Harnden, Jr.* 446, 331, 157-F10 (1995)

Einstein Observations of T Tauri Stars in Taurus-Auriga. II. Relationships between X-Ray Emission and Pre–Main-Sequence Activity. *F. Damiani & G. Micela.* 446, 341, 157-G11 (1995)

The Statistical Physics of Solar Active Regions and the Fundamental Nature of Solar Flares. *Edward T. Lu.* 446, L109, 171-E3 (1995)

X-Ray Emission from the Sun in Its Youth and Old Age. *J. D. Dorren, M. Güdel, & E. F. Guinan.* 448, 431, 198-B3 (1995)

Spectroscopic *EUVE* Observations of the Active Star AB Doradus. *Slavek M. Rucinski, Rolf Mewe, Jelle S. Kaastra, Osmi Vilhu, & Stephen M. White.* 449, 900, 225-B11 (1995)

Correlations of Coronal X-Ray Emission with Activity, Mass, and Age of the Nearby K and M Dwarfs. *Thomas A. Fleming, Jürgen H. M. M. Schmitt, & Mark S. Giampapa.* 450, 401, 233-D12 (1995)

Are Variations in the Length of the Activity Cycle Related to Changes in Brightness in Solar-Type Stars? *Sallie Baliunas & Willie Soon.* 450, 896, 243-C8 (1995)

Doppler Imaging of the Cool Spot Distribution on the Weak T Tauri Star V410 Tauri. *Artie P. Hatzes.* 451, 784, 258-A6 (1995)

A Search for Microflaring Activity on dMe Flare Stars. I. Observations of the dM8e Star CN Leonis. *R. D. Robinson, K. G. Carpenter, J. W. Percival, & J. A. Bookbinder.* 451, 795, 258-B6 (1995)

A 12 Year Photometric Study of Lower Main-Sequence Hyades Stars. *Richard R. Radick, G. W. Lockwood, B. A. Skiff, & D. T. Thompson.* 452, 332, 266-F6 (1995)

The *IUE* MEGA Campaign: Wind Variability and Rotation in Early-Type Stars. *D. Massa, A. W. Fullerton, J. S. Nichols, S. P. Owocki, R. K. Prinja, N. St-Louis, A. J. Willis, B. Altner, C. T. Bolton, J. P. Cassinelli, D. Cohen, R. G. Cooper, A. Feldmeier, K. G. Gayley, T. Harries, S. R. Heap, R. N. Henriksen, I. D. Howarth, I. Hubeny, E. Kambe, L. Kaper, G. Koenigsberger, S. Marchenko, S. R. McCandliss, A. F. J. Moffat, T. Nugis, J. Puls, C. Robert, R. E. Schulte-Ladbeck, L. J. Smith, M. A. Smith, W. L. Waldron, & R. L. White.* 452, L53, 270-C8 (1995)

The *IUE* MEGA Campaign: Wind Structure and Variability of HD 50896 (WN5). *Nicole St-Louis, M. J. Dalton, S. V. Marchenko, A. F. J. Moffat, & A. J. Willis.* 452, L57, 270-D3 (1995)

The *IUE* MEGA Campaign: Modulated Structure in the Wind of HD 64760 (B0.5 Ib). *Raman K. Prinja, Derck Massa, & Alexander W. Fullerton.* 452, L61, 270-D13 (1995)

Wind Variability of B Supergiants. I. The Rapid Rotator HD 64760 (B0.5 Ib). *Derck Massa, Raman K. Prinja, & Alexander W. Fullerton.* 452, 842, 276-C7 (1995)

Absolute Measurements of Starspot Area and Temperature: II Pegasi in 1989 October. *James E. Neff, Douglas O'Neal, & Steven H. Saar.* 452, 879, 276-G6 (1995)

Stellar Activity at the End of the Main Sequence: GHRS Observations of the M8 Ve Star VB 10. *Jeffrey L. Linsky, Brian E. Wood, Alexander Brown, Mark S. Giampapa, & Carol Ambruster.* 455, 670, 331-B10 (1995)

STARS: AGB AND POST-AGB

Spectropolarimetry of the Post–Main-Sequence Bipolar Nebulae GL 618, M2-56, and M1-92. *Susan R. Trammell, Harriet L. Dinerstein, & Robert W. Goodrich.* 402, 249, 4-B12 (1993)

CO Observations of Candidates for Carbon-rich Asymptotic Giant Branch and Post–Asymptotic Giant Branch Stars. *Kevin Volk, Sun Kwok, & Andrew W. Woodsworth.* 402, 292, 4-F10 (1993)

Radio and X-Ray Observations of OH 231.8+4.2. *Gregory B. Taylor & Mark Morris.* 409, 720, 108-A9 (1993)

The Spectrum of the Central Star of the Planetary Nebula in M22. *J. Patrick Harrington & George Paltoglou.* 411, L103, 142-G3 (1993)

Evolution of Low- and Intermediate-Mass Stars to the End of the Asymptotic Giant Branch with Mass Loss. *E. Vassiliadis & P. R. Wood.* 413, 641, 164-D11 (1993)

LS II +34°26 is a Low-Mass Post–Asymptotic Giant Branch B Supergiant and Not a Massive Population I B Star Located near the Outer Edge of the Galaxy. *M. Parthasarathy.* 414, L109, 186-A7 (1993)

Infrared Spectra of Transition Objects and the Composition and Evolution of Carbon Dust. *R. H. Buss, Jr., A. G. G. M. Tielens, M. Cohen, M. W. Werner, J. D. Bregman, & F. C. Witteborn.* 415, 250, 188-B3 (1993)

The Age of the Large Magellanic Cloud Cluster NGC 1953. *J. R. Mould, D. A. Xystus, G. S. Da Costa, & R. A. Schommer.* 416, 582, 210-E12 (1993)

Prevention of High-Luminosity Carbon Stars by Hot Bottom Burning. *Arnold I. Boothroyd, I.-Juliana Sackmann, & Sean C. Ahern.* 416, 762, 212-G6 (1993)

Circumstellar Properties of S Stars. I. Dust Features. *P. S. Chen & Sun Kwok.* 416, 769, 213-A1 (1993)

Effects of Convection on Pressure Wave Excitation in Common Envelopes. *Noam Soker.* 417, 347, 221-G8 (1993)

New OH/IR Stars from Color-selected *IRAS* Sources. III. A Complete Survey. *Jayaram N. Chengalur, B. M. Lewis, J. Eder, & Yervant Terzian.* 89, 189, 51-D3 (1993)

Lithium Abundances and Other Clues to Envelope Burning in Small Magellanic Cloud Asymptotic Giant Branch Stars. *Bertrand Plez, Verne V. Smith, & David L. Lambert.* 418, 812, 242-F3 (1993)

Ultraviolet Radiation from Evolved Stellar Populations. I. Models. *Ben Dorman, Robert T. Rood, & Robert W. O'Connell.* 419, 596, 255-B8 (1993)

A High-Resolution Spectral Atlas of Carbon Stars. *Cecilia Barnbaum.* 90, 317, 5-G10 (1994)

An Ultraviolet-Visible Investigation of the Globular Cluster NGC 1851. *Ronald A. Parise, Stephen P. Maran, Wayne B. Landsman, Ralph C. Bohlin, Kwang-Ping Cheng, Michael R. Greason, Paul M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 423, 305, 49-G7 (1994)

A Laboratory Approach to the Interstellar Sulfide Dust Problem. *B. Begemann, J. Dorschner, T. Henning, H. Mutschke, & E. Thamm.* 423, L71, 54-C1 (1994)

Asymptotic Giant Branch Stars as a Source of Short-lived Radioactive Nuclei in the Solar Nebula. *G. J. Wasserburg, M. Busso, R. Gallino, & C. M. Raiteri.* 424, 412, 67-A6 (1994)

High-Resolution Spectroscopy of V1853 Cygni (LS II +34°26): Birth of a Planetary Nebula? *Verne V. Smith & David L. Lambert.* 424, L123, 79-D13 (1994)

Extreme ^{26}Mg and ^{17}O Enrichments in an Orgueil Corundum: Identification of a Presolar Oxide Grain. *I. D. Hutcheon, G. R. Huss, A. J. Fahey, & G. J. Wasserburg.* 425, L97, 94-F7 (1994)

Anisotropic Scattering of OH/IR Stars toward the Galactic Center. *Dale A. Frail, Philip J. Diamond, James M. Cordes, & Huib Jan Van Langevelde.* 427, L43, 117-F6 (1994)

Detection of Radio Continuum Emission from Circumstellar Dust around CRL 2688 and IRC +10216. *G. R. Knapp, P. F. Bowers, K. Young, & T. G. Phillips.* 429, L33, 150-E1 (1994)

Predictions of Oxygen Isotope Ratios in Stars and of Oxygen-rich Interstellar Grains in Meteorites. *Arnold I. Boothroyd, I.-Juliana Sackmann, & G. J. Wasserburg.* 430, L77, 166-C7 (1994)

Oxygen Isotopes in Circumstellar Al_2O_3 Grains from Meteorites and Stellar Nucleosynthesis. *Gary R. Huss, Albert J. Fahey, Roberto Gallino, & G. J. Wasserburg.* 430, L81, 166-C13 (1994)

Supplement to the Arecibo 1612 MHz Survey of Color-selected *IRAS* Sources. *B. M. Lewis.* 93, 549, 50-D9 (1994)

Two Planetary Nebula Candidates around Hot DA White Dwarfs. *Richard W. Tweedy & Karen B. Kwitter.* 433, L93, 224-B11 (1994)

On the Formation and Evolution of Super–Asymptotic Giant Branch Stars with Cores Processed by Carbon Burning. I. Spica to Antares. *Enrique García-Berro & Icko Iben, Jr.* 434, 306, 229-F4 (1994)

A Direct Image of Wind Interaction in the Post-AGB Evolution: CO Observations of M1-92. *V. Bujarrabal, J. Alcolea, R. Neri, & M. Grewing.* 436, L169, 281-G9 (1994)

Optical Spectroscopy of Carbon-rich Proto–Planetary Nebulae. *Bruce J. Hrivnak.* 438, 341, 6-B10 (1995)

Radiative ^{13}C Burning in Asymptotic Giant Branch Stars and *s*-Processing. *O. Straniero, R. Gallino, M. Busso, A. Chieffi, C. M. Raiteri, M. Limongi, & M. Salaris.* 440, L85, 58-B3 (1995)

Injection of Freshly Synthesized ^{41}Ca in the Early Solar Nebula by an Asymptotic Giant Branch Star. *G. J. Wasserburg, R. Gallino, M. Busso, J. N. Goswami, & C. M. Raiteri.* 440, L101, 58-D1 (1995)

A Survey of Lithium in the Red Giants of the Magellanic Clouds. *Verne V. Smith, Bertrand Plez, David L. Lambert, & D. A. Lubowich.* 441, 735, 72-A13 (1995)

Infrared Properties of Circumstellar Dust Envelopes of Oxygen-rich Asymptotic Giant Branch Stars. *O. Hashimoto.* 442, 286, 81-B3 (1995)

Hot Bottom Burning in Asymptotic Giant Branch Stars and Its Effect on Oxygen Isotopic Abundances. *Arnold I. Boothroyd, I.-Juliana Sackmann, & G. J. Wasserburg.* 442, L21, 84-G4 (1995)

Grain Formation around Carbon Stars. I. Stationary Outflow Models. *Michael P. Egan & Chun Ming Leung.* 444, 251, 117-A1 (1995)

The Hot End of Evolutionary Horizontal Branches. *V. Castellani, S. Degl'Innocenti, & L. Pulone.* 446, 228, 156-C8 (1995)

Nucleosynthesis and Mixing on the Asymptotic Giant Branch. II. Carbon and Barium Stars in the Galactic Disk. *M. Busso, D. L. Lambert, L. Beglio, R. Gallino, C. M. Raiteri, & V. V. Smith.* 446, 775, 166-F13 (1995)

A Circumstellar H_2O Maser Associated with the Circumnuclear Molecular Disk at the Galactic Center? *Deborah A. Levine, Donald F. Figer, Mark Morris, & Ian S. McLean.* 447, L101, 190-G7 (1995)

Diffuse X-Ray Emission from the Hydrogen-deficient Planetary Nebula Abell 30. *You-Hua Chu & Ching-Hwa Ho.* 448, L127, 209-F9 (1995)

The First 8–13 Micron Spectra of Asymptotic Giant Branch Stars in the Magellanic Clouds. *M. A. T. Groenewegen et al., C. H. Smith, P. R. Wood, A. Omont, & T. Fujiyoshi.* 449, L119, 227-A8 (1995)

More on the Properties of Star Models Evolving off the Hayashi Track: The Metallicity and Evolutionary Phase Dependence. *Marco Castellani, Marco Limongi, & Amedeo Tornambè.* 450, 275, 231-G1 (1995)

Evidence for Rapid Rotation of the Carbon Star V Hydrae. *Cecilia Barnbaum, Mark Morris, & Claudine Kahane.* 450, 862, 242-G7 (1995)

Discovery of Strong Vibrationally Excited Water Masers at 658 GHz toward Evolved Stars. *Karl M. Menten & Ken Young.* 450, L67, 244-G8 (1995)

Investigating the Near-Infrared Properties of Planetary Nebulae. I. Narrowband Images. *William B. Latter, Douglas M. Kelly, Joseph L. Hora, & Lynne K. Deutsch.* 100, 159, 48-A8 (1995)

Maps of the Molecular Emission around 18 Evolved Stars. *K. Z. Stanek, G. R. Knapp, K. Young, & T. G. Phillips.* 100, 169, 48-C8 (1995)

Silicate Emission at 10 Microns in Variables on the Asymptotic Giant Branch. *G. C. Sloan & S. D. Price.* 451, 758, 257-E13 (1995)

Evolutionary Paths in Multiple-Shell Planetary Nebulae. *Letizia Stanghellini & Anna Pasquali.* 452, 286, 266-B1 (1995)

The 30 Micron Emission Band in Carbon-rich Pre–Planetary Nebulae. *A. Omont, S. H. Moseley, P. Cox, W. Glaccum, S. Casey, T. Forveille, Kin-Wing Chan, R. Szczerba, R. F. Loewenstein, P. M. Harvey, & S. Kwok.* 454, 819, 313-B2 (1995)

Asymmetrical Mass Loss from Rotating Red Giant Variables. *S. M. Asida & Y. Tuchman.* 455, 286, 322-B2 (1995)

Radio-Frequency Continuum Emission from Evolved Stars. *G. R. Knapp, P. F. Bowers, K. Young, & T. G. Phillips.* 455, 293, 322-B12 (1995)

STARS: ATMOSPHERES

CO Fundamental Bands in Late-Type Stars. II. Spectrum Simulations for F–K Stars. *Gunter Wiedemann & Thomas R. Ayres.* 366, 277, 4-D9 (1991)

Synthetic Spectra and Atmospheric Properties of Cool DA White Dwarfs. *P. Bergeron, F. Wesemael, & G. Fontaine.* 367, 253, 15-C1 (1991)

The Use of Iteration Factors for Temperature Correction in a Stellar Atmosphere When Convective Transport Is Present. *L. Crivellari & E. Simonneau.* 367, 612, 20-G10 (1991)

Chemical Abundances for Cyanogen-weak Giants. *R. Earle Luck.* 75, 579, 8-F11 (1991)

A Critical Analysis of the Ultraviolet Temperature Scale of the Helium-dominated DB and DBV White Dwarfs. *Peter Thejll, Stéphane Vennes, & Harry L. Shipman.* 370, 355, 51-F5 (1991)

Non–LTE Analysis of the Ofpe/WN9 Star HDE 269227 (R84). *Werner Schmutz, Claus Leitherer, Ivan Hubeny, Manfred Vogel, Wolf-Rainer Hamann, & Ulf Wessolowski.* 372, 664, 84-A1 (1991)

Thermal X-Ray Emission from Classical Novae in Optical Decline. *James MacDonald & Stéphane Vennes.* 373, L51, 97-C4 (1991)

Model Atmospheres and X-Ray Spectra of Bursting Neutron Stars. *Jerzy Madej.* 376, 161, 127-A4 (1991)

Theoretical H II Region Models: The Effects of Stellar Atmosphere Models. *I. N. Evans.* 76, 985, 38-E13 (1991)

On Spectra of X-Ray Bursters in the Expansion Phase. *I. I. Lapidus.* 377, L93, 150-E1 (1991)

A Non–Local Thermodynamic Equilibrium, Line-blanketed Synthetic Spectrum of Iota Herculis: C, Al, and Si Lines. *James A. Grigsby.* 380, 606, 185-F9 (1991)

First Ultraviolet Spectropolarimetry of Hot Supergiants. *M. Taylor, A. D. Code, K. H. Nordsieck, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, R. E. Schulte-Ladbeck, & B. A. Whitney.* 382, L85, 211-D5 (1991)

Oxygen Abundances in Halo Stars. *Michael S. Bessell, Ralph S. Sutherland, & Kui Ruan.* 383, L71, 226-E6 (1991)

Model Atmospheres for Rotating B Stars. *George W. Collins II, Ryland J. Truax, & Steven R. Cranmer.* 77, 541, 52-B5 (1991)

Non–LTE, Line-blanketed Model Atmospheres for Late O- and Early B-Type Stars. *James A. Grigsby, Nancy D. Morrison, & Lawrence S. Anderson.* 78, 205, 4-D9 (1992)

X-Ray–heated Models of Stellar Flare Atmospheres: Theory and Comparison with Observations. *Suzanne L. Hawley & George H. Fisher.* 78, 565, 10-F1 (1992)

On the Influence of the Convective Efficiency on the Determination of the Atmospheric Parameters of DA White Dwarfs. *P. Bergeron, F. Wesemael, & G. Fontaine.* 387, 288, 40-E1 (1992)

The Eclipsing Binary AI Phoenicis: New Results Based on an Improved Light Curve Analysis Program. *E. F. Milone, C. R. Stagg, & R. L. Kurucz.* 79, 123, 14-E11 (1992)

Photon Bubbles: Overstability in a Magnetized Atmosphere. *Jonathan Arons.* 388, 561, 57-C1 (1992)

Ionization and Excitation in Cool Giant Stars. I. Hydrogen and Helium. *Donald G. Luttermoser & Hollis R. Johnson.* 388, 579, 57-D7 (1992)

The Constitution of the Atmospheric Layers and the Extreme Ultraviolet Spectrum of Hot Hydrogen-rich White Dwarfs. *Stéphane Vennes.* 390, 590, 82-F1 (1992)

Iron Abundance in the Hot DA White Dwarfs Feige 24 and G191 B2B. *Stéphane Vennes, Pierre Chayer, John R. Thorstensen, Stuart Bowyer, & Harry L. Shipman.* 392, L27, 106-D5 (1992)

Spherically Symmetric, Expanding, Non–LTE Model Atmospheres for Novae during Their Early Stages. *P. H. Hauschildt, R. Wehrse, S. Starrfield, & G. Shaviv.* 393, 307, 118-A4 (1992)

Two-Stream, Second-Order, Probabilistic Radiative Transfer. *I. S. Krinsky & R. C. Puetter.* 393, 716, 124-F10 (1992)

Hot Post–Asymptotic Giant Branch Stars at High Galactic Latitudes. *R. J. H. McCausland, E. S. Conlon, P. L. Dufton, & F. P. Keenan.* 394, 298, 131-F5 (1992)

Helium Gravitational Settling in the Envelopes of Evolving Main-Sequence A and F Stars. *Jacques Richer, Georges Michaud, & Charles R. Proffitt.* 82, 329, 54-A1 (1992)

On the Interaction between Dust and Gas in Late-Type Stellar Atmospheres and Winds. *K. B. MacGregor & R. E. Stencel.* 397, 644, 179-A13 (1992)

Why All Stars Should Possess Circumstellar Temperature Inversions. *Jack D. Scudder.* 398, 319, 185-F11 (1992)

The Origin of Distant B-Type Stars in the Galactic Halo. *E. S. Conlon, P. L. Dufton, F. P. Keenan, R. J. H. McCausland, & D. Holmgren.* 400, 273, 212-C13 (1992)

An Interpretation of the Spectral Properties of Hot Hydrogen-rich White Dwarfs with Stratified H/He Model Atmospheres. *Stéphane Vennes & Gilles Fontaine.* 401, 288, 224-E7 (1992)

A Deep Envelope Composition for TX Piscium? *J. H. Goebel, D. Goorvitch, H. P. Larson, & D. R. Alexander.* 402, 680, 11-B1 (1993)

The Distant Future of Solar Activity: A Case Study of β Hydri. I. Stellar Evolution, Lithium Abundance, and Photospheric Structure. *D. Dravins, L. Lindegren, Å. Nordlund, & D. A. VandenBerg.* 403, 385, 18-E10 (1993)

Model Atmospheres: Tool for Identifying Interstellar Features. *P. C. Frisch, S. E. Slojkowski, T. Rodriguez-Bell, & D. York.* 84, 55, 1-G3 (1993)

Angular Diameter Measurements of Cool Giant Stars in Strong TiO Bands and in the Continuum. *A. Quirrenbach, D. Mozurkewich, J. T. Armstrong, D. F. Buscher, & C. A. Hummel.* 406, 215, 57-F9 (1993)

Metal-Line Blanketing and the Peculiar Hβ Line Profile in the DAO Star Feige 55. *P. Bergeron, F. Wesemael, R. Lamontagne, & P. Chayer.* 407, L85, 82-F1 (1993)

A Determination of the Basic Atmospheric Parameters of ϕ Cassiopeiae. *Patricia Rosenzweig & Lawrence Anderson.* 411, 207, 129-F13 (1993)

Mg II and Lyα Fluxes in M Dwarfs: Evaluation of an Acoustic Model. *D. J. Mullan & Q. Q. Cheng.* 412, 312, 146-A9 (1993)

Spectrophotometry of Wolf-Rayet Stars. I. Continuum Energy Distributions. *Patrick W. Morris, Kenneth R. Brownsberger, Peter S. Conti, Philip Massey, & William D. Vacca.* 412, 324, 146-B10 (1993)

Abundance Inhomogeneities and Atmospheric Structure in CN-Bimodal Globular Cluster Giants. *Jeremy J. Drake, Bertrand Plez, & Verne V. Smith.* 412, 612, 151-D1 (1993)

The Effects of Zonal Atmospheric Currents on the Spectra of Rotating Early-Type Stars. *Steven R. Cranmer & George W. Collins II.* 412, 720, 152-F12 (1993)

The Fundamental Parameters of the Chromospherically Active K2 Dwarf ϵ Eridani. *Jeremy J. Drake & Geoffrey Smith.* 412, 797, 153-F9 (1993)

Synthesis of Stellar Mg and Fe Absorption Indices for Stellar Population Studies. *R. K. Gulati, M. L. Malagnini, & C. Morossi.* 413, 166, 158-B10 (1993)

The "Baldwin Effect" in Wolf-Rayet Stars. *Patrick Morris, Peter S. Conti, Henny J. G. L. M. Lamers, & Gloria Koenigsberger.* 414, L25, 175-E7 (1993)

The Relativistic Sobolev Method Applied to Homologously Expanding Atmospheres. *David J. Jeffery.* 415, 734, 197-A5 (1993)

Model Atmosphere and Kinematical Analyses of Early-Type, High Galactic Latitude Stellar Candidates from the UKST *UBVRI* Survey. *N. C. Hambly, E. S. Conlon, P. L. Dufton, F. P. Keenan, J. E. Little, & L. Miller.* 417, 706, 228-B10 (1993)

The Faraday Rotation and Linear Polarization of Light in Stellar Atmospheres. *N. A. Silant'ev.* 419, 294, 249-G6 (1993)

A *Hubble Space Telescope* Ultraviolet Spectrum of SN 1993J. *David J. Jeffery, Robert P. Kirshner, Peter M. Challis, Chun S. J. Pun, Alexei V. Filippenko, Thomas Matheson, David Branch, Roger A. Chevalier, Claes Fransson, Nino Panagia, Robert V. Wagoner, J. Craig Wheeler, & Alejandro Clocchiatti.* 421, L27, 21-F9 (1994)

GD 323: New Observations and Analysis of the Prototype DAB White Dwarf. *D. Koester, James Liebert, & Rex A. Saffer.* 422, 783, 41-E10 (1994)

Non–LTE Model Atmosphere Analysis of Nova Cygni 1992. *P. H. Hauschildt, S. Starrfield, S. Austin, R. M. Wagner, S. N. Shore, & G. Sonneborn.* 422, 831, 42-C1 (1994)

Radiation-driven Acceleration in Photospheres of Nonaccreting Magnetic White Dwarfs. *Vladimir V. Zheleznyakov & A. V. Serber.* 90, 783, 13-D13 (1994)

The Peculiar Cool White Dwarf LHS 1126 Revisited. *P. Bergeron, María-Teresa Ruiz, S. K. Leggett, D. Saumon, & F. Wesemael.* 423, 456, 51-G5 (1994)

On Sound Generation by Turbulent Convection: A New Look at Old Results. *Z. E. Musielak, R. Rosner, R. F. Stein, & P. Ulmschneider.* 423, 474, 52-A13 (1994)

Cool Zero-Metallicity Stellar Atmospheres. *D. Saumon, P. Bergeron, J. I. Lunine, W. B. Hubbard, & A. Burrows.* 424, 333, 66-A8 (1994)

Reflection of Alfvén Waves in Stellar Atmospheres: The Case of Open Magnetic Fields. *Yu-Qing Lou & Robert Rosner.* 424, 429, 67-B11 (1994)

On Dirac Equations for Linear Magnetoacoustic Waves Propagating in an Isothermal Atmosphere. *R. Alicki, Z. E. Musielak, J. Sikorski, & D. Makowiec.* 427, 919, 124-A13 (1994)

An Implicit Integral Method to Solve Selected Radiative Transfer Problems. III. Factorization versus Linearization. *E. Simonneau & L. Crivellari.* 428, 753, 139-E11 (1994)

An Implicit Integral Method to Solve Selected Radiative Transfer Problems. II. LTE Stellar Atmosphere Models. *L. Crivellari & E. Simonneau.* 429, 331, 148-B9 (1994)

Vega: A Rapidly Rotating Pole-on Star. *Austin F. Gulliver, Graham Hill, & Saul J. Adelman.* 429, L81, 158-C9 (1994)

The Metallicity of M4: Accurate Spectroscopic Fundamental Parameters for Four Giants. *J. J. Drake, V. V. Smith, & N. B. Suntzeff.* 430, 610, 169-D8 (1994)

Gravitational Damping of Alfvén Waves in Stellar Atmospheres and Winds. *I. K. Khabibrakhmanov & D. J. Mullan.* 430, 814, 172-A7 (1994)

The Effect of Constant Horizontal Magnetic Fields on Model Atmospheres of Ap Stars. *F. LeBlanc, G. Michaud, & J. Babel.* 431, 388, 180-G9 (1994)

New Radiometric Values of the Solar Ultraviolet Continuum Radiation from 1500 to 1700 Å. *P. Brekke & O. Kjeldseth-Moe.* 431, L55, 183-B1 (1994)

Zeeman Enhancement of Lines in Extremely Active K Dwarfs. *Gibor Basri & Geoffrey W. Marcy.* 431, 844, 189-B11 (1994)

Resonance Line Polarization in Spherical Atmospheres: Partial Redistribution Effects Studied with the Domke-Hubeny Redistribution Matrix. *K. N. Nagendra.* 432, 274, 196-E10 (1994)

The Role of Advection in the Quasi-static Approximation. *Shlomi Pistinner & Giora Shaviv.* 432, 302, 197-A1 (1994)

A Spectroscopic Analysis of DAO and Hot DA White Dwarfs: The Implications of the Presence of Helium and the Nature of DAO Stars. *P. Bergeron, F. Wesemael, A. Beauchamp, M. A. Wood, R. Lamontagne, G. Fontaine, & James Liebert.* 432, 305, 197-A6 (1994)

Atmospheric Parameters of Field Subdwarf B Stars. *Rex A. Saffer, P. Bergeron, D. Koester, & James Liebert.* 432, 351, 197-E1 (1994)

On Cepheid Diameter and Distance Measurement. *Dimitar D. Sasselov & Margarita Karovska.* 432, 367, 197-F6 (1994)

Soft X-Ray Spectral Fits of Geminga with Model Neutron Star Atmospheres. *R. D. Meyer, G. G. Pavlov, & P. Mészáros.* 433, 265, 211-E12 (1994)

The CO/SiO Radiative Instability in Cool Star Atmospheres Revisited. *M. Cuntz & D. O. Muchmore.* 433, 303, 212-B3 (1994)

Thermally Unstable Perturbations in Stratified Conducting Atmospheres. *Fabio Reale, Salvatore Serio, & Giovanni Peres.* 433, 811, 221-C1 (1994)

Analysis of Helium-rich Subdwarf O Stars. I. NLTE Models, Methods, and Fits for 21 Palomar Green Survey sdO's. *P. Thejll, F. Bauer, R. Saffer, J. Liebert, D. Kunze, & H. L. Shipman.* 433, 819, 221-C12 (1994)

Old Stellar Populations. V. Absorption Feature Indices for the Complete Lick/IDS Sample of Stars. *Guy Worthey, S. M. Faber, J. Jesús González, & D. Burstein.* 94, 687, 61-E4 (1994)

Theoretical Modeling of GHRS Observations of the Of/WN-Type Star R136a5. *Alex de Koter, Ivan Hubeny, Sara R. Heap, & Thierry Lanz.* 435, L71, 252-F9 (1994)

Nonlinear Instability of Accelerating Shock Waves with Application to Supernovae. *Ding Luo & Roger A. Chevalier.* 435, 815, 257-C9 (1994)

An Analytic Solution of the Radiative Transfer Equation for a Gray Scattering Atmosphere in Motion. *Shlomi Pistinner & Giora Shaviv.* 436, 837, 277-B13 (1994)

Missing Opacity in the Atmospheric Models of Red Giants. *C. Ian Short & John B. Lester.* 436, L165, 281-G1 (1994)

Properties and Variability of the Stellar Wind from P Cygni. *S. Scuderi, G. Bonanno, D. Spadaro, N. Panagia, H. J. G. L. M. Lamers, & A. de Koter.* 437, 465, 289-E1 (1994)

EUVE Spectroscopy of ϵ Canis Majoris (B2 II) from 70 to 730 Å. *J. P. Cassinelli, D. H. Cohen, J. J. MacFarlane, J. E. Drew, A. E. Lynas-Gray, M. G. Hoare, J. V. Vallerga, B. Y. Welsh, P. W. Vedder, I. Hubeny, & T. Lanz.* 438, 932, 17-A8 (1995)

Classical Rotational Broadening of Spectral Lines. *George W. Collins II & Ryland J. Truax.* 439, 860, 36-E3 (1995)

Non-LTE Line-blanketed Model Atmospheres of Hot Stars. I. Hybrid Complete Linearization/Accelerated Lambda Iteration Method. *I. Hubeny & T. Lanz.* 439, 875, 36-F8 (1995)

Non-LTE Line-blanketed Model Atmospheres of Hot Stars. II. Hot, Metal-rich White Dwarfs. *T. Lanz & I. Hubeny.* 439, 905, 37-B1 (1995)

New Synthetic Mg_2 Indices. *M. Chavez, M. L. Malagnini, & C. Morossi.* 440, 210, 44-B3 (1995)

The Modeling of Energy Distributions and Light Curves of ZZ Ceti Stars. I. Basic Theory and Semianalytic Expressions for the Emergent Flux. *P. Brassard, G. Fontaine, & F. Wesemael.* 96, 545, 9-C12 (1995)

Rototranslational Collision-induced Absorption by H_2–H_2 Pairs at Temperatures from 600 to 7000 K. *Chunguang Zheng & Aleksandra Borysow.* 441, 960, 75-B6 (1995)

Spectroscopic Studies of DB White Dwarfs: Confirmation and Modeling of New Forbidden Components of He I. *A. Beauchamp, F. Wesemael, P. Bergeron, & James Liebert.* 441, L85, 76-C4 (1995)

On the Nature of the Spectral Features in Peculiar "DQ" White Dwarfs. *Gary D. Schmidt, P. Bergeron, & Bruce Fegley, Jr.* 443, 274, 99-A10 (1995)

New Model Atmospheres for Very Cool White Dwarfs with Mixed H/He and Pure He Compositions. *P. Bergeron, D. Saumon, & F. Wesemael.* 443, 764, 108-D1 (1995)

Model Atmospheres for M (Sub)Dwarf Stars. I. The Base Model Grid. *France Allard & Peter H. Hauschildt.* 445, 433, 138-E2 (1995)

Semianalytic Continuum Spectra of Type II Supernovae. *Marcos J. Montes & Robert V. Wagoner.* 445, 828, 146-E11 (1995)

ORFEUS Observations of G191-B2B: Neutral and Ionized Gas in the Local Interstellar Medium. *M. Hurwitz & S. Bowyer.* 446, 812, 167-C4 (1995)

A 325 Square Degree Survey of B-Type Stars at High Galactic Latitudes. *J. E. Little, P. L. Dufton, F. P. Keenan, N. C. Hambly, E. S. Conlon, P. J. F. Brown, & L. Miller.* 447, 783, 186-F11 (1995)

The Physics of Early Nova Spectra. *Peter H. Hauschildt, Sumner Starrfield, Steven N. Shore, France Allard, & E. Baron.* 447, 829, 187-D2 (1995)

Radiative Levitation in Hot White Dwarfs: Equilibrium Theory. *P. Chayer, G. Fontaine, & F. Wesemael.* 99, 189, 36-G5 (1995)

Synthetic Mean Colors for RR Lyrae Variables. *Giuseppe Bono, Filippina Caputo, & Robert F. Stellingwerf.* 99, 263, 37-F8 (1995)

Optical and Ultraviolet Analyses of ZZ Ceti Stars and Study of the Atmospheric Convective Efficiency in DA White Dwarfs. *P. Bergeron, F. Wesemael, R. Lamontagne, G. Fontaine, R. A. Saffer, & N. F. Allard.* 449, 258, 213-F10 (1995)

Far-Ultraviolet (912–1900 Å) Energy Distribution in Early-Type Main-Sequence Stars. *M. Chavez, R. Stalio, & J. B. Holberg.* 449, 280, 214-A7 (1995)

CNO Abundances and the Evolutionary Status of Galactic, A-Type Supergiants. *Kim A. Venn.* 449, 839, 224-C11 (1995)

Atmospheric Parameters and LTE Abundances for 22 Galactic, A-Type Supergiants. *Kim A. Venn.* 99, 659, 44-A6 (1995)

Iteration Profiles in Radiative Transfer Problems. I. From Vectorial to Scalar Coupling. *L. Crivellari & E. Simonneau.* 451, 328, 250-D6 (1995)

The Primordial Lithium Abundance. *Robert L. Kurucz.* 452, 102, 263-E2 (1995)

Klein-Gordon Equation and the Local Critical Frequency for Alfvén Waves Propagating in an Isothermal Atmosphere. *Z. E. Musielak & R. L. Moore.* 452, 434, 268-A11 (1995)

A Study of the Spectra of Seven Of Stars. II. Line Profiles and Equivalent Widths. *Anne B. Underhill.* 100, 461, 52-C13 (1995)

Are Wolf-Rayet Stellar Winds Driven by Radiation Forces? *Shlomi Pistinner & David Eichler.* 454, 404, 304-F8 (1995)

Radiative $He^+(1s) + He(1s^2)$ Processes as the Source of the DB White Dwarf Atmosphere Electromagnetic Continuous Spectra. *A. A. Mihajlov, M. S. Dimitrijević, Lj. M Ignjatović, & Z. Djurić.* 454, 420, 305-B3 (1995)

New Far-Ultraviolet Intrinsic Spectral Fluxes of Hot Stars and Their Photospheric Temperatures. *Richard H. Buss, Jr., J. W. Kruk, & H. C. Ferguson.* 454, L55, 308-C12 (1995)

A High-Temperature Partition Function for H_3^+. *Liesl Neale & Jonathan Tennyson.* 454, L169, 317-B3 (1995)

A Novel Iterative Scheme for the Very Fast and Accurate Solution of Non-LTE Radiative Transfer Problems. *J. Trujillo Bueno & P. Fabiani Bendicho.* 455, 646, 330-G6 (1995)

STARS: BA II

Subgiant CH Stars. II. Chemical Compositions and the Evolutionary Connection with Barium Stars. *R. Earle Luck & Howard E. Bond.* 77, 515, 51-G1 (1991)

STARS: BE

The Circumstellar Disks of β Pictoris Analogs. *C. A. Grady, Frederick C. Bruhweiler, K. P. Cheng, W. A. Chiu, & Y. Kondo.* 367, 296, 15-F9 (1991)

Circumstellar Material around λ Eridani (B2e). I. Geometry and Kinematics during 1987–1988. *Myron A. Smith, Geraldine J. Peters, & C. A. Grady.* 367, 302, 15-G1 (1991)

Be Stars: Chromospheres and Cool Envelopes and Their Relation to Magnetic Fields. *A. E. Ringuelet & M. E. Iglesias.* 369, 463, 43-D10 (1991)

EXOSAT Observations of the X-Ray Source 2S 0114+65. *Krishna M. V. Apparao, P. Bisht, & K. P. Singh.* 371, 772, 71-B6 (1991)

Flares in the X-Ray Source EXO 2030+375. *Krishna M. V. Apparao.* 375, 701, 121-D7 (1991)

Optical Emission Enhancements in Be Stars. *Krishna M. V. Apparao.* 376, 256, 128-B3 (1991)

The LkHα 101 Infrared Cluster. *M. Barsony, J. M. Schombert, & K. Kis-Halas.* 379, 221, 165-G1 (1991)

First Ultraviolet Spectropolarimetry of Be Stars from the Wisconsin Ultraviolet Photo-Polarimeter Experiment. *K. S. Bjorkman, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, G. C. Clayton, A. M. Magalhães, M. R. Meade, M. A. Nook, R. E. Schulte-Ladbeck, M. Taylor, & B. A. Whitney.* 383, L67, 226-E1 (1991)

Model Atmospheres for Rotating B Stars. *George W. Collins II, Ryland J. Truax, & Steven R. Cranmer.* 77, 541, 52-B5 (1991)

STARS: BINARIES

Spectroscopy of FO Aquarii: Evidence for Reprocessing in a Hot Wind. *Phillip J. Martell & Ronald H. Kaitchuck.* 366, 286, 4-E5 (1991)

Circumstellar Material around the Massive Close Binary DH Cephei. *M. F. Corcoran.* 366, 308, 4-G8 (1991)

Sigma Observation of the Pulsar OAO 1657−415: Precise Localization at Hard X-Ray Energy and Discovery of Spin-down. *S. Mereghetti, J. Ballet, A. Lambert, P. Mandrou, L. Natalucci, J. Paul, J. P. Roques, L. Salotti, M. Gilfanov, R. Sunyaev, G. Babalyan, E. Churazov, N. Khavenson, A. Kuznetsov, D. Stepanov, & S. Yunin.* 366, L23, 6-C11 (1991)

On the Orbital Period Change of the Binary Pulsar PSR 1913+16. *Thibault Damour & J. H. Taylor.* 366, 501, 9-C1 (1991)

Spectroscopic Binaries in the Orion Nebula Cluster. *Helmut A. Abt, Ruyou Wang, & Octavio Cardona.* 367, 155, 14-A1 (1991)

Optical and Radio Observations of the Binary Pulsar 1855+09: Evolution of Pulsar Magnetic Fields and Low-Mass White Dwarf Cooling. *S. R. Kulkarni, S. Djorgovski, & A. R. Klemola.* 367, 221, 14-G4 (1991)

Conditions for Accretion-induced Collapse of White Dwarfs. *Ken'ichi Nomoto & Yoji Kondo.* 367, L19, 17-D1 (1991)

Resonant Interaction in Common Envelopes. *Noam Soker.* 367, 593, 20-F1 (1991)

On Winds and X-Rays of O-Type Stars. *Tomasz Chlebowski & Catharine D. Garmany.* 368, 241, 26-B1 (1991)

On the Detectability of Pulsars in Close Binary Systems. *Helen M. Johnston & Shrinivas R. Kulkarni.* 368, 504, 31-D1 (1991)

Theoretical Light Curve for the Recurrent Nova RS Ophiuchi—Determination of the White Dwarf Mass, Composition, and Distance. *Mariko Kato.* 369, 471, 43-E6 (1991)

Possible Detection of TeV Gamma Rays from AM Herculis. *C. L. Bhat, R. K. Kaul, H. S. Rawat, V. K. Senecha, R. C. Rannot, M. L. Sapru, A. K. Tickoo, & H. Razdan.* 369, 475, 43-E12 (1991)

On the Explosion in a Common Envelope Scenario for Type Ia Supernovae. *James H. Applegate.* 370, 324, 51-C9 (1991)

A Search for Periodicities in the X-Ray Emission from Cataclysmic Variables. *Michael Eracleous, Joseph Patterson, & Jules Halpern.* 370, 330, 51-D1 (1991)

Near-Infrared Time-resolved Spectroscopy of the Cataclysmic Variable YY Draconis. *Mario Mateo, Paula Szkody, & Peter Garnavich.* 370, 370, 51-G8 (1991)

Mechanisms for Pulsar Eclipse. *David Eichler.* 370, L27, 53-D11 (1991)

The Effect of an External Disk on the Orbital Elements of a Central Binary. *P. Artymowicz, C. J. Clarke, S. H. Lubow, & J. E. Pringle.* 370, L35, 53-E7 (1991)

Spectroscopic Binaries in the Open Cluster Trumpler 16. *Hugo Levato, Stella Malaroda, Nidia Morrell, Beatriz García, & Carlos Hernández.* 75, 869, 13-C13 (1991)

Fokker-Planck Calculations of Star Clusters with Primordial Binaries. *Bin Gao, Jeremy Goodman, Haldan Cohn, & Brian Murphy.* 370, 567, 55-E1 (1991)

A Polytropic Model of an Accretion Disk, a Boundary Layer, and a Star. *Bohdan Paczyński.* 370, 597, 55-G11 (1991)

Does Accretion Cease When a Star Approaches Breakup? *Robert Popham & Ramesh Narayan.* 370, 604, 56-A6 (1991)

Helium Star Cataclysmics. *Icko Iben, Jr., & Alexander V. Tutukov.* 370, 615, 56-B5 (1991)

The Response of Main-Sequence Stars within a Common Envelope. *Michael S. Hjellming & Ronald E. Taam.* 370, 709, 57-C1 (1991)

He Stars and He-accreting CO White Dwarfs. *Marco Limongi & Amedeo Tornambè.* 371, 317, 64-A9 (1991)

High-Precision Timing of Millisecond Pulsars. I. Astrometry and Masses of the PSR 1855+09 System. *M. F. Ryba & J. H. Taylor.* 371, 739, 70-F9 (1991)

Synchronization of the Magnetic Nova V1500 Cygni. *Gary D. Schmidt & H. S. Stockman.* 371, 749, 70-G7 (1991)

Spectroscopic Binaries in the Orion OB1 Association. *Nidia Morrell & Hugo Levato.* 75, 965, 15-F5 (1991)

Star Cluster Evolution with Primordial Binaries. II. Detailed Analysis. *Steve McMillan, Piet Hut, & Junichiro Makino.* 372, 111, 75-D5 (1991)

The Binary Feige 24: The Mass, Radius, and Gravitational Redshift of the DA White Dwarf. *Stéphane Vennes, John R. Thorstensen, Peter Thejll, & Harry L. Shipman.* 372, L37, 79-E5 (1991)

Modification of Stellar Populations in Post–Core-Collapse Globular Clusters. *S. Djorgovski, G. Piotto, E. S. Phinney, & D. F. Chernoff.* 372, L41, 79-E11 (1991)

Type Ia Supernovae: Constraints on Baryonic Dark Matter. *Tammy A. Smecker & Rosemary F. G. Wyse.* 372, 448, 81-D1 (1991)

Limits on Cluster Binaries. *Roger W. Romani & Martin D. Weinberg.* 372, 487, 81-G5 (1991)

Coincidence Probabilities for Spacecraft Gravitational Wave Experiments: Massive Coalescing Binaries. *Massimo Tinto & J. W. Armstrong.* 372, 545, 82-E1 (1991)

Double Core Evolution. IV. The Late Stages of Evolution of a 2 $M_\odot$ Red Giant with a 1 $M_\odot$ Companion. *Ronald E. Taam & Peter Bodenheimer.* 373, 246, 89-A10 (1991)

The Extraordinary 1989 December 14/15 Optical Flare Events on V711 Tauri. *Gregory W. Henry & Douglas S. Hall.* 373, L9, 91-B7 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

Is Drag Luminosity Effective in Recurrent Novae? *Mariko Kato & Izumi Hachisu.* 373, 620, 95-F1 (1991)

High-Resolution *IUE* Spectra of the Nova-like Variable IX Velorum. *Christopher W. Mauche.* 373, 624, 95-F7 (1991)

Bowen Fluorescence in AM Herculis Stars. *Jonathan Schachter, Alexei V. Filippenko, Steven M. Kahn, & Frits B. S. Paerels.* 373, 633, 95-G4 (1991)

Limits on the Space Density of Double Degenerates as Type Ia Supernova Progenitors. *Diana Foss, Richard A. Wade, & Richard F. Green.* 374, 281, 101-E9 (1991)

The Pulse-timing and Emission-Line Orbits of the White Dwarf in the Cataclysmic Variable AE Aquarii. *Edward L. Robinson, Allen W. Shafter, & S. Balachandran.* 374, 298, 101-G1 (1991)

The Infrared and Optical Pulsations of G29-38. *Joseph Patterson, B. Zuckerman, E. E. Becklin, D. J. Tholen, & T. Hawarden.* 374, 330, 102-C1 (1991)

The Common Envelope Phase in Classical Novae: One-dimensional Models. *Anurag Shankar, Mario Livio, & James W. Truran.* 374, 623, 106-G6 (1991)

X-Ray to Infrared Observations of the AM Herculis System E1405−451 (V834 Centauri). *R. M. Sambruna, L. Chiappetti, A. Treves, J. M. Bonnet-Bidaud, P. Bouchet, L. Maraschi, C. Motch, & M. Mouchet.* 374, 744, 108-C10 (1991)

Timing Observations of the 8 Hour Binary Pulsar 2127+11C in the Globular Cluster M15. *T. A. Prince, S. B. Anderson, S. R. Kulkarni, & A. Wolszczan.* 374, L41, 110-C1 (1991)

V1500 Cygni: A Prediction. *J. I. Katz.* 374, L59, 110-D11 (1991)

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. I. AO Cassiopeiae. *Douglas R. Gies & Michael S. Wiggs.* 375, 321, 114-G10 (1991)

Noise-driven Radiative Shocks: A New Model for the Optical Quasi-periodic Oscillations of the AM Herculis Objects. *Michael T. Wolff, Kent S. Wood, & James N. Imamura.* 375, L31, 117-D6 (1991)

On the Orbital Circularization of Close Binaries. *Itzhak Goldman & Tsevi Mazeh.* 376, 260, 128-B8 (1991)

Tomographic Separation of Composite Spectra: The Components of the O-Star Spectroscopic Binary AO Cassiopeiae. *William G. Bagnuolo, Jr., & Douglas R. Gies.* 376, 266, 128-C1 (1991)

Ultraviolet Variability of the Massive W-R Binary System HDE 311884 = WR 47. *Gloria Koenigsberger, Anthony F. J. Moffat, & Lawrence H. Auer.* 376, 272, 128-C9 (1991)

Photometric Binary Stars in Praesepe and the Search for Globular Cluster Binaries. *Michael Bolte.* 376, 514, 132-G1 (1991)

Binary Star Observations with the *Hubble Space Telescope* Fine Guidance Sensors. I. ADS 11300. *O. G. Franz, T. J. N. Kreidl, L. W. Wasserman, A. J. Bradley, G. F. Benedict, P. D. Hemenway, W. H. Jefferys, B. McArthur, J. E. McCartney, E. Nelan, P. J. Shelus, D. Story, A. L. Whipple, R. L. Duncombe, L. W. Fredrick, & Wm. F. van Altena.* 377, L17, 143-C6 (1991)

Fragmentation of Elongated Cylindrical Clouds. III. Formation of Binary and Multiple Systems. *Ian Bonnell, Hugo Martel, Pierre Bastien, Jean-Pierre Arcoragi, & Willy Benz.* 377, 553, 146-E5 (1991)

Collisions of Giant Stars with Compact Objects: Hydrodynamical Calculations. *Frederic A. Rasio & Stuart L. Shapiro.* 377, 559, 146-F1 (1991)

Radiative-hydrodynamical Simulations of Accretion Disk Coronae. *Fulvio Melia, Gregory J. Zylstra, & Bruce Fryxell.* 377, L101, 150-E11 (1991)

Reinvestigation of the Binary Frequency in the Open Cluster IC 4665. *Nidia Morrell & Helmut A. Abt.* 378, 157, 153-A1 (1991)

The Unusual X-Ray Pulse Timing of AE Aquarii. *O. C. de Jager.* 378, 286, 154-E1 (1991)

A Cool Supergiant with Anomalous Behavior of the 2800 Mg II Doublet. *G. A. Gurzadyan, Y. Kondo, S. S. Rustambekyan, Yervant Terzian, & Mario R. Perez.* 378, 298, 154-F1 (1991)

First Results from the Faint Object Camera: High-Resolution Observations of the Central Object R136 in the 30 Doradus Nebula. *G. Weigelt, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 378, L21, 157-C7 (1991)

Hydrodynamics of Collisions between Binary Stars. *Jeremy Goodman & Lars Hernquist.* 378, 637, 160-C11 (1991)

The Optical Emission from Oscillating White Dwarf Radiative Shock Waves. *James N. Imamura, Hussain Rashed, & Michael T. Wolff.* 378, 665, 160-F5 (1991)

Spin Evolution and Magnetic Fields in Cataclysmic Variables. *Andrew R. King & Jean-Pierre Lasota.* 378, 674, 160-G1 (1991)

Binaries in a Medium of Fast Low-Mass Objects. *Andrew Gould.* 379, 280, 166-E1 (1991)

Neutron Star and Black Hole Binaries in the Galaxy. *Ramesh Narayan, Tsvi Piran, & Amotz Shemi.* 379, L17, 169-B11 (1991)

Spin-up of the White Dwarf in the Intermediate Polar 3A 0729+103. *Jyoti Singh, P. C. Agrawal, K. M. V. Apparao, P. Vivekananda Rao, & M. B. K. Sarma.* 380, 208, 178-E11 (1991)

The Rate of Neutron Star Binary Mergers in the Universe: Minimal Predictions for Gravity Wave Detectors. *E. S. Phinney.* 380, L17, 181-C6 (1991)

Constraints on the Companion Object to HD 114762. *William D. Cochran, Artie P. Hatzes, & Terry J. Hancock.* 380, L35, 181-E6 (1991)

Simulations of Tidally Driven Eccentric Instabilities with Application to Superhumps. *Stephen H. Lubow.* 381, 268, 192-C9 (1991)

Spectroscopy of Z Camelopardalis in Outburst with the Hopkins Ultraviolet Telescope. *Knox S. Long, William P. Blair, Arthur F. Davidsen, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Richard C. Henry, Gerard A. Kriss, Jeffrey W. Kruk, H. Warren Moos, Olaf Vancura, Henry C. Ferguson, & Randy A. Kimble.* 381, L25, 194-D5 (1991)

Gravitational Radiation from Dual Neutron Star Elliptical Binaries. *Dieter Hils.* 381, 484, 196-F5 (1991)

Wide Binaries in the Woolley Catalog. *Ira Wasserman & Martin D. Weinberg.* 382, 149, 202-A12 (1991)

X-Ray Spectra of Cataclysmic Variables from the *Einstein Observatory*. *Michael Eracleous, Jules Halpern, & Joseph Patterson.* 382, 290, 203-G1 (1991)

High-Speed Multicolor Photometry of V834 Centaurus. *John Middleditch, James N. Imamura, Michael T. Wolff, & Thomas Y. Steiman-Cameron.* 382, 315, 204-B1 (1991)

Deep VLA Images of Globular Clusters. *Helen M. Johnston, Shrinivas R. Kulkarni, & W. M. Goss.* 382, L89, 211-D11 (1991)

The Formation of Primordial Binaries in Globular Clusters by Star-Disk Interactions. *Stephen D. Murray, C. J. Clarke, & J. E. Pringle.* 383, 192, 214-D7 (1991)

Effects of Drag Luminosity in the Common Envelope Phase of Slow Novae. *Mariko Kato & Izumi Hachisu.* 383, 761, 223-F3 (1991)

An Interactive Companion to the S Star HD 35155. *Thomas B. Ake III, Hollis R. Johnson, & Mudhaffer M. Ameen.* 383, 842, 224-F7 (1991)

Subgiant CH Stars. II. Chemical Compositions and the Evolutionary Connection with Barium Stars. *R. Earle Luck & Howard E. Bond.* 77, 515, 51-G1 (1991)

STARS: BINARIES: CLOSE

Low-Mass X-Ray Binary Evolution and the Origin of Millisecond Pulsars. *Juhan Frank, Andrew R. King, & Jean-Pierre Lasota.* 385, L45, 23-C8 (1992)

On the Power Spectra of the Wind-fed X-Ray Binary Pulsar GX 301−2. *Mauro Orlandini & G. E. Morfill.* 386, 703, 34-A9 (1992)

Rare Thermonuclear Explosions in Short-Period Cataclysmic Variables, with Possible Application to the Nova-like Red Variable in the Galaxy M31. *Icko Iben, Jr., & Alexander V. Tutukov.* 389, 369, 64-E1 (1992)

On the Interior Structure of Contact Binaries and the Light-Curve Paradox. *Jean-Louis Tassoul.* 389, 375, 64-E9 (1992)

The X-Ray Outburst from X0115+634 in 1990 February. *Keisuke Tamura, Hiroshi Tsunemi, Shunji Kitamoto, Kiyoshi Hayashida, & Fumiaki Nagase.* 389, 676, 69-G1 (1992)

SIGMA/*GRANAT* Soft Gamma-Ray Observations of the X-Ray Nova in Musca: Discovery of Positron Annihilation Emission Line. *A. Goldwurm, J. Ballet, B. Cordier, J. Paul, L. Bouchet, J. P. Roques, D. Barret, P. Mandrou, R. Sunyaev, E. Churazov, M. Gilfanov, A. Dyachkov, N. Khavenson, V. Kovtunenko, R. Kremnev, & K. Sukhanov.* 389, L79, 73-E6 (1992)

Presupernova Evolution in Massive Interacting Binaries. *Ph. Podsiadlowski, P. C. Joss, & J. J. L. Hsu.* 391, 246, 89-A10 (1992)

Coordinated *Ginga*, *IUE*, and VLA Observations of Stellar Activity in σ^2 Coronae Borealis. *R. A. Stern, Y. Uchida, F. Walter, O. Vilhu, D. Hannikainen, A. Brown, A. Veale, & B. M. Haisch.* 391, 760, 97-D7 (1992)

Superhump Timing in SU Ursae Majoris Systems: Implications of the Data for the Precessing Disk Model. *Lawrence A. Molnar & Henry A. Kobulnicky.* 392, 678, 110-F3 (1992)

The Role of the Dwarf Nova Period Distribution in Understanding the Evolution of Cataclysmic Variables. *Allen W. Schafter.* 394, 268, 131-C12 (1992)

Column Accretion with Radiation Drag and the Two-Branch Spectrum of the Low-Mass X-Ray Binary GX 5−1. *J. H. You, T. Lu, C. Y. Wei, & T. G. Wang.* 394, 283, 131-E1 (1992)

Detectability of the Gravitational Wave Signal from a Close Neutron Star Binary with Mass Transfer. *Piotr Jaranowski & Andrzej Krolak.* 394, 586, 136-F1 (1992)

A Comparative Study of Synchronization and Circularization in Close Binaries. *Jean-Louis Tassoul & Monique Tassoul.* 395, 259, 143-D1 (1992)

Long-Term Variability in Low-Mass X-Ray Binaries: A Study Using Data from *Vela 5B*. *Alan P. Smale & James C. Lochner.* 395, 582, 150-B13 (1992)

Linear Stability Analysis of Spherical Accretion Flows onto Compact Objects. *John C. Houck & Roger A. Chevalier.* 395, 592, 150-D1 (1992)

On the Efficiency of Ekman Pumping for Synchronization in Close Binaries. *Monique Tassoul & Jean-Louis Tassoul.* 395, 604, 150-E5 (1992)

X-Ray Variability of Scorpius X-1 during a Multiwavelength Campaign. *P. Hertz, B. Vaughan, K. S. Wood, J. P. Norris, K. Mitsuda, P. F. Michelson, & T. Dotani.* 396, 201, 157-E12 (1992)

The Radial Velocity of the White Dwarf Giclas 29-38. *C. Barnbaum & B. Zuckerman.* 396, L31, 160-F1 (1992)

Radio Continuum and X-Ray Properties of the Coronae of RS Canum Venaticorum and Related Active Binary Systems. *Stephen A. Drake, Theodore Simon, & Jeffrey L. Linsky.* 82, 311, 53-F5 (1992)

Tidal Heating and Mass Loss in Neutron Star Binaries: Implications for Gamma-Ray Burst Models. *P. Mészáros & M. J. Rees.* 397, 570, 178-A12 (1992)

Coalescing Binary Neutron Stars. *Christopher S. Kochanek.* 398, 234, 184-F7 (1992)

Excitation of Gravity Waves in Common Envelopes. *Noam Soker.* 399, 185, 197-E3 (1992)

Photometric Imaging of VW Cephei. *Paul D. Hendry, Stefan W. Mochnacki, & Andrew Collier Cameron.* 399, 246, 198-C8 (1992)

Populations of Low-Mass Black Hole Binaries. *Roger W. Romani.* 399, 621, 205-F1 (1992)

Explosion of a Supernova with a Red Giant Companion. *E. Livne, Y. Tuchman, & J. C. Wheeler.* 399, 665, 206-B11 (1992)

Evidence for Periodic Modulation of Presupernova Mass Loss from the Progenitor of SN 1979C. *Kurt W. Weiler, Schuyler D. Van Dyk, James E. Pringle, & Nino Panagia.* 399, 672, 206-C5 (1992)

Two Unusual Cataclysmic Variables at High Galactic Latitude: CP Eridani and AL Comae. *Timothy M. C. Abbott, Edward L. Robinson, Gary J. Hill, & Carole A. Haswell.* 399, 680, 206-D1 (1992)

Tidal Interactions of Inspiraling Compact Binaries. *Lars Bildsten & Curt Cutler.* 400, 175, 211-B1 (1992)

Spectroscopy of the Companion and Bow-Shock Nebula of PSR 1957+20. *Thomas L. Aldcroft, Roger W. Romani, & James M. Cordes.* 400, 638, 218-C13 (1992)

Hydrodynamical Evolution of Coalescing Binary Neutron Stars. *Frederic A. Rasio & Stuart L. Shapiro.* 401, 226, 223-G9 (1992)

Dynamics of Eccentric Disks with Application to Superhump Binaries. *Stephen H. Lubow.* 401, 317, 225-A1 (1992)

A Binary Origin for FU Orionis Stars. *Ian Bonnell & Pierre Bastien.* 401, L31, 227-E1 (1992)

EXOSAT Observations of the Be/X-Ray Binary 4U 2206+54. *Priyamvada Saraswat & Krishna M. V. Apparao.* 401, 678, 231-A1 (1992)

EXOSAT Observations of the X-Ray Binary Pulsar 4U 1538−52. *N. R. Robba, G. Cusumano, M. Orlandini, D. Dal Fiume, & F. Frontera.* 401, 685, 231-A10 (1992)

Companions to Bright S and MS Stars: Technetium Deficiency and Binarity. *Hollis R. Johnson, Thomas B. Ake, & Mudhaffer M. Ameen.* 402, 667, 10-G11 (1993)

Survey of Ultra–High-Energy Gamma-Ray Emission in the Magellanic Clouds. *W. H. Allen, I. A. Bond, E. Budding, M. J. Conway, A. Daniel, K. B. Fenton, H. Fujii, Z. Fujii, N. Hayashida, K. Hibino, M. Honda, J. E. Humble, S. Kabe, K. Kasahara, T. Kifune, G. D. Lythe, A. Masaike, Y. Matsubara, K. Mitsui, Y. Miura, M. Mori, Y. Muraki, M. Nagano, T. Nakamura, M. Nishizawa, P. M. Norris, S. Ogio, To. Saito, M. Sakata, H. Sato, H. M. Shimizu, M. Spencer, J. R. Storey, T. Tanimori, M. Teshima, S. Torii, A. Wadsworth, Y. Watase, M. D. Woodhams, Y. Yamamoto, P. C. M. Yock, & T. Yuda (The JANZOS Collaboration).* 403, 239, 16-G10 (1993)

An X-Ray Excited Wind in Centaurus X-3. *C. S. R. Day & Ian R. Stevens.* 403, 322, 17-G9 (1993)

Discovery of the Orbit of the X-Ray Pulsar OAO 1657−415. *Deepto Chakrabarty, John M. Grunsfeld, Thomas A. Prince, Lars Bildsten, Mark H. Finger, Robert B. Wilson, Gerald J. Fishman, Charles A. Meegan, & William S. Paciesas.* 403, L33, 20-D6 (1993)

An Interpretation of the Narrow Positron Annihilation Feature from X-Ray Nova Muscae 1991. *Wan Chen, Neil Gehrels, & F. H. Cheng.* 403, L71, 27-D7 (1993)

Colliding Wind Binary Systems: Monte Carlo Simulations of Line-Profile Variability. *Ian R. Stevens.* 404, 281, 31-D3 (1993)

Binary Structure and Accretion Flow of the New Intermediate Polar H0253+193. *Yuichi Kamata & Katsuji Koyama.* 405, 307, 45-A3 (1993)

The Evolutionary Status of the Pulsar–Be Star Binary PSR 1259−63. *A. R. King.* 405, 727, 52-B5 (1993)

Multiple Hydrogen Flashes on Accreting Low-Mass White Dwarfs: Novae and DAO Stars. *Michael M. Shara, Dina Prialnik, & Attay Kovetz.* 406, 220, 57-G1 (1993)

Hydrodynamic Instability and Coalescence of Close Binary Systems. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 406, L63, 68-D3 (1993)

Nova V2214 Ophiuchi 1988: A Magnetic Nova inside the Period Gap. *R. Baptista, F. J. Jablonski, D. Cieslinski, & J. E. Steiner.* 406, L67, 68-D9 (1993)

Analysis of Contact Binary Systems: AA Ursae Majoris, V752 Centauri, AO Camelopardalis, and V677 Centauri. *F. Barone, L. Di Fiore, L. Milano, & G. Russo.* 407, 237, 72-A9 (1993)

G62-46: An Unresolved Double Degenerate Binary Containing a Magnetic DA Component. *P. Bergeron, María-Teresa Ruiz, & S. K. Leggett.* 407, 733, 79-E13 (1993)

Sigma Hard X-Ray Observations of GX 339−4 during the Hard State and a Transition to the Soft State. *L. Bouchet, E. Jourdain, P. Mandrou, J. P. Roques, Ph. Laurent, F. Lebrun, J. Paul, L. Salotti, R. Sunyaev, E. Churazov, M. Gilfanov, N. Khavenson, A. Diachkov, I. Chulkov, B. Novikov, & A. Kuznetsov.* 407, 739, 79-F7 (1993)

Upper Limits for Gravitational Radiation from Supermassive Coalescing Binaries. *J. D. Anderson, J. W. Armstrong, & E. L. Lau.* 408, 287, 86-F4 (1993)

The Secondary Maxima in Black Hole X-Ray Nova Light Curves: Clues toward a Complete Picture. *Wan Chen, Mario Livio, & Neil Gehrels.* 408, L5, 88-E8 (1993)

Optical and X-Ray Observations of the Low-Mass X-Ray Binary EXO 0748−676. *Brian Thomas, Robin Corbet, Thomas Augusteijn, Paul Callanan, & Alan P. Smale.* 408, 651, 93-C7 (1993)

Hydrodynamics of Winds from Irradiated Companion Stars in Low-Mass X-Ray Binaries. *Marco Tavani & Richard London.* 410, 281, 115-E8 (1993)

The Nature of the Doppler Shift Residuals and Some Peculiar Phenomena of SS 433. *T. Iijima.* 410, 295, 115-F10 (1993)

Flaring and Quiescent Radio Emission of UX Arietis: A Time-dependent Model. *F. Chiuderi Drago & E. Franciosini.* 410, 301, 115-G3 (1993)

A Model of Nonthermal Radiation from Accreting X-Ray Pulsars. *P. P. Leung, K. S. Cheng, & P. C. W. Fung.* 410, 309, 115-G12 (1993)

Discovery of Orbital Decay in SMC X-1. *A. Levine, S. Rappaport, J. E. Deeter, P. E. Boynton, & F. Nagase.* 410, 328, 116-B8 (1993)

Wind-driven Angular Momentum Loss in Binary Systems. I. Ballistic Case. *Leigh Brookshaw & Marco Tavani.* 410, 719, 122-F6 (1993)

Elliptical Polarimetry of the Interacting Binary Star V367 Cygni. *Nicholas M. Elias II.* 410, 785, 123-E1 (1993)

Resolving the Iron K Line in Cygnus X-2: An Observation with BBXRT. *A. P. Smale, C. Done, R. F. Mushotzky, K. A. Weaver, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, E. A. Boldt, J. H. Swank, A. E. Szymkowiak, R. L. Kelley, & K. Arnaud.* 410, 796, 123-F1 (1993)

Discovery of Multiple Low-Luminosity X-Ray Sources in NGC 6397. *Adrienne M. Cool, Jonathan E. Grindlay, Martin Krockenberger, & Charles D. Bailyn.* 410, L103, 126-B11 (1993)

The Discovery of Variable Polarization over the 13.9 Minute Spin Period of the Intermediate Polar RE 0751+14. *V. Piirola, P. Hakala, & G. V. Coyne, S.J.* 410, L107, 126-C3 (1993)

Hard Apex Transition in Quasi-periodic Oscillators: Closing of the Accretion Gap. *Garrett T. Biehle & Roger D. Blandford.* 411, 302, 131-A8 (1993)

Gravitational Radiation, Inspiraling Binaries, and Cosmology. *David F. Chernoff & Lee Samuel Finn.* 411, L5, 133-D8 (1993)

Neutron Star Accretion in a Stellar Envelope. *Roger A. Chevalier.* 411, L33, 134-A7 (1993)

Binary Black Holes in Stationary Orbits and a Test of the Active Galactic Nucleus Paradigm. *Sandip K. Chakrabarti.* 411, 610, 137-C2 (1993)

On the Mass of the Compact Object in the Black Hole Binary A0620−00. *Carole A. Haswell, Edward L. Robinson, Keith Horne, Rae F. Stiening, & Timothy M. C. Abbott.* 411, 802, 139-G1 (1993)

The Optical Counterpart of the Bright Nearby Millisecond Pulsar PSR J0437−4715. *Charles D. Bailyn.* 411, L83, 142-E1 (1993)

A Model of an X-Ray–illuminated Accretion Disk and Corona. *John C. Raymond.* 412, 267, 145-D6 (1993)

CP Puppis: No Ordinary Old Nova. *James C. White II, R. Kent Honeycutt, & Keith Horne.* 412, 278, 145-E6 (1993)

The Effect of Helium Breakup on Two-Temperature Accretion Disks including Cooling Processes. *Cesar Meirelles Filho.* 412, 288, 145-F5 (1993)

Lithium in the Binary Halo Star HD 89499. *Suchitra Balachandran, Bruce W. Carney, Anne M. Fry, Laura K. Fullton, & Ruth C. Peterson.* 413, 368, 160-G7 (1993)

Polarization Variability among Wolf-Rayet Stars. VIII. Emission Lines versus Continuum in WR+O Binaries. *Anthony F. J. Moffat & Vilppu Piirola.* 413, 724, 165-D8 (1993)

A Reprocessing Model for the Ultraviolet and Optical Light from 4U 1820−30. *Jonathan Arons & Ivan R. King.* 413, L121, 169-B4 (1993)

Ellipsoidal Figures of Equilibrium: Compressible Models. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 88, 205, 43-A1 (1993)

The "Type IIb" Supernova 1993J in M81: A Close Relative of Type Ib Supernovae. *Alexei V. Filippenko, Thomas Matheson, & Luis C. Ho.* 415, L103, 200-A8 (1993)

On the Origin of the Eclipsing Pulsar PSR B1718−19 and Its Wind. *R. A. M. J. Wijers & B. Paczyński.* 415, L115, 200-C1 (1993)

On the Interpretation of the Ultraviolet Spectra of Symbiotic Stars and Recurrent Novae. I. *Steven N. Shore & Jason P. Aufdenberg.* 416, 355, 205-D10 (1993)

Abundances in CH Subgiants: Evidence of Mass Transfer onto Main-Sequence Companions. *Verne V. Smith, Howard Coleman, & David L. Lambert.* 417, 287, 221-A13 (1993)

Numerical Simulations of Shock-driven Accretion. *M. Różyczka & H. C. Spruit.* 417, 677, 227-G1 (1993)

Spectrum of the "Invisible" Companion of Z Canis Majoris Revealed in Polarized Light. *Barbara A. Whitney, Geoffrey C. Clayton, Regina E. Schulte-Ladbeck, Nuria Calvet, Lee Hartmann, & Scott J. Kenyon.* 417, 687, 228-A1 (1993)

Angular Momentum Transfer by Tidally Forced Oscillations in Massive Main-Sequence Stars. *Umin Lee.* 417, 697, 228-A13 (1993)

Formation and Evolution of Binary Planetary Nebula Nuclei and Related Objects. *Icko Iben, Jr., & Alexander V. Tutukov.* 418, 343, 235-C12 (1993)

Discovery of a Magnetic/Nonmagnetic Double-degenerate Binary System. *James Liebert, P. Bergeron, Gary D. Schmidt, & Rex A. Saffer.* 418, 426, 236-C10 (1993)

Nova Herculis 1991: Thermonuclear Runaway on a Massive ONeMg White Dwarf. *Thomas Matheson, Alexei V. Filippenko, & Luis C. Ho.* 418, L29, 238-D6 (1993)

Cygnus X-3 in an "Ultrahigh" X-Ray State with No Detected Kα Line Emission. *A. P. Smale, R. F. Mushotzky, E. M. Schlegel, K. A. Weaver, P. J. Serlemitsos, F. E. Marshall, R. Petre, & K. Jahoda.* 418, 894, 243-F7 (1993)

Detection, Identification, and Observed Properties of Large Magellanic Cloud Supersoft X-Ray Sources. *A. P. Cowley, P. C. Schmidtke, J. B. Hutchings, D. Crampton, & T. K. McGrath.* 418, L63, 245-B13 (1993)

On the Formation of O-Ne White Dwarfs in Metal-rich Close Binary Systems. *Inma Dominguez, Amedeo Tornambè, & Jordi Isern.* 419, 268, 249-E1 (1993)

Dynamically Comptonized Spectra from Near-critical Accretion onto Neutron Stars. *Luca Zampieri, Roberto Turolla, & Aldo Treves.* 419, 311, 250-B1 (1993)

The Quasi-periodic Oscillations of VV Puppis. *James N. Imamura, John Middleditch, Jeffrey D. Scargle, Thomas Y. Steiman-Cameron, Laura A. Whitlock, Michael T. Wolff, & Kent S. Wood.* 419, 793, 257-E1 (1993)

Helium Line Emission from Be Stars. *Krishna M. V. Apparao & S. P. Tarafdar.* 420, 803, 12-G12 (1994)

Study of Spectroscopic Binaries with TODCOR. I. A New Two-dimensional Correlation Algorithm to Derive the Radial Velocities of the Two Components. *S. Zucker & T. Mazeh.* 420, 806, 13-A3 (1994)

Hydrodynamic Instability and Coalescence of Binary Neutron Stars. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 420, 811, 13-A10 (1994)

Detection of Rotational Modulation in the Coronal Extreme-Ultraviolet Emission from V711 Tauri? *Jeremy J. Drake, Alex Brown, Robert J. Patterer, Peter W. Vedder, Stuart Bowyer, & Edward F. Guinan.* 421, L43, 22-A10 (1994)

Ca II H and K and Hα Emissions in Chromospherically Active Binary Systems (RS Canum Venaticorum and BY Draconis). *M. J. Fernández-Figueroa, D. Montes, E. De Castro, & M. Cornide.* 90, 433, 8-B6 (1994)

Dynamics of Binary-Disk Interaction. I. Resonances and Disk Gap Sizes. *Paweł Artymowicz & Stephen H. Lubow.* 421, 651, 26-D1 (1994)

X-Ray Spectral Study of Two X-Ray Binaries: 4U 1957+11 and 2S 1543−624. *Kulinder P. Singh, Krishna M. V. Apparao, & Ralph P. Kraft.* 421, 753, 27-E9 (1994)

Double-Core Evolution. V. Three-dimensional Effects in the Merger of a Red Giant with a Dwarf Companion. *James L. Terman, Ronald E. Taam, & Lars Hernquist.* 422, 729, 40-G13 (1994)

Accretion Disk Corona Line Emission from X0614+091. *D. J. Christian, N. E. White, & J. H. Swank.* 422, 791, 41-F6 (1994)

Radio Evidence for Nonthermal Particle Acceleration on Stars of Late Spectral Type. *Kenneth R. Lang.* 90, 753, 13-B5 (1994)

Evidence for Particle Acceleration in a Magnetized White Dwarf from Radio and Gamma-Ray Observations. *O. C. De Jager.* 90, 775, 13-D3 (1994)

Effect of Advected Fields on Accretion Disk Dynamos. *Arun V. Mangalam & K. Subramanian.* 90, 963, 15-G3 (1994)

Predictions of a Population of Cataclysmic Variables in Globular Clusters. *R. Di Stefano & S. Rappaport.* 423, 274, 49-D13 (1994)

Equilibrium, Stability, and Orbital Evolution of Close Binary Systems. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 423, 344, 50-D9 (1994)

SIGMA Hard X-Ray Observations of the Burst Source MXB 1728−34. *A. Claret, A. Goldwurm, B. Cordier, J. Paul, J.-P. Roques, L. Bouchet, M.-C. Schmitz-Fraysse, P. Mandrou, E. Churazov, M. Gilfanov, R. Sunyaev, N. Khavenson, A. Diachkov, B. Novikov, R. Kremnev, & V. Kovtunenko.* 423, 436, 51-E5 (1994)

Generalized Spectral Model for 1–100 keV X-Ray Emission from Cygnus X-3 Based on *EXOSAT* Data. *M. R. Rajeev, V. R. Chitnis, A. R. Rao, & K. P. Singh.* 424, 376, 66-E7 (1994)

Disk-Overflow Accretion in GK Persei? *Coel Hellier & Mario Livio.* 424, L57, 69-G12 (1994)

Close Encounters of the Third-Body Kind. *M. B. Davies, W. Benz, & J. G. Hills.* 424, 870, 75-E8 (1994)

On the Nature of the X-Ray Emission from 1E 1024.0−5732/Wack 2134: The First X-Ray–selected Wolf-Rayet Star. *Sandro Mereghetti, Tomaso Belloni, Michael Shara, & Laurent Drissen.* 424, 943, 76-E1 (1994)

Transition in the X-Ray Light Curve of the AM Herculis System V834 Centauri (E1405−451): 1985–1986 *EXOSAT* Observations. *Rita M. Sambruna, Arvind N. Parmar, Lucio Chiappetti, Laura Maraschi, & Aldo Treves.* 424, 947, 76-E7 (1994)

Time-dependent Disk Accretion in X-Ray Nova Muscae 1991. *Shin Mineshige, Akira Hirano, Shunji Kitamoto, Tatsuya T. Yamada, & Jun Fukue.* 426, 308, 100-A3 (1994)

Simultaneous Soft and Hard X-Ray Spectroscopy of AM Herculis with *EXOSAT*: Discovery of Photospheric Absorption Features. *Frits Paerels, John Heise, & André van Teeseling.* 426, 313, 100-A10 (1994)

Excitation of Neutron Star Normal Modes during Binary Inspiral. *Andreas Reisenegger & Peter Goldreich.* 426, 688, 107-A6 (1994)

Formation and Evolution of Luminous Supersoft X-Ray Sources. *S. Rappaport, R. Di Stefano, & J. D. Smith.* 426, 692, 107-A13 (1994)

Observations of the Bright Novalike Variable IX Velorum with the Hopkins Ultraviolet Telescope. *Knox S. Long, Richard A. Wade, William P. Blair, Arthur F. Davidsen, & Ivan Hubeny.* 426, 704, 107-B13 (1994)

Orbital Variability in the Eclipsing Pulsar Binary PSR B1957+20. *Z. Arzoumanian, A. S. Fruchter, & J. H. Taylor.* 426, L85, 109-E6 (1994)

Three-dimensional Hydrodynamic Bondi-Hoyle Accretion. I. Code Validation and Stationary Accretors. *Maximilian Ruffert.* 427, 342, 114-B7 (1994)

Three-dimensional Hydrodynamic Bondi-Hoyle Accretion. II. Homogeneous Medium at Mach 3 with $\gamma = 5/3$. *Maximilian Ruffert & David Arnett.* 427, 351, 114-C3 (1994)

The Post-Keplerian Orbital Representations of the Relativistic Two-Body Problem. *S. A. Klioner & S. M. Kopeikin.* 427, 951, 124-D10 (1994)

Star Spots and the Period Gap in Cataclysmic Variables. *M. Livio & J. E. Pringle.* 427, 956, 124-E2 (1994)

Detection of X-Ray Emission from the PSR 1259−63/SS 2883 Binary System. *Lynn Cominsky, Mallory Roberts, & Simon Johnston.* 427, 978, 124-G2 (1994)

Is There a Planet in the PSR 1620−26 Triple System? *Frederic A. Rasio.* 427, L107, 127-C11 (1994)

High-Precision Timing of Millisecond Pulsars. III. Long-Term Monitoring of PSRs B1855+09 and B1937+21. *V. M. Kaspi, J. H. Taylor, & M. F. Ryba.* 428, 713, 139-B9 (1994)

Variable Soft X-Ray Absorption and Excess of Vela X-1. *H. C. Pan, P. Kretschmar, G. K. Skinner, E. Kendziorra, R. A. Sunyaev, & K. N. Borozdin.* 92, 448, 37-F11 (1994)

Compton Reflection in Scorpius X-1 and Cygnus X-3? *Michael Maisack, Eckhard Kendziorra, Hongchao Pan, Gerry Skinner, Jakob Englhauser, Claus Reppin, Valeri Efremov, & Rashid Sunyaev.* 92, 473, 38-B7 (1994)

Ionization Structure of Cygnus X-3: A Massive Iron-depleted Companion? *Nobuo Terasawa & Hiroshi Nakamura.* 92, 477, 38-B13 (1994)

The Orbital Evolution of Highly Eccentric Binaries. *Itzhak Goldman & Tsevi Mazeh.* 429, 362, 148-E7 (1994)

10 Micron Detection of the Hard X-Ray Transient GRO J0422+32: Free-Free Emission from an X-Ray–driven Accretion Disk Wind? *J. van Paradijs, C. M. Telesco, C. Kouveliotou, & G. J. Fishman.* 429, L19, 150-C10 (1994)

ROSAT Observations of the Black Hole Candidate V404 Cygni in Quiescence. *R. Mark Wagner, S. G. Starrfield, R. M. Hjellming, S. B. Howell, & T. J. Kreidl.* 429, L25, 150-D3 (1994)

Cataclysmic Binaries in Star Clusters. I. A Search for Erupting Dwarf Novae in the Globular Cluster M92. *Michael M. Shara, Louis E. Bergeron, & Anthony F. J. Moffat.* 429, 767, 155-C1 (1994)

The Mass of the Companion of PSR 1718−19. *L. Burderi & A. R. King.* 430, L57, 166-A4 (1994)

Ionization Nebulae Surrounding Supersoft X-Ray Sources. *S. Rappaport, E. Chiang, T. Kallman, & R. Malina.* 431, 237, 179-B1 (1994)

Double Core Evolution. VI. Effects of Gravitational Torques. *Ronald E. Taam, Peter Bodenheimer, & Michał Różyczka.* 431, 247, 179-B13 (1994)

Gravitational Radiation from Pairs of Realistic, Nonaccreting Compact Stars. *N. K. Spyrou & K. D. Kokkotas.* 431, 254, 179-C8 (1994)

Helium-accreting Degenerate Dwarfs as Presupernovae and Scenarios for the Ultrasoft X-Ray Sources. *Icko Iben, Jr., & A. V. Tutukov.* 431, 264, 179-D6 (1994)

Emission Lines from X-Ray–heated Accretion Disks in Low-Mass X-Ray Binaries. *Yuan-Kuen Ko & Timothy R. Kallman.* 431, 273, 179-E4 (1994)

Oscillations of Red Dwarfs in Evolved Low-Mass Binaries with Neutron Stars. *Marek J. Sarna, Umin Lee, & Alexander G. Muslimov.* 431, 302, 179-G8 (1994)

The Photometric Period of V1974 Cygni (Nova Cygni 1992). *James A. DeYoung & Richard E. Schmidt.* 431, L47, 183-A3 (1994)

Merging Neutron Stars. I. Initial Results for Coalescence of Noncorotating Systems. *M. B. Davies, W. Benz, T. Piran, & F. K. Thielemann.* 431, 742, 187-G1 (1994)

Spectral Variations in the Low-Mass X-Ray Binary 4U 0614+09. *K. P. Singh & K. M. V. Apparao.* 431, 826, 189-A1 (1994)

An Atlas of Doppler Emission-Line Tomography of Cataclysmic Variable Stars. *Ronald H. Kaitchuck, Eric M. Schlegel, R. Kent Honeycutt, Keith Horne, T. R. Marsh, J. C. White II, & Cathy S. Mansperger.* 93, 519, 49-G3 (1994)

Impact-driven Eccentricity in Accretion Disks. *Stephen H. Lubow.* 432, 224, 196-A6 (1994)

Orbital Elements of PSR B1620−26. *F. Curtis Michel.* 432, 239, 196-B11 (1994)

Hydrodynamics of Binary Coalescence. I. Polytropes with Stiff Equations of State. *Frederic A. Rasio & Stuart L. Shapiro.* 432, 242, 196-C2 (1994)

Stellar Occultation of Polarized Light from Circumstellar Electrons. IV. Detached Binary Systems. *G. K. Fox.* 432, 262, 196-D10 (1994)

Accretion Rates in X-Ray Bursting Sources. *Iosif Lapidus, Luciano Nobili, & Roberto Turolla.* 433, 287, 211-G11 (1994)

Discovery of a New White Dwarf in a Binary System (EUVE 0720−317) in the *Extreme Ultraviolet Explorer* Survey and Implications for the Late Stages of Stellar Evolution. *Stéphane Vennes & John R. Thorstensen.* 433, L29, 214-G13 (1994)

Orbital Evolution of a Massive Black Hole Pair by Dynamical Friction. *Alberto Vecchio, Monica Colpi, & Alexander G. Polnarev.* 433, 733, 220-B13 (1994)

The Thermal Relaxation Oscillation States of Contact Binaries. *Jian-Min Wang.* 434, 277, 229-C4 (1994)

Episodic Mass Transfer in Binaries with X-Ray Heating. *A. Harpaz & S. Rappaport.* 434, 283, 229-C13 (1994)

Searches for Millisecond Pulsations in Low-Mass X-Ray Binaries. II. *B. A. Vaughan, M. van der Klis, K. S. Wood, J. P. Norris, P. Hertz, P. F. Michelson, J. van Paradijs, W. H. G. Lewin, K. Mitsuda, & W. Penninx.* 435, 362, 248-D1 (1994)

Normalized Power Spectral Densities of Two X-Ray Components from GS 1124−683. *Sigenori Miyamoto, Shunji Kitamoto, Sayuri Iga, Kiyoshi Hayashida, & Kentaro Terada.* 435, 398, 248-G10 (1994)

X-Ray Emission of the Pulsar–Be Star Binary PSR 1259−63. *Andrew King & Lynn Cominsky.* 435, 411, 249-B3 (1994)

Dripping Handrails and the Quasi-periodic Oscillations of the AM Herculis Objects. *Thomas Y. Steiman-Cameron, Karl Young, Jeffrey D. Scargle, James P. Crutchfield, James N. Imamura, Michael T. Wolff, & Kent S. Wood.* 435, 775, 256-F10 (1994)

The Shape of FK Comae Berenices: Evidence for a Recently Coalesced Binary. *Alan D. Welty & Lawrence W. Ramsey.* 435, 848, 257-F13 (1994)

Simulation of Interactions of an Orbiting Compact Star with an Accretion Disk by Smoothed Particle Hydrodynamics. *Diego Molteni, G. Gerardi, & Sandip K. Chakrabarti.* 436, 249, 264-F1 (1994)

On the Effects of Tidal Interaction on Thin Accretion Disks: An Analytic Study. *R. Dgani, M. Livio, & O. Regev.* 436, 270, 265-A6 (1994)

Resonantly Driven Nonlinear Density Waves in Protostellar Disks. *Chi Yuan & Pat Cassen.* 437, 338, 287-G6 (1994)

Hydrodynamics of Rotating Stars and Close Binary Interactions: Compressible Ellipsoid Models. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 437, 742, 295-G13 (1994)

Observations of the Small Magellanic Cloud by the *Vela 5B* X-Ray Monitor. *L. Whitlock & James C. Lochner.* 437, 841, 297-B7 (1994)

Theoretical Light Curves for the Type Ic Supernova SN 1994I. *Kohichi Iwamoto, Ken'ichi Nomoto, Peter Höflich, Hitoshi Yamaoka, Shiomi Kumagai, & Toshikazu Shigeyama.* 437, L115, 299-C8 (1994)

Hydrodynamics of Binary Coalescence. II. Polytropes with $\Gamma = 5/3$. *Frederic A. Rasio & Stuart L. Shapiro.* 438, 887, 16-D1 (1995)

The Soft X-Ray Turnoff of Nova Muscae 1983. *L. Shanley, H. Ögelman, J. S. Gallagher, M. Orio, & J. Krautter.* 438, L95, 20-A8 (1995)

Doppler Tomography of the Gas Stream in Short-Period Algol Binaries. *Mercedes T. Richards, Geary E. Albright, & Larissa M. Bowles.* 438, L103, 20-B8 (1995)

Tremendous Outburst Amplitude Dwarf Novae. *Steve B. Howell, Paula Szkody, & John K. Cannizzo.* 439, 337, 25-G3 (1995)

RY Scuti: Infrared and Radio Observations of the Mass-Loss Wind of a Massive Binary Star System. *R. D. Gehrz, T. L. Hayward, J. R. Houck, J. W. Miles, R. M. Hjellming, T. J. Jones, Charles E. Woodward, Ricarda Prentice, W. J. Forrest, S. Libonate, & S. Solomon.* 439, 417, 26-G11 (1995)

The Orbital Light Curve of PSR 1957+20. *Paul J. Callanan, Jan van Paradijs, & Roeland Rengelink.* 439, 928, 37-D4 (1995)

Four New Millisecond Pulsars in the Galactic Disk. *D. R. Lorimer, L. Nicastro, A. G. Lyne, M. Bailes, R. N. Manchester, S. Johnston, J. F. Bell, N. D'Amico, & P. A. Harrison.* 439, 933, 37-D13 (1995)

Neutron Star Accretion and Binary Pulsar Formation. *G. E. Brown.* 440, 270, 44-G12 (1995)

High-Mass X-Ray Binary Populations. I. Galactic Modeling. *William W. Dalton & Craig L. Sarazin.* 440, 280, 45-A11 (1995)

ORFEUS Observations of AM Herculis. *John C. Raymond, Christopher W. Mauche, Stuart Bowyer, & Mark Hurwitz.* 440, 331, 45-F7 (1995)

Composite Spectra in Young Stars: Accretion or Close Companions? *Chris D. Koresko.* 440, 764, 53-F1 (1995)

Hα Profiles of 25 Chromospherically Active Binaries. *Zeki Eker, Douglas S. Hall, & Christopher M. Anderson.* 96, 581, 9-F9 (1995)

PSR J2019+2425 and PSR J2322+2057 and the Proper Motions of Millisecond Pulsars. *D. J. Nice & J. H. Taylor.* 441, 429, 65-C7 (1995)

X-Ray Emission from the PSR B1259−63 System near Apastron. *J. Greiner, M. Tavani, & T. Belloni.* 441, L43, 67-B9 (1995)

Cataclysmic and Close Binaries in Star Clusters. II. Probing the Core of NGC 6752 with *Hubble Space Telescope*. *Michael M. Shara, Laurent Drissen, Louis E. Bergeron, & Francesco Paresce.* 441, 617, 70-E10 (1995)

On the Nature of the Binary Radio Pulsar PSR B0042−73 in the Small Magellanic Cloud. *V. M. Lipunov, K. A. Postnov, & M. E. Prokhorov.* 441, 776, 72-F1 (1995)

Accretion Disk Boundary Layers in Cataclysmic Variables. I. Optically Thick Boundary Layers. *Robert Popham & Ramesh Narayan.* 442, 337, 81-F10 (1995)

The Dim Inner Accretion Disk of the Quiescent Black Hole A0620−00. *Jeffrey E. McClintock, Keith Horne, & Ronald A. Remillard.* 442, 358, 82-A6 (1995)

The Transition Regions of Capella. *Jeffrey L. Linsky, Brian E. Wood, Philip Judge, Alexander Brown, Catherine Andrulis, & Thomas R. Ayres.* 442, 381, 82-C9 (1995)

Large Hysteretic Behavior of Stellar Black Hole Candidate X-Ray Binaries. *Sigenori Miyamoto, Shunji Kitamoto, Kiyoshi Hayashida, & Wataru Egoshi.* 442, L13, 84-F1 (1995)

Discovery of a Transient MeV Range Gamma-Ray Source. *M. S. Briggs, D. E. Gruber, J. L. Matteson, & L. E. Peterson.* 442, 638, 88-F9 (1995)

A Reanalysis of the SWP-HI *IUE* Observations of Capella. *Brian E. Wood & Thomas R. Ayres.* 443, 329, 99-F7 (1995)

Hydrodynamics of Coalescing Binary Neutron Stars: Ellipsoidal Treatment. *Dong Lai & Stuart L. Shapiro.* 443, 705, 107-E12 (1995)

The Spectrum and Pulses of 1E 2259+586 from *ASCA* and BBXRT Observations. *R. H. D. Corbet, A. P. Smale, M. Ozaki, K. Koyama, & K. Iwasawa.* 443, 786, 108-F3 (1995)

Starspot Evolution, Differential Rotation, and Magnetic Cycles in the Chromospherically Active Binaries λ Andromedae, σ Geminorum, II Pegasi, and V711 Tauri. *Gregory W. Henry, Joel A. Eaton, Jamesia Hamer, & Douglas S. Hall.* 97, 513, 19-C6 (1995)

On Orbital Circularization in Late-Type Close Binaries. *Jean-Louis Tassoul.* 444, 338, 118-B8 (1995)

Mass Transfer Cycles in Cataclysmic Variables. *A. R. King, J. Frank, U. Kolb, & H. Ritter.* 444, L37, 121-F7 (1995)

The Minimum Mass Ratio of W Ursae Majoris Binaries. *Frederic A. Rasio.* 444, L41, 121-G1 (1995)

Detection of Shocked Molecular Hydrogen in Infrared Companions to T Tauri Stars: Evidence for Ongoing Accretion. *T. M. Herbst, C. D. Koresko, & Christoph Leinert.* 444, L93, 130-F13 (1995)

Detection of a Very Low Mass Companion to the Astrometric Binary Gliese 105A. *D. A. Golimowski, T. Nakajima, S. R. Kulkarni, & B. R. Oppenheimer.* 444, L101, 131-A1 (1995)

Double Core Evolution. VII. The Infall of a Neutron Star through the Envelope of Its Massive Star Companion. *James L. Terman, Ronald E. Taam, & Lars Hernquist.* 445, 367, 137-E9 (1995)

Gradual Approach to Coalescence for Compact Stars Orbiting Massive Black Holes. *Dieter Hils & Peter L. Bender.* 445, L7, 140-B10 (1995)

An Extended Grid of Multicycle Nova Evolution Models. *Dina Prialnik & Attay Kovetz.* 445, 789, 146-B3 (1995)

Extreme Ultraviolet Light Curves of UZ Fornacis: Evidence for Accretion Stream Absorption and Vertical Extent of the Accretion Spot. *John K. Warren, Martin M. Sirk, & John V. Vallerga.* 445, 909, 147-F13 (1995)

Extreme Ultraviolet Spectroscopy and Photometry of VV Puppis during a High Accretion State. *Stéphane Vennes, Paula Szkody, Edward M. Sion, & Knox S. Long.* 445, 921, 148-A1 (1995)

The Unusual Helium Variable AM Canum Venaticorum. *J. L. Provencal, D. E. Winget, R. E. Nather, E. L. Robinson, J.-E. Solheim, J. C. Clemens, P. A. Bradley, S. J. Kleinman, A. Kanaan, C. F. Claver, C. J. Hansen, T. M. K. Marar, S. Seetha, B. N. Ashoka, E. M. Leibowitz, E. G. Meištas, A. Bruvold, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, A. E. Sansom, R. W. Tweedy, G. Fontaine, P. Bergeron, S. O. Kepler, M. A. Wood, & A. D. Grauer.* 445, 927, 148-A11 (1995)

The Orbital Eccentricities of Binary Millisecond Pulsars in Globular Clusters. *Frederic A. Rasio & Douglas C. Heggie.* 445, L133, 151-E9 (1995)

W Ursae Majoris–Type Systems Discovered in the Central Baade's Window in the OGLE Experiment. *Slavek M. Rucinski.* 446, L19, 160-D6 (1995)

Sudden Luminous Blue Variable–Like Behavior of the Wolf-Rayet Binary System HD 5980 in the Small Magellanic Cloud. *Rodolfo H. Barbá, Virpi S. Niemela, Gustavo Baume, & R. A. Vazquez.* 446, L23, 160-D13 (1995)

The Galactic Distribution of Low-Mass X-Ray Binaries. *J. van Paradijs & N. White.* 447, L33, 181-A3 (1995)

VLBI Observations of Cygnus X-3 during the 1985 October Radio Outburst. *C. J. Schalinski, K. J. Johnston, A. Witzel, R. E. Spencer, R. Fiedler, E. Waltman, G. G. Pooley, R. Hjellming, & L. A. Molnar.* 447, 752, 186-D1 (1995)

Type Ia Supernova Scenarios and the Hubble Sequence. *P. Ruiz-Lapuente, A. Burkert, & R. Canal.* 447, L69, 190-C1 (1995)

Discrete Mass Loss in a Low-Mass Binary with a Rapidly Spinning Neutron Star. *Alexander Muslimov & Marek J. Sarna.* 448, 289, 196-B12 (1995)

Binary Models for the Solar Neighborhood and Magellanic Cloud W-R Populations. *William W. Dalton & Craig L. Sarazin.* 448, 369, 197-C6 (1995)

Taking the Pulse of DQ Herculis. *Phillip J. Martell, Keith Horne, Christopher M. Price, & Richard H. Gomer.* 448, 380, 197-D6 (1995)

ROSAT All-Sky Survey Observations of the Hyades Cluster. *Robert A. Stern, Jürgen H. M. M. Schmitt, & Peter T. Kahabka.* 448, 683, 204-B12 (1995)

Numerical Techniques for Three-dimensional Smoothed Particle Hydrodynamics Simulations: Applications to Accretion Disks. *James C. Simpson.* 448, 822, 206-C1 (1995)

Tidal Excitation of Modes in Binary Systems with Applications to Binary Pulsars. *Pawan Kumar, Chi On Ao, & Eliot J. Quataert.* 449, 294, 214-B10 (1995)

Phase-resolved *IUE* and Optical Observations of the Polar BY Camelopardalis. *D. B. Zucker, J. C. Raymond, A. Silber, P. Mason, S. Curiel, S. Vrtilek, & E. Schlegel.* 449, 310, 214-D1 (1995)

Neon Line Emission in the X-Ray Spectrum of the Pulsar 4U 1626−67. *L. Angelini, N. E. White, F. Nagase, T. R. Kallman, A. Yoshida, T. Takeshima, C. Becker, & F. Paerels.* 449, L41, 216-F3 (1995)

ROSAT Observation of the Old Classical Nova CP Puppis. *Şölen Balman, Marina Orio, & Hakki Ögelman.* 449, L47, 216-F11 (1995)

The Type Ic Supernova 1994I in M51: Detection of Helium and Spectral Evolution. *Alexei V. Filippenko, Aaron J. Barth, Thomas Matheson, Lee Armus, Michael Brown, Brian R. Espey, Xiao-Ming Fan, Robert W. Goodrich, Luis C. Ho, Vesa T. Junkkarinen, David C. Koo, Matthew D. Lehnert, André R. Martel, Joseph M. Mazzarella, Joseph S. Miller, Graeme H. Smith, David Tytler, & Gregory D. Wirth.* 450, L11, 235-E3 (1995)

Luminous Supersoft X-Ray Sources and the Planetary Nebula Luminosity Function. *R. Di Stefano, F. Paerels, & S. Rappaport.* 450, 705, 240-D10 (1995)

The Role of Chaos in the Circularization of Tidal Capture Binaries. I. The Chaos Boundary. *Rosemary A. Mardling.* 450, 722, 240-F7 (1995)

The Role of Chaos in the Circularization of Tidal Capture Binaries. II. Long-Time Evolution. *Rosemary A. Mardling.* 450, 732, 240-G6 (1995)

Burstlike Events in the Z Source Cygnus X-2. *E. Kuulkers, M. van der Klis, & J. van Paradijs.* 450, 748, 241-A11 (1995)

Double Core Evolution. VIII. The Spiral-in of a Main-Sequence Star through the Envelope of an Asymptotic Giant Branch Companion. *Harold W. Yorke, Peter Bodenheimer, & Ronald E. Taam.* 451, 308, 250-B8 (1995)

A Model of the Galactic X-Ray Binary Population. I. High-Mass X-Ray Binaries. *Icko Iben, Jr., Alexander V. Tutukov, & Lev R. Yungelson.* 100, 217, 49-B1 (1995)

The Evolution of Accretion Disks with Coronae: A Model for the Low-Frequency Quasi-periodic Oscillations in X-Ray Binaries. *Marek A. Abramowicz, Xingming Chen, & Ronald E. Taam.* 452, 379, 267-C11 (1995)

Spin-Orbit Interactions in Neutron Star/Main-Sequence Binaries and Implications for Pulsar Timing. *Dong Lai, Lars Bildsten, & Victoria M. Kaspi.* 452, 819, 276-A1 (1995)

Hubble Space Telescope Observations of the Very Low Mass Companion to Gliese 105A. *David A. Golimowski, William G. Fastie, Daniel J. Schroeder, & Alan Uomoto.* 452, L125, 280-C1 (1995)

Periodic Outbursts from the Ultrasoft X-Ray Transient 4U 1630−47. *A. N. Parmar, L. Angelini, & N. E. White.* 452, L129, 280-C10 (1995)

Spin-down of Neutron Stars in Massive Radio Pulsar Binaries: The Periastron Passage of PSR B1259−63. *Pranab Ghosh.* 453, 411, 286-F13 (1995)

A Millisecond Pulsar in a 6 Hour Orbit: PSR J0751+1807. *S. C. Lundgren, A. F. Zepka, & J. M. Cordes.* 453, 419, 286-G10 (1995)

Properties of the Exceptionally Long-Period AM Herculis System RX J0515.41+0104.6. *J. Frank, J.-P. Lasota, & G. Chanmugam.* 453, 446, 287-C1 (1995)

Two X-Ray Sources in 30 Doradus: Wolf-Rayet + Black Hole Binaries? *Q. Daniel Wang.* 453, 783, 294-F9 (1995)

Lithium in Short-Period Tidally Locked Binaries: A Test of Rotationally Induced Mixing. *Sean G. Ryan & Constantine P. Deliyannis.* 453, 819, 295-B12 (1995)

New Features of the X-Ray Dip Source 1755−338. *Kwang-Il Seon, Kyoung-Wook Min, Kenji Yoshida, Fumiyoshi Makino, Michiel van der Klis, Jan van Paradijs, & Walter H. G. Lewin.* 454, 463, 305-F3 (1995)

Hopkins Ultraviolet Telescope Observations of U Geminorum Far from Outburst. *Knox S. Long, William P. Blair, & John C. Raymond.* 454, L39, 308-A8 (1995)

Evolution of the Double Neutron Star Merging Rate and the Cosmological Origin of Gamma-Ray Burst Sources. *V. M. Lipunov, K. A. Postnov, M. E. Prokhorov, I. E. Panchenko, & H. E. Jørgensen.* 454, 593, 309-F3 (1995)

Radiation Hydrodynamic Models of Eclipsing Low-Mass X-Ray Binaries. *Stephen D. Murray, D. Tod Woods, John I. Castor, Richard I. Klein, & Christopher F. McKee.* 454, L133, 316-D2 (1995)

A Spin-down Variation in the 6 Second X-Ray Pulsar 1E 1048.1−5937. *Sandro Mereghetti.* 455, 598, 330-B6 (1995)

The Iron L/K Emission-Line Ratio in Photoionized Gases. *T. R. Kallman.* 455, 603, 330-C1 (1995)

The Mass of the Probable Black Hole in the X-Ray Nova GRO J0422+32. *Alexei V. Filippenko, Thomas Matheson, & Luis C. Ho.* 455, 614, 330-D1 (1995)

A Black Hole in the X-Ray Nova GS 2000+25. *Alexei V. Filippenko, Thomas Matheson, & Aaron J. Barth.* 455, L139, 334-A4 (1995)

STARS: BINARIES: ECLIPSING

The Continuum Eclipse of PSR 1957+20. *A. S. Fruchter & W. M. Goss.* 384, L47, 11-C9 (1992)

Eclipse Studies of the Dwarf Nova HT Cassiopeiae. II. White Dwarf and Accretion Disk. *Janet H. Wood, Keith Horne, & Stephane Vennes.* 385, 294, 15-E6 (1992)

A Mechanism for Orbital Period Modulation in Close Binaries. *James H. Applegate.* 385, 621, 20-G4 (1992)

The Presence of an Accretion Disk in the Eclipsing Binary System Nova Herculis 1991 Three Weeks after Outburst. *Elia M. Leibowitz, Haim Mendelson, Ezra Mashal, Dina Prialnik, & Waltraut C. Seitter.* 385, L49, 23-D1 (1992)

Consequences of the Star-Stream Interaction in Algol. *Mercedes T. Richards.* 387, 329, 41-A12 (1992)

Properties of the Massive X-Ray Binary 4U 1700−37 = HD 153919. *S. R. Heap & M. F. Corcoran.* 387, 340, 41-B11 (1992)

PSR 1259−63: A Binary Radio Pulsar with a Be Star Companion. *Simon Johnston, R. N. Manchester, A. G. Lyne, M. Bailes, V. M. Kaspi, Qiao Guojun, & N. D'Amico.* 387, L37, 43-E1 (1992)

Secondaries of Eclipsing Binaries. VII. The Spectroscopic Triple and Visual Double V505 Sagittarii. *Jocelyn Tomkin.* 387, 631, 46-E1 (1992)

Orbital Angular Momentum Loss in PSR 1957+20. *Menashe Banit & Jacob Shaham.* 388, L19, 52-B11 (1992)

The Eclipsing Binary Al Phoenicis: New Results Based on an Improved Light Curve Analysis Program. *E. F. Milone, C. R. Stagg, & R. L. Kurucz.* 79, 123, 14-E11 (1992)

The GDDSYN Light Curve Synthesis Method. *Paul D. Hendry & Stefan W. Mochnacki.* 388, 603, 57-F7 (1992)

Modeling of the Eclipsing Binaries in the Globular Cluster NGC 5466. *J. Kallrath, E. F. Milone, & C. R. Stagg.* 389, 590, 68-G1 (1992)

X-Ray Scattering and Fluorescence in the Wind of a Massive X-Ray Binary. *W. Lewis, S. Rappaport, A. Levine, & F. Nagase.* 389, 665, 69-F3 (1992)

Eclipse Maps of the Accretion Disk in the Classical Nova V Persei. *Janet H. Wood, Timothy M. C. Abbott, & Allen W. Shafter.* 393, 729, 124-G10 (1992)

Ginga Observations of Centaurus X-3. *F. Nagase, R. H. D. Corbet, C. S. R. Day, H. Inoue, T. Takeshima, K. Yoshida, & T. Mihara.* 396, 147, 157-A3 (1992)

Pulsar PSR 1744−24A: Timing, Eclipses, and the Evolution of Neutron Star Binaries. *D. J. Nice & S. E. Thorsett.* 397, 249, 171-A12 (1992)

Ginga Observations of X-Ray Flares on Algol. *R. A. Stern, Y. Uchida, S. Tsuneta, & F. Nagase.* 400, 321, 212-G13 (1992)

Ginga Observations of the Dipping Low-Mass X-Ray Binaries XB 1916−053 and EXO 0748−676. *Alan P. Smale, Koji Mukai, O. Rees Williams, Mark H. Jones, & Robin H. D. Corbet.* 400, 330, 213-A10 (1992)

Spectroscopy of the Companion and Bow-Shock Nebula of PSR 1957+20. *Thomas L. Aldcroft, Roger W. Romani, & James M. Cordes.* 400, 638, 218-C13 (1992)

The Infrared Counterpart of the Eclipsing X-Ray Binary H0253+193. *B. Zuckerman, E. E. Becklin, I. S. McLean, & Joseph Patterson.* 400, 665, 218-F7 (1992)

AE Aquarii: An Emitter of Pulsed TeV Gamma Rays Resembling Optical Emission during Flares. *P. J. Meintjes, B. C. Raubenheimer, O. C. de Jager, C. Brink, H. I. Nel, A. R. North, G. van Urk, & B. Visser.* 401, 325, 225-A11 (1992)

High-Energy Emission from the Eclipsing Millisecond Pulsar PSR 1957+20. *Jonathan Arons & Marco Tavani.* 403, 249, 17-A8 (1993)

Discovery of the Orbit of the X-Ray Pulsar OAO 1657−415. *Deepto Chakrabarty, John M. Grunsfeld, Thomas A. Prince, Lars Bildsten, Mark H. Finger, Robert B. Wilson, Gerald J. Fishman, Charles A. Meegan, & William S. Paciesas.* 403, L33, 20-D6 (1993)

A Spectroscopic Study of DV Ursae Majoris (US 943), AY Piscium (PG 0134+070), and V503 Cygni. *Paula Szkody & Steve B. Howell.* 403, 743, 25-A6 (1993)

On the Chromospheric Structure of ζ Aurigae. *Joel A. Eaton.* 404, 305, 31-F1 (1993)

Main-Sequence G and K Stellar Masses. *Daniel M. Popper.* 404, L67, 40-E6 (1993)

A Spectroscopic Study of the Short-Period Eclipsing Wolf-Rayet Binary CX Cephei (WN5+O5 V). *David Lewis, Anthony F. J. Moffat, Jaymie M. Matthews, Carmelle Robert, & Sergey V. Marchenko.* 405, 312, 45-A11 (1993)

Spectroscopic Observations of the Detached Binary PG 1413+015. *Michael S. Fulbright, James Liebert, P. Bergeron, & Richard Green.* 406, 240, 58-A11 (1993)

Nonlinear Plasma Mechanisms of Pulsar Eclipse in Binary Systems. *M. Gedalin & D. Eichler.* 406, 629, 65-F4 (1993)

Some Implications of PSR 1259−63. *Christopher S. Kochanek.* 406, 638, 65-G1 (1993)

Analysis of Contact Binary Systems: AA Ursae Majoris, V752 Centauri, AO Camelopardalis, and V677 Centauri. *F. Barone, L. Di Fiore, L. Milano, & G. Russo.* 407, 237, 72-A9 (1993)

The Discovery of Pulsed Iron Line Emission from Centaurus X-3. *C. S. R. Day, F. Nagase, K. Asai, & T. Takeshima.* 408, 656, 93-D1 (1993)

Circumstellar Material in Algol: A Study of the Balmer Line Profiles. *Mercedes T. Richards.* 86, 255, 17-D3 (1993)

Polarization Eclipse Model of the Wolf-Rayet Binary V444 Cygni with Constraints on the Stellar Radii and an Estimate of the Wolf-Rayet Mass-Loss Rate. *N. St-Louis, A. F. J. Moffat, L. Lapointe, Yu. S. Efimov, N. M. Shakhovskoy, G. K. Fox, & V. Piirola.* 410, 342, 116-C10 (1993)

Hubble Space Telescope Spectra of the Phase-modulated Wind in the SMC O+WR Binary R31. *J. B. Hutchings, L. Bianchi, & S. C. Morris.* 410, 803, 123-F10 (1993)

VLBI Astrometric Identification of the Radio-emitting Region in Algol and Determination of the Orientation of the Close Binary. *Jean-François Lestrade, Robert B. Phillips, Mark W. Hodges, & Robert A. Preston.* 410, 808, 123-G1 (1993)

The Optical Light Curve of Nova Herculis 1991 and of Other Classical Novae. *Elia M. Leibowitz.* 411, L29, 134-A1 (1993)

Hidden Slow Pulsars in Binaries. *Marco Tavani & Leigh Brookshaw.* 413, L39, 162-F3 (1993)

Quantitative Modeling and Impersonal Fitting of Algol Polarization Curves. *R. E. Wilson & Jer-Chyi Liou.* 413, 670, 164-G1 (1993)

A Study of the Spatial and Spectral Characteristics of the Corona of AR Lacertae. *R. Ottmann, J. H. M. M. Schmitt, & M. Kürster.* 413, 710, 165-C6 (1993)

Circumstellar Material in TX Ursae Majoris. *Geary E. Albright & Mercedes T. Richards.* 414, 830, 181-E6 (1993)

Ultraviolet Observations of Selective Wind Eclipses in γ Velorum and Evidence for Colliding Winds. *N. St-Louis, A. J. Willis, & I. R. Stevens.* 415, 298, 188-F8 (1993)

Evidence of Magnetic Activity in Short-Period Algol Binaries. *Mercedes T. Richards & Geary E. Albright.* 88, 199, 42-G7 (1993)

Accurate Period Determination of an Eclipsing Binary X-Ray Source in M33. *Eric Schulman, Joel N. Bregman, Alfonso Collura, Fabio Reale, & Giovanni Peres.* 418, L67, 245-C6 (1993)

The Masses of V838 Herculis (Nova Herculis 1991) and QZ Aurigae. *Paula Szkody & Doug Ingram.* 420, 830, 13-C3 (1994)

Two Very Luminous Variable X-Ray Sources in M82. *A. Collura, Fabio Reale, Eric Schulman, & Joel N. Bregman.* 420, L63, 15-C6 (1994)

Long-Term Starspot Activity of Short-Period RS Canum Venaticorum Stars. V. CG Cygni. *M. Zeilik, S. Gordon, E. Jaderlund, M. Ledlow, D. L. Summers, P. A. Heckert, E. Budding, & T. S. Banks.* 421, 303, 19-F8 (1994)

Analysis of the *IUE* Satellite and the Ground-based Observations of SW Lacertae. *Jang Hae Jeong, Yong Woon Kang, Woo Baik Lee, & Eon Chang Sung.* 421, 779, 27-G13 (1994)

Ultraviolet Light Curves of β Lyrae: Comparison of *OAO* A-2, *IUE*, and *Voyager* Observations. *Yoji Kondo, George E. McCluskey, Jeffrey M. S. Silvis, Ronald S. Polidan, Carolina P. S. McCluskey, & Joel A. Eaton.* 421, 787, 28-A9 (1994)

Physical Processes in Eclipsing Pulsars: Eclipse Mechanisms and Diagnostics. *C. Thompson, R. D. Blandford, Charles R. Evans, & E. S. Phinney.* 422, 304, 33-G10 (1994)

Properties of a B0 I Stellar Wind and Interstellar Grains Derived from *Ginga* Observations of the Binary X-Ray Pulsar 4U 1538−52. *George W. Clark, Jonathan W. Woo, & Fumiaki Nagase.* 422, 336, 34-C3 (1994)

An X-Ray Spectroscopic Study of the Pre-Eclipse Dips of Hercules X-1. *C. S. Choi, F. Nagase, F. Makino, T. Dotani, & K. W. Min.* 422, 799, 41-G5 (1994)

The Wolf-Rayet Binary V444 Cygni under the Spectroscopic Microscope. I. Improved Characteristics of the Components and Their Interaction Seen in He I. *Sergey V. Marchenko, Anthony F. J. Moffat, & Gloria Koenigsberger.* 422, 810, 42-A5 (1994)

Optical, *IUE*, and *ROSAT* Observations of the Eclipsing Nova-like Variable V347 Puppis (LB 1800). *Christopher W. Mauche, John C. Raymond, David A. H. Buckley, Martine Mouchet, Jerry Bonnell, Denis J. Sullivan, Jean-Marc Bonnet-Bidaud, & Wolfram H. Bunk.* 424, 347, 66-B12 (1994)

1H 1752+081: An Eclipsing Cataclysmic Variable with a Small Accretion Disk. *Andrew D. Silber, Ronald A. Remillard, Keith Horne, & Hale V. Bradt.* 424, 955, 76-F3 (1994)

A Broad Observational Study of the Eclipsing Magnetic Cataclysmic Variable RE 2107−05. *Jason Glenn, Steve B. Howell, Gary D. Schmidt, James Liebert, Albert D. Grauer, & R. Mark Wagner.* 424, 967, 76-G3 (1994)

HST Eclipse Mapping of Dwarf Nova OY Carinae in Quiescence: An "Fe II Curtain" with Mach $\simeq$ 6 Velocity Dispersion Veils the White Dwarf. *Keith Horne, T. R. Marsh, F. H. Cheng, Ivan Hubeny, & Thierry Lanz.* 426, 294, 99-G1 (1994)

Orbital Variability in the Eclipsing Pulsar Binary PSR B1957+20. *Z. Arzoumanian, A. S. Fruchter, & J. H. Taylor.* 426, L85, 109-E6 (1994)

Evidence of Circumstellar Matter Surrounding the Hercules X-1 System. *C. S. Choi, T. Dotani, F. Nagase, F. Makino, J. E. Deeter, & K. W. Min.* 427, 400, 114-G5 (1994)

TeV Gamma-Ray Properties of Vela X-1. *B. C. Raubenheimer, A. R. North, O. C. de Jager, P. J. Meintjes, & H. I. Nel.* 428, 777, 140-A1 (1994)

Light Curves of Close Binaries in TeV Energy Region. *I. V. Moskalenko & S. Karakula.* 92, 567, 39-D3 (1994)

Eclipse Mapping of the Accreting Magnetic White Dwarf in DP Leonis with *HST*. *H. S. Stockman, Gary D. Schmidt, James Liebert, & J. B. Holberg.* 430, 323, 163-B11 (1994)

The Mass of the Companion of PSR 1718−19. *L. Burderi & A. R. King.* 430, L57, 166-A4 (1994)

Multicolor Eclipse Studies of UU Aquarii. I. Observations and System Parameters. *R. Baptista, J. E. Steiner, & D. Cieslinski.* 433, 332, 212-D8 (1994)

A Spectrum Synthesis Program for Binary Stars. *Albert P. Linnell & Ivan Hubeny.* 434, 738, 238-A4 (1994)

The Spectacular Emission-Line Reflection Effect of BE Ursae Majoris. *Donald H. Ferguson & Thomas A. James.* 94, 723, 62-A1 (1994)

X-Ray Emission from 4U 2129+47 (=V1727 Cygni) in Quiescence. *Michael R. Garcia.* 435, 407, 249-A9 (1994)

RJ 051542+0104.7: A New Magnetic, Eclipsing, Cataclysmic Variable. *Peter M. Garnavich, Paula Szkody, Russell M. Robb, David R. Zurek, & D. W. Hoard.* 435, L141, 260-C11 (1994)

Orbital Period Variability in the Eclipsing Pulsar Binary PSR B1957+20: Evidence for a Tidally Powered Star. *James H. Applegate & Jacob Shaham.* 436, 312, 265-E8 (1994)

Ultraviolet Spectra of HZ Herculis/Hercules X-1 from *HST*: Hot Gas during Total Eclipse of the Neutron Star. *Scott F. Anderson, Stefanie Wachter, Bruce Margon, Ronald A. Downes, William P. Blair, & Jules P. Halpern.* 436, 319, 265-F5 (1994)

Line-dominated Eclipse Spectrum of Vela X-1. *Fumiaki Nagase, Gregory Zylstra, Takashi Sonobe, Taro Kotani, Hajime Inoue, & Jonathan Woo.* 436, L1, 268-C1 (1994)

ASCA Measurements of the Grain-scattered X-Ray Halos of Eclipsing Massive X-Ray Binaries: Vela X-1 and Centaurus X-3. *Jonathan W. Woo, George W. Clark, Charles S. R. Day, Fumiaki Nagase, & Toshiaki Takeshima.* 436, L5, 268-C9 (1994)

Is the Changing Orbital Period of EXO 0748−676 Evidence for a Triple System? *R. H. D. Corbet, K. Asai, T. Dotani, & F. Nagase.* 436, L15, 268-D13 (1994)

An *ASCA* Observation of the Castor System. *Eric V. Gotthelf, Lalit Jalota, Koji Mukai, & Nicholas E. White.* 436, L91, 270-A5 (1994)

Line Profile Variations from Atmospheric Eclipses: Constraints on the Wind Structure in Wolf-Rayet Stars. *L. H. Auer & G. Koenigsberger.* 436, 859, 277-E5 (1994)

Studies of Binary Stars in the Magellanic Clouds. II. Spectroscopic Orbits of Four Massive Eclipsing Binaries. *Virpi S. Niemela & Lilia P. Bassino.* 437, 332, 287-F11 (1994)

Iron Line Intensity Variations of Hercules X-1 over the Pulse Phase and the 35 Day Cycle. *C. S. Choi, F. Nagase, F. Makino, T. Dotani, S. Kitamoto, & S. Takahama.* 437, 449, 289-C6 (1994)

Eclipse Timings of the Low-Mass X-Ray Binary EXO 0748−676: Statistical Arguments against Orbital Period Changes. *Paul Hertz, Kent S. Wood, & Lynn Cominsky.* 438, 385, 6-F13 (1995)

A Multicolor Eclipse Study of the Classical Nova QZ Aurigae (Nova Aurigae 1964). *R. D. Campbell & A. W. Shafter.* 440, 336, 45-G1 (1995)

The Transient Accretion Disk in the Algol-Type Binary U Sagittae. *Geary E. Albright & Mercedes T. Richards.* 441, 806, 73-B2 (1995)

Hubble Space Telescope Observations of the Dwarf Nova Z Chamaeleontis through Two Eruption Cycles. *E. L. Robinson, Janet H. Wood, R. C. Bless, J. C. Clemens, J. F. Dolan, J. L. Elliot, M. J. Nelson, J. W. Percival, M. J. Taylor, G. W. van Citters, & E. Zhang.* 443, 295, 99-C9 (1995)

RX J0515.6+0105: An Unusual, Eclipsing, Magnetic Cataclysmic Variable. *A. W. Shafter, K. Reinsch, K. Beuermann, K. A. Misselt, D. A. H. Buckley, V. Burwitz, & A. D. Schwope.* 443, 319, 99-E8 (1995)

HST Images of the Eclipsing Pulsar B1957+20. *Andrew S. Fruchter, Jay Bookbinder, & Charles D. Bailyn.* 443, L21, 102-D13 (1995)

EUVE Observations of Algol: Detection of a Continuum and Implications for the Coronal [Fe/H] Abundance. *Robert A. Stern, James R. Lemen, Jürgen H. M. M. Schmitt, & John P. Pye.* 444, L45, 121-G7 (1995)

A Study of Coronal X-Ray Emission from Short-Period Algol Binaries. *K. P. Singh, S. A. Drake, & N. E. White.* 445, 840, 146-F13 (1995)

Extreme Ultraviolet Light Curves of UZ Fornacis: Evidence for Accretion Stream Absorption and Vertical Extent of the Accretion Spot. *John K. Warren, Martin M. Sirk, & John V. Vallerga.* 445, 909, 147-F13 (1995)

Hydrodynamic Simulations of the Mass Transfer in Algol. *John M. Blondin, Mercedes T. Richards, & Michael L. Malinowski.* 445, 939, 148-B13 (1995)

Period Evolution of PSR B1259−63: Evidence for Propeller-Torque Spin-down. *R. N. Manchester, S. Johnston, A. G. Lyne, N. D'Amico, M. Bailes, & L. Nicastro.* 445, L137, 151-F1 (1995)

W Ursae Majoris–Type Systems Discovered in the Central Baade's Window in the OGLE Experiment. *Slavek M. Rucinski.* 446, L19, 160-D6 (1995)

Stellar Variability in the Central Populations of 47 Tucanae from WF/PC Observations with the *Hubble Space Telescope*. I. Project Overview, Reduction Techniques, and First Results. *Ronald L. Gilliland, Peter D. Edmonds, Larry Petro, Abhijit Saha, & Michael M. Shara.* 447, 191, 174-G5 (1995)

Goddard High-Resolution Spectrograph Observations of the Interacting Binary System W Serpentis. *J. L. Weiland, S. N. Shore, E. A. Beaver, R. W. Lyons, & E. I. Rosenblatt.* 447, 401, 177-G13 (1995)

Taking the Pulse of DQ Herculis. *Phillip J. Martell, Keith Horne, Christopher M. Price, & Richard H. Gomer.* 448, 380, 197-D6 (1995)

Hubble Space Telescope and *R*-Band Eclipse Maps of the UX Ursae Majoris Accretion Disk. *R. Baptista, Keith Horne, R. W. Hilditch, K. O. Mason, & J. E. Drew.* 448, 395, 197-E13 (1995)

QU Vulpeculae: An Eclipsing Neon Nova in the Period Gap. *A. W. Shafter, K. A. Misselt, P. Szkody, & M. Politano.* 448, L33, 199-F13 (1995)

ROSAT Observations of Scattered X-Rays from LMC X-4 in Its Low State. *Jonathan W. Woo, George W. Clark, & Alan M. Levine.* 449, 880, 224-G7 (1995)

Five Eclipses of Hercules X-1 Observed by *Ginga*. *D. A. Leahy.* 450, 339, 232-F1 (1995)

Wind-Wind Interaction in the Close Wolf-Rayet Binary CQ Cephei (WN6+O9 II–Ib). *S. V. Marchenko, A. F. J. Moffat, P. R. J. Eenens, G. M. Hill, & A. Grandchamps.* 450, 811, 241-G10 (1995)

CM Draconis and YY Geminorum: Agreement between Theory and Observation. *Gilles Chabrier & Isabelle Baraffe.* 451, L29, 252-E6 (1995)

Pulsar Eclipses due to Induced Scattering in Magnetized Plasmas. *Qinghuan Luo & D. B. Melrose.* 452, 346, 266-G11 (1995)

An Archival Study of *Hubble Space Telescope* Observations of Hercules X-1/HZ Herculis. *F. H. Cheng, S. D. Vrtilek, & John C. Raymond.* 452, 825, 276-A10 (1995)

Ultraviolet Observations of the Eruption in the Small Magellanic Cloud Wolf-Rayet System HD 5980. *Gloria Koenigsberger, Ed Guinan, Lawrence Auer, & Leonid Georgiev.* 452, L107, 279-G11 (1995)

X-Ray Detection of PSR B1259−63 at Periastron. *V. M. Kaspi, M. Tavani, F. Nagase, M. Hirayama, M. Hoshino, T. Aoki, N. Kawai, & J. Arons.* 453, 424, 287-A1 (1995)

The 71 Second Oscillation in the Light Curve of the Old Nova DQ Herculis. *E. Zhang, E. L. Robinson, R. F. Stiening, & Keith Horne.* 454, 447, 305-D12 (1995)

Radiation Hydrodynamic Models of Eclipsing Low-Mass X-Ray Binaries. *Stephen D. Murray, D. Tod Woods, John I. Castor, Richard I. Klein, & Christopher F. McKee.* 454, L133, 316-D2 (1995)

The Importance of Radiative Braking for the Wind Interaction in the Close WR+O Binary V444 Cygni. *S. P. Owocki & K. G. Gayley.* 454, L145, 316-E11 (1995)

A Study of the Chromospherically Active, Short-Period Binary VZ Piscium. *Bruce J. Hrivnak, Edward F. Guinan, & Wenxian Lu.* 455, 300, 322-C8 (1995)

STARS: BINARIES: GENERAL

A Magnitude-limited Survey of Cepheid Companions in the Ultraviolet. *Nancy Remage Evans.* 384, 220, 3-F4 (1992)

The Dynamical Evolution of Tidal Capture Binaries. *Christopher S. Kochanek.* 385, 604, 20-E13 (1992)

Excitation of Pressure Modes in Common Envelopes. *Noam Soker.* 386, 190, 26-E1 (1992)

The Frequencies of Supernovae in Binaries. *Alexander V. Tutukov, Lev R. Yungelson, & Icko Iben, Jr.* 386, 197, 26-E9 (1992)

Colliding Winds from Early-Type Stars in Binary Systems. *Ian R. Stevens, John M. Blondin, & A. M. T. Pollock.* 386, 265, 27-E1 (1992)

Hard X-Ray Imaging of the Galactic Black Hole Candidate GX 339−4. *C. E. Covault, J. E. Grindlay, & R. P. Manandhar.* 388, L65, 59-C12 (1992)

The Evolution of a Primordial Binary Population in a Globular Cluster. *Piet Hut, Steve McMillan, & Roger W. Romani.* 389, 527, 68-A8 (1992)

Jet Formation in the Transition from the Asymptotic Giant Branch to Planetary Nebulae. *Noam Soker.* 389, 628, 69-C1 (1992)

Stellar Wind Collision and X-Ray Generation in Massive Binaries. *V. V. Usov.* 389, 635, 69-C10 (1992)

On Martell and Kaitchuck's Model for the Intermediate Polar FO Aquarii. *Koji Mukai & Coel Hellier.* 391, 295, 89-E10 (1992)

Multiplicity-corrected Mass Function of Main-Sequence Stars in the Solar Neighborhood. *Sarbani Basu & N. C. Rana.* 393, 373, 118-F10 (1992)

Deep VLA Images of Globular Clusters: NGC 6624. *Helen M. Johnston & Shrinivas R. Kulkarni.* 393, L17, 120-C8 (1992)

Is Momentum Conserved? A Test in the Binary System PSR 1913+16. *Clifford M. Will.* 393, L59, 127-C7 (1992)

The Binary System L151−81A/B: A Potential Test of Accretion Theory. *M. A. Wood & T. D. Oswalt.* 394, L53, 139-D1 (1992)

Multiplicity among M Dwarfs. *Debra A. Fischer & Geoffrey W. Marcy.* 396, 178, 157-C13 (1992)

Radiative-hydrodynamical Simulations of X-Ray Burst–induced Accretion Disk Coronae. *Fulvio Melia, Gregory J. Zylstra, & Bruce Fryxell.* 396, L27, 160-E8 (1992)

Production of Recycled Pulsars in Globular Clusters via Two-Body Tidal Capture. *R. Di Stefano & S. Rappaport.* 396, 587, 164-F9 (1992)

Dusty Disks in the Multiple Systems UZ Tauri and GG Tauri. *M. Simon & S. Guilloteau.* 397, L47, 173-F9 (1992)

CCD Photometry in the Globular Cluster NGC 288. I. Blue Stragglers and Main-Sequence Binary Stars. *Michael Bolte.* 82, 145, 51-B7 (1992)

Are Symbiotic Stars the Precursors of Type Ia Supernovae? *Ulisse Munari & Alvio Renzini.* 397, L87, 181-B1 (1992)

The Perihelion Problem in Kaluza-Klein Gravity. *Paul H. Lim & Paul S. Wesson.* 397, L91, 181-B8 (1992)

An Interpretation of the Multipeaked Structure in X-Ray Bursts. *Fulvio Melia & Gregory J. Zylstra.* 398, L53, 188-A1 (1992)

Near-resonant Excitation and Propagation of Eccentric Density Waves by External Forcing. *Eve C. Ostriker, Frank H. Shu, & Fred C. Adams.* 399, 192, 197-E13 (1992)

Fragmentation of Elongated Cylindrical Clouds. IV. Clouds with Solid-Body Rotation about an Arbitrary Axis. *Ian Bonnell, Jean-Pierre Arcoragi, Hugo Martel, & Pierre Bastien.* 400, 579, 217-E8 (1992)

Possible First Detection of Ultraviolet Pulses from an Intermediate Polar: V603 Aquila. *A. Schwarzenberg-Czerny, A. Udalski, & R. Monier.* 401, L19, 227-C7 (1992)

Fragmentation of Elongated Cylindrical Clouds. V. Dependence of Mass Ratios on Initial Conditions. *Ian Bonnell & Pierre Bastien.* 401, 654, 230-F1 (1992)

The IRAS 16293−2422 Cloud Core: A Study of a Young Binary System. *Christopher K. Walker, John E. Carlstrom, & John H. Bieging.* 402, 655, 10-F11 (1993)

Binary–Single-Star Scattering. III. Numerical Experiments for Equal-Mass Hard Binaries. *Piet Hut.* 403, 256, 17-B1 (1993)

Binary–Single-Star Scattering. V. Steady State Binary Distribution in a Homogeneous Static Background of Single Stars. *Jeremy Goodman & Piet Hut.* 403, 271, 17-C4 (1993)

Extended Variability of the Symbiotic Star AG Draconis. *M. Kafatos, S. R. Meier, & I. Martin.* 84, 201, 4-B7 (1993)

The Masses of Two Binary Neutron Star Systems. *S. E. Thorsett, Z. Arzoumanian, M. M. McKinnon, & J. H. Taylor.* 405, L29, 47-E8 (1993)

The Spectrum and Variability of Radio Emission from AE Aquarii. *Meil Abada-Simon, Alain Lecacheux, Tim S. Bastian, Jay A. Bookbinder, & George A. Dulk.* 406, 692, 66-D12 (1993)

On Symbiotic Stars and Type Ia Supernovae. *Scott J. Kenyon, Mario Livio, Joanna Mikołajewska, & Christopher A. Tout.* 407, L81, 82-E9 (1993)

Binary–Single-Star Scattering. IV. Analytic Approximations and Fitting Formulae for Cross Sections and Reaction Rates. *Douglas C. Heggie & Piet Hut.* 85, 347, 11-G7 (1993)

Low-Mass X-Ray Binaries and Millisecond Pulsars in Globular Clusters. *Kaiyou Chen, John Middleditch, & Malvin Ruderman.* 408, L17, 88-G1 (1993)

Multiplicity and the Ages of the Stars in the Taurus Star-forming Region. *M. Simon, A. M. Ghez, & Ch. Leinert.* 408, L33, 89-B1 (1993)

A New Herbig-Haro Flow in the HH 1–2 Complex. *Bo Reipurth, Steve Heathcote, M. Roth, A. Noriega-Crespo, & A. C. Raga.* 408, L49, 89-D1 (1993)

Canada-France-Hawaii Telescope Observations of Globular Cluster Cores: Blue Straggler Stars in M3 (NGC 5272, GC 1339+286). *Michael Bolte, James E. Hesser, & Peter B. Stetson.* 408, L89, 95-C11 (1993)

Gas and Dust in the Pre–Main-Sequence Multiple System GG Tauri. *D. W. Koerner, A. I. Sargent, & S. V. W. Beckwith.* 408, L93, 95-D7 (1993)

Postcollapse Evolution of Globular Clusters Dominated by Tidal Binary Heating. *Hyung Mok Lee & Jeremiah P. Ostriker.* 409, 617, 106-F3 (1993)

Collapse and Fragmentation of Molecular Cloud Cores. I. Moderately Centrally Condensed Cores. *Alan P. Boss.* 410, 157, 114-B1 (1993)

A Highly Sensitive Radio Survey of Symbiotic Stars at 3.6 Centimeters. *E. R. Seaquist, M. Krogulec, & A. R. Taylor.* 410, 260, 115-C12 (1993)

JHK Photometry of WD 0950+139. *Michael S. Fulbright & James Liebert.* 410, 275, 115-E1 (1993)

The Binary Pulsar PSR 1908+00 in NGC 6760. *W. T. S. Deich, J. Middleditch, S. B. Anderson, S. R. Kulkarni, T. A. Prince, & A. Wolszczan.* 410, L95, 126-A13 (1993)

Reddening Errors and the Post–Main-Sequence Distribution of Stars in the H-R Diagram of the Large Magellanic Cloud. *N. Rathnasree.* 410, L99, 126-B5 (1993)

The *ROSAT* All-Sky Survey of Active Binary Coronae. I. Quiescent Fluxes for the RS Canum Venaticorum Systems. *Robert C. Dempsey, Jeffrey L. Linsky, Thomas A. Fleming, & J. H. M. M. Schmitt.* 86, 599, 22-C3 (1993)

Encounters between Binaries and Neutron Stars. *M. B. Davies, W. Benz, & J. G. Hills.* 411, 285, 130-F13 (1993)

Interacting Massive Binaries, H-R Diagram of the Large Magellanic Cloud and SN 1987A. *N. Rathnasree.* 411, 848, 140-D1 (1993)

A Turbulent Model of Time Variability in X-Ray Binary Pulsars. *Masahiro Hoshino & Toshiaki Takeshima.* 411, L79, 142-D9 (1993)

PSR B1620−26: A Binary Radio Pulsar with a Planetary Companion? *S. E. Thorsett, Z. Arzoumanian, & J. H. Taylor.* 412, L33, 148-D6 (1993)

An Improved Ultraviolet Spectral Line List for the Symbiotic Star RR Telescopii. *G. A. Doschek & W. A. Feibelman.* 87, 331, 31-C7 (1993)

IUE Short-Wavelength High-Dispersion Line List for the Symbiotic Nova RR Telescopii. *Jason P. Aufdenberg.* 87, 337, 31-D3 (1993)

The *ROSAT* All-Sky Survey of Active Binary Coronae. II. Coronal Temperatures of the RS Canum Venaticorum Systems. *Robert C. Dempsey, Jeffrey L. Linsky, J. H. M. M. Schmitt, & T. A. Fleming.* 413, 333, 160-D5 (1993)

Disks around Pre–Main-Sequence Binary Systems: The Case of Haro 6-10. *François Ménard, Jean-Louis Monin, Françoise Angelucci, & Daniel Rouan.* 414, L117, 186-B5 (1993)

A Deeply Embedded Companion to LkHα 198. *P. O. Lagage, G. Olofsson, S. Cabrit, C. J. Cesarsky, L. Nordh, & J. M. Rodriguez Espinosa.* 417, L79, 230-D6 (1993)

N-Body Evolution of Dense Clusters of Compact Stars. *Man Hoi Lee.* 418, 147, 232-G12 (1993)

The Formation of Binary and Single Nuclei of Planetary Nebulae. *L. R. Yungelson, A. V. Tutukov, & M. Livio.* 418, 794, 242-D8 (1993)

Quasi-periodic Oscillations in the Cataclysmic Variable KR Aurigae. *Jyoti Singh, P. Vivekananda Rao, P. C. Agrawal, K. M. V. Apparao, R. K. Manchanda, B. B. Sanwal, & M. B. K. Sarma.* 419, 337, 250-D3 (1993)

Are the Observed Frequencies of Double Degenerates and SN Ia Contradictory? *L. R. Yungelson, M. Livio, A. V. Tutukov, & R. A. Saffer.* 420, 336, 5-A13 (1994)

Theoretical Light Curves of Type IIb Supernova 1993J. *Toshikazu Shigeyama, Tomoharu Suzuki, Shiomi Kumagai, Ken'ichi Nomoto, Hideyuki Saio, & Hitoshi Yamaoka.* 420, 341, 5-B5 (1994)

The Onset of Gravothermal Oscillations in Globular Cluster Evolution. *Joseph L. Breeden, Haldan N. Cohn, & Piet Hut.* 421, 195, 18-D6 (1994)

A Search for Binaries in the Globular Cluster NGC 3201. *Patrick Côté, Douglas L. Welch, Philippe Fischer, G. S. Da Costa, Peter Tamblyn, Patrick Seitzer, & M. J. Irwin.* 90, 83, 2-B5 (1994)

A New Way to Make Thorne-Żytkow Objects. *Peter J. T. Leonard, Jack G. Hills, & Rachel J. Dewey.* 423, L19, 53-C13 (1994)

A Massive Radio Pulsar Binary in the Small Magellanic Cloud. *V. M. Kaspi, S. Johnston, J. F. Bell, R. N. Manchester, M. Bailes, M. Bessell, A. G. Lyne, & N. D'Amico.* 423, L43, 53-F7 (1994)

ROSAT Observations of Nine Globular Clusters. *S. Rappaport, D. Dewey, A. Levine, & L. Macri.* 423, 633, 56-D2 (1994)

Binary Radiopulsars with Black Holes. *V. M. Lipunov, K. A. Postnov, M. E. Prokhorov, & E. Yu. Osminkin.* 423, L121, 60-G9 (1994)

Capture and Induced Disk Accretion in Young Star Encounters. *Eve C. Ostriker.* 424, 292, 65-D14 (1994)

Observation of GX 339−4 Hard State Outbursts in 1991 and 1992. *B. A. Harmon, C. A. Wilson, W. S. Paciesas, G. N. Pendleton, M. S. Briggs, B. C. Rubin, M. H. Finger, G. J. Fishman, M. N. Brock, R. B. Wilson, & C. A. Meegan.* 425, L17, 85-C11 (1994)

A New Transient Pulsar in the Small Magellanic Cloud with an Unusual X-Ray Spectrum. *John P. Hughes.* 427, L25, 117-D8 (1994)

Star Cluster Evolution with Primordial Binaries. III. Effect of the Galactic Tidal Field. *Steve McMillan & Piet Hut.* 427, 793, 122-E3 (1994)

Hot Degenerates in the Montreal-Cambridge-Tololo Survey. II. Two New Hybrid White Dwarfs, MCT 0128−3846 and MCT 0453−2933, and the Nature of the DAB Stars. *F. Wesemael, P. Bergeron, R. Lamontagne, G. Fontaine, A. Beauchamp, S. Demers, M. J. Irwin, J. B. Holberg, S. O. Kepler, & S. Vennes.* 429, 369, 148-F2 (1994)

A Connection between Submillimeter Continuum Flux and Separation in Young Binaries. *Eric L. N. Jensen, Robert D. Mathieu, & Gary A. Fuller.* 429, L29, 150-D9 (1994)

The Range of Core Size of Postcollapse Clusters Supported by Primordial Binaries. *E. Vesperini & D. F. Chernoff.* 431, 231, 179-A7 (1994)

Spectroscopic Signatures of Infall in Young Protostellar Systems. *Christopher K. Walker, Gopal Narayanan, & Alan P. Boss.* 431, 767, 188-B5 (1994)

Modeling the Radial Distribution of Blue Stragglers in M3. *Steinn Sigurdsson, Melvyn B. Davies, & Michael Bolte.* 431, L115, 192-A9 (1994)

The Hard X-Ray Emission Spectra from Accretion Columns in Intermediate Polars. *Insu Yi & Ethan T. Vishniac.* 435, 829, 257-E1 (1994)

Classical Cepheids with Terminal Age Main-Sequence Companions: Constraints on Evolution. *Nancy Remage Evans.* 436, 273, 265-A12 (1994)

Observational Limits on Companions to G29-38. *S. J. Kleinman, R. E. Nather, D. E. Winget, J. C. Clemens, P. A. Bradley, A. Kanaan, J. L. Provencal, C. F. Claver, T. K. Watson, K. Yanagida, J. S. Dixson, M. A. Wood, D. J. Sullivan, E. Meištas, E. M. Leibowitz, P. Moskalik, S. Zola, G. Pajdosz, J. Krzesinski, J.-E. Solheim, A. Bruvold, D. O'Donoghue, M. Katz, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, S. O. Kepler, O. Giovannini, C. J. Hansen, & S. D. Kawaler.* 436, 875, 277-G1 (1994)

The Derived Population of Luminous Supersoft X-Ray Sources. *R. Di Stefano & S. Rappaport.* 437, 733, 295-G1 (1994)

Vibrationally Excited CS: A New Probe of Conditions in Young Protostellar Systems. *Christopher K. Walker, Philip R. Maloney, & E. Serabyn.* 437, L127, 299-E3 (1994)

On Possible Implications of Orbital Parallaxes of Wide Orbit Binary Pulsars and Their Measurability. *S. M. Kopeikin.* 439, L5, 29-E11 (1995)

Low-Mass X-Ray Binaries in Globular Clusters: A New Metallicity Effect. *M. Bellazzini, A. Pasquali, L. Federici, F. R. Ferraro, & F. Fusi Pecci.* 439, 687, 34-A12 (1995)

Interpretation of Gravitational Microlensing by Binary Systems. *S. Mao & R. Di Stefano.* 440, 22, 41-D14 (1995)

Evidence for Dust around Post T Tauri Stars. *Thomas P. Ray, Anneila I. Sargent, Steve V. W. Beckwith, Chris Koresko, & Patrick Kelly.* 440, L89, 58-B9 (1995)

The Very Low Mass X-Ray Binary Pulsars: A New Class of Sources? *S. Mereghetti & L. Stella.* 442, L17, 84-F9 (1995)

The Nuclear X-Ray Source in NGC 3628: A Strange Active Galactic Nucleus or the Most Luminous High-Mass X-Ray Binary Known? *Michael Dahlem, Timothy M. Heckman, & Giuseppina Fabbiano.* 442, L49, 94-C9 (1995)

Circular Polarization in the Radio Emission of RS Canum Venaticorum Binaries. *Stephen M. White & Elena Franciosini.* 444, 342, 118-C1 (1995)

The Mass Ratios of Cepheid Binaries. *Nancy Remage Evans.* 445, 393, 138-A1 (1995)

Phase-Transition Theory of Instabilities. I. Second-Harmonic Instability and Bifurcation Points. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 472, 162-E12 (1995)

Phase-Transition Theory of Instabilities. III. The Third-Harmonic Bifurcation on the Jacobi Sequence and the Fission Problem. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 500, 163-A8 (1995)

Phase-Transition Theory of Instabilities. IV. Critical Points on the Maclaurin Sequence and Nonlinear Fission Processes. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 510, 163-B7 (1995)

Self-lensing by Binaries. *Andrew Gould.* 446, 541, 163-E6 (1995)

On the Minimum Magnification between Caustic Crossings for Microlensing by Binary and Multiple Stars. *Hans J. Witt & Shude Mao.* 447, L105, 191-A1 (1995)

A Search for Magnetic Fields among DA White Dwarfs. *Gary D. Schmidt & Paul S. Smith.* 448, 305, 196-D7 (1995)

A Model for the Space Density of Dwarf Carbon Stars. *Martijn de Kool & Paul J. Green.* 449, 236, 213-D10 (1995)

Dynamics and Interactions of Binaries and Neutron Stars in Globular Clusters. *Steinn Sigurdsson & E. S. Phinney.* 99, 609, 43-D7 (1995)

Disk Dissipation in Single and Binary Young Star Systems in Taurus. *M. Simon & L. Prato.* 450, 824, 242-A12 (1995)

Collapse and Fragmentation of Molecular Cloud Cores. III. Initial Differential Rotation. *Alan P. Boss & Elizabeth A. Myhill.* 451, 218, 249-A6 (1995)

A Model of the Galactic X-Ray Binary Population. II. Low-Mass X-Ray Binaries in the Galactic Disk. *Icko Iben, Jr., Alexander V. Tutukov, & Lev R. Yungelson.* 100, 233, 49-C5 (1995)

NGC 1333 IRAS 4: Further Multiplicity Revealed with the CSO-JCMT Interferometer. *O. P. Lay, J. E. Carlstrom, & R. E. Hills.* 452, L73, 270-F7 (1995)

The Binary Double-degenerate Nature of the Bright DAO White Dwarf Feige 55. *J. B. Holberg, Rex A. Saffer, R. W. Tweedy, & M. A. Barstow.* 452, L133, 280-D4 (1995)

Encounters with Protostellar Disks. II. Disruption and Binary Formation. *Clayton H. Heller.* 455, 252, 321-E10 (1995)

Spectroscopic Identification of Probable Cataclysmic Variables in the Globular Cluster NGC 6397. *J. E. Grindlay, A. M. Cool, P. J. Callanan, C. D. Bailyn, H. N. Cohn, & P. M. Lugger.* 455, L47, 325-B1 (1995)

STARS: BINARIES: SPECTROSCOPIC

Time Variations in the X-Rays from Cygnus X-3 Observed with *Ginga*. *Shunji Kitamoto, Seiko Mizobuchi, Koujun Yamashita, & Hiroshi Nakamura.* 384, 263, 4-B13 (1992)

Simultaneous X-Ray and Radio Observations of GX 5−1. *J. Tan, W. H. G. Lewin, R. M. Hjellming, W. Penninx, J. van Paradijs, M. van der Klis, & K. Mitsuda.* 385, 314, 15-G1 (1992)

Tomographic Separation of Composite Spectra. I. The Components of Plaskett's Star. *William G. Bagnuolo, Jr., Douglas R. Gies, & Michael S. Wiggs.* 385, 708, 21-G12 (1992)

TT Crateris: A Long-Period, Double-lined Dwarf Nova. *Paula Szkody, Robert E. Williams, Bruce Margon, Steve B. Howell, & Mario Mateo.* 387, 357, 41-D4 (1992)

Spectroscopic Observations of the Cataclysmic Variable PG 0917+342: An Ultra–Short-Period Nova-like System. *Danuta Dobrzycka & Steve B. Howell.* 388, 614, 57-G6 (1992)

New Calibrators for the Cepheid Period-Luminosity Relation. *Nancy Remage Evans.* 389, 657, 69-E8 (1992)

Kinematics and Age of RS Canum Venaticorum and BY Draconis Stars. *Zeki Eker.* 79, 481, 20-E9 (1992)

Possible Observational Consequences of Primordial Binaries in Globular Clusters. *Ronald E. Taam & D. N. C. Lin.* 390, 440, 80-G6 (1992)

PSR 0655+64: An Astrophysical Laboratory for Testing Relativistic Gravity Theories. *Itzhak Goldman.* 390, 494, 81-D11 (1992)

Spectroscopic Binaries in the α Persei Cluster. *Nidia Morrell & Helmut A. Abt.* 393, 666, 124-B1 (1992)

The Orbital Parameters and the *IUE* Spectrum of the Single-lined Spectroscopic Binary HD 698. *Jorge Sahade, Rodolfo Barbá, & Yoji Kondo.* 81, 303, 39-B1 (1992)

On the Study of the Mass Ratio of Spectroscopic Binaries. *Tsevi Mazeh & Dorit Goldberg.* 394, 592, 136-F10 (1992)

Multiplicity among M Dwarfs. *Debra A. Fischer & Geoffrey W. Marcy.* 396, 178, 157-C13 (1992)

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. II. Plaskett's Star (HD 47129). *Michael S. Wiggs & Douglas R. Gies.* 396, 238, 158-A12 (1992)

γ Cephei: Rotation or Planetary Companion? *Gordon A. H. Walker, David A. Bohlender, Andrew R. Walker, Alan W. Irwin, Stephenson L. S. Yang, & Ana Larson.* 396, L91, 167-D1 (1992)

Photometry, Polarimetry, Spectroscopy, and Spectropolarimetry of the Enigmatic Wolf-Rayet Star EZ Canis Majoris. *Carmelle Robert, Anthony F. J. Moffat, Laurent Drissen, Robert Lamontagne, Wilhelm Seggewiss, Virpi S. Niemela, Miguel A. Cerruti, Paul Barrett, Jeremy Bailey, Jorge Garcia, & Santiago Tapia.* 397, 277, 171-D1 (1992)

Evidence for a Black Hole in the X-Ray Binary Nova Muscae 1991. *Ronald A. Remillard, Jeffrey E. McClintock, & Charles D. Bailyn.* 399, L145, 208-C7 (1992)

On the Mass-Ratio Distribution of Spectroscopic Binaries with Solar-Type Primaries. *Tsevi Mazeh, Dorit Goldberg, Antoine Duquennoy, & Michel Mayor.* 401, 265, 224-C9 (1992)

Periodic Photometric Variability of the Black Hole Binary V404 Cygni. *R. Mark Wagner, T. J. Kreidl, S. B. Howell, & S. G. Starrfield.* 401, L97, 233-C13 (1992)

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. IV. ι Orionis. *Douglas R. Gies, Michael S. Wiggs, & William G. Bagnuolo, Jr.* 403, 752, 25-B4 (1993)

On the Mass of Nova DQ Herculis (1934). *Keith Horne, William F. Welsh, & Richard A. Wade.* 410, 357, 116-E1 (1993)

Plaskett's Star (HD 47129): More and More Curious. *Anne B. Underhill.* 410, 365, 116-E11 (1993)

Ultraviolet and Optical Studies of Binaries with Luminous Cool Primaries and Hot Companions. IV. Further *IUE* Detections. *Sidney B. Parsons & Thomas B. Ake.* 412, 814, 154-A3 (1993)

Long-Period Radial Velocity Variations in Three K Giants. *Artie P. Hatzes & William D. Cochran.* 413, 339, 160-D13 (1993)

A Search for Substellar Companions to Southern Solar-Type Stars. *Kaylene A. Murdoch, J. B. Hearnshaw, & M. Clark.* 413, 349, 160-E11 (1993)

The Equations of Ellipsoidal Star Variability Applied to HR 8427. *Steven L. Morris & Stephen A. Naftilan.* 419, 344, 250-D13 (1993)

HD 53975: An O-Type Spectroscopic Binary with a Large Mass Ratio. *D. R. Gies, A. W. Fullerton, C. T. Bolton, W. G. Bagnuolo, Jr., M. E. Hahula, & R. Wiemker.* 422, 823, 42-B6 (1994)

Tomographic Separation of Composite Spectra. II. The Components of 29 UW Canis Majoris. *William G. Bagnuolo, Jr., Douglas R. Gies, Michael E. Hahula, Rafael Wiemker, & Michael S. Wiggs.* 423, 446, 51-F7 (1994)

Constraints on the Origin of Dwarf Carbon Stars. *Paul J. Green & Bruce Margon.* 423, 723, 57-E7 (1994)

Cygnus X-3 as a Benchmark for Fundamental Properties of Wolf-Rayet Stars. *Anatol M. Cherepashchuk & Anthony F. J. Moffat.* 424, L53, 69-G6 (1994)

1ES 1113+432: Luminous, Soft X-Ray Outburst from a Nearby Cataclysmic Variable (AR Ursae Majoris). *R. A. Remillard, J. F. Schachter, A. D. Silber, & P. Slane.* 426, 288, 99-F5 (1994)

The X-Ray Selected Cataclysmic Variables H0459+246 and H0857−242. *R. A. Remillard, H. V. Bradt, R. J. V. Brissenden, D. A. H. Buckley, D. A. Schwartz, A. Silber, B. A. Stroozas, & I. R. Tuohy.* 428, 785, 140-A11 (1994)

An Analysis of the Radial Velocity Residuals for Various Models of SS 433. *George W. Collins II & Christopher J. Garasi.* 431, 836, 189-B1 (1994)

A Study of the Moderately Wide Wolf-Rayet Spectroscopic Binary HD 190918. *Anne B. Underhill & Grant M. Hill.* 432, 770, 205-E10 (1994)

A Far-Ultraviolet Atlas of Symbiotic Stars Observed with *IUE*. I. The SWP Range. *S. R. Meier, M. Kafatos, R. P. Fahey, & A. G. Michalitsianos.* 94, 183, 54-C2 (1994)

Lithium in a Short-Period Tidally Locked Binary of M67: Implications for Stellar Evolution, Galactic Lithium Evolution, and Cosmology. *Constantine P. Deliyannis, Jeremy R. King, Ann M. Boesgaard, & Sean G. Ryan.* 434, L71, 241-G1 (1994)

First Radial Velocities for 146 Bright F- and G-Type Stars. *Helmut A. Abt & Daryl W. Willmarth.* 94, 677, 61-D1 (1994)

Quiescent Accretion Disks in Black Hole X-Ray Novae. *Jerome A. Orosz, Charles D. Bailyn, Ronald A. Remillard, Jeffrey E. McClintock, & Craig B. Foltz.* 436, 848, 277-D3 (1994)

Studies of Binary Stars in the Magellanic Clouds. II. Spectroscopic Orbits of Four Massive Eclipsing Binaries. *Virpi S. Niemela & Lilia P. Bassino.* 437, 332, 287-F11 (1994)

A Radial Velocity Study of the Dwarf Nova AR Andromedae: Comparison of the Quiescent and Outburst States. *A. W. Shafter, J. M. Veal, & E. L. Robinson.* 440, 853, 54-G10 (1995)

Star Counts from the *HST* Snapshot Survey. II. Wide Binaries. *Andrew Gould, John N. Bahcall, Dan Maoz, & Brian Yanny.* 441, 200, 62-B4 (1995)

BE Ursae Majoris: Precataclysmic Binary System and Planetary Nucleus. *James Liebert, R. W. Tweedy, R. Napiwotzki, & M. S. Fulbright.* 441, 424, 65-B11 (1995)

Orbital Parameters of the Candidate Black Hole Binary GRO J0422+32. *Jerome A. Orosz & Charles D. Bailyn.* 446, L59, 170-D12 (1995)

PSR J0045−7319: A Dual-Line Binary Radio Pulsar. *J. F. Bell, M. S. Bessell, B. W. Stappers, M. Bailes, & V. M. Kaspi.* 447, L117, 191-B6 (1995)

Tomographic Separation of Composite Spectra. III. Ultraviolet Detection of the Hot Companion of ϕ Persei. *Michelle L. Thaller, William G. Bagnuolo, Jr., Douglas R. Gies, & Laura R. Penny.* 448, 878, 207-A10 (1995)

Study of Spectroscopic Binaries with TODCOR. II. The Highly Eccentric Binary HD 2909. *Tsevi Mazeh, Shay Zucker, Dorit Goldberg, David W. Latham, Robert P. Stefanik, & Bruce W. Carney.* 449, 909, 225-C10 (1995)

An Eight-Year Study of the Radio Emission from the Wolf-Rayet Binary HD 193793 = WR 140. *Richard L. White & Robert H. Becker.* 451, 352, 250-F8 (1995)

Study of Spectroscopic Binaries with TODCOR. III. Application to Triple-lined Systems. *Shay Zucker, Guillermo Torres, & Tsevi Mazeh.* 452, 863, 276-E10 (1995)

Study of Spectroscopic Binaries with TODCOR. IV. The Multiplicity of the Young Nearby Star HD 98800. *Guillermo Torres, Robert P. Stefanik, David W. Latham, & T. Mazeh.* 452, 870, 276-F7 (1995)

A Study of the Spectra of Seven Of Stars. I. Radial Velocities. *Anne B. Underhill.* 100, 433, 52-A10 (1995)

A Search for Interstellar C_3 in the Translucent Cloud toward HD 147889. *L. Matthew Haffner & David M. Meyer.* 453, 450, 287-C8 (1995)

Identification of the Soft X-Ray Source WGA J1802.1+1804 with a New Magnetic Cataclysmic Variable. *Paula Szkody, Andrew Silber, D. W. Hoard, E. Fierce, K. P. Singh, P. Barrett, E. Schlegel, & V. Piirola.* 455, L43, 325-A6 (1995)

STARS: BINARIES: SYMBIOTIC

The Secondary Outburst Maximum of T Coronae Borealis: Implications for the Physics of Accretion Disks. *John K. Cannizzo & Scott J. Kenyon.* 386, L17, 29-C7 (1992)

Observations of Symbiotic Stars at Millimeter and Submillimeter Wavelengths. *E. R. Seaquist & A. R. Taylor.* 387, 624, 46-D5 (1992)

Improved Calculations for the C III $\lambda\lambda$1907,1909 and Si III $\lambda\lambda$1883,1892 Electron Density Sensitive Emission-Line Ratios, and a Comparison with *IUE* Observations. *F. P. Keenan, W. A. Feibelman, & K. A. Berrington.* 389, 443, 65-D5 (1992)

The Structure of the Inner Arcsecond of R Aquarii Observed with the *Hubble Space Telescope*. *Denis Burgarella & Francesco Paresce.* 389, L29, 66-D10 (1992)

Fe II Fluorescence and Anomalous C IV Doublet Intensities in Symbiotic Novae. *A. G. Michalitsianos, M. Kafatos, & S. R. Meier.* 389, 649, 69-D12 (1992)

Ultraviolet Observations of the Symbiotic Star AS 296. *A. Gutiérrez-Moreno, H. Moreno, & W. A. Feibelman.* 395, 295, 143-G1 (1992)

Are Symbiotic Stars the Precursors of Type Ia Supernovae? *Ulisse Munari & Alvio Renzini.* 397, L87, 181-B1 (1992)

Evidence Signaling the Start of Enhanced Counterjet Flow in the Symbiotic System R Aquarii. *A. G. Michalitsianos, M. Perez, & M. Kafatos.* 423, 441, 51-E13 (1994)

ROSAT PSPC Observations of the Symbiotic CH Cygni. *D. A. Leahy & K. Volk.* 440, 847, 54-G1 (1995)

The Active Phase of the Hot Component of Z Andromedae. *T. Fernández-Castro, R. González-Riestra, A. Cassatella, A. R. Taylor, & E. R. Seaquist.* 442, 366, 82-B4 (1995)

A Model for the Galactic Population of Symbiotic Stars with White Dwarf Accretors. *L. Yungelson, M. Livio, A. Tutukov, & S. J. Kenyon.* 447, 656, 185-B10 (1995)

Ultraviolet Temporal Variability of the Peculiar Star R Aquarii. *S. R. Meier & M. Kafatos.* 451, 359, 250-G5 (1995)

Simultaneous Observation of Direct and Raman-scattered O VI Lines in the Symbiotic Nova RR Telescopii. *Brian R. Espey, Regina E. Schulte-Ladbeck, Gerard A. Kriss, Fred Hamann, Hans M. Schmid, & Joni J. Johnson.* 454, L61, 308-D8 (1995)

STARS: BINARIES: VISUAL

Determination of the Visual Orbit of the Spectroscopic Binary α Andromedae with Submilliarcsecond Precison. *Xiaopei Pan, Michael Shao, M. Mark Colavita, J. Thomas Armstrong, David Mozurkewich, Maddali Vivekanand, Craig S. Denison, Richard S. Simon, & Kenneth J. Johnston.* 384, 624, 9-G9 (1992)

Companions to White Dwarfs: Very Low Mass Stars and the Brown Dwarf Candidate GD 165B. *B. Zuckerman & E. E. Becklin.* 386, 260, 27-D7 (1992)

Secondaries of Eclipsing Binaries. VII. The Spectroscopic Triple and Visual Double V505 Sagittarii. *Jocelyn Tomkin.* 387, 631, 46-E1 (1992)

The Wolf-Rayet System WR 147: A Binary Radio Source with Thermal and Nonthermal Components. *E. Churchwell, J. H. Bieging, K. A. van der Hucht, P. M. Williams, T. A. Th. Spoelstra, & D. C. Abbott.* 393, 329, 118-C1 (1992)

First Orbits for the Visual Double Stars WDS 00516N2238, WDS 17366N0722, WDS 17563N0259, and WDS 23020N4800. *J. A. Docobo & J. M. Costa.* 82, 323, 53-G7 (1992)

Observations of Double Stars and New Pairs. XV. *W. D. Heintz.* 83, 351, 62-F1 (1992)

Speckle Observations of Mira's Companion. *M. Karovska, P. Nisenson, & J. Beletic.* 402, 311, 5-A7 (1993)

Fragmentation of Elongated Cylindrical Clouds. VI. Comparison with Observations. *Ian Bonnell & Pierre Bastien.* 406, 614, 65-E1 (1993)

Gas and Dust in the Pre–Main-Sequence Multiple System GG Tauri. *D. W. Koerner, A. I. Sargent, & S. V. W. Beckwith.* 408, L93, 95-D7 (1993)

High Angular Resolution Measurements of Algol. *Xiaopei Pan, Michael Shao, & M. Mark Colavita.* 413, L129, 169-C1 (1993)

Restoration of Astronomical Images by Iterative Blind Deconvolution. *Stuart M. Jefferies & Julian C. Christou.* 415, 862, 198-F9 (1993)

HST Photometry of the Trapezium Cluster. *Charles F. Prosser, John R. Stauffer, Lee Hartmann, David R. Soderblom, Burton F. Jones, Michael W. Werner, & Mark J. McCaughrean.* 421, 517, 24-E9 (1994)

Orbits of Six Visual Double Stars. *J. A. Docobo, J. F. Ling, & C. Prieto.* 91, 793, 29-G5 (1994)

Are Wide Pre–Main-Sequence Binaries Coeval? *Patrick Hartigan, Karen M. Strom, & Stephen E. Strom.* 427, 961, 124-E10 (1994)

A Coronagraphic Search for Brown Dwarfs around Nearby Stars. *T. Nakajima, S. T. Durrance, D. A. Golimowski, & S. R. Kulkarni.* 428, 797, 140-B11 (1994)

Imaging Spectroscopy with High Spatial Resolution. *Naoshi Baba, Susumu Kuwamura, Noriaki Miura, & Yuji Norimoto.* 431, L111, 192-A1 (1994)

10 Micron Imaging of UZ Tauri: Evidence for Circumstellar Disk Clearing due to a Close Companion Star. *A. M. Ghez, J. P. Emerson, J. R. Graham, M. Meixner, & C. J. Skinner.* 434, 707, 237-E3 (1994)

Stellar Photometry Including Saturated Images: Results on M67 with WFPC2. *Ronald L. Gilliland.* 435, L63, 252-E9 (1994)

Star Counts from the *HST* Snapshot Survey. II. Wide Binaries. *Andrew Gould, John N. Bahcall, Dan Maoz, & Brian Yanny.* 441, 200, 62-B4 (1995)

A Lunar Occultation and Direct Imaging Survey of Multiplicity in the Ophiuchus and Taurus Star-forming Regions. *M. Simon, A. M. Ghez, Ch. Leinert, L. Cassar, W. P. Chen, R. R. Howell, R. F. Jameson, K. Matthews, G. Neugebauer, & A. Richichi.* 443, 625, 106-E1 (1995)

A New Method for Determining the Angular Separation of Double Stars. *Daniel F. V. James, H. C. Kandpal, & Emil Wolf.* 445, 406, 138-B4 (1995)

The Fate of the Solid Matter Orbiting HR 4796A. *M. Jura, A. M. Ghez, Russel J. White, D. W. McCarthy, R. C. Smith, & P. G. Martin.* 445, 451, 138-F11 (1995)

Observations of Double Stars and New Pairs. XVI. Results in 1992–1994. *W. D. Heintz.* 99, 693, 44-D1 (1995)

Rayleigh Beacon Adaptive Optics Imaging of ADS 9731: Measurements of the Isoplanatic Field of View. *Julian C. Christou, Brent Ellerbroek, Robert Q. Fugate, Domenico Bonaccini, & Ruggero Stanga.* 450, 369, 233-A12 (1995)

Full Adaptive Optics Images of ADS 9731 and μ Cassiopeiae: Orbits and Masses. *Jack D. Drummond, Julian C. Christou, & Robert Q. Fugate.* 450, 380, 233-B12 (1995)

Study of Spectroscopic Binaries with TODCOR. IV. The Multiplicity of the Young Nearby Star HD 98800. *Guillermo Torres, Robert P. Stefanik, David W. Latham, & T. Mazeh.* 452, 870, 276-F7 (1995)

An Age Estimate for the β Pictoris Analog HR 4796A. *John R. Stauffer, Lee W. Hartmann, & David Barrado y Navascues.* 454, 910, 314-D1 (1995)

Interstellar Lines in HD 72127A and B: A Binary Star behind the Vela Supernova Remnant. *George Wallerstein, Andrew Vanture, & Edward B. Jenkins.* 455, 590, 330-A9 (1995)

An Empirical Condition for Stability of Hierarchical Triple Systems. *Peter Eggleton & Ludmila Kiseleva.* 455, 640, 330-F8 (1995)

Stellar Activity at the End of the Main Sequence: GHRS Observations of the M8 Ve Star VB 10. *Jeffrey L. Linsky, Brian E. Wood, Alexander Brown, Mark S. Giampapa, & Carol Ambruster.* 455, 670, 331-B10 (1995)

STARS: BLUE STRAGGLERS

WFPC2 Observations of the Globular Cluster M30. *Brian Yanny, Puragra Guhathakurta, Donald P. Schneider, & John N. Bahcall.* 435, L59, 252-D13 (1994)

On the Luminosity Function, Lifetimes, and Origin of Blue Stragglers in Globular Clusters. *Charles D. Bailyn & Marc H. Pinsonneault.* 439, 705, 34-C13 (1995)

The Minimum Mass Ratio of W Ursae Majoris Binaries. *Frederic A. Rasio.* 444, L41, 121-G1 (1995)

On Blue Straggler Formation by Direct Collisions of Main-Sequence Stars. *James C. Lombardi, Jr., Frederic A. Rasio, & Stuart L. Shapiro.* 445, L117, 151-C1 (1995)

Stellar Variability in the Central Populations of 47 Tucanae from WF/PC Observations with the *Hubble Space Telescope*. I. Project Overview, Reduction Techniques, and First Results. *Ronald L. Gilliland, Peter D. Edmonds, Larry Petro, Abhijit Saha, & Michael M. Shara.* 447, 191, 174-G5 (1995)

The Rotational Rates of Blue Stragglers Produced by Physical Stellar Collisions. *Peter J. T. Leonard & Mario Livio.* 447, L121, 191-B11 (1995)

Are Blue Stragglers Mixed during Collisions? *Alison Procter Sills, Charles D. Bailyn, & Pierre Demarque.* 455, L163, 334-D6 (1995)

STARS: BROWN DWARFS

Cold Nuclear Fusion in Dense Metallic Hydrogen. *Charles J. Horowitz.* 367, 288, 15-E13 (1991)

ESO 207-61: A Brown Dwarf Candidate in the Hyades Moving Group. *María Teresa Ruiz, Marianne Y. Takamiya, & Miguel Roth.* 367, L59, 22-C7 (1991)

Gravitational Microlensing of the Galactic Bulge Stars. *B. Paczyński.* 371, L63, 73-C4 (1991)

Gravitational Microlensing by Double Stars and Planetary Systems. *Shude Mao & Bohdan Paczyński.* 374, L37, 110-B11 (1991)

Brown Dwarfs in Young Stellar Clusters. *Guy S. Stringfellow.* 375, L21, 117-C7 (1991)

The LkHα 101 Infrared Cluster. *M. Barsony, J. M. Schombert, & K. Kis-Halas.* 379, 221, 165-G1 (1991)

Constraints on the Companion Object to HD 114762. *William D. Cochran, Artie P. Hatzes, & Terry J. Hancock.* 380, L35, 181-E6 (1991)

STARS: CARBON

Detection of ^{13}C Isotopomers of HC_5N ($J = 9–8$) in the Circumstellar Envelope of IRC +10216. *M. B. Bell & P. A. Feldman.* 367, L33, 17-E8 (1991)

Radial Velocity Distribution and Line Strengths of 33 Carbon Stars in the Galactic Bulge. *Neil D. Tyson & R. Michael Rich.* 367, 547, 20-B6 (1991)

Nitrogen Abundances in Carbon-rich Stars That Are Progenitors to Planetary Nebulae. *M. Jura.* 372, 208, 76-E7 (1991)

The Mid-Infrared Spectrum of the Carbon Star HD 38218 and Its Possible Relation to Polycyclic Aromatic Hydrocarbons. *Richard H. Buss, Jr., A. G. G. M. Tielens, & Theodore P. Snow.* 372, 281, 77-D8 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

Large Molecule Production by Mass-losing Carbon Stars: The Primary Source of Interstellar Polycyclic Aromatic Hydrocarbons? *William B. Latter.* 377, 187, 140-C5 (1991)

Dust Temperatures in the Circumstellar Shell of TX Piscium. *J. Wirsich.* 377, 285, 141-E1 (1991)

Lithium Abundances in Carbon Stars. *Grant R. Denn, R. Earle Luck, & David L. Lambert.* 377, 657, 147-G5 (1991)

Three Newly Recognized Dwarf Carbon Stars. *Paul J. Green, Bruce Margon, & D. Jack MacConnell.* 380, L31, 181-E1 (1991)

Abundances in Red Giant Stars: Nitrogen Isotopes in Carbon-rich Molecular Envelopes. *P. G. Wannier, B-G Andersson, H. Olofsson, N. Ukita, & K. Young.* 380, 593, 185-E8 (1991)

On the Nature of the Excess 100 Micron Flux Associated with Carbon Stars. *Michael P. Egan & Chun Ming Leung.* 383, 314, 216-B1 (1991)

New Candidates for Carbon Stars with Silicate Features. *S. Josephine Chan & Sun Kwok.* 383, 837, 224-F1 (1991)

Subgiant CH Stars. II. Chemical Compositions and the Evolutionary Connection with Barium Stars. *R. Earle Luck & Howard E. Bond.* 77, 515, 51-G1 (1991)

A VLA 3.6 Centimeter Survey of N-Type Carbon Stars. *Donald G. Luttermoser & Alexander Brown.* 384, 634, 10-A7 (1992)

Radial Velocities of Carbon Stars: CO versus Optical Measurements. *Cecilia Barnbaum.* 385, 694, 21-F10 (1992)

High Spatial Resolution Maps of Circumstellar SiC_2 in IRC +10216. *P. D. Gensheimer, Lauren Likkel, & L. E. Snyder.* 388, L31, 52-C11 (1992)

Candidates for Extreme Carbon Stars. *Kevin Volk, Sun Kwok, & Philip P. Langill.* 391, 285, 89-D12 (1992)

8–14 Micron Spectroscopy of Carbon Stars Associated with Silicate Dust. *Paul D. LeVan, G. C. Sloan, Irene R. Little-Marenin, & G. L. Grasdalen.* 392, 702, 111-A1 (1992)

Interstellar SiC with Unusual Isotopic Compositions: Grains from a Supernova? *Sachiko Amari, Peter Hoppe, Ernst Zinner, & Roy S. Lewis.* 394, L43, 139-C1 (1992)

Carbon Star Luminosity Indicators. *Paul J. Green, Bruce Margon, Scott F. Anderson, & D. Jack MacConnell.* 400, 659, 218-E12 (1992)

Polycyclic Aromatic Hydrocarbon Formation in Carbon-rich Stellar Envelopes. *Isabelle Cherchneff, John R. Barker, & Alexander G. G. M. Tielens.* 401, 269, 224-D1 (1992)

CO Observations of Candidates for Carbon-rich Asymptotic Giant Branch and Post–Asymptotic Giant Branch Stars. *Kevin Volk, Sun Kwok, & Andrew W. Woodsworth.* 402, 292, 4-F10 (1993)

Companions to Bright S and MS Stars: Technetium Deficiency and Binarity. *Hollis R. Johnson, Thomas B. Ake, & Mudhaffer M. Ameen.* 402, 667, 10-G11 (1993)

A Deep Envelope Composition for TX Piscium? *J. H. Goebel, D. Goorvitch, H. P. Larson, & D. R. Alexander.* 402, 680, 11-B1 (1993)

New 3 Millimeter Observations of Interstellar HNO: Reinstating a Discredited Identification. *Lewis E. Snyder, Yi-Jehng Kuan, L. M. Ziurys, & J. M. Hollis.* 403, L17, 20-C1 (1993)

The Abundance Distribution of C_4H in IRC +10216. *Aditya Dayal & John H. Bieging.* 407, L37, 75-E1 (1993)

The Formation of Cyanopolyyne Molecules in IRC +10216. *Isabelle Cherchneff, Alfred E. Glassgold, & Gary A. Mamon.* 410, 188, 114-D12 (1993)

Carbon Stars and Isotopic Ba Anomalies in Meteoritic SiC Grains. *R. Gallino, C. M. Raiteri, & M. Busso.* 410, 400, 117-A10 (1993)

A Study of Circumstellar Envelopes around Bright Carbon Stars. I. Structure, Kinematics, and Mass-Loss Rate. *H. Olofsson, K. Eriksson, B. Gustafsson, & U. Carlström.* 87, 267, 30-E1 (1993)

A Study of Circumstellar Envelopes around Bright Carbon Stars. II. Molecular Abundances. *H. Olofsson, K. Eriksson, B. Gustafsson, & U. Carlström.* 87, 305, 31-A5 (1993)

Infrared Spectra of Transition Objects and the Composition and Evolution of Carbon Dust. *R. H. Buss, Jr., A. G. G. M. Tielens, M. Cohen, M. W. Werner, J. D. Bregman, & F. C. Witteborn.* 415, 250, 188-B3 (1993)

Atomic Carbon in the Envelope of IRC +10216. *Jocelyn Keene, K. Young, T. G. Phillips, Thomas H. Büttgenbach, & John E. Carlstrom.* 415, L131, 200-E1 (1993)

Prevention of High-Luminosity Carbon Stars by Hot Bottom Burning. *Arnold I. Boothroyd, I.-Juliana Sackmann, & Sean C. Ahern.* 416, 762, 212-G6 (1993)

C_3S and C_5S in IRC +10216. *M. B. Bell, L. W. Avery, & P. A. Feldman.* 417, L37, 223-C1 (1993)

Extreme-Ultraviolet Extinction Measurements on Hydrogenated and Dehydrogenated Amorphous Carbon Grains. *L. Colangeli, V. Mennella, A. Blanco, S. Fonti, E. Bussoletti, H. E. Gumlich, H. C. Mertins, & Ch. Jung.* 418, 435, 236-D7 (1993)

Whither the LSR: Anticenter Carbon Star Velocities. *Mark R. Metzger & Paul L. Schechter.* 420, 177, 3-B8 (1994)

Observations of 13.5 Micron Rotation-Vibration Lines of SiS in IRC +10216. *R. J. Boyle, J. J. Keady, D. E. Jennings, K. L. Hirsch, & G. R. Wiedemann.* 420, 863, 13-E12 (1994)

A High-Resolution Spectral Atlas of Carbon Stars. *Cecilia Barnbaum.* 90, 317, 5-G10 (1994)

Discovery of a Dwarf Carbon Star with a White Dwarf Companion and of a Highly Magnetic Degenerate Star. *James Liebert, Gary D. Schmidt, M. Lesser, J. A. Stepanian, V. A. Lipovetsky, Frederic H. Chaffee, Craig B. Foltz, & P. Bergeron.* 421, 733, 27-C12 (1994)

Constraints on the Origin of Dwarf Carbon Stars. *Paul J. Green & Bruce Margon.* 423, 723, 57-E7 (1994)

The Photodissociation of Circumstellar HCN and SiS. *J. Wirsich.* 424, 370, 66-D14 (1994)

Three-dimensional Structure of the Circumstellar Envelope of CRL 618 based on the ^{13}CO $J = 1–0$ Mapping Observations. *Issei Yamamura, Katsunori M. Shibata, Takashi Kasuga, & Shuji Deguchi.* 427, 406, 114-G13 (1994)

Induced Nucleation of Carbon Dust in Red Giant Stars. *Brian J. Cadwell, Hai Wang, Eric D. Feigelson, & Michael Frenklach.* 429, 285, 147-E10 (1994)

Detection of Radio Continuum Emission from Circumstellar Dust around CRL 2688 and IRC +10216. *G. R. Knapp, P. F. Bowers, K. Young, & T. G. Phillips.* 429, L33, 150-E1 (1994)

The Puzzle of Silicon, Titanium, and Magnesium Anomalies in Meteoritic Silicon Carbide Grains. *Roberto Gallino, Claudia M. Raiteri, Maurizio Busso, & Francesca Matteucci.* 430, 858, 172-E13 (1994)

A CCD Survey for Faint High-Latitude Carbon Stars. *Paul J. Green, Bruce Margon, Scott F. Anderson, & Kem H. Cook.* 434, 319, 229-G6 (1994)

Broken Symmetry: The Structure of the Dust Envelope of IRC +10216. *Joel H. Kastner & David A. Weintraub.* 434, 719, 237-F7 (1994)

Ultraviolet Spectra of Amorphous Carbon Grains: Comparison with the Circumstellar Extinction around C-rich Objects. *A. M. Muci, A. Blanco, S. Fonti, & V. Orofino.* 436, 831, 277-B3 (1994)

Full Synthesis Maps of Circumstellar SiC_2 in IRC +10216. *P. D. Gensheimer, Lauren Likkel, & L. E. Snyder.* 439, 445, 27-C3 (1995)

^{13}CO Interferometric Observations of the Central Core of CRL 2688. *Issei Yamamura, Takashi Onaka, Fumio Kamijo, Shuji Deguchi, & Nobuharu Ukita.* 439, L13, 29-G4 (1995)

The Distribution of HCN, $H^{13}CN$, and CN in IRC +10216. *Aditya Dayal & John H. Bieging.* 439, 996, 38-D7 (1995)

HCN Emission from Bright Carbon Stars: The Ground State Masers and Peculiar Broad Features. *Hideyuki Izumiura, Nobuharu Ukita, & Takashi Tsuji.* 440, 728, 53-C1 (1995)

Outer Layers of a Carbon Star: The View from the *Hubble Space Telescope*. *Hollis R. Johnson, Lisa M. Ensman, David R. Alexander, Eugene H. Avrett, Alexander Brown, Kenneth G. Carpenter, Kjell Eriksson, Bengt Gustafsson, Uffe G. Jørgensen, Philip D. Judge, Jeffrey L. Linsky, Donald G. Luttermoser, Francois Querci, Monique Querci, Richard D. Robinson, & Robert F. Wing.* 443, 281, 99-B6 (1995)

Grain Formation around Carbon Stars. I. Stationary Outflow Models. *Michael P. Egan & Chun Ming Leung.* 444, 251, 117-A1 (1995)

A Dehydrogenation Study of Cosmic Carbon Analogue Grains. *V. Mennella, L. Colangeli, A. Blanco, E. Bussoletti, S. Fonti, P. Palumbo, & H. C. Mertins.* 444, 288, 117-D4 (1995)

Nucleosynthesis and Mixing on the Asymptotic Giant Branch. II. Carbon and Barium Stars in the Galactic Disk. *M. Busso, D. L. Lambert, L. Beglio, R. Gallino, C. M. Raiteri, & V. V. Smith.* 446, 775, 166-F13 (1995)

A Model for the Amorphous Carbon Grains around C-rich Objects. *A. Blanco, S. Fonti, & V. Orofino.* 448, 339, 196-G6 (1995)

A Model for the Space Density of Dwarf Carbon Stars. *Martijn de Kool & Paul J. Green.* 449, 236, 213-D10 (1995)

The 11 Micron Emissions of Carbon Stars. *J. H. Goebel, P. Cheeseman, & F. Gerbault.* 449, 246, 213-E9 (1995)

Evidence for Rapid Rotation of the Carbon Star V Hydrae. *Cecilia Barnbaum, Mark Morris, & Claudine Kahane.* 450, 862, 242-G7 (1995)

On the Electronic Structure of Small Carbon Grains of Astrophysical Interest. *V. Mennella, L. Colangeli, E. Bussoletti, G. Monaco, P. Palumbo, & A. Rotundi.* 100, 149, 47-G9 (1995)

Four Newly Identified Sources with 21 Micron Emission. *Sun Kwok, Bruce J. Hrivnak, & T. R. Geballe.* 454, 394, 304-F8 (1995)

The 30 Micron Emission Band in Carbon-rich Pre–Planetary Nebulae. *A. Omont, S. H. Moseley, P. Cox, W. Glaccum, S. Casey, T. Forveille, Kin-Wing Chan, R. Szczerba, R. F. Loewenstein, P. M. Harvey, & S. Kwok.* 454, 819, 313-B2 (1995)

STARS: CATALOGS

A Spectrophotometric Atlas of White Dwarfs Compiled from the *IUE* Archives. *Gary Wegner & Steven R. Swanson.* 75, 507, 7-E13 (1991)

A Critical Appraisal of Published Values of [Fe/H] for K II–IV Stars. *Benjamin J. Taylor.* 76, 715, 34-E12 (1991)

STARS: CEPHEIDS

Classical Cepheids with RV Tauri Characteristics? *Pawel Moskalik & J. Robert Buchler.* 366, 300, 4-F12 (1991)

New Cepheid Distances to Nearby Galaxies Based on *BVRI* CCD Photometry. II. The Local Group Galaxy M33. *Wendy L. Freedman, Christine D. Wilson, & Barry F. Madore.* 372, 455, 81-D9 (1991)

Classical Cepheid Luminosities from Binary Companions. *Nancy Remage Evans.* 372, 597, 83-B1 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

Radial Velocities of 26 Northern Milky Way Cepheids. *Mark R. Metzger, John A. R. Caldwell, James K. McCarthy, & Paul L. Schechter.* 76, 803, 35-G3 (1991)

Absolute Magnitudes and Kinematic Properties of Cepheids. *Teresa D. Wilson, Thomas G. Barnes III, Suzanne L. Hawley, & William H. Jefferys.* 378, 708, 161-B11 (1991)

Periodic Stellar Pulsations: Stability Analysis and Amplitude Equations. *J. Robert Buchler, Pawel Moskalik, & Géza Kovács.* 380, 185, 178-D1 (1991)

Variable Stars in Magellanic Cloud Clusters. II. NGC 1850. *K. M. Sebo & P. R. Wood.* 449, 164, 212-D8 (1995)

STARS: CHEMICALLY PECULIAR

Radio Emission from Chemically Peculiar Stars. *Jeffrey L. Linsky, Stephen A. Drake, & T. S. Bastian.* 393, 341, 118-D1 (1992)

Self-consistent Models of Wolf-Rayet Stars as Helium Stars with Optically Thick Winds. *Mariko Kato & Icko Iben, Jr.* 394, 305, 131-F13 (1992)

Nonequilibrium Iron Oxide Formation in Some Low-Mass Post–Asymptotic Giant Branch Stars. *Frans J. M. Rietmeijer.* 400, L39, 214-E6 (1992)

The Spectrum of the Central Star of the Planetary Nebula in M22. *J. Patrick Harrington & George Paltoglou.* 411, L103, 142-G3 (1993)

Reaction Rates of the *s*-Process Neutron Sources ^{22}Ne(α, n)^{25}Mg and ^{13}C(α, n)^{16}O. *H. W. Drotleff, A. Denker, H. Knee, M. Soiné, G. Wolf, J. W. Hammer, U. Greife, C. Rolfs, & H. P. Trautvetter.* 414, 735, 180-D3 (1993)

The Discrimination between O- and C-rich Circumstellar Envelopes from Molecular Observations. *V. Bujarrabal, A. Fuente, & A. Omont.* 421, L47, 22-B1 (1994)

The Abundances of Pt, Au, and Hg in the Chemically Peculiar HgMn-Type Stars κ Cancri and χ Lupi. *Glenn M. Wahlgren, David S. Leckrone, Sveneric G. Johansson, Maria Rosberg, & Tomas Brage.* 444, 438, 119-E11 (1995)

Carbon Isotope Ratios in Very Lithium-rich K Giants. *L. da Silva, R. de la Reza, & B. Barbuy.* 448, L41, 200-A1 (1995)

The Relation between Rotational Velocities and Spectral Peculiarities among A-Type Stars. *Helmut A. Abt & Nidia I. Morrell.* 99, 135, 36-A1 (1995)

STARS: CHROMOSPHERES

Stellar Lyman-Alpha Emission and the Local Interstellar Medium. *Wayne Landsman & Theodore Simon.* 366, L79, 11-D9 (1991)

Be Stars: Chromospheres and Cool Envelopes and Their Relation to Magnetic Fields. *A. E. Ringuelet & M. E. Iglesias.* 369, 463, 43-D10 (1991)

Evolution of the Chromospheres and Winds of Low- and Intermediate-Mass Giant Stars. *P. G. Judge & R. E. Stencel.* 371, 357, 64-E3 (1991)

Rotational Modulation in *IUE* Spectra of Cool Dwarf Chromospheres. I. Data Analysis and Period Search Techniques. *K. L. Hallam, B. Altner, & A. S. Endal.* 372, 610, 83-C1 (1991)

Ca II H and K Measurements Made at Mount Wilson Observatory, 1966–1983. *Douglas K. Duncan, Arthur H. Vaughan, Olin C. Wilson, George W. Preston, James Frazer, Howard Lanning, Anthony Misch, Jean Mueller, David Soyumer, L. Woodard, Sallie L. Baliunas, Robert W. Noyes, Lee W. Hartmann, Alain Porter, Cornelis Zwaan, Frans Middelkoop, René G. M. Rutten, & Dimitri Mihalas.* 76, 383, 29-G9 (1991)

X-Ray Emission from Hybrid-Chromosphere Stars. *Alexander Brown, Stephen A. Drake, Michael E. Van Steenberg, & Jeffrey L. Linsky.* 373, 614, 95-E9 (1991)

The Chromospheric Activity of Low-Mass Stars in the Hyades. *John R. Stauffer, Mark S. Giampapa, William Herbst, James M. Vincent, Lee W. Hartmann, & Robert A. Stern.* 374, 142, 99-G1 (1991)

Rotation and Emission Lines in Stars and Accretion Disks. *Keith Horne & Steven H. Saar.* 374, L55, 110-D6 (1991)

The Many Faces of F Stars: A Rotational Modulation Study of Capella, Procyon, and Caph with the *International Ultraviolet Explorer*. *Thomas R. Ayres.* 375, 704, 121-D11 (1991)

The Chromospheric Emission–Age Relation for Stars of the Lower Main Sequence and Its Implications for the Star Formation Rate. *David R. Soderblom, Douglas K. Duncan, & Dean R. H. Johnson.* 375, 722, 121-F5 (1991)

Dust Temperatures in the Circumstellar Shell of TX Piscium. *J. Wirsich.* 377, 285, 141-E1 (1991)

First Results from the Goddard High-Resolution Spectrograph: The Chromosphere of α Tauri. *Kenneth G. Carpenter, Richard D. Robinson, Glenn M. Wahlgren, Thomas B. Ake, Dennis C. Ebbets, Jeffrey L. Linsky, Alexander Brown, & Frederick M. Walter.* 377, L45, 143-E11 (1991)

Heating Mechanism(s) for Transition Layers in Giants. *Erika Böhm-Vitense & José Mena-Werth.* 378, 718, 161-C8 (1991)

Fe II Emission Lines. I. Chromospheric Spectra of Red Giants. *P. G. Judge & C. Jordan.* 77, 75, 44-E1 (1991)

The Onset of Chromospheric Activity among the A and F Stars. *Theodore Simon & Wayne Landsman.* 380, 200, 178-E3 (1991)

A Connection between Long-Term Luminosity Variations and Orbital Period Changes in Chromospherically Active Binaries. *Douglas S. Hall.* 380, L85, 188-F1 (1991)

Magnetoacoustic Heating of the Solar Chromosphere. *Joseph M. Davila & S. M. Chitre.* 381, L31, 194-D12 (1991)

IUE Observations of Solar-Type Stars in the Pleiades and the Hyades. *Jean-Pierre Caillault, Osmi Vilhu, & Jeffrey L. Linsky.* 383, 594, 221-F1 (1991)

The Unusual Ultraviolet Chromospheric Spectrum of the R Coronae Borealis Star, V854 Centauri (NSV 6708), at Minimum Light. *Geoffrey C. Clayton, Barbara A. Whitney, S. Adam Stanford, John S. Drilling, & P. G. Judge.* 384, L19, 6-C8 (1992)

Partially Coherent Scattering in Stellar Chromospheres. I. Effects on Resonance Line Thermalization. *Kenneth G. Gayley.* 78, 549, 10-D7 (1992)

Discovery of a Fast Wind from a Field Population II Giant Star. *A. K. Dupree, Dimitar D. Sasselov, & John B. Lester.* 387, L85, 48-D11 (1992)

Kinematics and Age of RS Canum Venaticorum and BY Draconis Stars. *Zeki Eker.* 79, 481, 20-E9 (1992)

Partially Coherent Scattering in Stellar Chromospheres. II. The First-Order Escape Probability Method. *K. G. Gayley.* 390, 573, 82-D8 (1992)

Partially Coherent Scattering in Stellar Chromospheres. III. A Second-Order Escape Probability Method. *K. G. Gayley.* 390, 583, 82-E5 (1992)

Line Profile Asymmetries in Chromospherically Active Stars. *Robert C. Dempsey, Bernard W. Bopp, Klaus G. Strassmeier, Arno F. Granados, Gregory W. Henry, & Douglas S. Hall.* 392, 187, 103-C5 (1992)

Evidence of Differential Surface Rotation in the Solar-Type Star HD 114710. *Robert A. Donahue & Sallie L. Baliunas.* 393, L63, 127-D1 (1992)

γ Cephei: Rotation or Planetary Companion? *Gordon A. H. Walker, David A. Bohlender, Andrew R. Walker, Alan W. Irwin, Stephenson L. S. Yang, & Ana Larson.* 396, L91, 167-D1 (1992)

Emission-Line Studies of Young Stars. I. The T Tauri Stars. *Fred Hamann & S. E. Persson.* 82, 247, 52-F9 (1992)

Emission-Line Studies of Young Stars. II. The Herbig Ae/Be Stars. *Fred Hamann & S. E. Persson.* 82, 285, 53-C11 (1992)

CCD Observations of the Hα Line in Late G and K Supergiants and Their Interpretation. *Sushma V. Mallik.* 402, 303, 4-G10 (1993)

The Hydrogen Lyman-Alpha Emission of Capella. *Thomas R. Ayres, A. Brown, K. G. Gayley, & Jeffrey L. Linsky.* 402, 710, 11-D5 (1993)

The Distant Future of Solar Activity: A Case Study of β Hydri. II. Chromospheric Activity and Variability. *D. Dravins, P. Linde, K. Fredga, & G. F. Gahm.* 403, 396, 18-F9 (1993)

Lithium and Rapid Rotation in Chromospherically Active Single Giants. *Francis C. Fekel & Suchitra Balachandran.* 403, 708, 24-E4 (1993)

On the Chromospheric Structure of ζ Aurigae. *Joel A. Eaton.* 404, 305, 31-F1 (1993)

Rotation and Chromospheric Emission among F, G, and K Dwarfs of the Pleiades. *David R. Soderblom, John R. Stauffer, J. Dan Hudon, & Burton F. Jones.* 85, 315, 11-D13 (1993)

A Catalog of Stellar Lyman-Alpha Fluxes. *Wayne Landsman & Theodore Simon.* 408, 305, 87-A1 (1993)

Observations of the Ca II Infrared Triplet in Chromospherically Active Single and Binary Stars. *Robert C. Dempsey, Bernard W. Bopp, Gregory W. Henry, & Douglas S. Hall.* 86, 293, 17-G7 (1993)

Chromospheric Heating by Acoustic Shocks: A Confrontation of GHRS Observations of α Tauri (K5 III) with Ab Initio Calculations. *P. G. Judge & M. Cuntz.* 409, 776, 108-F13 (1993)

Mg II and Lyα Fluxes in M Dwarfs: Evaluation of an Acoustic Model. *D. J. Mullan & Q. Q. Cheng.* 412, 312, 146-A9 (1993)

The Atmospheres of T Tauri Stars. II. Chromospheric Line Fluxes and Veiling. *C. C. Batalha & Gibor Basri.* 412, 363, 146-E13 (1993)

The Fundamental Parameters of the Chromospherically Active K2 Dwarf ε Eridani. *Jeremy J. Drake & Geoffrey Smith.* 412, 797, 153-F9 (1993)

An Interpretation of Cycle Periods of Stellar Chromospheric Activity. *W. H. Soon, S. L. Baliunas, & Q. Zhang.* 414, L33, 175-F6 (1993)

Partially Coherent Scattering in Stellar Chromospheres. IV. Analytic Wing Approximations. *K. G. Gayley.* 415, 811, 198-A1 (1993)

Chromospheric Activity in Galactic Open Clusters. *A. J. Beasley & L. E. Cram.* 417, 157, 219-D1 (1993)

The Extreme Ultraviolet Spectrum of Alpha Aurigae (Capella). *A. K. Dupree, N. S. Brickhouse, G. A. Doschek, J. C. Green, & J. C. Raymond.* 418, L41, 238-E10 (1993)

Expanding Atmospheric Model Including a Chromosphere. I. Study of the Infrared Excess in Be Stars. *Andrea C. Vázquez, Lydia S. Cidale, & Adela E. Ringuelet.* 419, 286, 249-F10 (1993)

Ca II H and K and Hα Emissions in Chromospherically Active Binary Systems (RS Canum Venaticorum and BY Draconis). *M. J. Fernández-Figueroa, D. Montes, E. De Castro, & M. Cornide.* 90, 433, 8-B6 (1994)

Spectroscopy of Chromospheric Lines of Giants in the Globular Cluster NGC 6752. *A. K. Dupree, Lee Hartmann, Graeme H. Smith, A. W. Rodgers, W. H. Roberts, & D. B. Zucker.* 421, 542, 24-G9 (1994)

The Chromospheric Structure of the Cool Giant Star g Herculis. *Donald G. Luttermoser, Hollis R. Johnson, & Joel A. Eaton.* 422, 351, 34-D7 (1994)

The He I λ10830 Line in Classical Cepheids. I. Observations. *Dimitar D. Sasselov & John B. Lester.* 423, 777, 58-C11 (1994)

The He I λ10830 Line in Classical Cepheids. II. Mechanism of Formation. *Dimitar D. Sasselov & John B. Lester.* 423, 785, 58-D7 (1994)

The Chromospheric Structure of Classical Cepheids: Constraints from the He I λ10830 Line. *Dimitar D. Sasselov & John B. Lester.* 423, 795, 58-E6 (1994)

Carbon Monoxide Fundamental Bands in Late-Type Stars. III. Chromosphere or CO-mosphere? *G. Wiedemann, T. R. Ayres, D. E. Jennings, & S. H. Saar.* 423, 806, 58-F6 (1994)

The Photodissociation of Circumstellar HCN and SiS. *J. Wirsich.* 424, 370, 66-D14 (1994)

A Search for Chromospheric Emission in A-Type Stars Using the Goddard High-Resolution Spectrograph. *Theodore Simon, Wayne B. Landsman, & Ronald L. Gilliland.* 428, 319, 132-B5 (1994)

GHRS Observations of Cool, Low-Gravity Stars. I. The Far-Ultraviolet Spectrum of α Orionis (M2 Iab). *Kenneth G. Carpenter, Richard D. Robinson, Glenn M. Wahlgren, Jeffrey L. Linsky, & Alexander Brown.* 428, 329, 132-C6 (1994)

HD 129333: The Sun in Its Infancy. *J. David Dorren & Edward F. Guinan.* 428, 805, 140-C9 (1994)

High-Velocity Plasma in the Transition Region of AU Microscopii: Evidence for Magnetic Reconnection and Saturated Heating during Quiescent and Flaring Conditions. *Jeffrey L. Linsky & Brian E. Wood.* 430, 342, 163-D8 (1994)

The "Monochromatic Density Diagnostic" Technique: First Detection of Multiple Density Components in the Chromosphere of α Tauri. *P. G. Judge.* 430, 351, 163-E5 (1994)

Gravitational Damping of Alfvén Waves in Stellar Atmospheres and Winds. *I. K. Khabibrakhmanov & D. J. Mullan.* 430, 814, 172-A7 (1994)

Analytic Lyman-Alpha Wing Diagnostics and the Chromospheric Excitation Balance in Cool Dwarfs. *K. G. Gayley.* 431, 806, 188-F4 (1994)

Chromospheric Heating and Metal Deficiency in Cool Giants: Theoretical Results versus Observations. *M. Cuntz, W. Rammacher, & P. Ulmschneider.* 432, 690, 204-E12 (1994)

Acoustic Heating of the Chromosphere and Cool Corona in the F Star α Canis Minoris (Procyon). *D. J. Mullan & Q. Q. Cheng.* 435, 435, 249-D7 (1994)

Chromospheric Variations in Main-Sequence Stars. II. *S. L. Baliunas, R. A. Donahue, W. H. Soon, J. H. Horne, J. Frazer, L. Woodard-Eklund, M. Bradford, L. M. Rao, O. C. Wilson, Q. Zhang, W. Bennett, J. Briggs, S. M. Carroll, D. K. Duncan, D. Figueroa, H. H. Lanning, T. Misch, J. Mueller, R. W. Noyes, D. Poppe, A. C. Porter, C. R. Robinson, J. Russell, J. C. Shelton, T. Soyumer, A. H. Vaughan, & J. H. Whitney.* 438, 269, 5-B12 (1995)

The RIASS Coronathon: Joint X-Ray and Ultraviolet Observations of Normal F–K Stars. *Thomas R. Ayres, T. A. Fleming, T. Simon, B. M. Haisch, A. Brown, D. Lenz, W. Wamsteker, D. de Martino, C. Gonzalez, J. Bonnell, J. M. Mas-Hesse, C. Rosso, J. H. M. M. Schmitt, J. Trümper, W. Voges, J. Pye, R. C. Dempsey, J. L. Linsky, E. F. Guinan, G. M. Harper, C. Jordan, B. M. Montesinos, I. Pagano, & M. Rodonò.* 96, 223, 4-E7 (1995)

Chromospheric Models for Altair (A7 IV–V). *R. Freire Ferrero, P. Gouttebroze, S. Catalano, E. Marilli, F. Bruhweiler, Y. Kondo, K. van der Hucht, & A. Talavera.* 439, 1011, 38-E12 (1995)

Hα Profiles of 25 Chromospherically Active Binaries. *Zeki Eker, Douglas S. Hall, & Christopher M. Anderson.* 96, 581, 9-F9 (1995)

Heating and Ionization of Stellar Chromospheres by Nonthermal Proton Beams: Implications for Impulsive Phase, Redshifted Lyman-α Radiation in Stellar Flares. *Jeffrey W. Brosius, Richard D. Robinson, & Stephen P. Maran.* 441, 385, 64-E13 (1995)

Outer Layers of a Carbon Star: The View from the *Hubble Space Telescope*. *Hollis R. Johnson, Lisa M. Ensman, David R. Alexander, Eugene H. Avrett, Alexander Brown, Kenneth G. Carpenter, Kjell Eriksson, Bengt Gustafsson, Uffe G. Jørgensen, Philip D. Judge, Jeffrey L. Linsky, Donald G. Luttermoser, Francois Querci, Monique Querci, Richard D. Robinson, & Robert F. Wing.* 443, 281, 99-B6 (1995)

Starspot Evolution, Differential Rotation, and Magnetic Cycles in the Chromospherically Active Binaries λ Andromedae, σ Geminorum, II Pegasi, and V711 Tauri. *Gregory W. Henry, Joel A. Eaton, Jamesia Hamer, & Douglas S. Hall.* 97, 513, 19-C6 (1995)

GHRS Observations of Cool, Low-Gravity Stars. II. Flow and Turbulent Velocities in the Outer Atmosphere of γ Crucis (M3.4 III). *Kenneth G. Carpenter, Richard D. Robinson, & Philip G. Judge.* 444, 424, 119-D7 (1995)

New Insights into Nonradiative Heating in Late A Star Chromospheres. *Frederick M. Walter, Lynn D. Matthews, & Jeffrey L. Linsky.* 447, 353, 177-C6 (1995)

Are Variations in the Length of the Activity Cycle Related to Changes in Brightness in Solar-Type Stars? *Sallie Baliunas & Willie Soon.* 450, 896, 243-C8 (1995)

Doppler Imaging of the Cool Spot Distribution on the Weak T Tauri Star V410 Tauri. *Artie P. Hatzes.* 451, 784, 258-A6 (1995)

A Semiempirical Determination of the Wind Velocity Structure for the Hybrid-Chromosphere Star α Trianguli Australis. *Graham M. Harper, Brian E. Wood, Jeffrey L. Linsky, Philip D. Bennett, Thomas R. Ayres, & Alexander Brown.* 452, 407, 267-F6 (1995)

Expanding Atmospheric Model Including a Chromosphere. II. Be Stars: Center-to-Limb Variation of the Emergent Intensity. *Lydia S. Cidale & Andrea C. Vázquez.* 453, 393, 286-E4 (1995)

Simultaneous *Extreme-Ultraviolet Explorer* and Optical Observations of AD Leonis: Evidence for Large Coronal Loops and the Neupert Effect in Stellar Flares. *Suzanne L. Hawley, George H. Fisher, Theodore Simon, Scott L. Cully, Susana E. Deustua, Marek Jablonski, Christopher M. Johns-Krull, Bjørn R. Pettersen, Verne Smith, William J. Spiesman, & Jeffrey Valenti.* 453, 464, 287-D14 (1995)

STARS: CIRCUMSTELLAR MATTER

Dynamics of the Envelopes of Be Stars in the Equatorial Plane. *Haiqi Chen, J. M. Marlborough, & L. B. F. M. Waters.* 384, 605, 9-F1 (1992)

The Peculiar, Fast Nova Herculis 1991. *Charles E. Woodward, R. D. Gehrz, Terry J. Jones, & G. F. Lawrence.* 384, L41, 11-C1 (1992)

IRAS 16293−2422: A Very Young Binary System? *Lee G. Mundy, Alwyn Wootten, Bruce A. Wilking, Geoffrey A. Blake, & Anneila I. Sargent.* 385, 306, 15-F5 (1992)

Polarization Variability among Wolf-Rayet Stars. VII. The Single Stars WR 14, WR 25, and WR 69. *Laurent Drissen, Carmelle Robert, & Anthony F. J. Moffat.* 386, 288, 27-F11 (1992)

Comparing Restored *HST* and VLA Imagery of R Aquarii. *J. M. Hollis, J. E. Dorband, & F. Yusef-Zadeh.* 386, 293, 27-G3 (1992)

Consequences of the Star-Stream Interaction in Algol. *Mercedes T. Richards.* 387, 329, 41-A12 (1992)

10 AU Scale Halo Structure around DG Tauri. *Wen Ping Chen, R. R. Howell, M. Simon, & J. A. Benson.* 387, L43, 43-E8 (1992)

Line Fluorescence from the Ring around SN 1987A. *Eli Dwek & James E. Felten.* 387, 551, 45-E1 (1992)

Time Variations in Millimeter-Wave Radio Recombination Lines from the Be Star MWC 349A. *M. A. Gordon.* 387, 701, 47-D5 (1992)

Unusual 3 Micron Emission Features in Three Proto–Planetary Nebulae. *T. R. Geballe, A. G. G. M. Tielens, S. Kwok, & B. J. Hrivnak.* 387, L89, 48-E1 (1992)

Velocity Streaming of *IRAS* Main-Sequence Disk Stars and the Episodic Enhancement of Particulate Disks by Interstellar Clouds. *Daniel P. Whitmire, John J. Matese, & Patrick G. Whitman.* 388, 190, 51-D1 (1992)

High Spatial Resolution Maps of Circumstellar SiC_2 in IRC +10216. *P. D. Gensheimer, Lauren Likkel, & L. E. Snyder.* 388, L31, 52-C11 (1992)

The Structure of the Inner Arcsecond of R Aquarii Observed with the *Hubble Space Telescope*. *Denis Burgarella & Francesco Paresce.* 389, L29, 66-D10 (1992)

Probing the Circumstellar Environments of Very Young Low-Mass Stars Using Water Masers. *S. Terebey, S. N. Vogel, & P. C. Myers.* 390, 181, 76-C1 (1992)

1612 MHz OH Maser Emission from Axisymmetric Circumstellar Envelopes: Miras. *Alan J. Collison & John D. Fix.* 390, 191, 76-C13 (1992)

Discovery of Bipolar OH Maser Emission from the High-Latitude Supergiant Star HD 101584. *P. te Lintel Hekkert, J. M. Chapman, & A. A. Zijlstra.* 390, L23, 78-D9 (1992)

Location of the Dust Formation Region for Mira Variables. *P. F. Bowers.* 390, L27, 78-E1 (1992)

Candidates for Extreme Carbon Stars. *Kevin Volk, Sun Kwok, & Philip P. Langill.* 391, 285, 89-D12 (1992)

Near-Infrared Polarized Images of a Nebula around T Tauri. *David A. Weintraub, Joel H. Kastner, B. Zuckerman, & Ian Gatley.* 391, 784, 97-F7 (1992)

Infrared Studies of Pre–Main-Sequence Intermediate-Mass Stars: LkHα 198. *Antonella Natta, Francesco Palla, Harold M. Butner, Neal J. Evans II, & Paul M. Harvey.* 391, 805, 98-A1 (1992)

Discovery of Hot Ammonia in the Proto–Planetary Nebulae CRL 618 and CRL 2688. *Jesús Martín-Pintado & Rafael Bachiller.* 391, L93, 99-G12 (1992)

Chemistry in Circumstellar Disks: CS toward HL Tauri. *Geoffrey A. Blake, Ewine F. van Dishoeck, & Anneila I. Sargent.* 391, L99, 100-A5 (1992)

8–14 Micron Spectroscopy of Carbon Stars Associated with Silicate Dust. *Paul D. LeVan, G. C. Sloan, Irene R. Little-Marenin, & G. L. Grasdalen.* 392, 702, 111-A1 (1992)

The Nature of Dust around the Post–Asymptotic Giant Branch Objects HD 161796 and HD 179821. *K. Justtanont, M. J. Barlow, C. J. Skinner, & A. G. G. M. Tielens.* 392, L75, 113-D8 (1992)

Comment on Red Giant Envelopes as Broad Emission-Line Clouds in Active Galactic Nuclei. *John Kwan, F. Z. Cheng, & Zongwei Li.* 393, 87, 115-B9 (1992)

Interpreting Infrared Color-Color Diagrams: Circumstellar Disks around Low- and Intermediate-Mass Young Stellar Objects. *Charles J. Lada & Fred C. Adams.* 393, 278, 117-E12 (1992)

Water Masers in W49N—The Youngest Stellar Jet? *Mordecai-Mark Mac Low & Moshe Elitzur.* 393, L33, 120-E6 (1992)

Measurement of CO Overtone Line Profiles in SVS 13. *John S. Carr & Alan T. Tokunaga.* 393, L67, 127-D7 (1992)

Tidal Disruption of a Star by a Massive Disk (The Axisymmetric Roche Problem). *John W. Woodward, Srivaths Sankaran, & Joel E. Tohline.* 394, 248, 131-B1 (1992)

The Orbital Parameters and the *IUE* Spectrum of the Single-lined Spectroscopic Binary HD 698. *Jorge Sahade, Rodolfo Barbá, & Yoji Kondo.* 81, 303, 39-B1 (1992)

Physical Properties of Be Star Envelopes from Balmer and Fe II Emission Lines. *Arne Slettebak, George W. Collins II, & Ryland Truax.* 81, 335, 39-D13 (1992)

Model Scattering Envelopes of Young Stellar Objects. I. Method and Application to Circumstellar Disks. *Barbara A. Whitney & Lee Hartmann.* 395, 529, 149-D1 (1992)

The 8–13 Micron Spectrum of the Young Stellar Object WL 16. *M. S. Hanner, A. T. Tokunaga, & T. R. Geballe.* 395, L111, 154-C12 (1992)

Evidence for Unseen Companions around T Tauri Stars. *Kenneth A. Marsh & Michael J. Mahoney.* 395, L115, 154-D1 (1992)

Protonated Acetylene: An Important Circumstellar and Interstellar Ion. *A. E. Glassgold, A. Omont, & M. Guélin.* 396, 115, 156-E5 (1992)

OH/IR Star Color Mimics. *B. M. Lewis.* 396, 251, 158-B13 (1992)

A Sensitive Search for Rotational Lines of Vibrationally Excited HC_5N in IRC +10°216. *M. B. Bell, P. A. Feldman, & L. W. Avery.* 396, 643, 165-D1 (1992)

Interstellar Scattering toward the Galactic Center as Probed by OH/IR Stars. *Huib Jan van Langevelde, Dale A. Frail, James M. Cordes, & Philip J. Diamond.* 396, 686, 165-G9 (1992)

Newly Identified Main-Sequence A Stars with Circumstellar Dust. *K.-P. Cheng, F. C. Bruhweiler, Y. Kondo, & C. A. Grady.* 396, L83, 167-C1 (1992)

Dynamics of the Envelopes of Be Stars in the Equatorial Plane. II. The Influence of a Weak Magnetic Field on the Azimuthal Motion of a Slowly Expanding Wind. *Haiqi Chen & J. M. Marlborough.* 397, 242, 171-A3 (1992)

Herbig Ae/Be Stars: Intermediate-Mass Stars Surrounded by Massive Circumstellar Accretion Disks. *Lynne A. Hillenbrand, Stephen E. Strom, Frederick J. Vrba, & Jocelyn Keene.* 397, 613, 178-F1 (1992)

On the Interaction between Dust and Gas in Late-Type Stellar Atmospheres and Winds. *K. B. MacGregor & R. E. Stencel.* 397, 644, 179-A13 (1992)

Observations of R Coronae Borealis Stars in Decline: Empirical Arguments for Dust Formation near the Stellar Surface. *Geoffrey C. Clayton, Barbara A. Whitney, S. Adam Stanford, & John S. Drilling.* 397, 652, 179-B10 (1992)

BIMA Observations of HCO^+ Emission from the Planetary Nebula NGC 7027. *Lauren Likkel.* 397, L115, 181-E6 (1992)

Infrared Emission from Dust Structures Surrounding Herbig Ae/Be Stars. *F. Berrilli, G. Corciulo, G. Ingrosso, D. Lorenzetti, B. Nisini, & F. Strafella.* 398, 254, 185-A1 (1992)

Near-Infrared Spectrophotometry of FU Orionis Variables. *S. Sato, K. Okita, T. Yamashita, K. Mizutani, H. Shiba, Y. Kobayashi, & H. Takami.* 398, 273, 185-B7 (1992)

Polarization and the Envelopes of B[e] Supergiants in the Magellanic Clouds. *A. M. Magalhães.* 398, 286, 185-C11 (1992)

Variation in the Near-Infrared Surface Brightness Distribution of the Bipolar Nebula OH 231.8+4.2. *Joel H. Kastner, David A. Weintraub, B. Zuckerman, E. E. Becklin, I. McLean, & I. Gatley.* 398, 552, 191-A8 (1992)

Multiple Jets from the Young Star IRAS 21334+5039. *Howard A. Smith & Jacqueline Fischer.* 398, L99, 194-D1 (1992)

The Synchrotron Bays of the Crab Nebula: A Magnetic Structure Associated with a Presupernova Circumstellar Disk. *Robert A. Fesen, Crystal L. Martin, & J. Michael Shull.* 399, 599, 205-C7 (1992)

Dynamics of Kepler's Supernova Remnant. *Kazimierz J. Borkowski, John M. Blondin, & Craig L. Sarazin.* 400, 222, 211-F5 (1992)

The Excitation Temperature of HC_9N in the Circumstellar Envelope of IRC +10216. *M. B. Bell, L. W. Avery, J. M. MacLeod, & H. E. Matthews.* 400, 551, 217-B12 (1992)

The Peculiar Infrared Temporal Development of Nova Vulpeculae 1987 (QV Vulpeculae). *R. D. Gehrz, T. J. Jones, C. E. Woodward, M. A. Greenhouse, R. M. Wagner, T. E. Harrison, T. L. Hayward, & J. Benson.* 400, 671, 218-G1 (1992)

Polycyclic Aromatic Hydrocarbon Formation in Carbon-rich Stellar Envelopes. *Isabelle Cherchneff, John R. Barker, & Alexander G. G. M. Tielens.* 401, 269, 224-D1 (1992)

Mass-Loss Rates for *IRAS*-bright Red Giants: A Revised Model of Circumstellar CO Emission. *Joel H. Kastner.* 401, 337, 225-B11 (1992)

High-Excitation ^{29}SiO and ^{30}SiO Maser Emission. *J. Cernicharo & V. Bujarrabal.* 401, L109, 233-E5 (1992)

A Spectral Line Survey of IRC +10216 at Millimeter and Submillimeter Wavelengths. *L. W. Avery, T. Amano, M. B. Bell, P. A. Feldman, J. W. C. Johns, J. M. MacLeod, H. E. Matthews, D. C. Morton, J. K. G. Watson, B. E. Turner, S. S. Hayashi, G. D. Watt, & A. S. Webster.* 83, 363, 62-G3 (1992)

Molecular Line Emission from Circumstellar Disks. *Steven V. W. Beckwith & Anneila I. Sargent.* 402, 280, 4-E9 (1993)

CO Observations of Candidates for Carbon-rich Asymptotic Giant Branch and Post–Asymptotic Giant Branch Stars. *Kevin Volk, Sun Kwok, & Andrew W. Woodsworth.* 402, 292, 4-F10 (1993)

Model Scattering Envelopes of Young Stellar Objects. II. Infalling Envelopes. *Barbara A. Whitney & Lee Hartmann.* 402, 605, 10-B5 (1993)

The Circumstellar Gas Surrounding 51 Ophiuchi: A Candidate Proto–Planetary System Similar to β Pictoris. *C. A. Grady & J. M. S. Silvis.* 402, L61, 12-G1 (1993)

Upper Limits to the CO J = 1–0 Emission around Vega-like Stars: Gas Depletion of the Circumstellar Ring around ϵ Eridani. *Takuya Yamashita, Toshihiro Handa, Toshihiro Omodaka, Yoshimi Kitamura, Eiko Kawazoe, Saeko S. Hayashi, & Norio Kaifu.* 402, L65, 12-G7 (1993)

Model Atmospheres: Tool for Identifying Interstellar Features. *P. C. Frisch, S. E. Slojkowski, T. Rodriguez-Bell, & D. York.* 84, 55, 1-G3 (1993)

Faint Object Camera Observations of the Shape and Expansion of SN 1987A. *P. Jakobsen, F. Macchetto, & N. Panagia.* 403, 736, 24-G10 (1993)

Spatially Resolved Spectra of Silicate Dust around α Orionis. *G. C. Sloan, G. L. Grasdalen, & Paul D. LeVan.* 404, 328, 32-A3 (1993)

Evidence for the Cospatial Origin of SiO Masers in Different Rotational Transitions. *G. C. McIntosh & C. Read Predmore.* 404, L71, 40-E11 (1993)

Formation of the Circumstellar Shell around SN 1987A. *John M. Blondin & Peter Lundqvist.* 405, 337, 45-C13 (1993)

Do the Spectral Energy Distributions of GK Tauri and HK Tauri Indicate the Presence of Planetary Companions? *Kenneth A. Marsh & Michael J. Mahoney.* 405, L71, 54-D10 (1993)

The IRC +10216 Circumstellar Envelope. III. Infrared Molecular Line Profiles. *J. J. Keady & S. T. Ridgway.* 406, 199, 57-E5 (1993)

Infrared Observations of the Remarkable Main-Sequence Star HD 98800. *B. Zuckerman & E. E. Becklin.* 406, L25, 60-G10 (1993)

Infrared Studies of Circumstellar Matter around Herbig Ae/Be and Related Stars. *Antonella Natta, Francesco Palla, Harold M. Butner, Neal J. Evans II, & Paul M. Harvey.* 406, 674, 66-C4 (1993)

The Excess Infrared Emission of Herbig Ae/Be Stars: Disks or Envelopes? *Lee Hartmann, Scott J. Kenyon, & Nuria Calvet.* 407, 219, 71-F11 (1993)

High-Excitation SiO Maser Emission in VY Canis Majoris: Detection of the $v = 4$ $J = 5$–4 Transition. *J. Cernicharo, V. Bujarrabal, & J. L. Santarén.* 407, L33, 75-D6 (1993)

The Abundance Distribution of C_4H in IRC +10216. *Aditya Dayal & John H. Bieging.* 407, L37, 75-E1 (1993)

Embedded Star Clusters Associated with Luminous *IRAS* Point Sources. *John M. Carpenter, Ronald L. Snell, F. Peter Schloerb, & M. F. Skrutskie.* 407, 657, 78-F11 (1993)

η Carinae: A New Model. *J. M. Borgwald & M. W. Friedlander.* 408, 230, 86-A3 (1993)

Circumstellar Molecular Gas of the HH 34 and HH 111 Exciting Stars. *Karl R. Stapelfeldt & Nicholas Z. Scoville.* 408, 239, 86-B1 (1993)

The Infrared Temporal Evolution of FG Sagittae. *Charles E. Woodward, G. F. Lawrence, R. D. Gehrz, Terry J. Jones, H. A. Kobulnicky, James Cole, Tracy Hodge, & Harley A. Thronson, Jr.* 408, L37, 89-B8 (1993)

LSIV $-12°111$: A Candidate Halo Proto–Planetary Nebula. *E. S. Conlon, P. L. Dufton, R. J. H. McCausland, & F. P. Keenan.* 408, 593, 92-E11 (1993)

Dynamics of the Envelopes of Be Stars and Shell Stars in the Equatorial Plane: A Potential Similarity and Difference Based upon the Continuous Energy Distribution. *J. M. Marlborough, Haiqi Chen, & L. B. F. M. Waters.* 408, 646, 93-C1 (1993)

Gas and Dust in the Pre–Main-Sequence Multiple System GG Tauri. *D. W. Koerner, A. I. Sargent, & S. V. W. Beckwith.* 408, L93, 95-D7 (1993)

Detection of Circumstellar Gas Associated with GG Tauri. *M. F. Skrutskie, R. L. Snell, K. M. Strom, S. E. Strom, S. Edwards, Y. Fukui, A. Mizuno, M. Hayashi, & N. Ohashi.* 409, 422, 102-C1 (1993)

Equatorial Disk Formation around Rotating Stars Due to Ram Pressure Confinement by the Stellar Wind. *J. E. Bjorkman & J. P. Cassinelli.* 409, 429, 102-C10 (1993)

Circumstellar Material in Algol: A Study of the Balmer Line Profiles. *Mercedes T. Richards.* 86, 255, 17-D3 (1993)

Circumstellar Shells Resolved in *IRAS* Survey Data. II. Analysis. *K. Young, T. G. Phillips, & G. R. Knapp.* 409, 725, 108-B3 (1993)

The Formation of Cyanopolyyne Molecules in IRC +10216. *Isabelle Cherchneff, Alfred E. Glassgold, & Gary A. Mamon.* 410, 188, 114-D12 (1993)

Search for Ionized Cores in Proto–Planetary Nebulae, and the Asymptotic Giant Branch to Planetary Nebula Transition. *Hans Ulrich Käufl, Alvio Renzini, & Letizia Stanghellini.* 410, 251, 115-C1 (1993)

Coronographic Imaging of the Bipolar Nebula around the Luminous Blue Variable R127. *Mark Clampin, Antonella Nota, David A. Golimowski, Claus Leitherer, & Samuel T. Durrance.* 410, L35, 118-C5 (1993)

The Dynamics of Stellar Outflows Dominated by Interaction of Dust and Radiation. *Nathan Netzer & Moshe Elitzur.* 410, 701, 122-D11 (1993)

Elliptical Polarimetry of the Interacting Binary Star V367 Cygni. *Nicholas M. Elias II.* 410, 785, 123-E1 (1993)

Circumstellar Shells Resolved in the *IRAS* Survey Data. I. Data Processing Procedure, Results, and Confidence Tests. *K. Young, T. G. Phillips, & G. R. Knapp.* 86, 517, 21-B11 (1993)

The Inner-Disk and Stellar Properties of the Young Stellar Object WL 16. *John S. Carr, Alan T. Tokunaga, Joan Najita, Frank H. Shu, & Alfred E. Glassgold.* 411, L37, 134-A13 (1993)

Coronagraphic Imaging of the β Pictoris Circumstellar Disk: Evidence of Changing Disk Structure within 100 AU. *David A. Golimowski, Samuel T. Durrance, & Mark Clampin.* 411, L41, 134-B6 (1993)

A Study of Circumstellar Envelopes around Bright Carbon Stars. I. Structure, Kinematics, and Mass-Loss Rate. *H. Olofsson, K. Eriksson, B. Gustafsson, & U. Carlström.* 87, 267, 30-E1 (1993)

A Study of Circumstellar Envelopes around Bright Carbon Stars. II. Molecular Abundances. *H. Olofsson, K. Eriksson, B. Gustafsson, & U. Carlström.* 87, 305, 31-A5 (1993)

The Temperature Profile of T Tauri Disks. *Antonella Natta.* 412, 761, 153-C6 (1993)

Ultraviolet Spectropolarimetry of the Be Star PP Carinae with the Wisconsin Ultraviolet Photo-Polarimeter Experiment. *K. S. Bjorkman, M. R. Meade, K. H. Nordsieck, C. M. Anderson, B. L. Babler, G. C. Clayton, A. D. Code, A. M. Magalhães, R. E. Schulte-Ladbeck, M. Taylor, & B. A. Whitney.* 412, 810, 153-G11 (1993)

The Discovery of Two FU Orionis Objects in L1641. *Karen M. Strom & Stephen E. Strom.* 412, L63, 155-D1 (1993)

Submillimeter CO Observations of Warm Gas around T Tauri Stars. *K. F. Schuster, A. I. Harris, Neils Anderson, & A. P. G. Russell.* 412, L67, 155-D7 (1993)

Infrared CO Emission from Young Stars: High-Resolution Spectroscopy. *C. J. Chandler, J. E. Carlstrom, N. Z. Scoville, W. R. F. Dent, & T. R. Geballe.* 412, L71, 155-D13 (1993)

Bolometric Temperatures of Young Stellar Objects. *P. C. Myers & E. F. Ladd.* 413, L47, 162-G1 (1993)

Pumping of Main Line OH Masers in the Circumstellar Envelopes of Type I Mira Variables. *Alan J. Collison & Gerald E. Nedoluha.* 413, 735, 165-E10 (1993)

Upper Limits to the Detection of Ammonia from Protoplanetary Disks around HL Tauri and L1551-IRS 5. *José F. Gómez, José M. Torrelles, Paul T. P. Ho, Luis F. Rodríguez, & Jorge Cantó.* 414, 333, 174-B6 (1993)

The Small-Scale Structure and Kinematics of B335. *Claire J. Chandler & Anneila I. Sargent.* 414, L29, 175-E13 (1993)

The Contribution of Disks and Envelopes to the Millimeter Continuum Emission from Very Young Low-Mass Stars. *S. Terebey, C. J. Chandler, & P. André.* 414, 759, 180-F6 (1993)

Submillimeter Studies of Main-Sequence Stars. *B. Zuckerman & E. E. Becklin.* 414, 793, 181-B4 (1993)

Circumstellar Material in TX Ursae Majoris. *Geary E. Albright & Mercedes T. Richards.* 414, 830, 181-E6 (1993)

LS II $+34°26$ is a Low-Mass Post–Asymptotic Giant Branch B Supergiant and Not a Massive Population I B Star Located near the Outer Edge of the Galaxy. *M. Parthasarathy.* 414, L109, 186-A7 (1993)

Detection of Accreting Gas toward HD 45677: A Newly Recognized, Herbig Be Proto–Planetary System. *C. A. Grady, K. S. Bjorkman, D. Shepherd, R. E. Schulte-Ladbeck, M. R. Pérez, D. de Winter, & P. S. Thé.* 415, L39, 192-B6 (1993)

The Dust Content of Evolved Circumstellar Envelopes and the Optical Properties of Dust at Submillimeter to Radio Wavelengths. *G. R. Knapp, G. Sandell, & E. I. Robson.* 88, 173, 42-E7 (1993)

Evidence of Magnetic Activity in Short-Period Algol Binaries. *Mercedes T. Richards & Geary E. Albright.* 88, 199, 42-G7 (1993)

Evidence for Hydrated Silicates toward SN 1987A. *Ralf Timmermann & Harold P. Larson.* 415, 820, 198-A13 (1993)

Atomic Carbon in the Envelope of IRC +10216. *Jocelyn Keene, K. Young, T. G. Phillips, Thomas H. Büttgenbach, & John E. Carlstrom.* 415, L131, 200-E1 (1993)

Discovery of Interstellar Water Lines at 437, 439, and 471 GHz: Strong Case for Water Maser Formation behind C-Type Shocks. *Gary J. Melnick, Karl M. Menten, Thomas G. Phillips, & Todd Hunter.* 416, L37, 207-E13 (1993)

Circumstellar Properties of S Stars. I. Dust Features. *P. S. Chen & Sun Kwok.* 416, 769, 213-A1 (1993)

The Location of Warm HC_3N and Warm HC_5N Gas in the Circumstellar Envelope of IRC +10216. *M. B. Bell.* 417, 305, 221-C9 (1993)

Detection of Silicates in the 51 Ophiuchi System. *S. B. Fajardo-Acosta, C. M. Telesco, & R. F. Knacke.* 417, L33, 223-B9 (1993)

C_3S and C_5S in IRC +10216. *M. B. Bell, L. W. Avery, & P. A. Feldman.* 417, L37, 223-C1 (1993)

Origin of the Hydrocarbon Component of Carbonaceous Chondrites: The Star-Meteorite Connection. *Wei Lee & Thomas J. Wdowiak.* 417, L49, 223-D8 (1993)

Radiative Cooling of Warm Molecular Gas. *David A. Neufeld & Michael J. Kaufman.* 418, 263, 234-C11 (1993)

Extreme-Ultraviolet Extinction Measurements on Hydrogenated and Dehydrogenated Amorphous Carbon Grains. *L. Colangeli, V. Mennella, A. Blanco, S. Fonti, E. Bussoletti, H. E. Gumlich, H. C. Mertins, & Ch. Jung.* 418, 435, 236-D7 (1993)

The Silicates in the Disk of β Pictoris. *R. F. Knacke, S. B. Fajardo-Acosta, C. M. Telesco, J. A. Hackwell, D. K. Lynch, & R. W. Russell.* 418, 440, 236-D13 (1993)

Constraints on the Evolution of Remnant Protostellar Dust Debris around HR 4796. *M. Jura, B. Zuckerman, E. E. Becklin, & R. C. Smith.* 418, L37, 238-E5 (1993)

Simulated Ratio Recombination Line Emission at 1.3 Centimeters toward MWC 349. *J. Martín-Pintado, R. Gaume, R. Bachiller, K. Johnston, & P. Planesas.* 418, L79, 245-E2 (1993)

The Formation of Carbon Chain Molecules in IRC +10216. *Isabelle Cherchneff & Alfred E. Glassgold.* 419, L41, 252-F9 (1993)

Circumstellar CO Emission of Evolved Stars and Mass Loss. *John Kwan & Zoe Webster.* 419, 674, 256-B3 (1993)

Hydrodynamical Models for X-Ray Emissions from SN 1993J in M81. *Tomoharu Suzuki, Shiomi Kumagai, Toshikazu Shigeyama, Ken'ichi Nomoto, Hitoshi Yamaoka, & Hideyuki Saio.* 419, L73, 259-D11 (1993)

A Hot Neon Nova: Optical Spectrophotometry and the Physics of Nova Cygni 1992. *A. J. Barger, J. S. Gallagher, K. S. Bjorkman, K. A. Johansen, & K. H. Nordsieck.* 419, L85, 259-E12 (1993)

Optical Spectroscopy of the Dusty K5 V Star HD 98800. *Francis C. Fekel & Bernard W. Bopp.* 419, L89, 259-F3 (1993)

Detection of Water Vapor in T Tauri Stars. *H. Shiba, S. Sato, T. Yamashita, Y. Kobayashi, & H. Takami.* 89, 299, 53-F1 (1993)

The Stability of Thick, Self-gravitating Disks in Protostellar Systems. *John W. Woodward, Joel E. Tohline, & Izumi Hachisu.* 420, 247, 4-A7 (1994)

Emission from Circumstellar Interaction in Normal Type II Supernovae. *Roger A. Chevalier & Claes Fransson.* 420, 268, 4-C1 (1994)

Near-Infrared Spectroscopy of Proto–Planetary Nebulae. *Bruce J. Hrivnak, Sun Kwok, & T. R. Geballe.* 420, 783, 12-F1 (1994)

From T Tauri Stars to Protostars: Circumstellar Material and Young Stellar Objects in the ρ Ophiuchi Cloud. *Philippe André & Thierry Montmerle.* 420, 837, 13-C12 (1994)

Observations of 13.5 Micron Rotation-Vibration Lines of SiS in IRC +10216. *R. J. Boyle, J. J. Keady, D. E. Jennings, K. L. Hirsch, & G. R. Wiedemann.* 420, 863, 13-E12 (1994)

A Search for Circumstellar Material around Pulsars. *J. A. Phillips & C. J. Chandler.* 420, L83, 15-E9 (1994)

Discovery of a Deeply Embedded Companion to LkHα 234. *David A. Weintraub, Joel H. Kastner, & Ashwin Mahesh.* 420, L87, 15-F1 (1994)

The Nature of the Radio Recombination Line Emission from MWC 349A. *M. A. Gordon.* 421, 314, 19-G7 (1994)

A *Hubble Space Telescope* Ultraviolet Spectrum of SN 1993J. *David J. Jeffery, Robert P. Kirshner, Peter M. Challis, Chun S. J. Pun, Alexei V. Filippenko, Thomas Matheson, David Branch, Roger A. Chevalier, Claes Fransson, Nino Panagia, Robert V. Wagoner, J. Craig Wheeler, & Alejandro Clocchiatti.* 421, L27, 21-F9 (1994)

The Discrimination between O- and C-rich Circumstellar Envelopes from Molecular Observations. *V. Bujarrabal, A. Fuente, & A. Omont.* 421, L47, 22-B1 (1994)

Ultraviolet Light Curves of β Lyrae: Comparison of *OAO* A-2, *IUE*, and *Voyager* Observations. *Yoji Kondo, George E. McCluskey, Jeffrey M. S. Silvis, Ronald S. Polidan, Carolina P. S. McCluskey, & Joel A. Eaton.* 421, 787, 28-A9 (1994)

Pumping of Main Line OH Masers in the Circumstellar Envelopes of OH/Infrared Stars. *Alan J. Collison & Gerald E. Nedoluha.* 422, 193, 32-E1 (1994)

Imaging Polarimetry of HL Tauri and GG Tauri: A Geometrically Thin Disk around GG Tauri. *Takuya Yamashita, Klaus-W. Hodapp, & Toby J. T. Moore.* 422, L21, 36-D7 (1994)

A Millimeter-Wavelength Survey of S Stars for Mass Loss and Chemistry. *John H. Bieging & William B. Latter.* 422, 765, 41-D1 (1994)

Further Studies of Gravitationally Unstable Protostellar Disks. *Leslie Tomley, Thomas Y. Steiman-Cameron, & Patrick Cassen.* 422, 850, 42-D8 (1994)

Intensity-dependent Circular Polarization and Circumstellar Magnetic Fields from the Observation of SiO Masers. *Gerald E. Nedoluha & William D. Watson.* 423, 394, 51-A11 (1994)

Evidence Signaling the Start of Enhanced Counterjet Flow in the Symbiotic System R Aquarii. *A. G. Michalitsianos, M. Perez, & M. Kafatos.* 423, 441, 51-E13 (1994)

A Laboratory Approach to the Interstellar Sulfide Dust Problem. *B. Begemann, J. Dorschner, T. Henning, H. Mutschke, & E. Thamm.* 423, L71, 54-C1 (1994)

Infrared Spectroscopy and Imaging Polarimetry of the Disk around the T Tauri Star RNO 91. *David A. Weintraub, Stephen C. Tegler, Joel H. Kastner, & Terrence Rettig.* 423, 674, 57-A3 (1994)

Mid-Infrared Images of the Post–Asymptotic Giant Branch Star HD 161796. *C. J. Skinner, M. M. Meixner, G. W. Hawkins, E. Keto, J. G. Jernigan, & J. F. Arens.* 423, L135, 61-B11 (1994)

A Multiwavelength Study of Star Formation in the L1495E Cloud in Taurus. *Karen M. Strom & Stephen E. Strom.* 424, 237, 64-G4 (1994)

Capture and Induced Disk Accretion in Young Star Encounters. *Eve C. Ostriker.* 424, 292, 65-D14 (1994)

The Photodissociation of Circumstellar HCN and SiS. *J. Wirsich.* 424, 370, 66-D14 (1994)

Modeling of the Hydrogen Maser Disk in MWC 349. *Victor O. Ponomarev, Howard A. Smith, & Vladimir S. Strelnitski.* 424, 976, 77-A1 (1994)

Optical Variability in the Unusual K5 V Infrared-Excess Star HD 98800. *Gregory W. Henry & Douglas S. Hall.* 425, L25, 85-D9 (1994)

A Search for Ultraviolet Circumstellar Gas Absorption Features in α Piscis Austrinus (Fomalhaut), A Possible β Pictoris–like System. *K.-P. Cheng, Fred C. Bruhweiler, & Yoji Kondo.* 425, L33, 85-E7 (1994)

Hot Gas and the Origin of the Nebular Continuum in Novae. *Pedro Saizar & Gary J. Ferland.* 425, 755, 91-B10 (1994)

Extreme ^{26}Mg and ^{17}O Enrichments in an Orgueil Corundum: Identification of a Presolar Oxide Grain. *I. D. Hutcheon, G. R. Huss, A. J. Fahey, & G. J. Wasserburg.* 425, L97, 94-F7 (1994)

Fluorescent K I 7699 Å Emission from Circumstellar Shells of Red Giants: Evidence for Highly Asymmetric Winds. *Bertrand Plez & David L. Lambert.* 425, L101, 94-F13 (1994)

A $C^{18}O$ (J = 1–0) Survey of Protostellar Candidates Embedded in the Taurus Molecular Cloud. *Masahiko Hayashi, Tetsuo Hasegawa, Nagayoshi Ohashi, & Kazuyoshi Sunada.* 426, 234, 99-A8 (1994)

Extinction, Ejecta Masses, and Radial Velocities of Novae. *Robert E. Williams.* 426, 279, 99-E8 (1994)

Narrowband *HST* Imagery of the Young Planetary Nebula Henize 1357. *M. Bobrowsky.* 426, L47, 103-F5 (1994)

Submillimeter Molecular Line Observations of IRC +10216: Searches for MgH, SiH_2, and HCO^+, and Detection of Hot HCN. *L. W. Avery, M. B. Bell, C. T. Cunningham, P. A. Feldman, R. H. Hayward, J. M. McLeod, H. E. Matthews, & J. D. Wade.* 426, 737, 107-E12 (1994)

Evidence of Circumstellar Matter Surrounding the Hercules X-1 System. *C. S. Choi, T. Dotani, F. Nagase, F. Makino, J. E. Deeter, & K. W. Min.* 427, 400, 114-G5 (1994)

Three-dimensional Structure of the Circumstellar Envelope of CRL 618 based on the ^{13}CO J = 1–0 Mapping Observations. *Issei Yamamura, Katsunori M. Shibata, Takashi Kasuga, & Shuji Deguchi.* 427, 406, 114-G13 (1994)

Circumstellar Dust Emission Models. *Mark G. Wolfire & Ed Churchwell.* 427, 889, 123-F6 (1994)

The Envelopes of Be Stars Driven by Optically Thin Lines. *Haiqi Chen & J. M. Marlborough.* 427, 1005, 125-B7 (1994)

Rotation in the Ionized Envelope of MWC 349A. *Luis F. Rodríguez & Timothy S. Bastian.* 428, 324, 132-B12 (1994)

Circular and Linear Polarization of the SiO Masers in VY Canis Majoris. *G. C. McIntosh, C. Read Predmore, & Nimesh A. Patel.* 428, L29, 134-E1 (1994)

Molecular Abundances and Low-Mass Star Formation. I. Si- and S-bearing Species toward IRAS 16293−2422. *Geoffrey A. Blake, Ewine F. van Dishoeck, David J. Jansen, T. D. Groesbeck, & Lee G. Mundy.* 428, 680, 138-F13 (1994)

Induced Nucleation of Carbon Dust in Red Giant Stars. *Brian J. Cadwell, Hai Wang, Eric D. Feigelson, & Michael Frenklach.* 429, 285, 147-E10 (1994)

The Radio Source around η Carinae. *S. M. White, R. A. Duncan, J. Lim, G. J. Nelson, S. A. Drake, & M. R. Kundu.* 429, 380, 148-G1 (1994)

A Connection between Submillimeter Continuum Flux and Separation in Young Binaries. *Eric L. N. Jensen, Robert D. Mathieu, & Gary A. Fuller.* 429, L29, 150-D9 (1994)

A 7 Micron Dust Emission Feature in Oxygen-rich Circumstellar Shells. *J. H. Goebel, J. D. Bregman, & F. C. Witteborn.* 430, 317, 163-B3 (1994)

Observation of a Ring Structure in SiO Maser Emission from Late-Type Stars. *P. J. Diamond, A. J. Kemball, W. Junor, A. Zensus, J. Benson, & V. Dhawan.* 430, L61, 166-A10 (1994)

Oxygen Isotopes in Circumstellar Al_2O_3 Grains from Meteorites and Stellar Nucleosynthesis. *Gary R. Huss, Albert J. Fahey, Roberto Gallino, & G. J. Wasserburg.* 430, L81, 166-C13 (1994)

Observations of the Acceleration Regions of OH/IR Stars. *John D. Fix & Mark G. Mulhern.* 430, 824, 172-B5 (1994)

The Puzzle of Silicon, Titanium, and Magnesium Anomalies in Meteoritic Silicon Carbide Grains. *Roberto Gallino, Claudia M. Raiteri, Maurizio Busso, & Francesca Matteucci.* 430, 858, 172-E13 (1994)

Hard X-Rays from SN 1993J. *M. D. Leising, J. D. Kurfess, D. D. Clayton, D. A. Grabelsky, J. E. Grove, W. N. Johnson, G. V. Jung, R. L. Kinzer, R. A. Kroeger, W. R. Purcell, M. S. Strickman, L.-S. The, & M. P. Ulmer.* 431, L95, 191-F1 (1994)

Water Masers Associated with Low-Mass Stars: A 13 Month Monitoring Survey. *Bruce A. Wilking, Mark J. Claussen, Priscilla J. Benson, Philip C. Myers, Susan Terebey, & Alwyn Wootten.* 431, L119, 192-B1 (1994)

Stellar Occultation of Polarized Light from Circumstellar Electrons. IV. Detached Binary Systems. *G. K. Fox.* 432, 262, 196-D10 (1994)

Constraining Circumstellar Environments: Far-Infrared Observations of Herbig Ae/Be Stars. *James Di Francesco, Neal J. Evans II, Paul M. Harvey, Lee G. Mundy, & Harold M. Butner.* 432, 710, 204-G8 (1994)

Variable Extinction in HD 45677 and the Evolution of Dust Grains in Pre–Main-Sequence Disks. *Michael L. Sitko, Elaine M. Halbedel, Geoffrey F. Lawrence, J. Allyn Smith, & Ken Yanow.* 432, 753, 205-D3 (1994)

G5.89−0.39: A Compact H II Region with a Very Dense Circumstellar Dust Torus. *Paul M. Harvey, Daniel F. Lester, Cecilia Colomé, Beverly Smith, Jean-Louis Monin, & Isabelle Vauglin.* 433, 187, 210-F1 (1994)

Near-Infrared (J, H, K) Imaging of Herbig Ae/Be Stars. *Wenbin Li, Neal J. Evans II, Paul M. Harvey, & Cecilia Colomé.* 433, 199, 210-G3 (1994)

The CO/SiO Radiative Instability in Cool Star Atmospheres Revisited. *M. Cuntz & D. O. Muchmore.* 433, 303, 212-B3 (1994)

The Molecular Emission-Line Spectrum of IRC +10216 between 330 and 358 GHz. *T. D. Groesbeck, T. G. Phillips, & Geoffrey A. Blake.* 94, 147, 53-F12 (1994)

Ultraviolet Spectral Classification and Stellar Winds in a Sample of Be and Standard Stars. *Arne Slettebak.* 94, 163, 54-A5 (1994)

Exotic Fluoride Molecules in IRC +10216: Confirmation of AlF and Searches for MgF and CaF. *L. M. Ziurys, A. J. Apponi, & T. G. Phillips.* 433, 729, 220-B7 (1994)

Silicates and Aromatic Hydrocarbons in the 10 Micron Spectrum of the Taurus Dark Cloud Source Elias 1. *Martha S. Hanner, Timothy Y. Brooke, & Alan T. Tokunaga.* 433, L97, 224-C7 (1994)

10 Micron Imaging of UZ Tauri: Evidence for Circumstellar Disk Clearing due to a Close Companion Star. *A. M. Ghez, J. P. Emerson, J. R. Graham, M. Meixner, & C. J. Skinner.* 434, 707, 237-E3 (1994)

The Particle-Size Distribution in the Dust Ejected from IRC +10216. *M. Jura.* 434, 713, 237-E12 (1994)

Protostellar Accretion Disks Resolved with the JCMT-CSO Interferometer. *O. P. Lay, J. E. Carlstrom, R. E. Hills, & T. G. Phillips.* 434, L75, 241-G9 (1994)

The Theoretical Polarization of Pure Scattering Axisymmetric Circumstellar Envelopes. *G. K. Fox.* 435, 372, 248-E1 (1994)

Thin Shell Formation in Radiative Shocks. I. Supernova Remnants in Low-Density Media. *José Franco, Walter Warren Miller III, S. J. Arthur, Guillermo Tenorio-Tagle, & Roberto Terlevich.* 435, 805, 257-B10 (1994)

Molecular Rotational Line Profiles from Oxygen-rich Red Giant Winds. *K. Justtanont, C. J. Skinner, & A. G. G. M. Tielens.* 435, 852, 257-G6 (1994)

Postrefurbishment Mission *Hubble Space Telescope* Images of the Core of the Orion Nebula: Proplyds, Herbig-Haro Objects, and Measurements of a Circumstellar Disk. *C. R. O'Dell & Zheng Wen.* 436, 194, 263-G8 (1994)

The Effects of Gravity Darkening on the Ultraviolet Continuum Polarization Produced by Circumstellar Disks. *J. E. Bjorkman & K. S. Bjorkman.* 436, 818, 277-A1 (1994)

Ultraviolet Spectra of Amorphous Carbon Grains: Comparison with the Circumstellar Extinction around C-rich Objects. *A. M. Muci, A. Blanco, S. Fonti, & V. Orofino.* 436, 831, 277-B3 (1994)

A Direct Image of Wind Interaction in the Post-AGB Evolution: CO Observations of M1-92. *V. Bujarrabal, J. Alcolea, R. Neri, & M. Grewing.* 436, L169, 281-G9 (1994)

Discovery of a Molecular Hydrogen Jet near IC 348. *Mark J. McCaughrean, John T. Rayner, & Hans Zinnecker.* 436, L189, 282-C9 (1994)

Photon-dominated Regions around Cool Stars: The Effects of the Color Temperature of the Radiation Field. *Marco Spaans, A. G. G. M. Tielens, Ewine F. van Dishoeck, & E. L. O. Bakes.* 437, 270, 286-G7 (1994)

The Circumstellar Environment of IRAS 05338−0624. *Joseph P. McMullin, Lee G. Mundy, & Geoff A. Blake.* 437, 305, 287-D6 (1994)

Observations of Molecular Envelopes of Late-Type Stars: CRL 618, CRL 2688, CRL 3068, and CIT 6. *Sadafumi Fukasaku, Yasuhiro Hirahara, Akimasa Masuda, Kentarou Kawaguchi, Shin-ichi Ishikawa, Norio Kaifu, & William M. Irvine.* 437, 410, 288-F13 (1994)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. I. The $7° < |B| < 8°$ Strips. *H. Izumiura, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, N. Ukita, & I. Yamamura.* 437, 419, 288-G11 (1994)

10 Micron Spectroscopy of Young Stars in the ρ Ophiuchi Cloud. *M. S. Hanner, T. Y. Brooke, & A. T. Tokunaga.* 438, 250, 4-G9 (1995)

Optical Spectroscopy of Carbon-rich Proto–Planetary Nebulae. *Bruce J. Hrivnak.* 438, 341, 6-B10 (1995)

The Circumstellar Envelope of SN 1987A. I. The Shape of the Double-lobed Nebula and Its Rings and the Distance to the Large Magellanic Cloud. *Arlin P. S. Crotts, William E. Kunkel, & Stephen R. Heathcote.* 438, 724, 14-B11 (1995)

The Evolutionary Status of the Stellar Population in the ρ Ophiuchi Cloud Core. *Karen M. Strom, Jeremy Kepner, & Stephen E. Strom.* 438, 813, 15-D7 (1995)

^{26}Al and Circumstellar Envelopes. *A. E. Glassgold.* 438, L111, 20-C9 (1995)

Evidence for Chemical Processing of Precometary Icy Grains in Circumstellar Environments of Pre–Main-Sequence Stars. *Stephen C. Tegler, David A. Weintraub, Terrence W. Rettig, Yvonne J. Pendleton, Douglas C. B. Whittet, & Craig A. Kulesa.* 439, 279, 25-A9 (1995)

RY Scuti: Infrared and Radio Observations of the Mass-Loss Wind of a Massive Binary Star System. *R. D. Gehrz, T. L. Hayward, J. R. Houck, J. W. Miles, R. M. Hjellming, T. J. Jones, Charles E. Woodward, Ricarda Prentice, W. J. Forrest, S. Libonate, & S. Solomon.* 439, 417, 26-G11 (1995)

Full Synthesis Maps of Circumstellar SiC_2 in IRC +10216. *P. D. Gensheimer, Lauren Likkel, & L. E. Snyder.* 439, 445, 27-C3 (1995)

^{13}CO Interferometric Observations of the Central Core of CRL 2688. *Issei Yamamura, Takashi Onaka, Fumio Kamijo, Shuji Deguchi, & Nobuharu Ukita.* 439, L13, 29-G4 (1995)

HST Observations of the Ring around SN 1987A. *Philip C. Plait, Peter Lundqvist, Roger A. Chevalier, & Robert P. Kirshner.* 439, 730, 34-F8 (1995)

The Distribution of HCN, H^{13}CN, and CN in IRC +10216. *Aditya Dayal & John H. Bieging.* 439, 996, 38-D7 (1995)

Hα Emission and Absorption from a Localized Region above the Surface of a Be Star. *J. M. Marlborough.* 440, 303, 45-C12 (1995)

The Effect of Oblateness and Gravity Darkening on the Radiation Driving in Winds from Rapidly Rotating B Stars. *Steven R. Cranmer & Stanley P. Owocki.* 440, 308, 45-D6 (1995)

Modeling the Light-Travel-Time Effect on the Far-Infrared Size of IRC +10216. *Edward L. Wright & Frederick K. Baganoff.* 440, 322, 45-E9 (1995)

HCN Emission from Bright Carbon Stars: The Ground State Masers and Peculiar Broad Features. *Hideyuki Izumiura, Nobuharu Ukita, & Takashi Tsuji.* 440, 728, 53-C1 (1995)

The Growth of Solids, Destruction of Molecules, and Shielding of Radiation in the Young Stellar Disk of HD 45677. *Thomas M. Brown, Richard Buss, Jr., Carol Grady, & Karen Bjorkman.* 440, 865, 55-A11 (1995)

Evidence for Dust around Post T Tauri Stars. *Thomas P. Ray, Anneila I. Sargent, Steve V. W. Beckwith, Chris Koresko, & Patrick Kelly.* 440, L89, 58-B9 (1995)

Direct Measurement of the Inner Radius of the Dust Shell around the Cool Supergiant Star α Scorpii. *E. E. Bloemhof & R. M. Danen.* 440, L93, 58-C2 (1995)

Dust Particle Settling in Passive Disks around T Tauri Stars: Models and *IRAS* Observations. *Kotaro Miyake & Yoshitsugu Nakagawa.* 441, 361, 64-C13 (1995)

Polarization from Scattering in Blobs. *Arthur D. Code & Barbara A. Whitney.* 441, 400, 64-G4 (1995)

Intense Radio Outburst from the Supermassive Star η Carinae. *R. A. Duncan, S. M. White, J. Lim, G. J. Nelson, S. A. Drake, & M. R. Kundu.* 441, L73, 76-A6 (1995)

Infrared Properties of Circumstellar Dust Envelopes of Oxygen-rich Asymptotic Giant Branch Stars. *O. Hashimoto.* 442, 286, 81-B3 (1995)

A Nonlocal Calculation of Circumstellar OH Maser Emission. *Alan J. Collison & Gerald E. Nedoluha.* 442, 311, 81-D6 (1995)

The Formation of Protostellar Disks. II. Disks around Intermediate-Mass Stars. *Harold W. Yorke, Peter Bodenheimer, & Gregory Laughlin.* 443, 199, 97-G7 (1995)

Effects of Prescattering Attenuation on Spectropolarimetric Line Profiles. *Kenneth Wood & J. E. Bjorkman.* 443, 348, 100-A3 (1995)

The Circumstellar Nature of the Metallic Features in a Hot DA White Dwarf. *J. B. Holberg, F. C. Bruhweiler, & J. Andersen.* 443, 753, 108-C1 (1995)

Grain Formation around Carbon Stars. I. Stationary Outflow Models. *Michael P. Egan & Chun Ming Leung.* 444, 251, 117-A1 (1995)

A Dehydrogenation Study of Cosmic Carbon Analogue Grains. *V. Mennella, L. Colangeli, A. Blanco, E. Bussoletti, S. Fonti, P. Palumbo, & H. C. Mertins.* 444, 288, 117-D4 (1995)

The Structure of the Dust Shells around IRC +10216. *G. C. Sloan & M. P. Egan.* 444, 452, 119-G1 (1995)

The Dust Disk around the Vega-Excess Star SAO 26804. *C. J. Skinner, R. J. Sylvester, J. R. Graham, M. J. Barlow, M. Meixner, E. Keto, J. F. Arens, & J. G. Jernigan.* 444, 861, 128-C13 (1995)

Detection of Shocked Molecular Hydrogen in Infrared Companions to T Tauri Stars: Evidence for Ongoing Accretion. *T. M. Herbst, C. D. Koresko, & Christoph Leinert.* 444, L93, 130-F13 (1995)

Infrared Emission and Dynamics of Outflows in Late-Type Stars. *Željko Ivezić & Moshe Elitzur.* 445, 415, 138-C6 (1995)

The Fate of the Solid Matter Orbiting HR 4796A. *M. Jura, A. M. Ghez, Russel J. White, D. W. McCarthy, R. C. Smith, & P. G. Martin.* 445, 451, 138-F11 (1995)

A Study of Coronal X-Ray Emission from Short-Period Algol Binaries. *K. P. Singh, S. A. Drake, & N. E. White.* 445, 840, 146-F13 (1995)

A CO(3–2) Survey of Nearby Mira Variables. *K. Young.* 445, 872, 147-C1 (1995)

Wind Dynamics in SMC X-1. I. Hydrodynamic Simulation. *John M. Blondin & Jonathan W. Woo.* 445, 889, 147-D13 (1995)

Hydrodynamic Simulations of the Mass Transfer in Algol. *John M. Blondin, Mercedes T. Richards, & Michael L. Malinowski.* 445, 939, 148-B13 (1995)

First Detection of X-Ray Variability of η Carinae. *M. F. Corcoran, G. L. Rawley, J. H. Swank, & R. Petre.* 445, L121, 151-C9 (1995)

The Discovery of a Jetlike Feature from the Massive Star Herschel 36. *B. Stecklum, T. Henning, A. Eckart, R. R. Howell, & M. G. Hoare.* 445, L153, 152-A3 (1995)

The Ionized Masses of Planetary Nebulae. *David Buckley & Stephen E. Schneider.* 446, 279, 157-B2 (1995)

The Disruption of the Dense Disk in CRL 618. *Jesús Martín-Pintado, Ralph A. Gaume, Kenneth J. Johnston, & Rafael Bachiller.* 446, 687, 165-E4 (1995)

Infrared CO Emission from Young Stars: Accretion Disks and Neutral Winds. *C. J. Chandler, J. E. Carlstrom, & N. Z. Scoville.* 446, 793, 167-A7 (1995)

Luminosity Class III Stars with Excess Far-Infrared Emission. *B. Zuckerman, Sungsoo S. Kim, & T. Liu.* 446, L79, 171-A1 (1995)

He 3-1475 and Its Jets. *M. Bobrowsky, A. A. Zijlstra, E. K. Grebel, C. G. Tinney, P. te Lintel Hekkert, G. C. Van de Steene, L. Likkel, & T. R. Bedding.* 446, L89, 171-B3 (1995)

A Survey of Planetary Nebulae at Na D: Evidence for Neutral Envelopes. *Harriet L. Dinerstein, Christopher Sneden, & John Uglum.* 447, 262, 176-A7 (1995)

The Origin of the Rings around SN 1987A: An Evaluation of the Interacting-Winds Model. *Crystal L. Martin & David Arnett.* 447, 378, 177-E11 (1995)

The Subarcsecond 10 Micron Size of LkHα 101: Constraints on Circumstellar Dust. *R. M. Danen, C. R. Gwinn, & E. E. Bloemhof.* 447, 391, 177-F13 (1995)

Goddard High-Resolution Spectrograph Observations of the Interacting Binary System W Serpentis. *J. L. Weiland, S. N. Shore, E. A. Beaver, R. W. Lyons, & E. I. Rosenblatt.* 447, 401, 177-G13 (1995)

Thermal Structure of Mixing Layers in Bipolar Outflows. *Susana Lizano & Carlo Giovanardi.* 447, 742, 186-C1 (1995)

Molecular Abundances and Low-Mass Star Formation. II. Organic and Deuterated Species toward IRAS 16293−2422. *Ewine F. van Dishoeck, Geoffrey A. Blake, David J. Jansen, & T. D. Groesbeck.* 447, 760, 186-D12 (1995)

A Model for the Amorphous Carbon Grains around C-rich Objects. *A. Blanco, S. Fonti, & V. Orofino.* 448, 339, 196-G6 (1995)

1 Millimeter Polarimetry of Young Stellar Objects: Low-Mass Protostars and T Tauri Stars. *Motohide Tamura, J. H. Hough, & Saeko S. Hayashi.* 448, 346, 197-A2 (1995)

Detection of Ammonia Emission toward Oxygen-rich Evolved Stars. *Karl M. Menten & Javier Alcolea.* 448, 416, 197-G10 (1995)

High-Velocity Gas Associated with the Massive, Evolved Star G25.5+0.2. *D. S. Shepherd, E. Churchwell, & W. M. Goss.* 448, 426, 198-A9 (1995)

IRAS 08159−3543: Optical Detection of the Dusty, Neutral Bipolar Wind of a Luminous Young Stellar Object. *Th. Neckel & H. J. Staude.* 448, 832, 206-D1 (1995)

The Infrared Spectrum of the Optically Thin Dust Shell of V705 Cassiopeiae (Nova Cassiopeiae 1993). *R. D. Gehrz, M. A. Greenhouse, T. L. Hayward, J. R. Houck, C. G. Mason, & C. E. Woodward.* 448, L119, 209-E9 (1995)

The 11 Micron Emissions of Carbon Stars. *J. H. Goebel, P. Cheeseman, & F. Gerbault.* 449, 246, 213-E9 (1995)

Interferometric Observations of the SiO Masers and Dust Shell of VX Sagittarii. *L. J. Greenhill, F. Colomer, J. M. Moran, D. C. Backer, W. C. Danchi, & M. Bester.* 449, 365, 215-B7 (1995)

Vertical Disk Structure in HL Tauri. *Steven V. W. Beckwith & Christoph C. Birk.* 449, L59, 217-A4 (1995)

WFPC2 Imaging of the Circumstellar Nebulosity of HL Tauri. *Karl R. Stapelfeldt, Christopher J. Burrows, John E. Krist, John T. Trauger, J. Jeff Hester, Jon A. Holtzman, Gilda E. Ballester, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, John S. Gallagher III, Richard E. Griffiths, John G. Hoessel, Jeremy R. Mould, Paul A. Scowen, Alan M. Watson, & James A. Westphal.* 449, 888, 225-A4 (1995)

Detection of a Circumstellar Gas around DM Tauri: A Protoplanetary Disk around a Single Star? *Toshihiro Handa, Shoken M. Miyama, Takuya Yamashita, Toshihiro Omodaka, Yoshimi Kitamura, Masahiko Hayashi, Toshikazu Onishi, Ronald L. Snell, Stephen E. Strom, Karen M. Strom, Michael F. Skrutskie, Suzan Edwards, Nagayoshi Ohashi, Kazuyoshi Sunada, Masao Saito, Yasuo Fukui, Akira Mizuno, Jun-ichi Watanabe, & Hirokazu Kataza.* 449, 894, 225-B1 (1995)

The First 8–13 Micron Spectra of Asymptotic Giant Branch Stars in the Magellanic Clouds. *M. A. T. Groenewegen et al., C. H. Smith, P. R. Wood, A. Omont, & T. Fujiyoshi.* 449, L119, 227-A8 (1995)

Dust Emission from Protostars: The Disk and Envelope of HH 24 MMS. *Claire J. Chandler, David W. Koerner, Anneila I. Sargent, & Douglas O. S. Wood.* 449, L139, 227-D1 (1995)

Model of a Kuiper Belt Small Grain Population and Resulting Far-Infrared Emission. *D. E. Backman, A. Dasgupta, & R. E. Stencel.* 450, L35, 236-A11 (1995)

Disk Dissipation in Single and Binary Young Star Systems in Taurus. *M. Simon & L. Prato.* 450, 824, 242-A12 (1995)

Discovery of Strong Vibrationally Excited Water Masers at 658 GHz toward Evolved Stars. *Karl M. Menten & Ken Young.* 450, L67, 244-G8 (1995)

Dust Emission from L1641N: An Optically Thick Circumstellar Disk? *H. Chen, J.-H. Zhao, & N. Ohashi.* 450, L71, 245-A1 (1995)

Vortices in Circumstellar Disks. *Fred C. Adams & Richard Watkins.* 451, 314, 250-C3 (1995)

On the Electronic Structure of Small Carbon Grains of Astrophysical Interest. *V. Mennella, L. Colangeli, E. Bussoletti, G. Monaco, P. Palumbo, & A. Rotundi.* 100, 149, 47-G9 (1995)

Maps of the Molecular Emission around 18 Evolved Stars. *K. Z. Stanek, G. R. Knapp, K. Young, & T. G. Phillips.* 100, 169, 48-C8 (1995)

Stellar Contrails in Quasi-stellar Objects: The Origin of Broad Absorption Lines. *Nick Scoville & Colin Norman.* 451, 510, 254-C10 (1995)

Silicate Emission at 10 Microns in Variables on the Asymptotic Giant Branch. *G. C. Sloan & S. D. Price.* 451, 758, 257-E13 (1995)

Spatially Resolved Mid-Infrared Observations of Circumstellar Dust around AB Aurigae. *Kenneth A. Marsh, Jeffrey E. Van Cleve, M. J. Mahoney, T. L. Hayward, & J. R. Houck.* 451, 777, 257-G10 (1995)

Radio Observations of the Type Ia SN 1986G as a Test of a Symbiotic-Star Progenitor. *Christopher R. Eck, John J. Cowan, Douglas A. Roberts, Francesca R. Boffi, & David Branch.* 451, L53, 260-D6 (1995)

The Presupernova H II Region around SN 1987A. *Roger A. Chevalier & Vikram V. Dwarkadas.* 452, L45, 270-B8 (1995)

Aperture Synthesis Imaging of the Circumstellar Dust Disk around DO Tauri. *D. W. Koerner, C. J. Chandler, & A. I. Sargent.* 452, L69, 270-E14 (1995)

NGC 1333 IRAS 4: Further Multiplicity Revealed with the CSO-JCMT Interferometer. *O. P. Lay, J. E. Carlstrom, & R. E. Hills.* 452, L73, 270-F7 (1995)

Disk Accretion and Mass Loss from Young Stars. *Patrick Hartigan, Suzan Edwards, & Louma Ghandour.* 452, 736, 274-G4 (1995)

The Massive Post–Red Supergiants IRC +10420 and HD 179821. *Joel H. Kastner & David A. Weintraub.* 452, 833, 276-B7 (1995)

Study of Spectroscopic Binaries with TODCOR. IV. The Multiplicity of the Young Nearby Star HD 98800. *Guillermo Torres, Robert P. Stefanik, David W. Latham, & T. Mazeh.* 452, 870, 276-F7 (1995)

Dust Grains and the Luminosity of Circumnuclear Water Masers in Active Galaxies. *Alan J. Collison & William D. Watson.* 452, L103, 279-G3 (1995)

Constraints on Circumstellar Disk Masses in the Trapezium Cluster. *Lee G. Mundy, Leslie W. Looney, & Elizabeth A. Lada.* 452, L137, 280-D12 (1995)

An *IRAS*-based Search for New Dusty Late-Type WC Wolf-Rayet Stars. *Martin Cohen.* 100, 413, 51-G1 (1995)

The *EUVE* and *IUE* Spectra of the Hot DA White Dwarf GD 659. *J. B. Holberg, M. A. Barstow, F. C. Bruhweiler, & E. M. Sion.* 453, 313, 285-D12 (1995)

Aperture Synthesis ^{12}CO and ^{13}CO Observations of DM Tauri: 350 AU Radius Circumstellar Gas Disk. *M. Saito, R. Kawabe, M. Ishiguro, S. M. Miyama, M. Hayashi, T. Handa, Y. Kitamura, & T. Omodaka.* 453, 384, 286-D6 (1995)

Periodic Variations in Ultraviolet Spectral Lines of the B0.5 Ib Star HD 64760: Evidence for Corotating Wind Streams Rooted in Surface Variations. *Stanley P. Owocki, Steven R. Cranmer, & Alexander W. Fullerton.* 453, L37, 289-G1 (1995)

A Long-lived Disk around the Red Rectangle? *M. Jura, S. P. Balm, & C. Kahane.* 453, 721, 293-F13 (1995)

Spectropolarimetry of the Bipolar Planetary Nebula M2-9. *Susan R. Trammell, Robert W. Goodrich, & Harriet L. Dinerstein.* 453, 761, 294-D2 (1995)

Far-Infrared Water Line Emissions from Circumstellar Outflows. *Wesley Chen & David A. Neufeld.* 453, L99, 298-F11 (1995)

Disk Winds from T Tauri Stars. *John Kwan & Eugene Tademaru.* 454, 382, 304-E5 (1995)

Four Newly Identified Sources with 21 Micron Emission. *Sun Kwok, Bruce J. Hrivnak, & T. R. Geballe.* 454, 394, 304-F8 (1995)

The Oxygen Temperature of SN 1987A. *Weihong Liu & A. Dalgarno.* 454, 472, 305-G1 (1995)

The 30 Micron Emission Band in Carbon-rich Pre–Planetary Nebulae. *A. Omont, S. H. Moseley, P. Cox, W. Glaccum, S. Casey, T. Forveille, Kin-Wing Chan, R. Szczerba, R. F. Loewenstein, P. M. Harvey, & S. Kwok.* 454, 819, 313-B2 (1995)

The Circumstellar Molecular Core around L1551 IRS 5. *G. A. Fuller, E. F. Ladd, R. Padman, P. C. Myers, & Fred C. Adams.* 454, 862, 313-F7 (1995)

An Age Estimate for the β Pictoris Analog HR 4796A. *John R. Stauffer, Lee W. Hartmann, & David Barrado y Navascues.* 454, 910, 314-D1 (1995)

Circum-Protostellar Environments. III. Gas Densities and Kinetic Temperatures. *G. H. Moriarty-Schieven, P. G. Wannier, J. G. Mangum, M. Tamura, & V. K. Olmsted.* 455, 190, 320-F14 (1995)

Encounters with Protostellar Disks. II. Disruption and Binary Formation. *Clayton H. Heller.* 455, 252, 321-E10 (1995)

Vibrational Ground-State SiO $J = 1$–0 Emission in Orion IRc2 Imaged with the VLA. *Claire J. Chandler & Christopher G. De Pree.* 455, L67, 325-E13 (1995)

X-Rays from SN 1993J and Structures of Ejecta and Circumstellar Medium. *Tomoharu Suzuki & Ken'ichi Nomoto.* 455, 658, 331-A8 (1995)

Photon Heating of Envelopes around Young Stellar Objects: An Explanation for CO $J = 6$–5. *Marco Spaans, Michiel R. Hogerheijde, Lee G. Mundy, & Ewine F. van Dishoeck.* 455, L167, 334-D12 (1995)

SiO Emission from a 1000 AU Disk in Orion KL. *M. C. H. Wright, R. L. Plambeck, L. G. Mundy, & L. W. Looney.* 455, L185, 334-G3 (1995)

Subarcsecond-Resolution 86 GHz Continuum Maps of Orion KL. *R. L. Plambeck, M. C. H. Wright, L. G. Mundy, & L. W. Looney.* 455, L189, 334-G10 (1995)

STARS: CIRCUMSTELLAR SHELLS

Far-Infrared and Submillimeter-Wavelength Observations of Star-forming Dense Cores. I. Spectra. *E. F. Ladd, Fred C. Adams, S. Casey, J. A. Davidson, G. A. Fuller, D. A. Harper, P. C. Myers, & R. Padman.* 366, 203, 3-E7 (1991)

Circumstellar Material around the Massive Close Binary DH Cephei. *M. F. Corcoran.* 366, 308, 4-G8 (1991)

AG Pegasi: A Multishell Radio Source. *H. T. Kenny, A. R. Taylor, & E. R. Seaquist.* 366, 549, 9-G7 (1991)

Using SN 1987A Light Echoes to Determine Mass Loss from the Progenitor. *Arlin P. S. Crotts & William E. Kunkel.* 366, L73, 11-D1 (1991)

A Search for Circumstellar Dust around HR 10, a Proposed β Pictoris Star. *Kwang-Ping Cheng, C. A. Grady, & Frederick C. Bruhweiler.* 366, L87, 11-E7 (1991)

The Circumstellar Disks of β Pictoris Analogs. *C. A. Grady, Frederick C. Bruhweiler, K. P. Cheng, W. A. Chiu, & Y. Kondo.* 367, 296, 15-F9 (1991)

Circumstellar Material around λ Eridani (B2e). I. Geometry and Kinematics during 1987–1988. *Myron A. Smith, Geraldine J. Peters, & C. A. Grady.* 367, 302, 15-G1 (1991)

Distribution of Dust about o Ceti and α Orionis Based on 11 Micron Spatial Interferometry. *M. Bester, W. C. Danchi, C. G. Degiacomi, C. H. Townes, & T. R. Geballe.* 367, L27, 17-E1 (1991)

Detection of ^{13}C Isotopomers of HC_5N ($J = 9$–8) in the Circumstellar Envelope of IRC +10216. *M. B. Bell & P. A. Feldman.* 367, L33, 17-E8 (1991)

The Nature of the Dust around R Coronae Borealis Stars: Isolated Amorphous Carbon or Graphite Fractals? *J. H. Hecht.* 367, 635, 21-B9 (1991)

Excitation of Millimeter and Submillimeter Water Masers. *David A. Neufeld & Gary J. Melnick.* 368, 215, 25-F11 (1991)

Energy Distributions of Symbiotic Novae. *Greg L. Bryan & Sun Kwok.* 368, 252, 26-C1 (1991)

Search for Vega-like Nearby Stars with 12 Micron Excess. *Hartmut H. Aumann & Ronald G. Probst.* 368, 264, 26-D1 (1991)

The Millimeter-Wave Spectrum of Highly Vibrationally Excited SiO. *R. Mollaaghababa, C. A. Gottlieb, J. M. Vrtilek, & P. Thaddeus.* 368, L19, 28-D1 (1991)

Axisymmetric Models of Circumstellar Dust Shells. *Alan J. Collison & John D. Fix.* 368, 545, 31-G7 (1991)

Dust Properties around Evolved Stars from Far-Infrared Size Limits. *Paul M. Harvey, Daniel F. Lester, David Brock, & Marshall Joy.* 368, 558, 32-A8 (1991)

On the Possible Bipolar Nature of 21 Micron *IRAS* Sources. *Bruce J. Hrivnak & S. Kwok.* 368, 564, 32-B1 (1991)

IRAS Low-Resolution Spectral Observations of the 10 and 18 Micron Silicate Emission Features. *Janet P. Simpson.* 368, 570, 32-B13 (1991)

Astronomical Detection of H_2CCC. *J. Cernicharo, C. A. Gottlieb, M. Guélin, T. C. Killian, G. Paubert, P. Thaddeus, & J. M. Vrtilek.* 368, L39, 35-C7 (1991)

Astronomical Detection of H_2CCCC. *J. Cernicharo, C. A. Gottlieb, M. Guélin, T. C. Killian, P. Thaddeus, & J. M. Vrtilek.* 368, L43, 35-C11 (1991)

Circular Polarization in 1612 MHz OH Maser Emission from OH/IR Stars. *Philip J. Zell & John D. Fix.* 369, 506, 44-A9 (1991)

First Results from the Faint Object Camera: SN 1987A. *P. Jakobsen, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, R. P. Kirshner, & N. Panagia.* 369, L63, 46-B1 (1991)

A Survey for Infrared Excesses among High Galactic Latitude SAO Stars. *Robert E. Stencel & Dana E. Backman.* 75, 905, 14-A1 (1991)

Mass Outflow in the Nearby Proto–Planetary System β Pictoris. *Frederick C. Bruhweiler, Yoji Kondo, & C. A. Grady.* 371, L27, 66-D7 (1991)

The Carbon-rich Proto–Planetary Nebula IRAS 22272+5435. *Bruce J. Hrivnak & Sun Kwok.* 371, 631, 69-D6 (1991)

Aberration and Advection Effects in Expanding Spherically Symmetric Shells. *A. Peraiah.* 371, 673, 70-A1 (1991)

New OH Main-Line Detections of OH/IR Stars. *Dale F. Dickinson & B. E. Turner.* 75, 1323, 23-A9 (1991)

The Mid-Infrared Spectrum of the Carbon Star HD 38218 and Its Possible Relation to Polycyclic Aromatic Hydrocarbons. *Richard H. Buss, Jr., A. G. G. M. Tielens, & Theodore P. Snow.* 372, 281, 77-D8 (1991)

Detection of Silicates in the β Pictoris Disk. *C. M. Telesco & R. F. Knacke.* 372, L29, 79-D7 (1991)

Mixing Layers in Stellar Outflows. *J. Cantó & A. C. Raga.* 372, 646, 83-F7 (1991)

The SiH Vibrational Stretch as an Indicator of the Chemical State of Interstellar Grains. *Marla H. Moore, Toshihiko Tanabé, & Joseph A. Nuth.* 373, L31, 91-D7 (1991)

Two Micron Morphology of Candidate Protostars. *Motohide Tamura, Ian Gatley, William Waller, & Michael W. Werner.* 374, L25, 103-E7 (1991)

Stellar Occultation of Polarized Light from Circumstellar Electrons. II. Flat Envelopes Viewed at Arbitrary Inclination. *Geoffrey K. Fox & John C. Brown.* 375, 300, 114-F1 (1991)

Observations and Chemistry of Interstellar Refractory Elements. *B. E. Turner.* 376, 573, 133-E1 (1991)

Proto–Planetary Nebulae. II. The Shock-heated Bipolar Nebulae GL 618 and M2-56. *Robert W. Goodrich.* 376, 654, 134-D12 (1991)

Dust Temperatures in the Circumstellar Shell of TX Piscium. *J. Wirsich.* 377, 285, 141-E1 (1991)

First Results from the Goddard High-Resolution Spectrograph: Resolved Velocity and Density Structure in the β Pictoris Circumstellar Gas. *A. Boggess, Frederick C. Bruhweiler, C. A. Grady, Dennis C. Ebbets, Yoji Kondo, L. M. Trafton, John C. Brandt, & S. R. Heap.* 377, L49, 143-F1 (1991)

Polycyclic Aromatic Hydrocarbon Optical Properties and Contribution to the Acceleration of Stellar Outflows. *Isabelle Cherchneff, John R. Barker, & Alexander G. G. M. Tielens.* 377, 541, 146-D6 (1991)

321 GHz Submillimeter Water Masers around Evolved Stars. *Karl M. Menten & Gary J. Melnick.* 377, 647, 147-F8 (1991)

IRAS 17380−3031: A New Dusty Late WC-Type Wolf-Rayet Star. *Martin Cohen, K. A. van der Hucht, P. M. Williams, & P. S. Thé.* 378, 302, 154-F7 (1991)

A Gaseous Tail Ablated from the Supergiant IRS 7 near the Galactic Center. *E. Serabyn, J. H. Lacy, & J. M. Achtermann.* 378, 557, 159-C9 (1991)

The Molecular Envelope of NGC 7027. *John H. Bieging, David Wilner, & Harley A. Thronson, Jr.* 379, 271, 166-D9 (1991)

LMC-2 as the Blowout of a Hot Superbubble. *Qingde Wang & David J. Helfand.* 379, 327, 167-B5 (1991)

An Observational Connection between Circumstellar Disk Mass and Molecular Outflows. *Sylvie Cabrit & Philippe André.* 379, L25, 169-C6 (1991)

The Circumstellar Shell of SN 1987A. *Ding Luo & Richard McCray.* 379, 659, 172-G9 (1991)

Stellar Occultation of Polarized Light from Circumstellar Electrons. III. General Axisymmetric Envelopes. *Geoffrey K. Fox.* 379, 663, 173-A1 (1991)

Models for Light Scattering by Dust around Herbig-Haro Objects. *Alberto Noriega-Crespo, Nuria Calvet, & Karl-Heinz Böhm.* 379, 676, 173-B1 (1991)

Effects of Aberration and Advection on Line Formation. *A. Peraiah.* 380, 212, 178-F1 (1991)

Properties of the SN 1987A Circumstellar Ring and the Distance to the Large Magellanic Cloud. *N. Panagia, R. Gilmozzi, F. Macchetto, H.-M. Adorf, & R. P. Kirshner.* 380, L23, 181-D1 (1991)

Circumstellar Emission from SN 1987A. *Peter Lundqvist & Claes Fransson.* 380, 575, 185-D1 (1991)

Abundances in Red Giant Stars: Nitrogen Isotopes in Carbon-rich Molecular Envelopes. *P. G. Wannier, B-G Andersson, H. Olofsson, N. Ukita, & K. Young.* 380, 593, 185-E8 (1991)

Particle Emissivity in Circumstellar Disks. *Steven V. W. Beckwith & Anneila I. Sargent.* 381, 250, 192-B1 (1991)

A Model for Tidally Driven Eccentric Instabilities in Fluid Disks. *Stephen H. Lubow.* 381, 259, 192-B12 (1991)

Simulations of Tidally Driven Eccentric Instabilities with Application to Superhumps. *Stephen H. Lubow.* 381, 268, 192-C9 (1991)

R Aquarii: Hα Map of Subarcsecond Inner Structure. *E. K. Hege, C. K. Allen, & W. J. Cocke.* 381, 543, 197-D6 (1991)

Are FU Orionis Stars Younger than T Tauri Stars? Submillimeter Constraints on Circumstellar Disks. *David A. Weintraub, Göran Sandell, & William D. Duncan.* 382, 270, 203-E8 (1991)

CN and HCN in the Infrared Spectrum of IRC +10216. *G. R. Wiedemann, Kenneth H. Hinkle, John J. Keady, D. Deming, & D. E. Jennings.* 382, 321, 204-B10 (1991)

The Molecular Structure around HL Tauri. *A. I. Sargent & S. V. W. Beckwith.* 382, L31, 205-D6 (1991)

On the Evolution of Gravitationally Unstable Protostellar Disks. *Leslie Tomley, Patrick Cassen, & Thomas Steiman-Cameron.* 382, 530, 208-B6 (1991)

Far-Infrared and Submillimeter Wavelength Observations of Star-forming Dense Cores. II. Images. *E. F. Ladd, Fred C. Adams, S. Casey, J. A. Davidson, G. A. Fuller, D. A. Harper, P. C. Myers, & R. Padman.* 382, 555, 208-D7 (1991)

The Temperature of the Circumstellar Envelope of Alpha Orionis. *Bernadette Rodgers & Alfred E. Glassgold.* 382, 606, 209-B1 (1991)

On the Nature of the Excess 100 Micron Flux Associated with Carbon Stars. *Michael P. Egan & Chun Ming Leung.* 383, 314, 216-B1 (1991)

The Dusty Envelopes of FU Orionis Variables. *Scott J. Kenyon & Lee W. Hartmann.* 383, 664, 222-E1 (1991)

The Dust Debris around HR 4796. *M. Jura.* 383, L79, 226-F1 (1991)

STARS: COLLAPSED

Stability of a Collapsed Star in Bimetric General Relativity. II. *Amos Harpaz & Nathan Rosen.* 371, 254, 63-C9 (1991)

Numerical Solution of the General Relativistic Boltzmann Equation for Massive and Massless Particles. *Hugh Harleston & Katherine A. Holcomb.* 372, 225, 76-F13 (1991)

Stationary Accelerators around Keplerian Disks of Aligned Magnetized Collapsed Objects: Pair Production and Gamma-Ray Emission. *K. S. Cheng & M. Ruderman.* 373, 187, 88-C9 (1991)

High-Temperature Neutrino-Nucleus Processes in Stellar Collapse. *George M. Fuller & Bradley S. Meyer.* 376, 701, 135-A12 (1991)

Neutron Star and Black Hole Binaries in the Galaxy. *Ramesh Narayan, Tsvi Piran, & Amotz Shemi.* 379, L17, 169-B11 (1991)

Magnetohydrodynamic Cosmologies. *R. Portugal & I. Damião Soares.* 380, 330, 182-D5 (1991)

Diffusion Processes in the Collapse of a Radiating Spherical Body. *R. Chan, L. Herrera, J. A. F. Pacheco, & N. O. Santos.* 382, 255, 203-D1 (1991)

STARS: CORONAE

Magnetic Confinement, Alfvén Wave Reflection, and the Origins of X-Ray and Mass-Loss "Dividing Lines" for Late-Type Giants and Supergiants. *R. Rosner, C.-H. An, Z. E. Musielak, R. L. Moore, & S. T. Suess.* 372, L91, 85-E5 (1991)

Flux-limited Diffusion in a Scattering Medium. *Fulvio Melia & Gregory J. Zylstra.* 374, 732, 108-B9 (1991)

Digging in the Coronal Graveyard: A *ROSAT* Observation of the Red Giant Arcturus. *Thomas R. Ayres, Thomas A. Fleming, & Juergen H. M. M. Schmitt.* 376, L45, 137-C7 (1991)

Isothermal, Compton-heated Coronae above Accretion Disks. *Eve C. Ostriker, Christopher F. McKee, & Richard I. Klein.* 377, 593, 147-B3 (1991)

Radiative-hydrodynamical Simulations of Accretion Disk Coronae. *Fulvio Melia, Gregory J. Zylstra, & Bruce Fryxell.* 377, L101, 150-E11 (1991)

Numerical Simulations of Flares on M Dwarf Stars. I. Hydrodynamics and Coronal X-Ray Emission. *Chung-Chieh Cheng & Roberto Pallavicini.* 381, 234, 191-G12 (1991)

The Coronal Dividing Line in the *ROSAT* X-Ray All-Sky Survey. *Bernhard Haisch, J. H. M. M. Schmitt, & C. Rosso.* 383, L15, 219-C1 (1991)

A Study of the Stellar Population in the Chamaeleon Dark Clouds. *Lisa S. Gauvin & Karen M. Strom.* 385, 217, 14-F1 (1992)

X-Ray–heated Models of Stellar Flare Atmospheres: Theory and Comparison with Observations. *Suzanne L. Hawley & George H. Fisher.* 78, 565, 10-F1 (1992)

Inhibition of Electron Thermal Conduction by Electromagnetic Instabilities. *Amir Levinson & David Eichler.* 387, 212, 39-E5 (1992)

X-Ray Activity as Statistical Age Indicator: The Disk G–K Giants. *G. Micela, A. Maggio, & G. S. Vaiana.* 388, 171, 51-B5 (1992)

First Conclusive Evidence for Rotational Modulation of Stellar Radio Emission. *Jeremy Lim, Graham J. Nelson, Catarina Castro, David Kilkenny, & François van Wyk.* 388, L27, 52-C7 (1992)

Time Variability Studies with Photon-counting Imaging Detectors. I. A Maximum Likelihood Technique. *S. Sciortino & G. Micela.* 388, 595, 57-E11 (1992)

ROSAT X-Ray All-Sky Survey Observations of Hybrid Stars. *Bernhard Haisch, J. H. M. M. Schmitt, & C. Rosso.* 388, L61, 59-C7 (1992)

On the Density and Field Sensitivities of Dielectronic Recombination. *Daniel B. Reisenfeld, John C. Raymond, Albert R. Young, & John L. Kohl.* 389, L37, 66-E5 (1992)

Transient Periodicities in X-Ray–active Red Dwarfs: First Results from Mount Cuba and Interpretation with an Oscillating Loop Model. *D. J. Mullan, R. B. Herr, & S. Bhattacharyya.* 391, 265, 89-C1 (1992)

Coordinated *Ginga*, *IUE*, and VLA Observations of Stellar Activity in σ^2 Coronae Borealis. *R. A. Stern, Y. Uchida, F. Walter, O. Vilhu,*

D. Hannikainen, A. Brown, A. Veale, & B. M. Haisch. 391, 760, 97-D7 (1992)

ROSAT X-Ray Observations of Hybrid Stars. *D. Reimers & J. H. M. M. Schmitt.* 392, L55, 113-B11 (1992)

Radiative-hydrodynamical Simulations of X-Ray Burst–induced Accretion Disk Coronae. *Fulvio Melia, Gregory J. Zylstra, & Bruce Fryxell.* 396, L27, 160-E8 (1992)

Radio Continuum and X-Ray Properties of the Coronae of RS Canum Venaticorum and Related Active Binary Systems. *Stephen A. Drake, Theodore Simon, & Jeffrey L. Linsky.* 82, 311, 53-F5 (1992)

Why All Stars Should Possess Circumstellar Temperature Inversions. *Jack D. Scudder.* 398, 319, 185-F11 (1992)

An Interpretation of the Multipeaked Structure in X-Ray Bursts. *Fulvio Melia & Gregory J. Zylstra.* 398, L53, 188-A1 (1992)

First Results from *ROSAT* All-Sky Survey Observations of the Hyades Cluster. *Robert A. Stern, Jürgen H. M. M. Schmitt, Cristina Rosso, John P. Pye, Simon T. Hodgkin, & John R. Stauffer.* 399, L159, 208-D9 (1992)

Ginga Observations of X-Ray Flares on Algol. *R. A. Stern, Y. Uchida, S. Tsuneta, & F. Nagase.* 400, 321, 212-G13 (1992)

The Far-Infrared and X-Ray Radiation of Active Late-Type Stars: Suggestions for Strong Spottedness. *M. M. Katsova & V. Tsikoudi.* 402, L9, 6-C1 (1993)

ROSAT Detections of X-Ray Emission from Young B-Type Stars. *J. H. M. M. Schmitt, H. Zinnecker, R. Cruddace, & F. R. Harnden, Jr.* 402, L13, 6-C8 (1993)

The Distant Future of Solar Activity: A Case Study of β Hydri. III. Transition Region, Corona, and Stellar Wind. *D. Dravins, P. Linde, T. R. Ayres, J. L. Linsky, B. Monsignori-Fossi, T. Simon, & F. Wallinder.* 403, 412, 18-G13 (1993)

Discovery of Remarkably Intense Radio Emission from a Young and Rapidly Rotating dMe Star. *Jeremy Lim.* 405, L33, 47-F1 (1993)

X-Ray/Microwave Relation of Different Types of Active Stars. *Manuel Güdel & Arnold O. Benz.* 405, L63, 54-C13 (1993)

Resistive Dissipation and Magnetic Field Topology in the Stellar Corona. *E. N. Parker.* 407, 342, 73-C11 (1993)

Stellar Coronae at the End of the Main Sequence: A *ROSAT* Survey of the Late M Dwarfs. *Thomas A. Fleming, Mark S. Giampapa, J. H. M. M. Schmitt, & Jay A. Bookbinder.* 410, 387, 116-G8 (1993)

The *ROSAT* All-Sky Survey of Active Binary Coronae. I. Quiescent Fluxes for the RS Canum Venaticorum Systems. *Robert C. Dempsey, Jeffrey L. Linsky, Thomas A. Fleming, & J. H. M. M. Schmitt.* 86, 599, 22-C3 (1993)

Mg II and Lyα Fluxes in M Dwarfs: Evaluation of an Acoustic Model. *D. J. Mullan & Q. Q. Cheng.* 412, 312, 146-A9 (1993)

On the Structure of Solar and Stellar Coronae: Loops and Loop Heat Transport. *Christof Litwin & Robert Rosner.* 412, 375, 146-F13 (1993)

The *ROSAT* All-Sky Survey of Active Binary Coronae. II. Coronal Temperatures of the RS Canum Venaticorum Systems. *Robert C. Dempsey, Jeffrey L. Linsky, J. H. M. M. Schmitt, & T. A. Fleming.* 413, 333, 160-D5 (1993)

A Study of the Spatial and Spectral Characteristics of the Corona of AR Lacertae. *R. Ottmann, J. H. M. M. Schmitt, & M. Kürster.* 413, 710, 165-C6 (1993)

Extreme Ultraviolet Explorer Observations of the RS Canum Venaticorum Systems AR Lacertae and II Pegasi. *R. J. Patterer, P. W. Vedder, P. Jelinsky, A. Brown, & S. Bowyer.* 414, L57, 185-B13 (1993)

Extreme Ultraviolet Emission from Late-Type Stars: Initial Results from *Extreme Ultraviolet Explorer*. *Peter W. Vedder, Robert J. Patterer, Patrick Jelinsky, Alex Brown, & Stuart Bowyer.* 414, L61, 185-C5 (1993)

Discrete High-Frequency *p*-Modes as Probes of Structures in the Chromosphere, Transition Region, and Lower Corona of the Sun. *Yu-Qing Lou.* 414, L141, 186-E1 (1993)

The Evolution of Stellar Coronae: Initial Results from a *ROSAT* PSPC Observation of IC 2391. *Brian M. Patten & Theodore Simon.* 415, L123, 200-D1 (1993)

ROSAT X-Ray Detection of ϵ Taurus: Revisiting the Coronal and Transition Region Emission of the Hyades Giants. *A. Collura, A. Maggio, G. Micela, S. Sciortino, F. R. Harnden, Jr., & R. Rosner.* 416, 204, 203-E8 (1993)

Detection of the First Coronal X-Ray Source about a White Dwarf. *Thomas A. Fleming, Klaus Werner, & Martin A. Barstow.* 416, L79, 216-E6 (1993)

Effects of Coronal and Shock-produced X-Rays on the Ionization Distribution in Hot Star Winds. *J. J. MacFarlane, W. L. Waldron, M. F. Corcoran, M. J. Wolff, P. Wang, & J. P. Cassinelli.* 419, 813, 257-F11 (1993)

Simultaneous Optical and *ROSAT* Soft X-Ray Observations of Impulsive Bursts on the Flare Star UV Ceti. *J. H. M. M. Schmitt, Bernhard Haisch, & H. Barwig.* 419, L81, 259-E7 (1993)

Acoustic Waves in M Dwarfs: Maintaining a Corona. *D. J. Mullan & Q. Q. Cheng.* 420, 392, 5-F8 (1994)

A Far-Ultraviolet Flare on a Pleiades G Dwarf. *T. R. Ayres, J. R. Stauffer, Theodore Simon, R. A. Stern, S. K. Antiochos, G. S. Basri, J. A. Bookbinder, A. Brown, G. A. Doschek, J. L. Linsky, L. W. Ramsey, & F. M. Walter.* 420, L33, 7-E4 (1994)

The Extreme Ultraviolet Coronal Spectrum of the Solar-Type Star χ^1 Orionis. *Bernhard Haisch, Jeremy J. Drake, & J. H. M. M. Schmitt.* 421, L39, 22-A5 (1994)

Detection of Rotational Modulation in the Coronal Extreme-Ultraviolet Emission from V711 Tauri? *Jeremy J. Drake, Alex Brown, Robert J. Patterer, Peter W. Vedder, Stuart Bowyer, & Edward F. Guinan.* 421, L43, 22-A10 (1994)

Observing Stellar Coronae with the Goddard High Resolution Spectrograph. I. The dMe Star AU Microscopii. *S. P. Maran, R. D. Robinson, S. N. Shore, J. W. Brosius, K. G. Carpenter, B. E. Woodgate, J. L. Linsky, A. Brown, P. B. Byrne, M. R. Kundu, S. White, J. C. Brandt, R. A. Shine, & F. M. Walter.* 421, 800, 28-B10 (1994)

Radio Constraints on Coronal Models for dMe Stars. *S. M. White, J. Lim, & M. R. Kundu.* 422, 293, 33-F11 (1994)

Accretion Disk Corona Line Emission from X0614+091. *D. J. Christian, N. E. White, & J. H. Swank.* 422, 791, 41-F6 (1994)

ROSAT Observations of Stellar Flares. *J. H. M. M. Schmitt.* 90, 735, 12-G12 (1994)

Quiescent Microwave Emission from Late-Type Stars. *Manuel Güdel.* 90, 743, 13-A8 (1994)

ROSAT All-Sky Survey Observations of X-Ray Variability in Cool Giant Stars. *Bernhard Haisch & J. H. M. M. Schmitt.* 426, 716, 107-C13 (1994)

Coronal X-Ray Sources in the Hyades: A 40 Kilosecond *ROSAT* Pointing. *Robert A. Stern, Jürgen H. M. M. Schmitt, John P. Pye, Simon T. Hodgkin, John R. Stauffer, & Theodore Simon.* 427, 808, 122-F6 (1994)

Stellar Winds with Non-WKB Alfvén Waves. I. Wind Models for Solar Coronal Conditions. *K. B. MacGregor & P. Charbonneau.* 430, 387, 164-A9 (1994)

A Volume-limited *ROSAT* Survey of Extreme Ultraviolet Emission from All Nondegenerate Stars within 10 Parsecs. *Brian E. Wood, Alexander Brown, Jeffrey L. Linsky, Barry J. Kellett, Gordon E. Bromage, Simon T. Hodgkin, & John P. Pye.* 93, 287, 45-E5 (1994)

Gravitational Damping of Alfvén Waves in Stellar Atmospheres and Winds. *I. K. Khabibrakhmanov & D. J. Mullan.* 430, 814, 172-A7 (1994)

Emission Lines from X-Ray–heated Accretion Disks in Low-Mass X-Ray Binaries. *Yuan-Kuen Ko & Timothy R. Kallman.* 431, 273, 179-E4 (1994)

X-Ray Emission on Hybrid Stars: *ROSAT* Observations of α Trianguli Australis and ι Aurigae. *V. Kashyap, R. Rosner, F. R. Harnden, Jr., A. Maggio, G. Micela, & S. Sciortino.* 431, 402, 181-A13 (1994)

ROSAT X-Ray Observations of Late-Type Evolved Stars: On the Relationship between Coronal Temperatures and Luminosities. *A. Maggio, S. Sciortino, & F. R. Harnden, Jr.* 432, 701, 204-F11 (1994)

Acoustic Heating of the Chromosphere and Cool Corona in the F Star α Canis Minoris (Procyon). *D. J. Mullan & Q. Q. Cheng.* 435, 435, 249-D7 (1994)

Accretion Disk Coronae in High-Luminosity Systems. *Stephen D. Murray, John I. Castor, Richard I. Klein, & Christopher F. McKee.* 435, 631, 254-F13 (1994)

ASCA Observations of the Coronal X-Ray Emission of Algol. *A. Antunes, F. Nagase, & N. E. White.* 436, L83, 269-G3 (1994)

ASCA X-Ray Spectra of the Active Single Stars β Ceti and π^1 Ursae Majoris. *S. A. Drake, K. P. Singh, N. E. White, & Theodore Simon.* 436, L87, 269-G11 (1994)

The Heating of Nova Ejecta by Radioactive Decays of the β-unstable Nuclei. *Shlomi Pistinner, Giora Shaviv, & Sumner Starrfield.* 437, 794, 296-E4 (1994)

Determination of Plasma Temperatures and Luminosities Using Multiple Extreme-Ultraviolet and X-Ray Filters. *Brian E. Wood, Alexander Brown, & Jeffrey L. Linsky.* 438, 350, 6-C9 (1995)

The RIASS Coronathon: Joint X-Ray and Ultraviolet Observations of Normal F–K Stars. *Thomas R. Ayres, T. A. Fleming, T. Simon, B. M. Haisch, A. Brown, D. Lenz, W. Wamsteker, D. de Martino, C. Gonzalez, J. Bonnell, J. M. Mas-Hesse, C. Rosso, J. H. M. M. Schmitt, J. Trümper, W. Voges,*

J. Pye, R. C. Dempsey, J. L. Linsky, E. F. Guinan, G. M. Harper, C. Jordan, B. M. Montesinos, I. Pagano, & M. Rodonò. 96, 223, 4-E7 (1995)
Phase Lags in Cygnus X-1. *M. Coleman Miller.* 441, 770, 72-E6 (1995)
The Transition Regions of Capella. *Jeffrey L. Linsky, Brian E. Wood, Philip Judge, Alexander Brown, Catherine Andrulis, & Thomas R. Ayres.* 442, 381, 82-C9 (1995)
On the Origin of "Dividing Lines" for Late-Type Giants and Supergiants. *R. Rosner, Z. E. Musielak, F. Cattaneo, R. L. Moore, & S. T. Suess.* 442, L25, 84-G11 (1995)
Stellar Coronal Abundances. II. The First Ionization Potential Effect and Its Absence in the Corona of Procyon. *Jeremy J. Drake, J. Martin Laming, & Kenneth G. Widing.* 443, 393, 100-E2 (1995)
New Model of Iron Spectra in the Extreme Ultraviolet and Application to SERTS and *EUVE* Observations: A Solar Active Region and Capella. *N. S. Brickhouse, J. C. Raymond, & B. W. Smith.* 97, 551, 19-F4 (1995)
Circular Polarization in the Radio Emission of RS Canum Venaticorum Binaries. *Stephen M. White & Elena Franciosini.* 444, 342, 118-C1 (1995)
Coronal Heating in Flare Stars: Resonant MHD Absorption? *D. J. Mullan & M. Johnson.* 444, 350, 118-C12 (1995)
EUVE Observations of Algol: Detection of a Continuum and Implications for the Coronal [Fe/H] Abundance. *Robert A. Stern, James R. Lemen, Jürgen H. M. M. Schmitt, & John P. Pye.* 444, L45, 121-G7 (1995)
Optical Diagnostics of Coronal Loop Interactions. *Vladimir S. Airapetian & Raymond N. Smartt.* 445, 489, 139-C6 (1995)
A Study of Coronal X-Ray Emission from Short-Period Algol Binaries. *K. P. Singh, S. A. Drake, & N. E. White.* 445, 840, 146-F13 (1995)
X-Ray Emission from the Sun in Its Youth and Old Age. *J. D. Dorren, M. Güdel, & E. F. Guinan.* 448, 431, 198-B3 (1995)
Spectroscopic *EUVE* Observations of the Active Star AB Doradus. *Slavek M. Rucinski, Rolf Mewe, Jelle S. Kaastra, Osmi Vilhu, & Stephen M. White.* 449, 900, 225-B11 (1995)
The *Einstein* Extended Medium-Sensitivity Survey Second Epoch: Results for the Stars. *Thomas A. Fleming, Silvano Molendi, Tommaso Maccacaro, & Anna Wolter.* 99, 701, 44-D12 (1995)
Spectral and Temporal Characteristics of X-Ray–bright Stars in the Pleiades. *Marc Gagné, Jean-Pierre Caillault, & John R. Stauffer.* 450, 217, 231-A11 (1995)
The X-Ray View of the Low-Mass Stars in the Solar Neighborhood. *Jürgen H. M. M. Schmitt, Thomas A. Fleming, & Mark S. Giampapa.* 450, 392, 233-C13 (1995)
Correlations of Coronal X-Ray Emission with Activity, Mass, and Age of the Nearby K and M Dwarfs. *Thomas A. Fleming, Jürgen H. M. M. Schmitt, & Mark S. Giampapa.* 450, 401, 233-D12 (1995)
Radio Detection of Late-Type (G–K) Dwarf Stars in the Pleiades. *Jeremy Lim & Stephen M. White.* 453, 207, 284-A5 (1995)
ROSAT Pointed Observations of Cool Magnetic White Dwarfs. *Z. E. Musielak, J. G. Porter, & J. M. Davis.* 453, L33, 289-F8 (1995)
Stellar Winds with Non-WKB Alfvén Waves. II. Wind Models for Cool, Evolved Stars. *P. Charbonneau & K. B. MacGregor.* 454, 901, 314-C3 (1995)

STARS: R CORONAE BOREALIS

The Nature of the Dust around R Coronae Borealis Stars: Isolated Amorphous Carbon or Graphite Fractals? *J. H. Hecht.* 367, 635, 21-B9 (1991)

STARS: DIAMETERS

Distribution of Dust about o Ceti and α Orionis Based on 11 Micron Spatial Interferometry. *M. Bester, W. C. Danchi, C. G. Degiacomi, C. H. Townes, & T. R. Geballe.* 367, L27, 17-E1 (1991)
Multichannel Astrometric Photometer–based Parallaxes of Evolved Stars: χ Cygni, 51 Andromedae, and OP Andromedae. *John W. Stein.* 377, 669, 148-A5 (1991)

STARS: DISTANCES

The Absolute Magnitudes of LMC RR Lyrae Variables and the Ages of Galactic Globular Clusters. *Alistair R. Walker.* 390, L81, 85-A7 (1992)
A Provisional RR Lyrae Distance Scale. *Norman R. Simon & Christine M. Clement.* 410, 526, 120-C1 (1993)
Pulsar Distances and the Galactic Distribution of Free Electrons. *J. H. Taylor & J. M. Cordes.* 411, 674, 138-B3 (1993)
The Tip of the Red Giant Branch as a Distance Indicator for Resolved Galaxies. *Myung Gyoon Lee, Wendy L. Freedman, & Barry F. Madore.* 417, 553, 226-B13 (1993)
Proper Motions and Radial Velocities in the Globular Cluster M22 and the Cluster Distance. *Ruth C. Peterson & Kyle M. Cudworth.* 420, 612, 10-C7 (1994)
Modeling the Light-Travel-Time Effect on the Far-Infrared Size of IRC +10216. *Edward L. Wright & Frederick K. Baganoff.* 440, 322, 45-E9 (1995)
H I Line Measurements of Eight Southern Pulsars. *Bärbel Koribalski, Simon Johnston, J. M. Weisberg, & W. Wilson.* 441, 756, 72-C13 (1995)
MAP-based Trigonometric Parallaxes of Open Clusters: Coma. *George Gatewood.* 445, 712, 145-A7 (1995)
On Spectral Line Formation and Measurement in Cepheids: Implications to Distance Determination. *C. N. Sabbey, D. D. Sasselov, M. S. Fieldus, J. B. Lester, K. A. Venn, & R. P. Butler.* 446, 250, 156-F2 (1995)
Neutral Hydrogen Absorption Measurements of Four Distant Pulsars and the Electron Density in the Inner Galaxy. *J. M. Weisberg, M. H. Siegel, D. A. Frail, & S. Johnston.* 447, 204, 175-A10 (1995)
A 325 Square Degree Survey of B-Type Stars at High Galactic Latitudes. *J. E. Little, P. L. Dufton, F. P. Keenan, N. C. Hambly, E. S. Conlon, P. J. F. Brown, & L. Miller.* 447, 783, 186-F11 (1995)
MAP-based Trigonometric Parallaxes of Altair and Vega. *George Gatewood & Joost Kiewiet de Jonge.* 450, 364, 233-A4 (1995)
CM Draconis and YY Geminorum: Agreement between Theory and Observation. *Gilles Chabrier & Isabelle Baraffe.* 451, L29, 252-E6 (1995)
The Calibration of Novae as Distance Indicators. *Massimo Della Valle & Mario Livio.* 452, 704, 274-D4 (1995)
First Observation of Parallax in a Gravitational Microlensing Event. *C. Alcock, R. A. Allsman, D. Alves, T. S. Axelrod, D. P. Bennett, K. H. Cook, K. C. Freeman, K. Griest, J. Guern, M. J. Lehner, S. L. Marshall, B. A. Peterson, M. R. Pratt, P. J. Quinn, A. W. Rodgers, C. W. Stubbs, & W. Sutherland (The MACHO Collaboration).* 454, L125, 316-C1 (1995)
Interstellar Extinction from 0.35 to 2.2 Microns: A Study Based on Luminous Southern Stars. *Lida He, D. C. B. Whittet, D. Kilkenny, & J. H. Spencer Jones.* 101, 335, 58-D12 (1995)

STARS: DWARF NOVAE

Evidence for CNO Processed Material in the Accretion Disk of GP Comae. *T. R. Marsh, Keith Horne, & Simon Rosen.* 366, 535, 9-F1 (1991)
A Search for Periodicities in the X-Ray Emission from Cataclysmic Variables. *Michael Eracleous, Joseph Patterson, & Jules Halpern.* 370, 330, 51-D1 (1991)
Near-Infrared Time-resolved Spectroscopy of the Cataclysmic Variable YY Draconis. *Mario Mateo, Paula Szkody, & Peter Garnavich.* 370, 370, 51-G8 (1991)
Helium Star Cataclysmics. *Icko Iben, Jr., & Alexander V. Tutukov.* 370, 615, 56-B5 (1991)
On the X-Ray–emitting Boundary Layer of the Dwarf Nova VW Hydri. *Christopher W. Mauche, Richard A. Wade, Ronald S. Polidan, Hans van der Woerd, & Frits B. S. Paerels.* 372, 659, 83-G7 (1991)
The Near-Infrared Spectra of Low-Mass X-Ray Binaries and Related Objects. *A. P. Cowley, P. C. Schmidtke, D. Crampton, J. B. Hutchings, & M. Bolte.* 373, 228, 88-G1 (1991)
The Interoutburst Behavior of Cataclysmic Variables. *Paula Szkody, Janet A. Mattei, Elizabeth O. Waagen, & Clay Stablein.* 76, 359, 29-E1 (1991)
High-Resolution *IUE* Spectra of the Nova-like Variable IX Velorum. *Christopher W. Mauche.* 373, 624, 95-F7 (1991)
The Pulse-timing and Emission-Line Orbits of the White Dwarf in the Cataclysmic Variable AE Aquarii. *Edward L. Robinson, Allen W. Shafter, & S. Balachandran.* 374, 298, 101-G1 (1991)
Rotation and Emission Lines in Stars and Accretion Disks. *Keith Horne & Steven H. Saar.* 374, L55, 110-D6 (1991)
The White Dwarf Mass Distribution in Classical Nova Systems. *Hans Ritter, Michael Politano, Mario Livio, & Ronald F. Webbink.* 376, 177, 127-B10 (1991)
Eclipse Studies of the Dwarf Nova HT Cassiopeiae. I. Observations and System Parameters. *Keith Horne, Janet H. Wood, & Rae F. Stiening.* 378, 271, 154-C11 (1991)
Spin Evolution and Magnetic Fields in Cataclysmic Variables. *Andrew R. King & Jean-Pierre Lasota.* 378, 674, 160-G1 (1991)
The Eclipsing AM Herculis Variable H1907+690. *R. A. Remillard, B. A. Stroozas, S. Tapia, & A. Silber.* 379, 715, 173-E13 (1991)
Spin-up of the White Dwarf in the Intermediate Polar 3A 0729+103. *Jyoti Singh, P. C. Agrawal, K. M. V. Apparao, P. Vivekananda Rao, & M. B. K. Sarma.* 380, 208, 178-E11 (1991)

Spectroscopy of Z Camelopardalis in Outburst with the Hopkins Ultraviolet Telescope. *Knox S. Long, William P. Blair, Arthur F. Davidsen, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Richard C. Henry, Gerard A. Kriss, Jeffrey W. Kruk, H. Warren Moos, Olaf Vancura, Henry C. Ferguson, & Randy A. Kimble.* 381, L25, 194-D5 (1991)

V795 Herculis (=PG 1711+336), A Peculiar Intermediate Polar without Strong X-Ray Emission. *Erho Zhang, Edward L. Robinson, Tod F. Ramseyer, Mathew D. Shetrone, & Rae F. Stiening.* 381, 534, 197-C10 (1991)

X-Ray Spectra of Cataclysmic Variables from the *Einstein Observatory*. *Michael Eracleous, Jules Halpern, & Joseph Patterson.* 382, 290, 203-G1 (1991)

High-Speed Multicolor Photometry of V834 Centaurus. *John Middleditch, James N. Imamura, Michael T. Wolff, & Thomas Y. Steiman-Cameron.* 382, 315, 204-B1 (1991)

STARS: EARLY-TYPE

On Winds and X-Rays of O-Type Stars. *Tomasz Chlebowski & Catharine D. Garmany.* 368, 241, 26-B1 (1991)

Search for Vega-like Nearby Stars with 12 Micron Excess. *Hartmut H. Aumann & Ronald G. Probst.* 368, 264, 26-D1 (1991)

Detection of Small-Amplitude Pulsations in HD 34656 (O7 II). *A. W. Fullerton, D. R. Gies, & C. T. Bolton.* 368, L35, 35-C1 (1991)

Criteria for the Spectral Classification of B Stars in the Ultraviolet. *Janet Rountree & George Sonneborn.* 369, 515, 44-B5 (1991)

IRAS 23545+6508, a Dissociating Star: Prototype for a New Observational Class? *P. E. Dewdney, R. S. Roger, C. R. Purton, & W. H. McCutcheon.* 370, 243, 50-C1 (1991)

Echelle Spectroscopy of CD −41° 13967: The Young Central Star of a New Planetary Nebula. *James K. McCarthy, R. Michael Rich, S. R. Becker, K. Butler, D. Husfeld, & H. G. Groth.* 371, 380, 64-G1 (1991)

Central Star Temperatures of Low-Excitation Planetary Nebulae. *James B. Kaler & George H. Jacoby.* 372, 215, 76-F1 (1991)

DD 13: A Very Young and Heavily Reddened Early O Star in the Large Magellanic Cloud. *Peter S. Conti & Edward L. Fitzpatrick.* 373, 100, 87-C5 (1991)

IUE Observations of Early-Type Stars at High Galactic Latitudes. *D. A. Quin, P. J. F. Brown, E. S. Conlon, P. L. Dufton, & F. P. Keenan.* 375, 342, 115-B7 (1991)

UBV Photometry of OB$^+$ Stars in the Southern Milky Way. *J. S. Drilling.* 76, 1033, 39-C11 (1991)

First Results from the Goddard High-Resolution Spectrograph: Evidence for Photospheric Microturbulence in Early O Stars: Are Surface Gravities Systematically Underestimated? *I. Hubeny, S. R. Heap, & B. Altner.* 377, L33, 143-D11 (1991)

Photoionization Modeling of Magellanic Cloud Planetary Nebulae. II. *M. A. Dopita & S. J. Meatheringham.* 377, 480, 145-F6 (1991)

Observations of Stellar Winds from Hot Stars at 1.3 Millimeters. *Claus Leitherer & Carmelle Robert.* 377, 629, 147-E1 (1991)

Predicted Extreme-Ultraviolet Line Emission for Nearby Main-Sequence B Stars. *J. J. MacFarlane, J. P. Cassinelli, B. Y. Welsh, P. W. Vedder, J. V. Vallerga, & W. L. Waldron.* 380, 564, 185-C1 (1991)

A Non–Local Thermodynamic Equilibrium, Line-blanketed Synthetic Spectrum of Iota Herculis: C, Al, and Si Lines. *James A. Grigsby.* 380, 606, 185-F9 (1991)

Direct Evidence for Stellar Wind X-Ray Absorption in O Stars. *Wayne L. Waldron.* 382, 603, 209-A9 (1991)

A Model for the Infrared Emission from an OB Star Cluster Environment. *D. Leisawitz.* 77, 451, 51-B1 (1991)

Model Atmospheres for Rotating B Stars. *George W. Collins II, Ryland J. Truax, & Steven R. Cranmer.* 77, 541, 52-B5 (1991)

A Comparison of the Properties of an Unbiased Sample of OB Associations in the Local Group Galaxies M33 and NGC 6822. *Christine D. Wilson.* 384, L29, 11-B1 (1992)

Non–LTE, Line-blanketed Model Atmospheres for Late O- and Early B-Type Stars. *James A. Grigsby, Nancy D. Morrison, & Lawrence S. Anderson.* 78, 205, 4-D9 (1992)

Constraints on the Surface Magnetic Fields of Hot Stars with Winds. *Murugesapillai Maheswaran & Joseph P. Cassinelli.* 386, 695, 33-G13 (1992)

Carbon, Nitrogen, and Oxygen Abundances in Early B-Type Stars. *Douglas R. Gies & David L. Lambert.* 387, 673, 47-B1 (1992)

π^0-Decay Gamma-Ray Emission from Winds of Massive Stars. *Richard L. White & Wan Chen.* 387, L81, 48-D6 (1992)

Stellar Wind Collision and X-Ray Generation in Massive Binaries. *V. V. Usov.* 389, 635, 69-C10 (1992)

Time Series Observations of O Stars. I. *IUE* Observations of Variability in the Stellar Wind of ζ Puppis. *R. K. Prinja, L. A. Balona, C. T. Bolton, R. A. Crowe, M. S. Fieldus, A. W. Fullerton, D. R. Gies, I. D. Howarth, D. McDavid, & A. H. N. Reid.* 390, 266, 77-C6 (1992)

Hα Observations of Early-Type Stars. *S. Scuderi, G. Bonanno, R. Di Benedetto, D. Spadaro, & N. Panagia.* 392, 201, 103-D7 (1992)

Upper Limit to the Mass of Pulsationally Stable Stars with Uniform Chemical Composition. *Richard B. Stothers.* 392, 706, 111-A7 (1992)

An Opacity Mechanism for the Pulsations of OB Stars. *Arthur N. Cox, Siobahn M. Morgan, Forrest J. Rogers, & Carlos A. Iglesias.* 393, 272, 117-E3 (1992)

Ultraviolet and Optical Spectral Morphology of Melnick 42 and Radcliffe 136a in 30 Doradus. *Nolan R. Walborn, Dennis C. Ebbets, Joel Wm. Parker, Joy Nichols-Bohlin, & Richard L. White.* 393, L13, 120-C1 (1992)

X-Ray Emission from Single Magnetic Early-Type Stars. *V. V. Usov & D. B. Melrose.* 395, 575, 150-B1 (1992)

An *Einstein Observatory* SAO-based Catalog of B-Type Stars. *F. Grillo, S. Sciortino, G. Micela, G. S. Vaiana, & F. R. Harnden, Jr.* 81, 795, 46-G13 (1992)

Newly Identified Main-Sequence A Stars with Circumstellar Dust. *K.-P. Cheng, F. C. Bruhweiler, Y. Kondo, & C. A. Grady.* 396, L83, 167-C1 (1992)

A Homogeneous Catalog of New *UBV* and Hβ Photometry of B- and A-Type Stars in and around the Scorpius-Centaurus OB Association. *Robert W. Slawson, Robert J. Hill, & John D. Landstreet.* 82, 117, 50-E9 (1992)

The Case Low-Dispersion Northern Sky Survey. XIII. A Region in Central Bootes and Corona Borealis. *C. B. Stephenson, Peter Pesch, & D. Jack MacConnell.* 82, 471, 55-D3 (1992)

Two-Stage Starbursts in the Large Magellanic Cloud: N11 as a Once and Future 30 Doradus. *Nolan R. Walborn & Joel Wm. Parker.* 399, L87, 201-C5 (1992)

The Origin of Distant B-Type Stars in the Galactic Halo. *E. S. Conlon, P. L. Dufton, F. P. Keenan, R. J. H. McCausland, & D. Holmgren.* 400, 273, 212-C13 (1992)

Particle Acceleration and Nonthermal Radio Emission in Binaries of Early-Type Stars. *D. Eichler & V. Usov.* 402, 271, 4-D11 (1993)

The Circumstellar Gas Surrounding 51 Ophiuchi: A Candidate Proto–Planetary System Similar to β Pictoris. *C. A. Grady & J. M. S. Silvis.* 402, L61, 12-G1 (1993)

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. IV. ι Orionis. *Douglas R. Gies, Michael S. Wiggs, & William G. Bagnuolo, Jr.* 403, 752, 25-B4 (1993)

Evidence for Processed Material in the Atmospheres of Large Magellanic Cloud B Supergiants. *Edward L. Fitzpatrick & Bruce Bohannan.* 404, 734, 38-B1 (1993)

First Detection of Ionized Helium Absorption Lines in Infrared *K* Band Spectra of O-Type Stars. *Peter S. Conti, David L. Block, T. R. Geballe, & Margaret Murray Hanson.* 406, L21, 60-G5 (1993)

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. III. 29 UW Canis Majoris. *Michael S. Wiggs & Douglas R. Gies.* 407, 252, 72-B11 (1993)

Far-Ultraviolet Stellar Photometry: A Field in Monoceros. *Edward G. Schmidt & George R. Carruthers.* 408, 484, 91-C1 (1993)

Dynamics of the Envelopes of Be Stars and Shell Stars in the Equatorial Plane: A Potential Similarity and Difference Based upon the Continuous Energy Distribution. *J. M. Marlborough, Haiqi Chen, & L. B. F. M. Waters.* 408, 646, 93-C1 (1993)

Equatorial Disk Formation around Rotating Stars Due to Ram Pressure Confinement by the Stellar Wind. *J. E. Bjorkman & J. P. Cassinelli.* 409, 429, 102-C10 (1993)

Ultraviolet Properties of Individual Hot Stars in Globular Cluster Cores. I. NGC 1904 (M79). *B. Altner & T. A. Matilsky.* 410, 116, 113-E8 (1993)

A Search for Young Stars in the Halo of M31. *R. J. H. McCausland, E. S. Conlon, P. L. Dufton, A. Fitzsimmons, M. J. Irwin, & F. P. Keenan.* 411, 650, 137-G1 (1993)

Goddard High-Resolution Spectrograph Observations of Narrow Discrete Stellar Wind Absorption Features in the Ultraviolet Spectrum of the O7.5 III Star ξ Persei. *Steven N. Shore, Bruce Altner, C. T. Bolton, Jason A. Cardelli, & Dennis C. Ebbets.* 411, 864, 140-E5 (1993)

The Effects of Zonal Atmospheric Currents on the Spectra of Rotating Early-Type Stars. *Steven R. Cranmer & George W. Collins II.* 412, 720, 152-F12 (1993)

What are the Mass-Loss Rates of O Stars? *Henny J. G. L. M. Lamers & Claus Leitherer.* 412, 771, 153-D5 (1993)

Broad-Band X-Ray Telescope Spectroscopy of ζ Puppis. *M. F. Corcoran, J. H. Swank, P. J. Serlemitsos, E. Boldt, R. Petre, F. E. Marshall, K. Jahoda, R. Mushotzky, A. Szymkowiak, K. Arnaud, A. P. Smale, K. Weaver, & S. S. Holt.* 412, 792, 153-F1 (1993)

An H II Region beyond the Optical Disk of the Galaxy. *E. J. de Geus, S. N. Vogel, S. W. Digel, & R. A. Gruendl.* 413, L97, 168-F7 (1993)

Intense Extreme Ultraviolet Emission from the B Star ε Canis Majoris. *John V. Vallerga, Peter W. Vedder, & Barry Y. Welsh.* 414, L65, 185-C11 (1993)

LS II +34°26 is a Low-Mass Post–Asymptotic Giant Branch B Supergiant and Not a Massive Population I B Star Located near the Outer Edge of the Galaxy. *M. Parthasarathy.* 414, L109, 186-A7 (1993)

The Evolution of Stellar Coronae: Initial Results from a *ROSAT* PSPC Observation of IC 2391. *Brian M. Patten & Theodore Simon.* 415, L123, 200-D1 (1993)

Time-Series Observations of O Stars. II. Optical Observations of ζ Ophiuchi. *A. H. N. Reid, C. T. Bolton, R. A. Crowe, M. S. Fieldus, A. W. Fullerton, D. R. Gies, I. D. Howarth, D. McDavid, R. K. Prinja, & K. C. Smith.* 417, 320, 221-E1 (1993)

Time-Series Observations of O Stars. III. *IUE* and *HST* Spectroscopy of ζ Ophiuchi and Implications for the "Photospheric Connection." *Ian D. Howarth, C. T. Bolton, R. A. Crowe, D. C. Ebbets, M. S. Fieldus, A. W. Fullerton, D. R. Gies, D. McDavid, R. K. Prinja, A. H. N. Reid, S. N. Shore, & K. C. Smith.* 417, 338, 221-F10 (1993)

The Diffuse Ionized Interstellar Medium: Structures Resulting from Ionization by O Stars. *Walter Warren Miller III & Donald P. Cox.* 417, 579, 226-E7 (1993)

Angular Momentum Transfer by Tidally Forced Oscillations in Massive Main-Sequence Stars. *Umin Lee.* 417, 697, 228-A13 (1993)

Model Atmosphere and Kinematical Analyses of Early-Type, High Galactic Latitude Stellar Candidates from the UKST *UBVRI* Survey. *N. C. Hambly, E. S. Conlon, P. L. Dufton, F. P. Keenan, J. E. Little, & L. Miller.* 417, 706, 228-B10 (1993)

The Weak *s*-Component and Nucleosynthesis in Massive Stars. *C. M. Raiteri, R. Gallino, M. Busso, D. Neuberger, & F. Käppeler.* 419, 207, 248-G1 (1993)

The Abundances of the Elements in Sharp-lined Early-Type Stars from *IUE* High-Dispersion Spectrograms. I. Cr, Mn, Fe, Ni, and Co. *Saul J. Adelman, Charles R. Cowley, David S. Leckrone, Scott W. Roby, & Glenn M. Wahlgren.* 419, 276, 249-E11 (1993)

Far-Ultraviolet Stellar Photometry: A Field in Orion. *Edward G. Schmidt & George R. Carruthers.* 89, 259, 53-B2 (1993)

MK Spectral Types for OB^+ Stars in the Southern Milky Way. *Jyotsna Vijapurkar & John S. Drilling.* 89, 293, 53-E8 (1993)

Differential Rotation and the Convective Core Mass of Upper Main-Sequence Stars. *Maurice J. Clement.* 420, 797, 12-G3 (1994)

On the Determination of the Number of O Stars in H II Regions and Starburst Galaxies. *William D. Vacca.* 421, 140, 17-F13 (1994)

Clumping and Mass Loss in Hot Star Winds. *Anthony F. J. Moffat & Carmelle Robert.* 421, 310, 19-G1 (1994)

Mapping the Radio Emission from Massive Young Stellar Objects. *Melvin G. Hoare, Janet E. Drew, Tom B. Muxlow, & Richard J. Davis.* 421, L51, 22-B7 (1994)

X-Ray Emission from Near–Main-Sequence B Stars. *J. P. Cassinelli, D. H. Cohen, J. J. MacFarlane, W. T. Sanders, & B. Y. Welsh.* 421, 705, 27-A8 (1994)

HD 53975: An O-Type Spectroscopic Binary with a Large Mass Ratio. *D. R. Gies, A. W. Fullerton, C. T. Bolton, W. G. Bagnuolo, Jr., M. E. Hahula, & R. Wiemker.* 422, 823, 42-B6 (1994)

Tomographic Separation of Composite Spectra. II. The Components of 29 UW Canis Majoris. *William G. Bagnuolo, Jr., Douglas R. Gies, Michael E. Hahula, Rafael Wiemker, & Michael S. Wiggs.* 423, 446, 51-F7 (1994)

HST UV Imaging of the Starburst Regions in the Wolf-Rayet Galaxy He 2-10: Newly Formed Globular Clusters? *Peter S. Conti & William D. Vacca.* 423, L97, 60-D5 (1994)

K-Band Spectroscopy of OB Stars: A Preliminary Classification. *Margaret Murray Hanson & Peter S. Conti.* 423, L139, 61-C7 (1994)

Two-dimensional Hydrodynamical Simulations of Wind-compressed Disks around Rapidly Rotating B Stars. *Stanley P. Owocki, Steven R. Cranmer, & John M. Blondin.* 424, 887, 75-G2 (1994)

O Star Giant Bubbles in M33. *M. S. Oey & Philip Massey.* 425, 635, 89-E1 (1994)

The Initial Mass Function for Massive Stars in the Magellanic Clouds. I. *UBV* Photometry and Color-Magnitude Diagrams for 14 OB Associations. *Robert J. Hill, Barry F. Madore, & Wendy L. Freedman.* 91, 583, 27-C8 (1994)

Chemical Evolution of the Orion Association. II. The Carbon, Nitrogen, Oxygen, Silicon, and Iron Abundances of Main-Sequence B Stars. *Katia Cunha & David L. Lambert.* 426, 170, 98-C5 (1994)

Low-Velocity Variability in the Stellar Wind of HD 152408 (O8: Iafpe). *Raman K. Prinja & A. W. Fullerton.* 426, 345, 100-D12 (1994)

Spectrum of IC 2149 and Its Central Star. *Walter A. Feibelman, Siek Hyung, & Lawrence H. Aller.* 426, 653, 106-E6 (1994)

Evolution of Solitary Density Waves in Stellar Winds of Early-Type Stars: A Simple Explanation of Discrete Absorption Component Behavior. *Wayne L. Waldron, Larry Klein, & Bruce Altner.* 426, 725, 107-D10 (1994)

Optical and H I Observations of High-Velocity Gas toward HD 203664. *J. E. Little, P. L. Dufton, F. P. Keenan, E. S. Conlon, & R. D. Davies.* 427, 267, 113-C8 (1994)

An *IUE* Survey of Interstellar H I Lyman-Alpha Absorption. II. Interpretations. *Athanassios Diplas & Blair D. Savage.* 427, 274, 113-D1 (1994)

On the Existence of a Surface Boundary Layer in a Slowly Rotating, Early-Type Star. *Monique Tassoul.* 427, 388, 114-F3 (1994)

Hubble Space Telescope Fine Guidance Sensor Interferometric Observations of the Core of 30 Doradus. *M. G. Lattanzi, J. L. Hershey, R. Burg, L. G. Taff, S. T. Holfeltz, B. Bucciarelli, I. N. Evans, R. Gilmozzi, J. Pringle, & N. R. Walborn.* 427, L21, 117-D1 (1994)

The Role of Radiative Acceleration in Outflows from Broad Absorption Line QSOs. I. Comparison with O Star Winds. *Nahum Arav & Zhi-Yun Li.* 427, 700, 121-D7 (1994)

Circumstellar Dust Emission Models. *Mark G. Wolfire & Ed Churchwell.* 427, 889, 123-F6 (1994)

The Initial Mass Function for Massive Stars in the Magellanic Clouds. II. Interstellar Reddening toward 14 OB Associations. *Robert J. Hill, Barry F. Madore, & Wendy L. Freedman.* 429, 192, 146-D12 (1994)

Vega: A Rapidly Rotating Pole-on Star. *Austin F. Gulliver, Graham Hill, & Saul J. Adelman.* 429, L81, 158-C9 (1994)

An *IUE* Survey of Interstellar H I Lyα Absorption. I. Column Densities. *Athanassios Diplas & Blair D. Savage.* 93, 211, 44-F1 (1994)

Galactic Stars Applied to Tests of the Criterion for Convection and Semiconvection in an Inhomgeneous Star. *Richard B. Stothers & Chao-wen Chin.* 431, 797, 188-E6 (1994)

A Multisite *UBV* Photometric Campaign on 53 Persei in 1991 January. *L. Huang, Z. Guo, J. Hao, J. R. Percy, M. S. Fieldus, R. Fried, K Pavlovski, H. Božić, Ž. Ružić, M. Paparó, & B. Vetö.* 431, 850, 189-C5 (1994)

Atmospheric Parameters of Field Subdwarf B Stars. *Rex A. Saffer, P. Bergeron, D. Koester, & James Liebert.* 432, 351, 197-E1 (1994)

ROSAT HRI Observations of Hot Stars in the Orion Nebula. *Jean-Pierre Caillault, Marc Gagné, & John R. Stauffer.* 432, 386, 198-A2 (1994)

Ultraviolet Spectral Classification and Stellar Winds in a Sample of Be and Standard Stars. *Arne Slettebak.* 94, 163, 54-A5 (1994)

Analysis of Helium-rich Subdwarf O Stars. I. NLTE Models, Methods, and Fits for 21 Palomar Green Survey sdO's. *P. Thejll, F. Bauer, R. Saffer, J. Liebert, D. Kunze, & H. L. Shipman.* 433, 819, 221-C12 (1994)

First *Hubble Space Telescope* Observations of the Brightest Stars in the Virgo Galaxy M100 = NGC 4321. *Wendy L. Freedman, Barry F. Madore, Peter B. Stetson, Shaun M. G. Hughes, Jon A. Holtzman, Jeremy R. Mould, John T. Trauger, John S. Gallagher III, Gilda E. Ballester, Christopher J. Burrows, Stefano Casertano, John T. Clarke, David Crisp, Laura Ferrarese, Holland Ford, J. A. Graham, Richard E. Griffiths, J. Jeff Hester, Robert Hill, John G. Hoessel, John Huchra, Robert C. Kennicutt, Paul A. Scowen, Bill Sparks, Karl R. Stapelfeldt, Alan M. Watson, & Jim Westphal.* 435, L31, 251-G9 (1994)

GHRS Spectroscopy of Individual Stars in R136a. *Sara R. Heap, Dennis Ebbets, Eliot M. Malumuth, Stephen P. Maran, Alex de Koter, & Ivan Hubeny.* 435, L39, 252-A11 (1994)

Theoretical Modeling of GHRS Observations of the Of/WN-Type Star R136a5. *Alex de Koter, Ivan Hubeny, Sara R. Heap, & Thierry Lanz.* 435, L71, 252-F9 (1994)

ASCA Solid State Imaging Spectrometer Observations of O Stars. *M. F. Corcoran, W. L. Waldron, J. J. MacFarlane, W. Chen, A. M. T. Pollock, K. Torii, S. Kitamoto, N. Miura, M. Egoshi, & Y. Ohno.* 436, L95, 270-B1 (1994)

An Atlas of Ultraviolet P Cygni Profiles. *Theodore P. Snow, Henny J. G. L. M. Lamers, Douglas M. Lindholm, & Andrew P. Odell.* 95, 163, 66-C8 (1994)

On the Massive Star–forming Capacity of Molecular Clouds. *José Franco, Steven N. Shore, & Guillermo Tenorio-Tagle.* 436, 795, 276-E6 (1994)

Studies of Binary Stars in the Magellanic Clouds. II. Spectroscopic Orbits of Four Massive Eclipsing Binaries. *Virpi S. Niemela & Lilia P. Bassino.* 437, 332, 287-F11 (1994)

X-Ray–induced Ionization in the Winds of Near–Main-Sequence O and B Stars. *J. J. MacFarlane, D. H. Cohen, & P. Wang.* 437, 351, 288-A11 (1994)

Reaction Rates for $^{18}O(\alpha,\gamma)^{22}Ne$, $^{22}Ne(\alpha,\gamma)^{26}Mg$, and $^{22}Ne(\alpha,n)^{25}Mg$ in Stellar Helium Burning and *s*-Process Nucleosynthesis in Massive Stars. *F. Käppeler, M. Wiescher, U. Giesen, J. Görres, I. Baraffe, M. El Eid, C. M. Raiteri, M. Busso, R. Gallino, M. Limongi, & A. Chieffi.* 437, 396, 288-E10 (1994)

Massive Stars in the Field and Associations of the Magellanic Clouds: The Upper Mass Limit, the Initial Mass Function, and a Critical Test of Main-Sequence Stellar Evolutionary Theory. *Philip Massey, Cornelia C. Lang, Kathleen DeGioia-Eastwood, & Catharine D. Garmany.* 438, 188, 4-A2 (1995)

HD 93521, ζ Ophiuchi, and the Effects of Rapid Rotation on the Atmospheres and Winds of O9.5 V Stars. *Derck Massa.* 438, 376, 6-F1 (1995)

Photoevaporating Stellar Envelopes Observed with Rayleigh Beacon Adaptive Optics. *P. R. McCullough, R. Q. Fugate, J. C. Christou, B. L. Ellerbroek, C. H. Higgins, J. M. Spinhirne, R. A. Cleis, & J. F. Moroney.* 438, 394, 6-G11 (1995)

EUVE Spectroscopy of ε Canis Majoris (B2 II) from 70 to 730 Å. *J. P. Cassinelli, D. H. Cohen, J. J. MacFarlane, J. E. Drew, A. E. Lynas-Gray, M. G. Hoare, J. V. Vallerga, B. Y. Welsh, P. W. Vedder, I. Hubeny, & T. Lanz.* 438, 932, 17-A8 (1995)

Stellar Evolution with Arbitrary Rotation Laws. II. Massive Star Evolution to Core Hydrogen Exhaustion. *Robert G. Deupree.* 439, 357, 26-B1 (1995)

Stellar-Wind Variability in *IUE* Spectra of 68 Cygni. *Ian D. Howarth & Keith C. Smith.* 439, 431, 27-B3 (1995)

Non-LTE Line-blanketed Model Atmospheres of Hot Stars. I. Hybrid Complete Linearization/Accelerated Lambda Iteration Method. *I. Hubeny & T. Lanz.* 439, 875, 36-F8 (1995)

Resolution of Massive Compact Clusters in the 30 Doradus Periphery with the *Hubble Space Telescope*. *Nolan R. Walborn, John W. MacKenty, Abhijit Saha, Richard L. White, & Joel Wm. Parker.* 439, L47, 40-D5 (1995)

Hα Emission and Absorption from a Localized Region above the Surface of a Be Star. *J. M. Marlborough.* 440, 303, 45-C12 (1995)

The Effect of Oblateness and Gravity Darkening on the Radiation Driving in Winds from Rapidly Rotating B Stars. *Steven R. Cranmer & Stanley P. Owocki.* 440, 308, 45-D6 (1995)

Meridional Circulation in Rotating Stars. XI. Single-Cell Pattern versus Double-Cell Pattern. *Monique Tassoul & Jean-Louis Tassoul.* 440, 789, 54-A4 (1995)

Far-Ultraviolet Stellar Photometry: Fields in Sagittarius and Scorpius. *Edward G. Schmidt & George R. Carruthers.* 96, 605, 10-A8 (1995)

A Comparison of Near-Infrared Spectra of the Galactic Center Compact He I Emission-Line Sources and Early-Type Mass-losing Stars. *R. D. Blum, D. L. DePoy, & K. Sellgren.* 441, 603, 70-D7 (1995)

High-Density CN Filaments in NGC 2023. *A. Fuente, J. Martín-Pintado, & R. Gaume.* 442, L33, 85-A11 (1995)

The Threshold for Stellar Winds in Hot Main-Sequence Stars. *James A. Grigsby & Nancy D. Morrison.* 442, 794, 91-B7 (1995)

Of-Type Stars HD 16691 and HD 190429 Show WN-like Spectra in Infrared *K* Band. *Peter S. Conti, Margaret Murray Hanson, Patrick W. Morris, Allan J. Willis, & Stephen J. Fossey.* 445, L35, 140-F11 (1995)

Studies of Hot B Subdwarfs. X. The Distribution and Space Density of Hot, Hydrogen-rich Subdwarfs Determined from the Palomar-Green Survey. *B. Villeneuve, F. Wesemael, G. Fontaine, C. Carignan, & R. F. Green.* 446, 646, 165-A13 (1995)

New Insights into Nonradiative Heating in Late A Star Chromospheres. *Frederick M. Walter, Lynn D. Matthews, & Jeffrey L. Linsky.* 447, 353, 177-C6 (1995)

Two New Wolf-Rayet Stars and a Luminous Blue Variable Star in the Quintuplet (AFGL 2004) near the Galactic Center. *Donald F. Figer, Ian S. McLean, & Mark Morris.* 447, L29, 180-G9 (1995)

HST/GHRS Observations of the β Pictoris System: Basic Parameters of the Age of the System. *Thierry Lanz, Sara R. Heap, & Ivan Hubeny.* 447, L41, 181-B5 (1995)

A 325 Square Degree Survey of B-Type Stars at High Galactic Latitudes. *J. E. Little, P. L. Dufton, F. P. Keenan, N. C. Hambly, E. S. Conlon, P. J. F. Brown, & L. Miller.* 447, 783, 186-F11 (1995)

Binary Models for the Solar Neighborhood and Magellanic Cloud W-R Populations. *William W. Dalton & Craig L. Sarazin.* 448, 369, 197-C6 (1995)

Identification of Ionizing Sources and Young Stellar Objects in M17. *Margaret Murray Hanson & Peter S. Conti.* 448, L45, 200-A9 (1995)

The Relation between Rotational Velocities and Spectral Peculiarities among A-Type Stars. *Helmut A. Abt & Nidia I. Morrell.* 99, 135, 36-A1 (1995)

Atlas of Synthetic Ultraviolet Spectra of Massive Star Populations. *Claus Leitherer, Carmelle Robert, & Timothy M. Heckman.* 99, 173, 36-F1 (1995)

A Photometric and Spectroscopic Survey for Young Stars in the Halo of M31. *N. C. Hambly, A. Fitzsimmons, F. P. Keenan, P. L. Dufton, P. J. F. Brown, M. J. Irwin, & W. R. J. Rolleston.* 448, 628, 203-D9 (1995)

Tomographic Separation of Composite Spectra. III. Ultraviolet Detection of the Hot Companion of φ Persei. *Michelle L. Thaller, William G. Bagnuolo, Jr., Douglas R. Gies, & Laura R. Penny.* 448, 878, 207-A10 (1995)

Far-Ultraviolet (912–1900 Å) Energy Distribution in Early-Type Main-Sequence Stars. *M. Chavez, R. Stalio, & J. B. Holberg.* 449, 280, 214-A7 (1995)

CNO Abundances and the Evolutionary Status of Galactic, A-Type Supergiants. *Kim A. Venn.* 449, 839, 224-C11 (1995)

The Massive Star Populations in Ionized Gas Shells in M33 and M31. *Deidre A. Hunter, Danielle M. Boyd, & Walter N. Hawley.* 99, 551, 42-F9 (1995)

Radio Continuum Measurements of Southern Early-Type Stars. *Claus Leitherer, Jessica M. Chapman, & Bärbel Koribalski.* 450, 289, 232-A7 (1995)

Wind-Wind Interaction in the Close Wolf-Rayet Binary CQ Cephei (WN6+O9 II–Ib). *S. V. Marchenko, A. F. J. Moffat, P. R. J. Eenens, G. M. Hill, & A. Grandchamps.* 450, 811, 241-G10 (1995)

Studies of Hot B Subdwarfs. XI. A Redetermination of the Density of Hot, Hydrogen-rich Subdwarfs in the Galactic Plane. *B. Villeneuve, F. Wesemael, & G. Fontaine.* 450, 851, 242-F7 (1995)

Are Galaxies Optically Thin to Their Own Lyman-Continuum Radiation? I. M33. *Kanan Patel & Christine D. Wilson.* 451, 607, 255-E11 (1995)

The Massive Stars of I Zw 18 as Seen in *Hubble Space Telescope* Images. *Deidre A. Hunter & Harley A. Thronson, Jr.* 452, 238, 265-D1 (1995)

The *IUE* MEGA Campaign: Wind Variability and Rotation in Early-Type Stars. *D. Massa, A. W. Fullerton, J. S. Nichols, S. P. Owocki, R. K. Prinja, N. St-Louis, A. J. Willis, B. Altner, C. T. Bolton, J. P. Cassinelli, D. Cohen, R. G. Cooper, A. Feldmeier, K. G. Gayley, T. Harries, S. R. Heap, R. N. Henriksen, I. D. Howarth, I. Hubeny, E. Kambe, L. Kaper, G. Koenigsberger, S. Marchenko, S. R. McCandliss, A. F. J. Moffat, T. Nugis, J. Puls, C. Robert, R. E. Schulte-Ladbeck, L. J. Smith, M. A. Smith, W. L. Waldron, & R. L. White.* 452, L53, 270-C8 (1995)

The *IUE* MEGA Campaign: Wind Structure and Variability of HD 50896 (WN5). *Nicole St-Louis, M. J. Dalton, S. V. Marchenko, A. F. J. Moffat, & A. J. Willis.* 452, L57, 270-D3 (1995)

The *IUE* MEGA Campaign: Modulated Structure in the Wind of HD 64760 (B0.5 Ib). *Raman K. Prinja, Derck Massa, & Alexander W. Fullerton.* 452, L61, 270-D13 (1995)

The *IUE* MEGA Campaign: The Rotationally Modulated Wind of ζ Puppis. *Ian D. Howarth, Raman K. Prinja, & Derck Massa.* 452, L65, 270-E6 (1995)

Wind Variability of B Supergiants. I. The Rapid Rotator HD 64760 (B0.5 Ib). *Derck Massa, Raman K. Prinja, & Alexander W. Fullerton.* 452, 842, 276-C7 (1995)

C IV and O VI Transitions in the Region λλ1100–2000 and Examples Found in *IUE* Spectra of Hot Stars. *Walter A. Feibelman & Sveneric Johansson.* 100, 405, 51-F3 (1995)

A Study of the Spectra of Seven Of Stars. I. Radial Velocities. *Anne B. Underhill.* 100, 433, 52-A10 (1995)

A Study of the Spectra of Seven Of Stars. II. Line Profiles and Equivalent Widths. *Anne B. Underhill.* 100, 461, 52-C13 (1995)

Are Galaxies Optically Thin to Their Own Lyman-Continuum Radiation? II. NGC 6822. *Kanan Patel & Christine D. Wilson.* 453, 162, 283-D13 (1995)

The Solution Topology of Radiation-driven Winds. I. The X-Type Nature of the CAK Critical Point. *J. E. Bjorkman.* 453, 369, 286-B13 (1995)

Periodic Variations in Ultraviolet Spectral Lines of the B0.5 Ib Star HD 64760: Evidence for Corotating Wind Streams Rooted in Surface Variations. *Stanley P. Owocki, Steven R. Cranmer, & Alexander W. Fullerton.* 453, L37, 289-G1 (1995)

The Initial Mass Function and Massive Star Evolution in the OB Associations of the Northern Milky Way. *Philip Massey, Kelsey E. Johnson, & Kathleen DeGioia-Eastwood.* 454, 151, 301-C12 (1995)

An Improved Line-Strength Parameterization in Hot-Star Winds. *Kenneth G. Gayley.* 454, 410, 305-A4 (1995)

A Reconnaissance of the 900–1200 Å Spectra of Early O Stars in the Magellanic Clouds. *Nolan R. Walborn, Knox S. Long, Daniel J. Lennon, & Rolf-Peter Kudritzki.* 454, L27, 307-F9 (1995)

Terminal Velocities and the Bistability of Stellar Winds. *Henny J. G. L. M. Lamers, Theodore P. Snow, & Douglas M. Lindholm.* 455, 269, 321-G7 (1995)

A Non-LTE Analysis of the ζ Aurigae B-Type Secondary. I. Determination of the Fundamental Stellar Parameters. *Philip D. Bennett, Alexander Brown, & Jeffrey L. Linsky.* 455, 317, 322-D14 (1995)

Interstellar Extinction from 0.35 to 2.2 Microns: A Study Based on Luminous Southern Stars. *Lida He, D. C. B. Whittet, D. Kilkenny, & J. H. Spencer Jones.* 101, 335, 58-D12 (1995)

STARS: ECLIPSING BINARIES

The Orbital Ephemeris and Eclipse Transitions of the Low-Mass X-Ray Binary EXO 0748−676. *A. N. Parmar, A. P. Smale, F. Verbunt, & R. H. D. Corbet.* 366, 253, 4-B9 (1991)

Interpreting Epsilon Aurigae. *Sean M. Carroll, Edward F. Guinan, George P. McCook, & Robert A. Donahue.* 367, 278, 15-E1 (1991)

Multimission Observations of 4U 1538−52. *L. R. Cominsky & F. Moraes.* 370, 670, 56-F10 (1991)

Analysis and Solution of the Light and Radial Velocity Curves of the Contact Binary TY Bootis. *E. F. Milone, G. Groisman, D. J. I. Fry, & D. H. Bradstreet.* 370, 677, 56-G5 (1991)

A Light Synthesis Study of W Ursae Majoris. *Albert P. Linnell.* 374, 307, 102-A1 (1991)

On the Nature of the Anomalously Slow Apsidal Motion of DI Herculis. *Kh. F. Khaliullin, S. A. Khodykin, & A. I. Zakharov.* 375, 314, 114-G1 (1991)

Mass Loss in the 96 Day Binary UU Cancri. *Joel A. Eaton, Douglas S. Hall, & R. Kent Honeycutt.* 376, 289, 128-E1 (1991)

Simultaneous Light and Radial Velocity Curve Solutions for U Cephei. *J. B. Rafert & N. L. Markworth.* 377, 278, 141-D5 (1991)

On the Nature and Evolution of the Windy Binary Pulsar PSR 1744−24A. *Jacob Shaham & Marco Tavani.* 377, 588, 147-A11 (1991)

Eclipse Studies of the Dwarf Nova HT Cassiopeiae. I. Observations and System Parameters. *Keith Horne, Janet H. Wood, & Rae F. Stiening.* 378, 271, 154-C11 (1991)

IUE Investigation of Mass Flow in the Interacting Binary U Sagittae. *George E. McCluskey, Jr., Carolina Paciencia Salas McCluskey, & Yoji Kondo.* 378, 281, 154-D9 (1991)

Evidence for External Plasma around the K Dwarf Component of the Eclipsing Binary V471 Tauri. *Arthur Young, Lee Rottler, & Andrew Skumanich.* 378, L25, 157-D1 (1991)

The Ultraviolet Light Curves of W Ursae Majoris. *Albert P. Linnell.* 379, 338, 167-C3 (1991)

Wind Collision Effects in the Early-Type Close Binaries HD 47129 and AO Cassiopeiae. *Jorge Sahade & Estela Brandi.* 379, 706, 173-E1 (1991)

The Eclipsing AM Herculis Variable H1907+690. *R. A. Remillard, B. A. Stroozas, S. Tapia, & A. Silber.* 379, 715, 173-E13 (1991)

Does SV Centauri Harbor an Accretion Disk? *Albert P. Linnell & Xania Scheick.* 379, 721, 173-F7 (1991)

High-Precision Timing of Millisecond Pulsars. II. Astrometry, Orbital Evolution, and Eclipses of PSR 1957+20. *M. F. Ryba & J. H. Taylor.* 380, 557, 185-B7 (1991)

A Connection between Long-Term Luminosity Variations and Orbital Period Changes in Chromospherically Active Binaries. *Douglas S. Hall.* 380, L85, 188-F1 (1991)

Outflow Hydrodynamics in the Eclipsing Millisecond Pulsar Binaries PSR 1957+20 and PSR 1744−24A. *Marco Tavani & Leigh Brookshaw.* 381, L21, 194-C13 (1991)

IUE Spectra of the Eclipsing Binary NN Serpentis. *Janet H. Wood & Thomas R. Marsh.* 381, 551, 197-E1 (1991)

A Test of the Starspot Hypothesis for W-Type W Ursae Majoris Light Curves. *Albert P. Linnell.* 383, 330, 216-C8 (1991)

STARS: EMISSION-LINE

The Near-Infrared Spectra of Low-Mass X-Ray Binaries and Related Objects. *A. P. Cowley, P. C. Schmidtke, D. Crampton, J. B. Hutchings, & M. Bolte.* 373, 228, 88-G1 (1991)

Bowen Fluorescence in AM Herculis Stars. *Jonathan Schachter, Alexei V. Filippenko, Steven M. Kahn, & Frits B. S. Paerels.* 373, 633, 95-G4 (1991)

Ultraviolet High-Excitation Fe II Fluorescence Lines Excited by O VI, C IV, and H I Resonance Emission As Seen in *IUE* Spectra. *Walter A. Feibelman, Frederick C. Bruhweiler, & Sveneric Johansson.* 373, 649, 96-A8 (1991)

Rotation and Emission Lines in Stars and Accretion Disks. *Keith Horne & Steven H. Saar.* 374, L55, 110-D6 (1991)

The Many Faces of F Stars: A Rotational Modulation Study of Capella, Procyon, and Caph with the *International Ultraviolet Explorer*. *Thomas R. Ayres.* 375, 704, 121-D11 (1991)

Ultraviolet Fe VII Absorption and Fe II Emission Lines of Central Stars of Planetary Nebulae. *Kwang-Ping Cheng, Walter A. Feibelman, & Frederick C. Bruhweiler.* 377, 235, 140-G7 (1991)

Heating Mechanism(s) for Transition Layers in Giants. *Erika Böhm-Vitense & José Mena-Werth.* 378, 718, 161-C8 (1991)

Predicted Extreme-Ultraviolet Line Emission for Nearby Main-Sequence B Stars. *J. J. MacFarlane, J. P. Cassinelli, B. Y. Welsh, P. W. Vedder, J. V. Vallerga, & W. L. Waldron.* 380, 564, 185-C1 (1991)

N III Line Emission in Planetary Nebulae: Not Bowen Fluorescence. *S. O. Kastner & A. K. Bhatia.* 381, L59, 199-D7 (1991)

STARS: EMISSION-LINE, BE

Dynamics of the Envelopes of Be Stars in the Equatorial Plane. *Haiqi Chen, J. M. Marlborough, & L. B. F. M. Waters.* 384, 605, 9-F1 (1992)

A Catalog of Co-added *IRAS* Fluxes of Orion Population Stars. *Wm. Bruce Weaver & Gordon Jones.* 78, 239, 4-G7 (1992)

Winds from T Tauri Stars. II. Balmer Line Profiles for Inner Disk Winds. *Nuria Calvet, Lee Hartmann, & Robert Hewett.* 386, 229, 27-A9 (1992)

Balmer Line Profiles for Infalling T Tauri Envelopes. *Nuria Calvet & Lee Hartmann.* 386, 239, 27-B8 (1992)

Properties of the Massive X-Ray Binary 4U 1700−37 = HD 153919. *S. R. Heap & M. F. Corcoran.* 387, 340, 41-B11 (1992)

PSR 1259−63: A Binary Radio Pulsar with a Be Star Companion. *Simon Johnston, R. N. Manchester, A. G. Lyne, M. Bailes, V. M. Kaspi, Qiao Guojun, & N. D'Amico.* 387, L37, 43-E1 (1992)

Time Variations in Millimeter-Wave Radio Recombination Lines from the Be Star MWC 349A. *M. A. Gordon.* 387, 701, 47-D5 (1992)

The 3 Micron Spectrum of the Classical Be Star β Monocerotis A. *K. Sellgren & R. G. Smith.* 388, 178, 51-B13 (1992)

Fe II Fluorescence and Anomalous C IV Doublet Intensities in Symbiotic Novae. *A. G. Michalitsianos, M. Kafatos, & S. R. Meier.* 389, 649, 69-D12 (1992)

The X-Ray Outburst from X0115+634 in 1990 February. *Keisuke Tamura, Hiroshi Tsunemi, Shunji Kitamoto, Kiyoshi Hayashida, & Fumiaki Nagase.* 389, 676, 69-G1 (1992)

N III Line Emission in Planetary Nebulae: Continuum Fluorescence. *G. J. Ferland.* 389, L63, 73-D1 (1992)

Carbon and Nitrogen Abundances Determined from Transition Layer Lines. *Erika Böhm-Vitense & José Mena-Werth.* 390, 253, 77-B4 (1992)

Propagating Absorption Enhancements in the Wind of the Extreme Of Supergiant HD 151804. *A. W. Fullerton, D. R. Gies, & C. T. Bolton.* 390, 650, 83-D1 (1992)

Hα Observations of Early-Type Stars. *S. Scuderi, G. Bonanno, R. Di Benedetto, D. Spadaro, & N. Panagia.* 392, 201, 103-D7 (1992)

Physical Properties of Be Star Envelopes from Balmer and Fe II Emission Lines. *Arne Slettebak, George W. Collins II, & Ryland Truax.* 81, 335, 39-D13 (1992)

Emission-Line Studies of Young Stars. III. Correlations with the Infrared Excess. *Fred Hamann & S. E. Persson.* 394, 628, 137-C5 (1992)

Dynamics of the Envelopes of Be Stars in the Equatorial Plane. II. The Influence of a Weak Magnetic Field on the Azimuthal Motion of a Slowly

Expanding Wind. *Haiqi Chen & J. M. Marlborough.* 397, 242, 171-A3 (1992)

Emission-Line Studies of Young Stars. I. The T Tauri Stars. *Fred Hamann & S. E. Persson.* 82, 247, 52-F9 (1992)

Emission-Line Studies of Young Stars. II. The Herbig Ae/Be Stars. *Fred Hamann & S. E. Persson.* 82, 285, 53-C11 (1992)

Herbig Ae/Be Stars: Intermediate-Mass Stars Surrounded by Massive Circumstellar Accretion Disks. *Lynne A. Hillenbrand, Stephen E. Strom, Frederick J. Vrba, & Jocelyn Keene.* 397, 613, 178-F1 (1992)

The Near-Infrared [Fe II] Lines of MWC 922. *Richard J. Rudy, Peter Erwin, George S. Rossano, & R. C. Puetter.* 398, 278, 185-C1 (1992)

Polarization and the Envelopes of B[e] Supergiants in the Magellanic Clouds. *A. M. Magalhães.* 398, 286, 185-C11 (1992)

EXOSAT Observations of the Be/X-Ray Binary 4U 2206+54. *Priyamvada Saraswat & Krishna M. V. Apparao.* 401, 678, 231-A1 (1992)

Evidence for a Bipolar Nebula around the Peculiar B[e] Star HD 45677 from Ultraviolet Spectropolarimetry. *R. E. Schulte-Ladbeck, D. S. Shepherd, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, M. Taylor, & B. A. Whitney.* 401, L105, 233-D12 (1992)

The Distant Future of Solar Activity: A Case Study of β Hydri. II. Chromospheric Activity and Variability. *D. Dravins, P. Linde, K. Fredga, & G. F. Gahm.* 403, 396, 18-F9 (1993)

The Evolutionary Status of the Pulsar–Be Star Binary PSR 1259−63. *A. R. King.* 405, 727, 52-B5 (1993)

Some Implications of PSR 1259−63. *Christopher S. Kochanek.* 406, 638, 65-G1 (1993)

The Excess Infrared Emission of Herbig Ae/Be Stars: Disks or Envelopes? *Lee Hartmann, Scott J. Kenyon, & Nuria Calvet.* 407, 219, 71-F11 (1993)

X-Rays from Emission-Line Stars in the Herbig-Haro 1 Region. *Steven H. Pravdo & Lorella Angelini.* 407, 232, 72-A1 (1993)

A Broad-Band X-Ray Telescope Spectrum of the Massive X-Ray Binary X Persei. *Eric M. Schlegel, Peter J. Serlemitsos, Keith Jahoda, Frank Marshall, Robert Petre, Elihu Boldt, Richard Mushotzky, Jean Swank, Andrew Szymkowiak, Alan Smale, & Kim Weaver.* 407, 744, 79-F13 (1993)

Dynamic Processes in Be Star Atmospheres. I. "Dimple" Formation in the He sci λ6678 Line of λ Eridani. *Myron A. Smith & Ronald S. Polidan.* 408, 323, 87-B8 (1993)

Dynamics of the Envelopes of Be Stars and Shell Stars in the Equatorial Plane: A Potential Similarity and Difference Based upon the Continuous Energy Distribution. *J. M. Marlborough, Haiqi Chen, & L. B. F. M. Waters.* 408, 646, 93-C1 (1993)

Equatorial Disk Formation around Rotating Stars Due to Ram Pressure Confinement by the Stellar Wind. *J. E. Bjorkman & J. P. Cassinelli.* 409, 429, 102-C10 (1993)

The Origin of Forbidden Line Emission from Young Stellar Objects. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 409, 748, 108-D3 (1993)

A Giant X-Ray Flare on λ Eridani (B2e). *Myron A. Smith, Carol A. Grady, Geraldine J. Peters, & Eric D. Feigelson.* 409, L49, 111-D1 (1993)

Ultraviolet Continuum Variability and Visual Flickering in the Peculiar Object MWC 560. *A. G. Michalitsianos, M. Perez, S. N. Shore, S. P. Maran, M. Karovska, G. Sonneborn, J. R. Webb, Thomas G. Barnes III, Marian L. Frueh, R. J. Oliversen, & S. G. Starrfield.* 409, L53, 111-D8 (1993)

Magnetohydrodynamic Flows in Be Stars: Variable Energy Flux and Heat Input Distribution. *María Elena Iglesias & Adela E. Ringuelet.* 411, 342, 131-E3 (1993)

Rigorous Treatment of the Radiative Transfer Problem in Stellar Winds: Significance of the Velocity Law and the Chromosphere in the Hα Profile. *Lydia S. Cidale & Adela E. Ringuelet.* 411, 874, 140-F5 (1993)

A High-Sensitivity Survey of Radio Continuum Emission from Herbig Ae/Be Stars. *Stephen L. Skinner, Alexander Brown, & Ron T. Stewart.* 87, 217, 29-G13 (1993)

Ultraviolet Spectropolarimetry of the Be Star PP Carinae with the Wisconsin Ultraviolet Photo-Polarimeter Experiment. *K. S. Bjorkman, M. R. Meade, K. H. Nordsieck, C. M. Anderson, B. L. Babler, G. C. Clayton, A. D. Code, A. M. Magalhães, R. E. Schulte-Ladbeck, M. Taylor, & B. A. Whitney.* 412, 810, 153-G11 (1993)

Detection of Accreting Gas toward HD 45677: A Newly Recognized, Herbig Be Proto–Planetary System. *C. A. Grady, K. S. Bjorkman, D. Shepherd, R. E. Schulte-Ladbeck, M. R. Pérez, D. de Winter, & P. S. Thé.* 415, L39, 192-B6 (1993)

On the Interpretation of the Ultraviolet Spectra of Symbiotic Stars and Recurrent Novae. I. *Steven N. Shore & Jason P. Aufdenberg.* 416, 355, 205-D10 (1993)

The Asymmetric Envelope of γ Cassiopeiae Observed with the Mk III Optical Interferometer. *A. Quirrenbach, C. A. Hummel, D. F. Buscher, J. T. Armstrong, D. Mozurkewich, & N. M. Elias II.* 416, L25, 207-D7 (1993)

Detection, Identification, and Observed Properties of Large Magellanic Cloud Supersoft X-Ray Sources. *A. P. Cowley, P. C. Schmidtke, J. B. Hutchings, D. Crampton, & T. K. McGrath.* 418, L63, 245-B13 (1993)

Expanding Atmospheric Model Including a Chromosphere. I. Study of the Infrared Excess in Be Stars. *Andrea C. Vázquez, Lydia S. Cidale, & Adela E. Ringuelet.* 419, 286, 249-F10 (1993)

Helium Line Emission from Be Stars. *Krishna M. V. Apparao & S. P. Tarafdar.* 420, 803, 12-G12 (1994)

A Study of the Spectrum of HD 108, An Unusual Of Star. *Anne B. Underhill.* 420, 869, 13-F6 (1994)

The Nature of the Radio Recombination Line Emission from MWC 349A. *M. A. Gordon.* 421, 314, 19-G7 (1994)

Ca II H and K and Hα Emissions in Chromospherically Active Binary Systems (RS Canum Venaticorum and BY Draconis). *M. J. Fernández-Figueroa, D. Montes, E. De Castro, & M. Cornide.* 90, 433, 8-B6 (1994)

Rotation and Magnetic Fields during the Evolution of Massive Stars through B[e] and Wolf-Rayet Phases. *Murugesapillai Maheswaran & Joseph Cassinelli.* 421, 718, 27-B9 (1994)

Be Stars in Young Clusters. *Shaukat N. Goderya & Edward G. Schmidt.* 426, 159, 98-B3 (1994)

A New Transient Pulsar in the Small Magellanic Cloud with an Unusual X-Ray Spectrum. *John P. Hughes.* 427, L25, 117-D8 (1994)

Detection of X-Ray Emission from the PSR 1259−63/SS 2883 Binary System. *Lynn Cominsky, Mallory Roberts, & Simon Johnston.* 427, 978, 124-G2 (1994)

The Envelopes of Be Stars Driven by Optically Thin Lines. *Haiqi Chen & J. M. Marlborough.* 427, 1005, 125-B7 (1994)

Rotation in the Ionized Envelope of MWC 349A. *Luis F. Rodríguez & Timothy S. Bastian.* 428, 324, 132-B12 (1994)

Imaging Spectroscopy with High Spatial Resolution. *Naoshi Baba, Susumu Kuwamura, Noriaki Miura, & Yuji Norimoto.* 431, L111, 192-A1 (1994)

Emission-Line Studies of Young Stars. IV. The Optical Forbidden Lines. *Fred Hamann.* 93, 485, 49-D4 (1994)

Dynamic Processes in Be Star Atmospheres. II. He I $2P$–nD Line Formation in λ Eridani (Outburst). *Myron A. Smith, Ivan Hubeny, Thierry Lanz, & Thomas Meylan.* 432, 392, 198-A10 (1994)

Variable Extinction in HD 45677 and the Evolution of Dust Grains in Pre–Main-Sequence Disks. *Michael L. Sitko, Elaine M. Halbedel, Geoffrey F. Lawrence, J. Allyn Smith, & Ken Yanow.* 432, 753, 205-D3 (1994)

Near-Infrared (J, H, K) Imaging of Herbig Ae/Be Stars. *Wenbin Li, Neal J. Evans II, Paul M. Harvey, & Cecilia Colomé.* 433, 199, 210-G3 (1994)

Regimes of High-Energy Shock Emission from the Be Star/Pulsar System PSR 1259−63. *Marco Tavani, Jonathan Arons, & Victoria M. Kaspi.* 433, L37, 215-B1 (1994)

Ultraviolet Spectral Classification and Stellar Winds in a Sample of Be and Standard Stars. *Arne Slettebak.* 94, 163, 54-A5 (1994)

The Theoretical Polarization of Pure Scattering Axisymmetric Circumstellar Envelopes. *G. K. Fox.* 435, 372, 248-E1 (1994)

X-Ray Emission of the Pulsar–Be Star Binary PSR 1259−63. *Andrew King & Lynn Cominsky.* 435, 411, 249-B3 (1994)

[Fe II] 1.53 and 1.64 Micron Emission from Pre–Main-Sequence Stars. *Fred Hamann, Michal Simon, John S. Carr, & Lisa Prato.* 436, 292, 265-C10 (1994)

Einstein X-Ray Observations of Herbig Ae/Be Stars. *F. Damiani, G. Micela, S. Sciortino, & F. R. Harnden, Jr.* 436, 807, 276-F12 (1994)

The Effects of Gravity Darkening on the Ultraviolet Continuum Polarization Produced by Circumstellar Disks. *J. E. Bjorkman & K. S. Bjorkman.* 436, 818, 277-A1 (1994)

Near-Infrared Spectra of Compact Stellar Wind Sources at the Galactic Center. *S. Libonate, J. L. Pipher, W. J. Forrest, & M. L. N. Ashby.* 439, 202, 24-A10 (1995)

Discovery of Candidate Cataclysmic Variables in the Post–Core-Collapse Globular Cluster NGC 6397. *Adrienne M. Cool, Jonathan E. Grindlay, Haldan N. Cohn, Phyllis M. Lugger, & Shawn D. Slavin.* 439, 695, 34-B10 (1995)

Hα Emission and Absorption from a Localized Region above the Surface of a Be Star. *J. M. Marlborough.* 440, 303, 45-C12 (1995)

The Growth of Solids, Destruction of Molecules, and Shielding of Radiation in the Young Stellar Disk of HD 45677. *Thomas M. Brown, Richard Buss, Jr., Carol Grady, & Karen Bjorkman.* 440, 865, 55-A11 (1995)

LkHα 198 Revisited. *Harold M. Butner & Antonella Natta.* 440, 874, 55-B10 (1995)

X-Ray Emission from the PSR B1259−63 System near Apastron. *J. Greiner, M. Tavani, & T. Belloni.* 441, L43, 67-B9 (1995)

The Transient Accretion Disk in the Algol-Type Binary U Sagittae. *Geary E. Albright & Mercedes T. Richards.* 441, 806, 73-B2 (1995)

H I, CO, and *IRAS* Observations of NGC 7023. *C. Rogers, Mark H. Heyer, & P. E. Dewdney.* 442, 694, 89-F10 (1995)

Dynamic Processes in Be Star Atmospheres. III. Rapid Multiwavelength Variability in γ Cassiopeiae. *Myron A. Smith.* 442, 812, 91-D2 (1995)

Effects of Prescattering Attenuation on Spectropolarimetric Line Profiles. *Kenneth Wood & J. E. Bjorkman.* 443, 348, 100-A3 (1995)

Emission-Line Pre–Main-Sequence Stars and X-Ray Sources in Orion. *Steven H. Pravdo & Lorella Angelini.* 447, 342, 177-B3 (1995)

The Subarcsecond 10 Micron Size of LkHα 101: Constraints on Circumstellar Dust. *R. M. Danen, C. R. Gwinn, & E. E. Bloemhof.* 447, 391, 177-F13 (1995)

Tomographic Separation of Composite Spectra. III. Ultraviolet Detection of the Hot Companion of φ Persei. *Michelle L. Thaller, William G. Bagnuolo, Jr., Douglas R. Gies, & Laura R. Penny.* 448, 878, 207-A10 (1995)

A Study of the Spectra of Seven Of Stars. I. Radial Velocities. *Anne B. Underhill.* 100, 433, 52-A10 (1995)

A Study of the Spectra of Seven Of Stars. II. Line Profiles and Equivalent Widths. *Anne B. Underhill.* 100, 461, 52-C13 (1995)

Expanding Atmospheric Model Including a Chromosphere. II. Be Stars: Center-to-Limb Variation of the Emergent Intensity. *Lydia S. Cidale & Andrea C. Vázquez.* 453, 393, 286-E4 (1995)

X-Ray Detection of PSR B1259−63 at Periastron. *V. M. Kaspi, M. Tavani, F. Nagase, M. Hirayama, M. Hoshino, T. Aoki, N. Kawai, & J. Arons.* 453, 424, 287-A1 (1995)

STARS: EVOLUTION

Application of Oxygen-enhanced Evolutionary Sequences to the Horizontal Branch of M15. *Ben Dorman, Young-Wook Lee, & Don A. VandenBerg.* 366, 115, 2-D11 (1991)

Stellar Population Synthesis Revisited. *Stéphane Charlot & Gustavo Bruzual A.* 367, 126, 13-E5 (1991)

s-Process Nucleosynthesis in Massive Stars and the Weak Component. I. Evolution and Neutron Captures in a 25 $M_\odot$ Star. *C. M. Raiteri, M. Busso, R. Gallino, G. Picchio, & L. Pulone.* 367, 228, 14-G13 (1991)

Evolutionary Models of Halo Stars with Rotation. I. Evidence for Differential Rotation with Depth in Stars. *Marc H. Pinsonneault, Constantine P. Deliyannis, & Pierre Demarque.* 367, 239, 15-A12 (1991)

Stellar Evolution and Period Changes in RR Lyrae Stars. *Young-Wook Lee.* 367, 524, 19-G7 (1991)

Instabilities and Clumping in SN 1987A. I. Early Evolution in Two Dimensions. *Bruce Fryxell, Ewald Müller, & David Arnett.* 367, 619, 21-A5 (1991)

Wolf-Rayet Stars as Starting Points or as Endpoints of the Evolution of Massive Stars? *H. J. G. L. M. Lamers, A. Maeder, W. Schmutz, & J. P. Cassinelli.* 368, 538, 31-F12 (1991)

Neutron Star Thermal Evolution. *Kenneth A. Van Riper.* 75, 449, 6-G7 (1991)

Asteroseismology of White Dwarf Stars. I. Adiabatic Results. *P. A. Bradley & D. E. Winget.* 75, 463, 7-A13 (1991)

Star Clusters in the Clouds of Magellan. *Sidney van den Bergh.* 369, 1, 36-A11 (1991)

Star Formation in Taurus-Auriga: The High-Mass Stars. *Frederick M. Walter & William T. Boyd.* 370, 318, 51-C1 (1991)

Multicolor CCD Imaging of Supergiants in the Disk of NGC 253. *T. J. Davidge, O. Le Fèvre, & C. C. Clark.* 370, 559, 55-D7 (1991)

Helium Star Cataclysmics. *Icko Iben, Jr., & Alexander V. Tutukov.* 370, 615, 56-B5 (1991)

Lithium in the Most Extreme Halo Stars; Trends with Metallicity. *Constantine P. Deliyannis & Pierre Demarque.* 370, L89, 59-E5 (1991)

Lithium, Age, and Metallicity in Open Clusters. *Ann Merchant Boesgaard.* 370, L95, 59-E12 (1991)

He Stars and He-accreting CO White Dwarfs. *Marco Limongi & Amedeo Tornambè.* 371, 317, 64-A9 (1991)

Carbon Isotope Ratios along the Giant Branch of M67. *Kalpana Krishnaswamy Gilroy & Jeffery A. Brown.* 371, 578, 68-F7 (1991)

Diffusion and Mixing of Lithium and Helium in Population II Dwarfs. *Charles R. Proffitt & Georges Michaud.* 371, 584, 68-G1 (1991)

Nitrogen Abundances in Carbon-rich Stars That Are Progenitors to Planetary Nebulae. *M. Jura.* 372, 208, 76-E7 (1991)

Steady State Energy Sources in Neutron Stars. *Kenneth A. Van Riper.* 372, 251, 77-A13 (1991)

Modification of Stellar Populations in Post–Core-Collapse Globular Clusters. *S. Djorgovski, G. Piotto, E. S. Phinney, & D. F. Chernoff.* 372, L41, 79-E11 (1991)

Double Core Evolution. IV. The Late Stages of Evolution of a 2 $M_\odot$ Red Giant with a 1 $M_\odot$ Companion. *Ronald E. Taam & Peter Bodenheimer.* 373, 246, 89-A10 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

Stellar Evolutionary Models from the Zero-Age Main Sequence to the First Thermal Pulse. *John C. Lattanzio.* 76, 215, 27-B9 (1991)

Blue Loops during Core Helium Burning as the Consequence of Moderate Convective Envelope Overshooting in Stars of Intermediate to High Mass. *Richard B. Stothers & Chao-wen Chin.* 374, 288, 101-F3 (1991)

LMC SMP 64: The Youngest Planetary Nebula? *M. A. Dopita & S. J. Meatheringham.* 374, L21, 103-E1 (1991)

Shell Helium Burning in Low-Mass Stars. I. Models in Thermal Equilibrium. *Masayuki Y. Fujimoto & Icko Iben, Jr.* 374, 631, 107-A1 (1991)

Isochrones for H-burning Globular Cluster Stars. II. The Metallicity Range $-2.3 < [Fe/H] < -0.5$. *Oscar Straniero & Alessandro Chieffi.* 76, 525, 32-D1 (1991)

Chemical Abundances in Planetary Nebulae: Basic Data and Correlations between Elements. *M. Perinotto.* 76, 687, 34-C9 (1991)

Detection of a Galactic Color Gradient for Blue Horizontal-Branch Stars of the Halo Field and Implications for the Halo Age and Density Distributions. *George W. Preston, Stephen A. Shectman, & Timothy C. Beers.* 375, 121, 112-E1 (1991)

The *p*-Mode Oscillation Spectra of an Evolving 1 $M\odot$ Sun-like Star. *D. B. Guenther.* 375, 352, 115-C8 (1991)

Brown Dwarfs in Young Stellar Clusters. *Guy S. Stringfellow.* 375, L21, 117-C7 (1991)

Period Changes and Evolution in RV Tauri Stars. *John R. Percy, Dimitar D. Sasselov, Amy Alfred, & Greg Scott.* 375, 691, 121-C7 (1991)

The Chromospheric Emission–Age Relation for Stars of the Lower Main Sequence and Its Implications for the Star Formation Rate. *David R. Soderblom, Douglas K. Duncan, & Dean R. H. Johnson.* 375, 722, 121-F5 (1991)

From Wind to Superwind: The Evolution of Mass-Loss Rates for Mira Models. *G. H. Bowen & L. A. Willson.* 375, L53, 124-C1 (1991)

On the Formation of Globular Clusters. I. Dynamical Limits on Globular Cluster Metallicities. *J. H. Brown, A. Burkert, & James W. Truran.* 376, 115, 126-D1 (1991)

Rotational Evolution of Solar-Type Stars. I. Main-Sequence Evolution. *K. B. MacGregor & M. Brenner.* 376, 204, 127-D13 (1991)

The Evolution of He-burning Stars: Horizontal and Asymptotic Branches in Galactic Globulars. *V. Castellani, A. Chieffi, & L. Pulone.* 76, 911, 37-C5 (1991)

Collisions of Giant Stars with Compact Objects: Hydrodynamical Calculations. *Frederic A. Rasio & Stuart L. Shapiro.* 377, 559, 146-F1 (1991)

A Detection of the Evolutionary Time Scale of the DA White Dwarf G117-B15A with the Whole Earth Telescope. *S. O. Kepler, D. E. Winget, R. E. Nather, P. A. Bradley, A. D. Grauer, G. Fontaine, P. Bergeron, G. Vauclair, C. F. Claver, T. M. K. Marar, S. Seetha, B. N. Ashoka, T. Mazeh, E. Leibowitz, N. Dolez, M. Chevreton, M. A. Barstow, J. C. Clemens, S. J. Kleinman, A. E. Sansom, R. W. Tweedy, A. Kanaan, B. P. Hine, J. L. Provencal, F. Wesemael, M. A. Wood, P. Brassard, J.-E. Solheim, & P.-I. Emanuelsen.* 378, L45, 162-E7 (1991)

On the Sodium Excess in the Atmospheres of Yellow Supergiants. *N. Prantzos, A. Coc, & J. P. Thibaud.* 379, 729, 173-G1 (1991)

The Stellar Content and Structure of the Globular Cluster NGC 5053. *Gregory G. Fahlman, Harvey B. Richer, & James Nemec.* 380, 124, 177-E11 (1991)

The *K* Parameter and Evolution of the Radio Pulsars. *Wen Xu & Xinji Wu.* 380, 550, 185-A12 (1991)

Evolutionary Sequences of Stellar Models of Intermediate and High Mass Including Convective Core Overshooting. *Chao-wen Chin & Richard B. Stothers.* 77, 299, 48-C1 (1991)

On Equation of State Interpolation Errors in Stellar Interior Calculations. *Ben Dorman, Alan W. Irwin, & Brian B. Pedersen.* 381, 228, 191-G4 (1991)

Advanced Evolutionary Phases of Large-Metallicity Low-Mass Stars and the Problem of the Ultraviolet Excess of Elliptical Galaxies. *Marco Castellani & Amedeo Tornambè.* 381, 393, 195-E9 (1991)

Soft X-Ray Pulses from Neutron Star Glitches. *Kenneth A. Van Riper, Richard I. Epstein, & Guy S. Miller.* 381, L47, 199-C1 (1991)

Detection of the Helium Flash Gap in the Integrated $(U - B)$ versus $(B - V)$ Diagram for 624 Large Magellanic Cloud Clusters. *E. Bica, J. J. Clariá, H. Dottori, J. F. C. Santos, Jr., & A. Piatti.* 381, L51, 199-C7 (1991)

Metal Opacities and Convective Core Overshooting in Population I Stars. *Richard B. Stothers & Chao-wen Chin.* 381, L67, 199-E7 (1991)

Wide Binaries in the Woolley Catalog. *Ira Wasserman & Martin D. Weinberg.* 382, 149, 202-A12 (1991)

Asymptotic Theory for the Spatial Distribution of Protostellar Emission. *Fred C. Adams.* 382, 544, 208-C8 (1991)

Massive Star Evolution and SN 1987A. *David Arnett.* 383, 295, 215-G8 (1991)

About the Stage of Evolution of Wolf-Rayet Stars. *Anne B. Underhill.* 383, 729, 223-C6 (1991)

Evolution of Compact Binary Systems with X-Ray Heating. *Amos Harpaz & Saul Rappaport.* 383, 739, 223-D3 (1991)

A Conjecture Regarding the Evolution of Dwarf Stars into Red Giants. *P. P. Eggleton & R. C. Cannon.* 383, 757, 223-E12 (1991)

Post–Asymptotic Giant Branch Nonradial Instability Strips. *Letizia Stanghellini, Arthur N. Cox, & Sumner Starrfield.* 383, 766, 223-F10 (1991)

Observational Tests of Convective Core Overshooting in Stars of Intermediate to High Mass in the Galaxy. *Richard B. Stothers.* 383, 820, 224-D8 (1991)

Implications of Helium Diffusion for Globular Cluster Isochrones and Luminosity Functions. *Charles R. Proffitt & Don A. VandenBerg.* 77, 473, 51-C10 (1991)

Subgiant CH Stars. II. Chemical Compositions and the Evolutionary Connection with Barium Stars. *R. Earle Luck & Howard E. Bond.* 77, 515, 51-G1 (1991)

Local Distribution of Old Neutron Stars. *Zsolt Frei, Xiaolan Huang, & Bohdan Paczyński.* 384, 105, 2-C10 (1992)

A Magnitude-limited Survey of Cepheid Companions in the Ultraviolet. *Nancy Remage Evans.* 384, 220, 3-F4 (1992)

The Multiple Molecular Winds of CRL 2688. *K. Young, G. Serabyn, T. G. Phillips, G. R. Knapp, R. Güsten, & A. Schulz.* 385, 265, 15-B13 (1992)

Classical Nova Models with Accretion Heating at Accretion Rates of 10^{-9} and 10^{-10} $M\odot$ per Year. *Dina Prialnik & Attay Kovetz.* 385, 665, 21-D1 (1992)

The Frequencies of Supernovae in Binaries. *Alexander V. Tutukov, Lev R. Yungelson, & Icko Iben, Jr.* 386, 197, 26-E9 (1992)

The Evolution through H and He Burning of Galactic Cluster Stars. *Vittorio Castellani, Alessandro Chieffi, & Oscar Straniero.* 78, 517, 9-G11 (1992)

On the Instability Strip of the Cepheid Stars. *C. Chiosi, P. Wood, G. Bertelli, & A. Bressan.* 387, 320, 41-A1 (1992)

Unusual 3 Micron Emission Features in Three Proto–Planetary Nebulae. *T. R. Geballe, A. G. G. M. Tielens, S. Kwok, & B. J. Hrivnak.* 387, L89, 48-E1 (1992)

X-Ray Activity as Statistical Age Indicator: The Disk G–K Giants. *G. Micela, A. Maggio, & G. S. Vaiana.* 388, 171, 51-B5 (1992)

Short- and Intermediate-Period Oxygen-rich Miras. *M. Jura & S. G. Kleinmann.* 79, 105, 14-D3 (1992)

The Effect of Helium Diffusion on the Ages of Globular Clusters. *Brian Chaboyer, Constantine P. Deliyannis, Pierre Demarque, M. H. Pinsonneault, & Ata Sarajedini.* 388, 372, 55-A6 (1992)

The Star Formation History of the Large Magellanic Cloud. *Gianpaolo Bertelli, Mario Mateo, Cesare Chiosi, & Alessandro Bressan.* 388, 400, 55-C11 (1992)

The Evolution of High-Metallicity Horizontal-Branch Stars and the Origin of the Ultraviolet Light in Elliptical Galaxies. *E. Horch, P. Demarque, & M. Pinsonneault.* 388, L53, 59-B7 (1992)

The Contribution of Advanced Post-Hayashi Track Evolutionary Phases to the Ultraviolet Light of Elliptical Galaxies. *Marco Castellani, Marco Limongi, & Amedeo Tornambè.* 389, 227, 62-G1 (1992)

Type I Supernovae and Accretion-induced Collapses from Cataclysmic Variables? *Mario Livio & James W. Truran.* 389, 695, 70-A10 (1992)

Supernova Rates and the Reddening of Wolf-Rayet Stars. *Sidney van den Bergh.* 390, 133, 75-F1 (1992)

Stellar Evolution in Blue Populous Clusters of the Small Magellanic Cloud and the Problems of Envelope Semiconvection and Convective Core Overshooting. *Richard B. Stothers & Chao-wen Chin.* 390, 136, 75-F6 (1992)

Possible Observational Consequences of Primordial Binaries in Globular Clusters. *Ronald E. Taam & D. N. C. Lin.* 390, 440, 80-G6 (1992)

Presupernova Evolution in Massive Interacting Binaries. *Ph. Podsiadlowski, P. C. Joss, & J. J. L. Hsu.* 391, 246, 89-A10 (1992)

Maximum Rates of Period Change for DA White Dwarf Models with Carbon and Oxygen Cores. *P. A. Bradley, D. E. Winget, & M. A. Wood.* 391, L33, 92-C1 (1992)

Oxygen-enhanced Models for Globular Cluster Stars. I. Evolutionary Tracks. *Don A. VandenBerg.* 391, 685, 96-E5 (1992)

The Age and Chemical Evolution of High-Redshift QSOs. *Fred Hamann & Gary Ferland.* 391, L53, 99-C7 (1992)

Lithium Abundances in Classical and Weak T Tauri Stars. *Antonio Magazzù, Rafael Rebolo, & Yakov V. Pavlenko.* 392, 159, 103-A1 (1992)

Are There Two Kinds of Blue Stragglers in Globular Clusters? *Charles D. Bailyn.* 392, 519, 108-F9 (1992)

Setting the Clock of Stellar Models. *G. Bertelli, A. Bressan, & C. Chiosi.* 392, 522, 108-F13 (1992)

The Nonexponential Evolution of Pulsar Magnetic Fields. *Shigeto Wakatsuki, Atsushi Hikita, Naohiro Sato, & Naoki Itoh.* 392, 628, 110-A10 (1992)

The Evolution of Intermediate-Mass Protostars. II. Influence of the Accretion Flow. *Francesco Palla & Steven W. Stahler.* 392, 667, 110-E5 (1992)

The Creation of Superrich Lithium Giants. *I.-Juliana Sackmann & Arnold I. Boothroyd.* 392, L71, 113-D3 (1992)

The Structure of Horizontal-Branch Models. I. The Zero-Age Horizontal Branch. *Ben Dorman.* 80, 701, 33-B5 (1992)

Breakdown of the Core Mass–Luminosity Relation at High Luminosities on the Asymptotic Giant Branch. *Arnold I. Boothroyd & I.-Juliana Sackmann.* 393, L21, 120-D1 (1992)

Evolutionary Models and the p-Mode Oscillation Spectrum of α Centauri A and B. *Peter Edmonds, Lawrence Cram, Pierre Demarque, D. B. Guenther, & Marc H. Pinsonneault.* 394, 313, 131-G9 (1992)

Oxygen-enhanced Models for Globular Cluster Stars. II. Isochrones and Luminosity Functions. *Peter A. Bergbusch & Don A. VandenBerg.* 81, 163, 37-C11 (1992)

Optical and Infrared Imaging of Stars in the Metal-rich Globular Clusters NGC 6304 and NGC 6316. *T. J. Davidge, William E. Harris, T. J. Bridges, & D. A. Hanes.* 81, 251, 38-D5 (1992)

Ages of Globular Clusters and Helium Diffusion. *Brian Chaboyer, Ata Sarajedini, & Pierre Demarque.* 394, 515, 135-F12 (1992)

Early Expansion and Luminosity Evolution of Supernovae. *Roger A. Chevalier.* 394, 599, 136-G5 (1992)

Two Ultramassive White Dwarfs Found among Candidates for Magnetic Fields. *Gary D. Schmidt, P. Bergeron, James Liebert, & Rex A. Saffer.* 394, 603, 136-G11 (1992)

The Binary System L151−81A/B: A Potential Test of Accretion Theory. *M. A. Wood & T. D. Oswalt.* 394, L53, 139-D1 (1992)

Mass Loss and a Possible Population II Lithium Dip. *David S. P. Dearborn, David N. Schramm, & L. M. Hobbs.* 394, L61, 139-E1 (1992)

Abundances for Giant Stars in the Draco Dwarf Galaxy. *Matthew D. Lehnert, R. A. Bell, James E. Hesser, & J. B. Oke.* 395, 466, 148-C9 (1992)

Lithium Dilution through Main-Sequence Mass Loss. *Fritz J. Swenson & John Faulkner.* 395, 654, 151-D3 (1992)

Helium Diffusion in the Sun. *J. N. Bahcall & M. H. Pinsonneault.* 395, L119, 154-D7 (1992)

Hubble Space Telescope FOS Observations of KPD 0005+5106: A Subluminous WN-WC Descendant with Ongoing Mass Outflow? *Edward M. Sion & Ronald A. Downes.* 396, L79, 167-B7 (1992)

Helium Gravitational Settling in the Envelopes of Evolving Main-Sequence A and F Stars. *Jacques Richer, Georges Michaud, & Charles R. Proffitt.* 82, 329, 54-A1 (1992)

A Formulation of Convection for Stellar Structure and Evolution Calculations without the Mixing-Length Theory Approximations. I. Application to the Sun. *Thomas Joseph Lydon, Peter A. Fox, & Sabatino Sofia.* 397, 701, 179-G3 (1992)

The Age of the Small Magellanic Cloud Cluster Lindsay 11. *J. R. Mould, J. B. Jensen, & G. S. Da Costa.* 82, 489, 55-E11 (1992)

Nucleosynthesis and Mixing on the Asymptotic Giant Branch. I. MS and S Stars with and without Tc. *M. Busso, R. Gallino, D. L. Lambert, C. M. Raiteri, & V. V. Smith.* 399, 218, 198-A1 (1992)

Populations of Low-Mass Black Hole Binaries. *Roger W. Romani.* 399, 621, 205-F1 (1992)

On the Pulsational Stability of the Pre–White Dwarf Star PG 1707+427. *Albert D. Grauer, Richard F. Green, & James Liebert.* 399, 686, 206-D7 (1992)

Pulsar Death Lines and Death Valley. *Kaiyou Chen & Malvin Ruderman.* 402, 264, 4-D1 (1993)

Stellar Evolution as a Probe of Neutrino Properties. *V. Castellani & S. Degl'Innocenti.* 402, 574, 9-F7 (1993)

Companions to Bright S and MS Stars: Technetium Deficiency and Binarity. *Hollis R. Johnson, Thomas B. Ake, & Mudhaffer M. Ameen.* 402, 667, 10-G11 (1993)

The Distant Future of Solar Activity: A Case Study of β Hydri. I. Stellar Evolution, Lithium Abundance, and Photospheric Structure. *D. Dravins, L. Lindegren, Å. Nordlund, & D. A. VandenBerg.* 403, 385, 18-E10 (1993)

Improved Solar Models Constructed with a Formulation of Convection for Stellar Structure and Evolution Calculations without the Mixing-Length Theory Approximations. *Thomas Joseph Lydon, Peter A. Fox, & Sabatino Sofia.* 403, L79, 27-E8 (1993)

Stellar Models and the Brightening of P Cygni. *Mounib F. El Eid & Dieter H. Hartmann.* 404, 271, 31-C5 (1993)

The Detectability of Brown Dwarfs: Predictions and Uncertainties. *L. Nelson, S. Rappaport, & P. C. Joss.* 404, 723, 38-A1 (1993)

Evidence for Processed Material in the Atmospheres of Large Magellanic Cloud B Supergiants. *Edward L. Fitzpatrick & Bruce Bohannan.* 404, 734, 38-B1 (1993)

Gamma-Ray Bursts from Stellar Mass Accretion Disks around Black Holes. *S. E. Woosley.* 405, 273, 44-E1 (1993)

Evolution and Seismology of Procyon. *D. B. Guenther & P. Demarque.* 405, 298, 44-G6 (1993)

Spectral Evolution of Stellar Populations Using Isochrone Synthesis. *Gustavo Bruzual A., & Stéphane Charlot.* 405, 538, 49-F11 (1993)

Beryllium and Boron Constraints on an Early Galactic Bright Phase. *Brian D. Fields, David N. Schramm, & James W. Truran.* 405, 559, 50-A7 (1993)

An Expanded Set of Brown Dwarf and Very Low Mass Star Models. *A. Burrows, W. B. Hubbard, D. Saumon, & J. I. Lunine.* 406, 158, 57-B1 (1993)

Rotation of Young Solar-Type Stars in the Orion Nebula Region. *Douglas K. Duncan.* 406, 172, 57-C1 (1993)

A Model for the Dramatic Decline of FG Sagittae. *Icko Iben, Jr., & Mario Livio.* 406, L15, 60-F8 (1993)

Far-Ultraviolet Radiation from Disk Globular Clusters. *R. Michael Rich, Dante Minniti, & James W. Liebert.* 406, 489, 63-G9 (1993)

The Potential for Asteroseismology of DB White Dwarf Stars. *P. A. Bradley, D. E. Winget, & M. A. Wood.* 406, 661, 66-B1 (1993)

Mass Loss in Globular Cluster Red Giants: An Evolutionary Investigation. *M. Castellani & V. Castellani.* 407, 649, 78-F1 (1993)

On Symbiotic Stars and Type Ia Supernovae. *Scott J. Kenyon, Mario Livio, Joanna Mikołajewska, & Christopher A. Tout.* 407, L81, 82-E9 (1993)

The Age of the Large Magellanic Cloud Cluster NGC 2031. *J. R. Mould, D. A. Xystus, & G. S. Da Costa.* 408, 108, 84-D8 (1993)

Origin and Radio Pulse Properties of Millisecond Pulsars. *Kaiyou Chen & Malvin Ruderman.* 408, 179, 85-C12 (1993)

Thermal Evolution of Neutron Stars with Internal Frictional Heating. *Hideyuki Umeda, Noriaki Shibazaki, Ken'ichi Nomoto, & Sachiko Tsuruta.* 408, 186, 85-D7 (1993)

The Infrared Temporal Evolution of FG Sagittae. *Charles E. Woodward, G. F. Lawrence, R. D. Gehrz, Terry J. Jones, H. A. Kobulnicky, James Cole, Tracy Hodge, & Harley A. Thronson, Jr.* 408, L37, 89-B8 (1993)

Dynamical Instability as the Cause of the Massive Outbursts in η Carinae and Other Luminous Blue Variables. *Richard B. Stothers & Chao-wen Chin.* 408, L85, 95-C5 (1993)

On Partial Mixing Zones in Horizontal-Branch Stellar Cores. *Ben Dorman & Robert T. Rood.* 409, 387, 101-G3 (1993)

On the Stellar Progenitor of the Type Ib Supernova 1984L. *E. Baron, Timothy R. Young, & David Branch.* 409, 417, 102-B10 (1993)

Old Stellar Populations. IV. Empirical Fitting Functions for Features in the Spectra of G and K Stars. *Javier Gorgas, S. M. Faber, David Burstein, J. Jesús Gonzalez, Stéphane Courteau, & Charles Prosser.* 86, 153, 15-F13 (1993)

The Evolution of Angular Momentum among Zero-Age Main-Sequence Solar-Type Stars. *David R. Soderblom, John R. Stauffer, Keith B. MacGregor, & Burton F. Jones.* 409, 624, 106-F13 (1993)

Theoretical Models for Massive Stars in Young Magellanic Cloud Stellar Clusters. *Enzo Brocato & Vittorio Castellani.* 410, 99, 113-D1 (1993)

Search for Ionized Cores in Proto–Planetary Nebulae, and the Asymptotic Giant Branch to Planetary Nebula Transition. *Hans Ulrich Käufl, Alvio Renzini, & Letizia Stanghellini.* 410, 251, 115-C1 (1993)

Reddening Errors and the Post–Main-Sequence Distribution of Stars in the H-R Diagram of the Large Magellanic Cloud. *N. Rathnasree.* 410, L99, 126-B5 (1993)

Sub–Giant Branch Evolution and Efficient Central Energy Transport. *John Faulkner & Fritz J. Swenson.* 411, 200, 129-F3 (1993)

Spectra of Low-Mass Helium Star Models and the Type Ic Supernova SN 1987M. *Douglas A. Swartz, Alexei V. Filippenko, Ken'ichi Nomoto, & J. Craig Wheeler.* 411, 313, 131-B8 (1993)

IRC +10420: A Cool Hypergiant near the Top of the H-R Diagram. *Terry Jay Jones, Roberta M. Humphreys, Robert D. Gehrz, Geoffrey F. Lawrence, Franz-Josef Zickgraf, Harvey Moseley, Sean Casey, William J. Glaccum, Carol J. Koch, Robert Pina, Barbara Jones, Kim Venn, Otmar Stahl, & Sumner G. Starrfield.* 411, 323, 131-C6 (1993)

The Effect of Livermore Opal Opacities on the Evolutionary Masses of RR Lyrae Stars. *Sukyoung Yi, Young-Wook Lee, & Pierre Demarque.* 411, L25, 133-G8 (1993)

Convection and Neutrino Emission in the Late Stages of Massive Star Evolution. *Maurice B. Aufderheide.* 411, 813, 140-A1 (1993)

The Evolution of Massive Stars Including Mass Loss: Presupernova Models and Explosion. *S. E. Woosley, Norbert Langer, & Thomas A. Weaver.* 411, 823, 140-A14 (1993)

Interacting Massive Binaries, H-R Diagram of the Large Magellanic Cloud and SN 1987A. *N. Rathnasree.* 411, 848, 140-D1 (1993)

The Ultraviolet Radiation in Metal-rich Elliptical Galaxies. *Uffe Gråe Jørgensen & Peter Thejll.* 411, L67, 142-C5 (1993)

Iron and Molecular Opacities and the Evolution of Population I Stars. *Richard B. Stothers & Chao-wen Chin.* 412, 294, 145-F13 (1993)

Abundance Inhomogeneities and Atmospheric Structure in CN-Bimodal Globular Cluster Giants. *Jeremy J. Drake, Bertrand Plez, & Verne V. Smith.* 412, 612, 151-D1 (1993)

Long-Period Oxygen-rich Optical Miras in the Solar Neighborhood. *M. Jura, A. Yamamoto, & S. G. Kleinmann.* 413, 298, 160-A2 (1993)

On the Li and Be Tests for Brown Dwarfs. *L. A. Nelson, S. Rappaport, & E. Chiang.* 413, 364, 160-G1 (1993)

Lithium in the Binary Halo Star HD 89499. *Suchitra Balachandran, Bruce W. Carney, Anne M. Fry, Laura K. Fullton, & Ruth C. Peterson.* 413, 368, 160-G7 (1993)

Bolometric Temperatures of Young Stellar Objects. *P. C. Myers & E. F. Ladd.* 413, L47, 162-G1 (1993)

Inhomogeneous Chemical Evolution of the Galactic Disk. *Guy Malinie, Dieter H. Hartmann, Donald D. Clayton, & Grant J. Mathews.* 413, 633, 164-D1 (1993)

Evolution of Low- and Intermediate-Mass Stars to the End of the Asymptotic Giant Branch with Mass Loss. *E. Vassiliadis & P. R. Wood.* 413, 641, 164-D11 (1993)

CNO Abundances and the Evolutionary Status of Three A-Type Supergiants. *Kim A. Venn.* 414, 316, 174-A1 (1993)

The α-enhanced Isochrones and Their Impact on the Fits to the Galactic Globular Cluster System. *Maurizio Salaris, Alessandro Chieffi, & Oscar Straniero.* 414, 580, 178-D10 (1993)

Reaction Rates of the *s*-Process Neutron Sources $^{22}Ne(\alpha, n)^{25}Mg$ and $^{13}C(\alpha, n)^{16}O$. *H. W. Drotleff, A. Denker, H. Knee, M. Soiné, G. Wolf, J. W. Hammer, U. Greife, C. Rolfs, & H. P. Trautvetter.* 414, 735, 180-D3 (1993)

Type II Supernovae from 8–10 $M_\odot$ Asymptotic Giant Branch Stars. *Masaaki Hashimoto, Kohichi Iwamoto, & Ken'ichi Nomoto.* 414, L105, 186-A1 (1993)

Trace of Planetary Nebula Evolution by Distance-independent Parameters. *C. Y. Zhang & S. Kwok.* 88, 137, 42-B9 (1993)

On Why Intermediate-Mass Stars Become Giants after the Exhaustion of Hydrogen in Their Cores. *Icko Iben, Jr.* 415, 767, 197-D5 (1993)

A Method for Quantitative Detection of Hot Horizontal Branches in Early-Type Galaxies. *Guy Worthey.* 415, L91, 199-G6 (1993)

The "Type IIb" Supernova 1993J in M81: A Close Relative of Type Ib Supernovae. *Alexei V. Filippenko, Thomas Matheson, & Luis C. Ho.* 415, L103, 200-A8 (1993)

On the Origin of the Eclipsing Pulsar PSR B1718−19 and Its Wind. *R. A. M. J. Wijers & B. Paczyński.* 415, L115, 200-C1 (1993)

Diffusion of Lithium and Beryllium in Evolving, Nonrotating Main-Sequence A and F Stars. *Jacques Richer & Georges Michaud.* 416, 312, 205-A5 (1993)

The Age of the Large Magellanic Cloud Cluster NGC 1953. *J. R. Mould, D. A. Xystus, G. S. Da Costa, & R. A. Schommer.* 416, 582, 210-E12 (1993)

An Evolutionary Scenario for Primeval Stellar Populations. *Santi Cassisi & Vittorio Castellani.* 88, 509, 47-B1 (1993)

Population Synthesis and the Ultraviolet Spectrum of Elliptical Galaxies. *Gladis Magris C., & Gustavo Bruzual A.* 417, 102, 218-E6 (1993)

The Tip of the Red Giant Branch as a Distance Indicator for Resolved Galaxies. *Myung Gyoon Lee, Wendy L. Freedman, & Barry F. Madore.* 417, 553, 226-B13 (1993)

Model Atmosphere and Kinematical Analyses of Early-Type, High Galactic Latitude Stellar Candidates from the UKST *UBVRI* Survey. *N. C. Hambly, E. S. Conlon, P. L. Dufton, F. P. Keenan, J. E. Little, & L. Miller.* 417, 706, 228-B10 (1993)

Formation and Evolution of Binary Planetary Nebula Nuclei and Related Objects. *Icko Iben, Jr., & Alexander V. Tutukov.* 418, 343, 235-C12 (1993)

The Pre–Main-Sequence Evolution of Intermediate-Mass Stars. *Francesco Palla & Steven W. Stahler.* 418, 414, 236-B10 (1993)

Our Sun. III. Present and Future. *I.-Juliana Sackmann, Arnold I. Boothroyd, & Kathleen E. Kraemer.* 418, 457, 236-F6 (1993)

Synthetic UV Lines of Si IV, C IV, and He II from a Population of Massive Stars in Starburst Galaxies. *Carmelle Robert, Claus Leitherer, & Timothy M. Heckman.* 418, 749, 241-G7 (1993)

On the Formation of O-Ne White Dwarfs in Metal-rich Close Binary Systems. *Inma Dominguez, Amedeo Tornambè, & Jordi Isern.* 419, 268, 249-E1 (1993)

Ultraviolet Radiation from Evolved Stellar Populations. I. Models. *Ben Dorman, Robert T. Rood, & Robert W. O'Connell.* 419, 596, 255-B8 (1993)

The Evolution of Accreting Stars with Turbulent Mixing. *M. Y. Fujimoto.* 419, 768, 257-B13 (1993)

Observations of [S IV] and the O/S Abundance Ratio in Two Halo Population Planetary Nebulae. *Donald R. Garnett & John H. Lacy.* 419, L93, 259-F8 (1993)

Theoretical Light Curves of Type IIb Supernova 1993J. *Toshikazu Shigeyama, Tomoharu Suzuki, Shiomi Kumagai, Ken'ichi Nomoto, Hideyuki Saio, & Hitoshi Yamaoka.* 420, 341, 5-B5 (1994)

The Rate of the Proton-Proton Reaction. *Marc Kamionkowski & John N. Bahcall.* 420, 884, 13-G11 (1994)

Hot or Not? Theoretical Blue Edges for DA and DB White Dwarf Models. *P. A. Bradley & D. E. Winget.* 421, 236, 19-A1 (1994)

Evolutionary Sequences of Very Hot, Low-Mass, Accreting White Dwarfs with Application to Symbiotic Variables and Ultrasoft/Supersoft Low-Luminosity X-Ray Sources. *Edward M. Sion & Sumner G. Starrfield.* 421, 261, 19-C1 (1994)

Young Open Clusters as Probes of the Star Formation Process. I. An Atlas of Open Cluster Photometry. *Randy L. Phelps & Kenneth A. Janes.* 90, 31, 1-D6 (1994)

Rotation and Magnetic Fields during the Evolution of Massive Stars through B[e] and Wolf-Rayet Phases. *Murugesapillai Maheswaran & Joseph Cassinelli.* 421, 718, 27-B9 (1994)

More Missing Stellar Opacity? *Richard B. Stothers & Chao-wen Chin.* 421, L91, 29-F9 (1994)

The Origin and Evolution of Short-Period Miras in the Solar Neighborhood: Constraints on the Life Cycle of Old Stars. *M. Jura.* 422, 102, 31-C12 (1994)

Double-Core Evolution. V. Three-dimensional Effects in the Merger of a Red Giant with a Dwarf Companion. *James L. Terman, Ronald E. Taam, & Lars Hernquist.* 422, 729, 40-G13 (1994)

The Classical Hyades Lithium Problem Resolved? *Fritz J. Swenson, John Faulkner, Carlos A. Iglesias, Forrest J. Rogers, & David R. Alexander.* 422, L79, 45-B6 (1994)

The Horizontal-Branch Stars in Globular Clusters. II. The Second Parameter Phenomenon. *Young-Wook Lee, Pierre Demarque, & Robert Zinn.* 423, 248, 49-B9 (1994)

Cooling White Dwarfs in Galactic Globulars. *V. Castellani, S. Degl'Innocenti, & M. Romaniello.* 423, 266, 49-D1 (1994)

Predictions of a Population of Cataclysmic Variables in Globular Clusters. *R. Di Stefano & S. Rappaport.* 423, 274, 49-D13 (1994)

Equilibrium, Stability, and Orbital Evolution of Close Binary Systems. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 423, 344, 50-D9 (1994)

Sub–Chandrasekhar Mass Models for Type Ia Supernovae. *S. E. Woosley & Thomas A. Weaver.* 423, 371, 50-F10 (1994)

Mass Loss during the RR Lyrae Phase of the Horizontal Branch: Mass Dispersion on the Horizontal Branch and RR Lyrae Period Changes. *Rebecca A. Koopmann, Young-Wook Lee, Pierre Demarque, & Jamie M. Howard.* 423, 380, 50-G7 (1994)

Deep Infrared Array Photometry of Globular Clusters. I. M4. *T. J. Davidge & D. A. Simons.* 423, 640, 56-D13 (1994)

A Scenario for a Large Number of Low-Mass Black Holes in the Galaxy. *G. E. Brown & H. A. Bethe.* 423, 659, 56-F11 (1994)

Constraints on the Origin of Dwarf Carbon Stars. *Paul J. Green & Bruce Margon.* 423, 723, 57-E7 (1994)

Binary Radiopulsars with Black Holes. *V. M. Lipunov, K. A. Postnov, M. E. Prokhorov, & E. Yu. Osminkin.* 423, L121, 60-G9 (1994)

Mid-Infrared Images of the Post–Asymptotic Giant Branch Star HD 161796. *C. J. Skinner, M. M. Meixner, G. W. Hawkins, E. Keto, J. G. Jernigan, & J. F. Arens.* 423, L135, 61-B11 (1994)

Chemical Evolution of the Solar Neighborhood with Yields Dependent on Metallicity. *Leticia Carigi.* 424, 181, 64-B12 (1994)

Isotopic Carbon Ratios among M71 Bright Red Giants. *Michael M. Briley, Verne V. Smith, & David L. Lambert.* 424, L119, 79-D7 (1994)

Detection of Lithium in the Cool Halo Dwarfs Groombridge 1830 and HD 134439: Implications for Internal Stellar Mixing and Cosmology. *Constantine P. Deliyannis, Sean G. Ryan, Timothy C. Beers, & Julie A. Thorburn.* 425, L21, 85-D3 (1994)

Rapid Cooling and the Structure of Neutron Stars. *James M. Lattimer, Kenneth A. Van Riper, Madappa Prakash, & Manju Prakash.* 425, 802, 91-F12 (1994)

Be Stars in Young Clusters. *Shaukat N. Goderya & Edward G. Schmidt.* 426, 159, 98-B3 (1994)

The Gap in the Color-Magnitude Diagram of NGC 2420: A Test of Convective Overshoot and Cluster Age. *Pierre Demarque, Ata Sarajedini, & X.-J. Guo.* 426, 165, 98-B12 (1994)

Luminous Blue Variables at Quiescence: The Zone of Avoidance in the Hertzsprung-Russell Diagram. *Richard B. Stothers & Chao-wen Chin.* 426, L43, 103-E13 (1994)

The Determination of the Core Mass at the Helium Flash in Globular Cluster Stars. *Allen V. Sweigart.* 426, 612, 106-A11 (1994)

Formation and Evolution of Luminous Supersoft X-Ray Sources. *S. Rappaport, R. Di Stefano, & J. D. Smith.* 426, 692, 107-A13 (1994)

Post–Asymptotic Giant Branch Evolution of Low- to Intermediate-Mass Stars. *E. Vassiliadis & P. R. Wood.* 92, 125, 33-A4 (1994)

Are Wide Pre–Main-Sequence Binaries Coeval? *Patrick Hartigan, Karen M. Strom, & Stephen E. Strom.* 427, 961, 124-E10 (1994)

Geometry and Physical Conditions in the Stellar Wind of AG Carinae. *Claus Leitherer, Richard Allen, Bruce Altner, Augusto Damineli, Laurent Drissen, Thais Idiart, Olivia Lupie, Antonella Nota, Carmelle Robert, Werner Schmutz, & Steven N. Shore.* 428, 292, 131-G4 (1994)

A Thermal Pulse in Progress in the Nucleus of the Large Magellanic Cloud Planetary Nebula N66. *M. Peña, S. Torres-Peimbert, M. Peimbert, M. T. Ruiz, & J. Maza.* 428, L9, 134-B13 (1994)

Red Giant Stragglers and He White Dwarfs in Galactic Globulars. *V. Castellani, V. Luridiana, & M. Romaniello.* 428, 633, 138-B7 (1994)

The Axisymmetric Stellar Wind of AG Carinae. *Regina E. Schulte-Ladbeck, Geoffrey C. Clayton, D. John Hillier, Tim J. Harries, & Ian D. Howarth.* 429, 846, 156-B13 (1994)

CCD Photometry for Six Metal-rich Galactic Globular Clusters. *Ata Sarajedini & John E. Norris.* 93, 161, 44-A2 (1994)

The Galactic Open Cluster NGC 7419 and Its Five Red Supergiants. *Alain Beauchamp, Anthony F. J. Moffat, & Laurent Drissen.* 93, 187, 44-D3 (1994)

Pulsation and Stability of RR Lyrae Stars. I. Instability Strip. *G. Bono & R. F. Stellingwerf.* 93, 233, 45-A5 (1994)

Star Formation in NGC 4449: MAMA-Detector UV Imagery and Fabry-Perot Balmer-Line Imagery. *Robert S. Hill, Allen T. Home, Andrew M. Smith, Fred C. Bruhweiler, K. P. Cheng, Paul M. N. Hintzen, & Ronald J. Oliversen.* 430, 568, 168-G5 (1994)

A Pulsational Approach to the Luminosity of RR Lyrae Variables. *V. Castellani & R. De Santis.* 430, 624, 169-E11 (1994)
The Puzzle of Silicon, Titanium, and Magnesium Anomalies in Meteoritic Silicon Carbide Grains. *Roberto Gallino, Claudia M. Raiteri, Maurizio Busso, & Francesca Matteucci.* 430, 858, 172-E13 (1994)
Double Core Evolution. VI. Effects of Gravitational Torques. *Ronald E. Taam, Peter Bodenheimer, & Michał Różyczka.* 431, 247, 179-B13 (1994)
Gravitational Radiation from Pairs of Realistic, Nonaccreting Compact Stars. *N. K. Spyrou & K. D. Kokkotas.* 431, 254, 179-C8 (1994)
Helium-accreting Degenerate Dwarfs as Presupernovae and Scenarios for the Ultrasoft X-Ray Sources. *Icko Iben, Jr., & A. V. Tutukov.* 431, 264, 179-D6 (1994)
Merging Neutron Stars. I. Initial Results for Coalescence of Noncorotating Systems. *M. B. Davies, W. Benz, T. Piran, & F. K. Thielemann.* 431, 742, 187-G1 (1994)
Abundances, Planetary Nebulae, and Stellar Evolution. *Lawrence H. Aller.* 432, 427, 201-C1 (1994)
Four Experiments on Thermal Instabilities in Stellar Envelopes. *Alvio Renzini & Claudio Ritossa.* 433, 293, 212-A5 (1994)
Convection, Nucleosynthesis, and Core Collapse. *Grant Bazan & David Arnett.* 433, L41, 215-B9 (1994)
^{7}Li Abundances in Halo Stars: Testing Stellar Evolution Models and the Primordial ^{7}Li Abundance. *Brian Chaboyer & P. Demarque.* 433, 510, 217-C11 (1994)
Episodic Mass Transfer in Binaries with X-Ray Heating. *A. Harpaz & S. Rappaport.* 434, 283, 229-C13 (1994)
On the Formation and Evolution of Super–Asymptotic Giant Branch Stars with Cores Processed by Carbon Burning. I. Spica to Antares. *Enrique García-Berro & Icko Iben, Jr.* 434, 306, 229-F4 (1994)
A CCD Survey for Faint High-Latitude Carbon Stars. *Paul J. Green, Bruce Margon, Scott F. Anderson, & Kem H. Cook.* 434, 319, 229-G6 (1994)
Lithium in a Short-Period Tidally Locked Binary of M67: Implications for Stellar Evolution, Galactic Lithium Evolution, and Cosmology. *Constantine P. Deliyannis, Jeremy R. King, Ann M. Boesgaard, & Sean G. Ryan.* 434, L71, 241-G1 (1994)
The Luminosity Functions of Embedded Stellar Clusters. I. Method of Solution and Analytic Results. *André B. Fletcher & Steven W. Stahler.* 435, 313, 247-F11 (1994)
The Luminosity Functions of Embedded Stellar Clusters. II. Numerical Results. *André B. Fletcher & Steven W. Stahler.* 435, 329, 248-A3 (1994)
GHRS Spectroscopy of Individual Stars in R136a. *Sara R. Heap, Dennis Ebbets, Eliot M. Malumuth, Stephen P. Maran, Alex de Koter, & Ivan Hubeny.* 435, L39, 252-A11 (1994)
WFPC2 Observations of the Double Cluster NGC 1850 in the Large Magellanic Cloud. *R. Gilmozzi, E. K. Kinney, S. P. Ewald, N. Panagia, & M. Romaniello.* 435, L43, 252-B7 (1994)
Far-Ultraviolet Imaging of the Globular Cluster NGC 6681 with WFPC2. *Alan M. Watson, Jeremy R. Mould, John S. Gallagher III, Gilda E. Ballester, Christopher J. Burrows, Stefano Casertano, John T. Clarke, David Crisp, Richard E. Griffiths, J. Jeff Hester, John G. Hoessel, Jon A. Holtzman, Paul A. Scowen, Karl R. Stapelfeldt, John T. Trauger, & James A. Westphal.* 435, L55, 252-D4 (1994)
Sodium in Weak G-Band Giants. *Jeremy J. Drake & David L. Lambert.* 435, 797, 257-A13 (1994)
Classical Cepheids with Terminal Age Main-Sequence Companions: Constraints on Evolution. *Nancy Remage Evans.* 436, 273, 265-A12 (1994)
Comprehensive Stellar Population Models and the Disentanglement of Age and Metallicity Effects. *Guy Worthey.* 95, 107, 65-E2 (1994)
A Study of Carina OB2 Association. II. Analysis and Discussion of the Data. *Beatriz García.* 436, 705, 275-B13 (1994)
Solar Neutrinos: Sensitivity to Pre–Main-Sequence Evolution and to the Depth of the Convective Zone. *John N. Bahcall & Ami Glasner.* 437, 485, 289-F13 (1994)
The Radio Lifetime of Supernova Remnants and the Distribution of Pulsar Velocities at Birth. *D. A. Frail, W. M. Goss, & J. B. Z. Whiteoak.* 437, 781, 296-D2 (1994)
Optically Thick Winds in Nova Outbursts. *Mariko Kato & Izumi Hachisu.* 437, 802, 296-F1 (1994)
Formation and Evolution of Massive Stars. *Martin Beech & R. Mitalas.* 95, 517, 71-D9 (1994)
Massive Stars in the Field and Associations of the Magellanic Clouds: The Upper Mass Limit, the Initial Mass Function, and a Critical Test of Main-Sequence Stellar Evolutionary Theory. *Philip Massey, Cornelia C. Lang, Kathleen DeGioia-Eastwood, & Catharine D. Garmany.* 438, 188, 4-A2 (1995)
Optical Spectroscopy of Carbon-rich Proto–Planetary Nebulae. *Bruce J. Hrivnak.* 438, 341, 6-B10 (1995)
Consequential Angular Momentum Loss and the Period Gap of Cataclysmic Variables. *A. R. King & U. Kolb.* 439, 330, 25-F7 (1995)
Stellar Evolution with Arbitrary Rotation Laws. II. Massive Star Evolution to Core Hydrogen Exhaustion. *Robert G. Deupree.* 439, 357, 26-B1 (1995)
On the Luminosity Function, Lifetimes, and Origin of Blue Stragglers in Globular Clusters. *Charles D. Bailyn & Marc H. Pinsonneault.* 439, 705, 34-C13 (1995)
Tests of Two Convection Theories for Red Giant and Red Supergiant Envelopes. *Richard B. Stothers & Chao-wen Chin.* 440, 297, 45-C3 (1995)
On the Formation of Globular Clusters. II. Early Dynamical Evolution. *J. H. Brown, A. Burkert, & J. W. Truran.* 440, 666, 52-D4 (1995)
Radiative ^{13}C Burning in Asymptotic Giant Branch Stars and *s*-Processing. *O. Straniero, R. Gallino, M. Busso, A. Chieffi, C. M. Raiteri, M. Limongi, & M. Salaris.* 440, L85, 58-B3 (1995)
Ultraviolet Radiation from Evolved Stellar Populations. II. The Ultraviolet Upturn Phenomenon in Elliptical Galaxies. *Ben Dorman, Robert W. O'Connell, & Robert T. Rood.* 442, 105, 78-F6 (1995)
The RR Lyrae Fundamental Red Edge. *G. Bono, F. Caputo, V. Castellani, M. Marconi, L. Staiano, & R. F. Stellingwerf.* 442, 159, 79-D1 (1995)
Magnetic Field Evolution in White Dwarfs: The Hall Effect and Complexity of the Field. *A. G. Muslimov, H. M. Van Horn, & M. A. Wood.* 442, 758, 90-F2 (1995)
Temperatures, Gravities, and Masses for a Sample of Bright DA White Dwarfs and the Initial-to-Final Mass Relation. *Angela Bragaglia, Alvio Renzini, & P. Bergeron.* 443, 735, 108-A7 (1995)
The Radio Detection of SN 1968D in NGC 6946. *Scott D. Hyman, Schuyler D. Van Dyk, Kurt W. Weiler, & Richard A. Sramek.* 443, L77, 112-A2 (1995)
Hydrodynamics of Semiconvection. *William J. Merryfield.* 444, 318, 117-G7 (1995)
On Orbital Circularization in Late-Type Close Binaries. *Jean-Louis Tassoul.* 444, 338, 118-B8 (1995)
The FU Orionis Outburst as a Thermal Accretion Event: Observational Constraints for Protostellar Disk Models. *K. R. Bell, D. N. C. Lin, L. W. Hartmann, & S. J. Kenyon.* 444, 376, 118-F8 (1995)
Absolute Ages of Globular Clusters and the Age of the Universe. *Brian Chaboyer.* 444, L9, 121-C1 (1995)
The Minimum Mass Ratio of W Ursae Majoris Binaries. *Frederic A. Rasio.* 444, L41, 121-G1 (1995)
Extreme Nitrogen Enrichment in the Asymmetrical Planetary Nebula M1-75. *Martín A. Guerrero, Letizia Stanghellini, & Arturo Manchado.* 444, L49, 122-A1 (1995)
Deep Infrared Array Photometry of Globular Clusters. III. M13. *T. J. Davidge & W. E. Harris.* 445, 211, 135-D7 (1995)
Double Core Evolution. VII. The Infall of a Neutron Star through the Envelope of Its Massive Star Companion. *James L. Terman, Ronald E. Taam, & Lars Hernquist.* 445, 367, 137-E9 (1995)
Calibration of Stellar Models. *Alessandro Chieffi, Oscar Straniero, & Maurizio Salaris.* 445, L39, 140-G4 (1995)
Thick to Thin: The Evolutionary Connection between PG 1159 Stars and the Thin Helium–enveloped Pulsating White Dwarf GD 358. *Benjamin T. Dehner & Steven D. Kawaler.* 445, L141, 151-F9 (1995)
The Hot End of Evolutionary Horizontal Branches. *V. Castellani, S. Degl'Innocenti, & L. Pulone.* 446, 228, 156-C8 (1995)
The Ionized Masses of Planetary Nebulae. *David Buckley & Stephen E. Schneider.* 446, 279, 157-B2 (1995)
New Evolutionary Tracks for Very Low Mass Stars. *I. Baraffe, G. Chabrier, F. Allard, & P. H. Hauschildt.* 446, L35, 160-F6 (1995)
The Uncertainties in the Age of Globular Clusters from Their Helium Abundance and Mass Loss. *Xiangdong Shi.* 446, 637, 165-A1 (1995)
Nucleosynthesis and Mixing on the Asymptotic Giant Branch. II. Carbon and Barium Stars in the Galactic Disk. *M. Busso, D. L. Lambert, L. Beglio, R. Gallino, C. M. Raiteri, & V. V. Smith.* 446, 775, 166-F13 (1995)
HST/GHRS Observations of the β Pictoris System: Basic Parameters of the Age of the System. *Thierry Lanz, Sara R. Heap, & Ivan Hubeny.* 447, L41, 181-B5 (1995)
The Intermediate Stellar Mass Population in R136 Determined from *Hubble Space Telescope* Planetary Camera 2 Images. *Deidre A. Hunter, Edward J.*

Shaya, Jon A. Holtzman, Robert M. Light, Earl J. O'Neil, Jr., & Roger Lynds. 448, 179, 194-E7 (1995)

Discrete Mass Loss in a Low-Mass Binary with a Rapidly Spinning Neutron Star. *Alexander Muslimov & Marek J. Sarna.* 448, 289, 196-B12 (1995)

Frictional Heating and Neutron Star Thermal Evolution. *Kenneth A. Van Riper, Bennett Link, & Richard I. Epstein.* 448, 294, 196-C6 (1995)

The Presupernova Evolution and Explosion of Helium Stars That Experience Mass Loss. *S. E. Woosley, Norbert Langer, & Thomas A. Weaver.* 448, 315, 196-E7 (1995)

Binary Models for the Solar Neighborhood and Magellanic Cloud W-R Populations. *William W. Dalton & Craig L. Sarazin.* 448, 369, 197-C6 (1995)

Carbon Isotope Ratios in Very Lithium-rich K Giants. *L. da Silva, R. de la Reza, & B. Barbuy.* 448, L41, 200-A1 (1995)

Identification of Emission-Line Stars in 30 Doradus Using *HST* Observations. *Joel Wm. Parker, Sara R. Heap, & Eliot M. Malumuth.* 448, 705, 204-D11 (1995)

Nebulae around Luminous Blue Variables: A Unified Picture. *Antonella Nota, Mario Livio, Mark Clampin, & Regina Schulte-Ladbeck.* 448, 788, 205-E11 (1995)

Prompt Subsidence of a Proto–Neutron Star into a Black Hole. *N. K. Glendenning.* 448, 797, 205-G9 (1995)

RR Lyrae Variable Stars: Pulsational Constraints Relevant to the Oosterhoff Controversy. *Giuseppe Bono, Filippina Caputo, Vittorio Castellani, & Marcella Marconi.* 448, L115, 209-E3 (1995)

Variable Stars in Magellanic Cloud Clusters. II. NGC 1850. *K. M. Sebo & P. R. Wood.* 449, 164, 212-D8 (1995)

A Model for the Space Density of Dwarf Carbon Stars. *Martijn de Kool & Paul J. Green.* 449, 236, 213-D10 (1995)

Light Curve Studies of SN 1993J and SN 1994I. *Timothy R. Young, E. Baron, & David Branch.* 449, L51, 216-G4 (1995)

CNO Abundances and the Evolutionary Status of Galactic, A-Type Supergiants. *Kim A. Venn.* 449, 839, 224-C11 (1995)

More on the Properties of Star Models Evolving off the Hayashi Track: The Metallicity and Evolutionary Phase Dependence. *Marco Castellani, Marco Limongi, & Amedeo Tornambè.* 450, 275, 231-G1 (1995)

Full Adaptive Optics Images of ADS 9731 and μ Cassiopeiae: Orbits and Masses. *Jack D. Drummond, Julian C. Christou, & Robert Q. Fugate.* 450, 380, 233-B12 (1995)

The Type Ic Supernova 1994I in M51: Detection of Helium and Spectral Evolution. *Alexei V. Filippenko, Aaron J. Barth, Thomas Matheson, Lee Armus, Michael Brown, Brian R. Espey, Xiao-Ming Fan, Robert W. Goodrich, Luis C. Ho, Vesa T. Junkkarinen, David C. Koo, Matthew D. Lehnert, André R. Martel, Joseph M. Mazzarella, Joseph S. Miller, Graeme H. Smith, David Tytler, & Gregory D. Wirth.* 450, L11, 235-E3 (1995)

Ages for Globular Clusters with Predominantly Red Horizontal Branches. *Ata Sarajedini, Young-Wook Lee, & Dong-Han Lee.* 450, 712, 240-E7 (1995)

Sodium Enrichment in A–F Type Supergiants. *Mounib F. El Eid & Arthur E. Champagne.* 451, 298, 250-A9 (1995)

Double Core Evolution. VIII. The Spiral-in of a Main-Sequence Star through the Envelope of an Asymptotic Giant Branch Companion. *Harold W. Yorke, Peter Bodenheimer, & Ronald E. Taam.* 451, 308, 250-B8 (1995)

A Model of the Galactic X-Ray Binary Population. I. High-Mass X-Ray Binaries. *Icko Iben, Jr., Alexander V. Tutukov, & Lev R. Yungelson.* 100, 217, 49-B1 (1995)

Lithium Abundances in δ Scuti Stars and Their Relationship with the Lithium Dip. *Stephen C. Russell.* 451, 747, 257-D13 (1995)

A Period-Luminosity Relation for the Slow Variations of Luminous Blue Variables. *Richard B. Stothers & Chao-wen Chin.* 451, L61, 260-E7 (1995)

Evolutionary Paths in Multiple-Shell Planetary Nebulae. *Letizia Stanghellini & Anna Pasquali.* 452, 286, 266-B1 (1995)

Evidence of Higher Primordial Lithium from Keck Observations of M92. *Constantine P. Deliyannis, Ann Merchant Boesgaard, & Jeremy R. King.* 452, L13, 269-D10 (1995)

Evolutionary Tests of the Planetary Nebula Luminosity Function. *Letizia Stanghellini.* 452, 515, 271-G1 (1995)

Chemical Evolution of the Orion Association. III. The Lithium Abundance of F and G Stars. *Katia Cunha, Verne V. Smith, & David L. Lambert.* 452, 634, 273-D11 (1995)

The Massive Post–Red Supergiants IRC +10420 and HD 179821. *Joel H. Kastner & David A. Weintraub.* 452, 833, 276-B7 (1995)

Can Dust Formation in Evolved Stars Be Suppressed near Active Galactic Nuclei? *T. W. Hartquist, R. H. Durisen, J. E. Dyson, J. M. C. Rawlings, D. A. Williams, & R. J. R. Williams.* 453, 77, 282-C3 (1995)

Radio Detection of Late-Type (G–K) Dwarf Stars in the Pleiades. *Jeremy Lim & Stephen M. White.* 453, 207, 284-A5 (1995)

Properties of the Exceptionally Long-Period AM Herculis System RX J0515.41+0104.6. *J. Frank, J.-P. Lasota, & G. Chanmugam.* 453, 446, 287-C1 (1995)

Flare Production of ^{6}Li in Population II Stars. *Constantine P. Deliyannis & Robert A. Malaney.* 453, 810, 295-A14 (1995)

Lithium in Short-Period Tidally Locked Binaries: A Test of Rotationally Induced Mixing. *Sean G. Ryan & Constantine P. Deliyannis.* 453, 819, 295-B12 (1995)

The Initial Mass Function and Massive Star Evolution in the OB Associations of the Northern Milky Way. *Philip Massey, Kelsey E. Johnson, & Kathleen DeGioia-Eastwood.* 454, 151, 301-C12 (1995)

Observations of the Ultraviolet-Bright Star in 47 Tucanae with the Hopkins Ultraviolet Telescope. *W. Van Dyke Dixon, Arthur F. Davidsen, & Henry C. Ferguson.* 454, L47, 308-B9 (1995)

Pre–Main-Sequence Evolution in the Taurus-Auriga Molecular Cloud. *Scott J. Kenyon & Lee Hartmann.* 101, 117, 54-D3 (1995)

The Evolution and Explosion of Massive Stars. II. Explosive Hydrodynamics and Nucleosynthesis. *S. E. Woosley & Thomas A. Weaver.* 101, 181, 55-B1 (1995)

The OPAL Equation of State and Low-Metallicity Isochrones. *Brian Chaboyer & Yong-Cheol Kim.* 454, 767, 312-C9 (1995)

An Age Estimate for the β Pictoris Analog HR 4796A. *John R. Stauffer, Lee W. Hartmann, & David Barrado y Navascues.* 454, 910, 314-D1 (1995)

The Nonexponential Evolution of Pulsar Magnetic Fields. III. Comparison with the New Velocity Measurement. *Naoki Itoh, Takemi Kotouda, & Kentaro Hiraki.* 455, 244, 321-D13 (1995)

Radio-Frequency Continuum Emission from Evolved Stars. *G. R. Knapp, P. F. Bowers, K. Young, & T. G. Phillips.* 455, 293, 322-B12 (1995)

The Extremely Low Luminosity White Dwarf ESO 439−26. *María Teresa Ruiz, P. Bergeron, S. K. Leggett, & Claudio Anguita.* 455, L159, 334-C13 (1995)

Are Blue Stragglers Mixed during Collisions? *Alison Procter Sills, Charles D. Bailyn, & Pierre Demarque.* 455, L163, 334-D6 (1995)

STARS: FAINT BLUE

The Case Low-Dispersion Northern Sky Survey. XII. A Region in Southern Canes Venatici. *Peter Pesch, N. Sanduleak, & C. B. Stephenson.* 76, 1043, 40-B1 (1991)

STARS: FLARE

Flares on Mira Stars? *Bradley E. Schaefer.* 366, L39, 6-E1 (1991)

Nonthermal Radio Emission from the X-Ray–Bright K5 IV Star 1E 1751+7046. *Stephen L. Skinner.* 368, 272, 26-D11 (1991)

Dynamic Magnetic Reconnection at an X-Type Neutral Point. *I. J. D. Craig & A. N. McClymont.* 371, L41, 66-F1 (1991)

The Extraordinary 1989 December 14/15 Optical Flare Events on V711 Tauri. *Gregory W. Henry & Douglas S. Hall.* 373, L9, 91-B7 (1991)

The Great Flare of 1985 April 12 on AD Leonis. *Suzanne L. Hawley & Bjørn R. Pettersen.* 378, 725, 161-D1 (1991)

Avalanches and the Distribution of Solar Flares. *Edward T. Lu & Russell J. Hamilton.* 380, L89, 188-F5 (1991)

Numerical Simulations of Flares on M Dwarf Stars. I. Hydrodynamics and Coronal X-Ray Emission. *Chung-Chieh Cheng & Roberto Pallavicini.* 381, 234, 191-G12 (1991)

The Origin of the Far-Ultraviolet Continuum in Solar and Stellar Flares. *K. J. H. Phillips, G. E. Bromage, & J. G. Doyle.* 385, 731, 22-B11 (1992)

X-Ray–heated Models of Stellar Flare Atmospheres: Theory and Comparison with Observations. *Suzanne L. Hawley & George H. Fisher.* 78, 565, 10-F1 (1992)

Transient Periodicities in X-Ray–active Red Dwarfs: First Results from Mount Cuba and Interpretation with an Oscillating Loop Model. *D. J. Mullan, R. B. Herr, & S. Bhattacharyya.* 391, 265, 89-C1 (1992)

Detection of a Proton Beam during the Impulsive Phase of a Stellar Flare. *Bruce E. Woodgate, Richard D. Robinson, Kenneth G. Carpenter, Stephen P. Maran, & Steven N. Shore.* 397, L95, 181-C1 (1992)

Another Canonical Time Variation of X-Rays from Black Hole Candidates in the Very High Flare State? *Sigenori Miyamoto, Sayuri Iga, Shunji Kitamoto, & Yasuhide Kamado.* 403, L39, 20-D13 (1993)

A Giant X-Ray Flare on λ Eridani (B2e). *Myron A. Smith, Carol A. Grady, Geraldine J. Peters, & Eric D. Feigelson.* 409, L49, 111-D1 (1993)

A Search for Proton Beams during Flares on AU Microscopii. *R. D. Robinson, K. G. Carpenter, B. E. Woodgate, & S. P. Maran.* 414, 872, 182-B5 (1993)

Extreme Ultraviolet Explorer Deep Survey Observations of a Large Flare on AU Microscopii. *Scott L. Cully, Oswald H. W. Siegmund, Peter W. Vedder, & John V. Vallerga.* 414, L49, 185-B1 (1993)

Simultaneous Optical and *ROSAT* Soft X-Ray Observations of Impulsive Bursts on the Flare Star UV Ceti. *J. H. M. M. Schmitt, Bernhard Haisch, & H. Barwig.* 419, L81, 259-E7 (1993)

A Far-Ultraviolet Flare on a Pleiades G Dwarf. *T. R. Ayres, J. R. Stauffer, Theodore Simon, R. A. Stern, S. K. Antiochos, G. S. Basri, J. A. Bookbinder, A. Brown, G. A. Doschek, J. L. Linsky, L. W. Ramsey, & F. M. Walter.* 420, L33, 7-E4 (1994)

ROSAT Observations of Stellar Flares. *J. H. M. M. Schmitt.* 90, 735, 12-G12 (1994)

Radio Evidence for Nonthermal Particle Acceleration on Stars of Late Spectral Type. *Kenneth R. Lang.* 90, 753, 13-B5 (1994)

Evidence for Particle Acceleration in a Magnetized White Dwarf from Radio and Gamma-Ray Observations. *O. C. De Jager.* 90, 775, 13-D3 (1994)

ROSAT All-Sky Survey Observations of X-Ray Variability in Cool Giant Stars. *Bernhard Haisch & J. H. M. M. Schmitt.* 426, 716, 107-C13 (1994)

High-Velocity Plasma in the Transition Region of AU Microscopii: Evidence for Magnetic Reconnection and Saturated Heating during Quiescent and Flaring Conditions. *Jeffrey L. Linsky & Brian E. Wood.* 430, 342, 163-D8 (1994)

X-Ray Emission on Hybrid Stars: *ROSAT* Observations of α Trianguli Australis and ι Aurigae. *V. Kashyap, R. Rosner, F. R. Harnden, Jr., A. Maggio, G. Micela, & S. Sciortino.* 431, 402, 181-A13 (1994)

A Coronal Mass Ejection Model for the 1992 July 15 Flare on AU Microscopii Observed by the *Extreme Ultraviolet Explorer*. *Scott L. Cully, George H. Fisher, Mark J. Abbott, & Oswald H. W. Siegmund.* 435, 449, 249-E11 (1994)

An *ASCA* Observation of the Castor System. *Eric V. Gotthelf, Lalit Jalota, Koji Mukai, & Nicholas E. White.* 436, L91, 270-A5 (1994)

Correlations between the Flaring Radio Emission and Starspot Distribution of UX Arietis. *Nicholas M. Elias II, Andreas Quirrenbach, Arno Witzel, Christian E. Naundorf, Ralf Wegner, Edward F. Guinan, & George P. McCook.* 439, 983, 38-B13 (1995)

Heating and Ionization of Stellar Chromospheres by Nonthermal Proton Beams: Implications for Impulsive Phase, Redshifted Lyman-α Radiation in Stellar Flares. *Jeffrey W. Brosius, Richard D. Robinson, & Stephen P. Maran.* 441, 385, 64-E13 (1995)

Dynamic Processes in Be Star Atmospheres. III. Rapid Multiwavelength Variability in γ Cassiopeiae. *Myron A. Smith.* 442, 812, 91-D2 (1995)

Coronal Heating in Flare Stars: Resonant MHD Absorption? *D. J. Mullan & M. Johnson.* 444, 350, 118-C12 (1995)

A Search for Stellar Flares in Gamma-Ray Bursts Observed by BATSE and *Ulysses*. *P. Li, K. Hurley, G. J. Fishman, C. Kouveliotou, & D. Hartmann.* 446, 267, 156-G12 (1995)

The Statistical Physics of Solar Active Regions and the Fundamental Nature of Solar Flares. *Edward T. Lu.* 446, L109, 171-E3 (1995)

Emission-Line Pre–Main-Sequence Stars and X-Ray Sources in Orion. *Steven H. Pravdo & Lorella Angelini.* 447, 342, 177-B3 (1995)

Constraints on Energy Storage and Release Models for Astrophysical Transients and Solar Flares. *Edward T. Lu.* 447, 416, 178-B8 (1995)

Extreme-Ultraviolet Spectroscopy and Photometry of EQ Pegasi. *Brunella C. Monsignori Fossi, Massimo Landini, Antonella Fruscione, & Jean Dupuis.* 449, 376, 215-C7 (1995)

A Search for Microflaring Activity on dMe Flare Stars. I. Observations of the dM8e Star CN Leonis. *R. D. Robinson, K. G. Carpenter, J. W. Percival, & J. A. Bookbinder.* 451, 795, 258-B6 (1995)

The Correlation of Solar Flare Temperature and Emission Measure Extrapolated to the Case of Stellar Flares. *U. Feldman, J. M. Laming, & G. A. Doschek.* 451, L79, 261-A8 (1995)

Radio Detection of Late-Type (G–K) Dwarf Stars in the Pleiades. *Jeremy Lim & Stephen M. White.* 453, 207, 284-A5 (1995)

Simultaneous *Extreme-Ultraviolet Explorer* and Optical Observations of AD Leonis: Evidence for Large Coronal Loops and the Neupert Effect in Stellar Flares. *Suzanne L. Hawley, George H. Fisher, Theodore Simon, Scott L. Cully, Susana E. Deustua, Marek Jablonski, Christopher M. Johns-Krull, Bjørn R. Pettersen, Verne Smith, William J. Spiesman, & Jeffrey Valenti.* 453, 464, 287-D14 (1995)

Flare Production of ^{6}Li in Population II Stars. *Constantine P. Deliyannis & Robert A. Malaney.* 453, 810, 295-A14 (1995)

Stellar Activity at the End of the Main Sequence: GHRS Observations of the M8 Ve Star VB 10. *Jeffrey L. Linsky, Brian E. Wood, Alexander Brown, Mark S. Giampapa, & Carol Ambruster.* 455, 670, 331-B10 (1995)

STARS: FORMATION

Abundances of Hydrogen Sulfide in Star-forming Regions. *Y. C. Minh, L. M. Ziurys, W. M. Irvine, & D. McGonagle.* 366, 192, 3-D9 (1991)

On the [O/Fe] versus [Fe/H] Relationship and the Progenitors of Type I Supernovae. *C. Abia, R. Canal, & J. Isern.* 366, 198, 3-E1 (1991)

Far-Infrared and Submillimeter-Wavelength Observations of Star-forming Dense Cores. I. Spectra. *E. F. Ladd, Fred C. Adams, S. Casey, J. A. Davidson, G. A. Fuller, D. A. Harper, P. C. Myers, & R. Padman.* 366, 203, 3-E7 (1991)

The Star-forming Disk and CO Bar in M101. *Jeffrey D. P. Kenney, Nick Z. Scoville, & Christine D. Wilson.* 366, 432, 8-C1 (1991)

Thermal Instabilities in Proto–Globular Clusters Resulting from Time-dependent Potentials. *Stephen D. Murray & Douglas N. C. Lin.* 367, 149, 13-G6 (1991)

Spectroscopy of Taurus Cloud Brown Dwarf Candidates. *John Stauffer, Terry Herter, Donald Hamilton, George H. Rieke, Marcia J. Rieke, Ron Probst, & William Forrest.* 367, L23, 17-D7 (1991)

Effect of a QSO on the Interstellar Medium of Its Host Galaxy. *Smita Shanbhag.* 367, 462, 19-B5 (1991)

Nitrogen Abundance in Comet Halley. *Susan Wyckoff, Stephen C. Tegler, & Lisa Engel.* 367, 641, 21-C1 (1991)

Magnetic Flux Loss from Interstellar Clouds with Various Grain-Size Distributions. *Ryoichi Nishi, Takenori Nakano, & Toyoharu Umebayashi.* 368, 181, 25-C11 (1991)

Excitation of Millimeter and Submillimeter Water Masers. *David A. Neufeld & Gary J. Melnick.* 368, 215, 25-F11 (1991)

Star Clusters in the Clouds of Magellan. *Sidney van den Bergh.* 369, 1, 36-A11 (1991)

A Cosmos Study of IC 1613. *Paul W. Hodge, Toby R. Smith, Paul B. Eskridge, Harvey T. MacGillivray, & Steven M. Beard.* 369, 372, 42-D5 (1991)

Ionization Fronts and Shocked Flows: The Structure of the Orion Nebula at 0.1″. *J. Jeff Hester, R. Gilmozzi, C. R. O'Dell, S. M. Faber, Bel Campbell, Arthur Code, Douglas G. Currie, G. Edward Danielson, S. P. Ewald, Edward J. Groth, Jon A. Holtzman, T. Kelsall, Tod R. Lauer, Robert M. Light, Roger Lynds, Earl J. O'Neil, Jr., Edward J. Shaya, & James A. Westphal.* 369, L75, 46-C7 (1991)

OB Star Formation and H I Production in Molecular Clouds in M33. *Christine D. Wilson & Nick Scoville.* 370, 184, 49-D11 (1991)

Molecular Hydrogen in the Vicinity of NGC 7538 IRS 1 and IRS 2: Temperature and Ortho-to-Para Ratio. *Susan Hoban, Dennis C. Reuter, Michael J. Mumma, & Alex D. Storrs.* 370, 228, 50-A10 (1991)

Star Formation in Taurus-Auriga: The High-Mass Stars. *Frederick M. Walter & William T. Boyd.* 370, 318, 51-C1 (1991)

Star Formation and the Nature of Bipolar Outflows. *Frank H. Shu, Steven P. Ruden, Charles J. Lada, & Susana Lizano.* 370, L31, 53-E1 (1991)

The Effect of an External Disk on the Orbital Elements of a Central Binary. *P. Artymowicz, C. J. Clarke, S. H. Lubow, & J. E. Pringle.* 370, L35, 53-E7 (1991)

A Study of Star Formation in the Disks of Sa Galaxies. *Nelson Caldwell, Robert Kennicutt, Andrew C. Phillips, & Robert A. Schommer.* 370, 526, 54-G12 (1991)

Protostellar Condensations in the Core of NGC 2024. *D. C. Lis, J. E. Carlstrom, & T. G. Phillips.* 370, 583, 55-F5 (1991)

Does Accretion Cease When a Star Approaches Breakup? *Robert Popham & Ramesh Narayan.* 370, 604, 56-A6 (1991)

N_2H^+ in Orion: Chemical Clues to the Dynamics of the Quiescent Gas. *M. Womack, L. M. Ziurys, & S. Wyckoff.* 370, L99, 59-F1 (1991)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. I. The Issues, Formulation of the Problem, and Method of Solution. *Telemachos Ch. Mouschovias & Scott A. Morton.* 371, 296, 63-G1 (1991)

The Rate and Efficiency of High-Mass Star Formation along the Hubble Sequence. *Nicholas A. Devereux & Judith S. Young.* 371, 515, 68-A1 (1991)

Thermal and Nonthermal Motions in Dense Cores. *P. C. Myers, E. F. Ladd, & G. A. Fuller.* 372, L95, 85-E9 (1991)

The Extinction to the H_2 Line Emission in the DR 21 Outflow Source. *Daniel Nadeau, Martin Riopel, & T. R. Geballe.* 372, L103, 85-F5 (1991)
Dynamical Evolution and Molecular Abundances of Interstellar Clouds. *Sheo S. Prasad, Karen R. Heere, & Shankar P. Tarafdar.* 373, 123, 87-E5 (1991)
A Millimeter-Wave Line Study of L1287: A Case of Induced Star Formation by Stellar Wind Compression? *Ji Yang, Tomofumi Umemoto, Takahiro Iwata, & Yasuo Fukui.* 373, 137, 87-F7 (1991)
Magnetic Braking, Ambipolar Diffusion, Cloud Cores, and Star Formation: Natural Length Scales and Protostellar Masses. *Telemachos Ch. Mouschovias.* 373, 169, 88-B3 (1991)
VLBI Observations of Interstellar Ammonia Masers. *Preethi Pratap, Karl M. Menten, Mark J. Reid, James M. Moran, & C. Malcolm Walmsley.* 373, L13, 91-B12 (1991)
Collisional Pumping of H_2O Masers in Star-forming Regions. *Nikolaos D. Kylafis & Colin A. Norman.* 373, 525, 94-D13 (1991)
Nitric Oxide in Star-forming Regions: Further Evidence for Interstellar N-O Bonds. *L. M. Ziurys, D. McGonagle, Y. Minh, & W. M. Irvine.* 373, 535, 94-E11 (1991)
The Dense, Inner Part of the Protostellar Disk: Protostar Candidates in GGD 27 IRS. *Takuya Yamashita, Yasuhiro Murata, Ryohei Kawabe, Norio Kaifu, & Motohide Tamura.* 373, 560, 95-A1 (1991)
Probing the Core of Cepheus A: Millimeter and Submillimeter Observations. *G. H. Moriarty-Schieven, R. L. Snell, & V. A. Hughes.* 374, 169, 100-B3 (1991)
Two Micron Morphology of Candidate Protostars. *Motohide Tamura, Ian Gatley, William Waller, & Michael W. Werner.* 374, L25, 103-E7 (1991)
The Collapse of Cylindrical Isothermal and Polytropic Clouds with Rotation. *Ian Bonnell & Pierre Bastien.* 374, 610, 106-F5 (1991)
Rosseland and Planck Mean Opacities of a Zero-Metallicity Gas. *Paolo Lenzuni, David F. Chernoff, & Edwin E. Salpeter.* 76, 759, 35-B13 (1991)
The Evolution of Intermediate-Mass Protostars. I. Basic Results. *Francesco Palla & Steven W. Stahler.* 375, 288, 114-E1 (1991)
The Properties of NGC 2777: Are Companion Galaxies Young? *Halton Arp & Jack W. Sulentic.* 375, 569, 119-G1 (1991)
The Dynamical Evolution of the Protosolar Nebula. *Steven P. Ruden & James B. Pollack.* 375, 740, 121-G11 (1991)
The Equilibria and Evolutions of Magnetized, Rotating, Isothermal Clouds. V. The Effect of the Toroidal Field. *Kohji Tomisaka.* 376, 190, 127-C11 (1991)
NGC 1333 IRAS 4: A Very Young, Low-Luminosity Binary System. *Göran Sandell, Colin Aspin, William D. Duncan, Adrian P. G. Russell, & E. Ian Robson.* 376, L17, 130-C1 (1991)
Dense Cores in Dark Clouds. VI. Shapes. *P. C. Myers, G. A. Fuller, A. A. Goodman, & P. J. Benson.* 376, 561, 133-D1 (1991)
Testing Models of Low-Mass Star Formation: High-Resolution Far-Infrared Observations of L1551 IRS 5. *Harold M. Butner, Neal J. Evans II, Daniel F. Lester, Russell M. Levreault, & Stephen E. Strom.* 376, 636, 134-C6 (1991)
A Numerical Study of Star Formation in Interacting Disk Galaxies. *J. Christopher Mihos, Douglas O. Richstone, & Gregory D. Bothun.* 377, 72, 139-A1 (1991)
Two Micron Spectroscopy of Infrared Sources in NGC 2071. *D. M. Walther, T. R. Geballe, & E. I. Robson.* 377, 246, 141-A9 (1991)
The Molecular Structure of a Starburst: ^{13}CO in the Nucleus of Maffei 2. *Robert L. Hurt & Jean L. Turner.* 377, 434, 145-B8 (1991)
On Molecular Cloud Scaling Laws and Star Formation. *R. N. Henriksen.* 377, 500, 146-A1 (1991)
U-shaped Outflow in the Lynds 1221 Dark Cloud: An Example of Interaction of Outflows with Ambient Molecular Clouds. *Tomofumi Umemoto, Naomi Hirano, Osamu Kameya, Yasuo Fukui, Nario Kuno, & Keiya Takakubo.* 377, 510, 146-A13 (1991)
The Dense Molecular Envelope around the Compact H II Region G5.89−0.39 (W28 A2). *Yolanda Gómez, Luis F. Rodríguez, Guido Garay, & James M. Moran.* 377, 519, 146-B9 (1991)
Fragmentation of Elongated Cylindrical Clouds. III. Formation of Binary and Multiple Systems. *Ian Bonnell, Hugo Martel, Pierre Bastien, Jean-Pierre Arcoragi, & Willy Benz.* 377, 553, 146-E5 (1991)
Compact Starbursts in Ultraluminous Infrared Galaxies. *J. J. Condon, Z.-P. Huang, Q. F. Yin, & T. X. Thuan.* 378, 65, 151-G5 (1991)
Topography of the Galactic Disk: Z-Structure and Large-Scale Star Formation. *Emilio J. Alfaro, Jesús Cabrera-Caño, & Antonio J. Delgado.* 378, 106, 152-C10 (1991)
Fragmentation of Elongated Cylindrical Clouds. I. Isothermal Clouds. *Pierre Bastien, Jean-Pierre Arcoragi, Willy Benz, Ian Bonnell, & Hugo Martel.* 378, 255, 154-B5 (1991)
Infrared Polarization Images of Star-forming Regions. I. The Ubiquity of Bipolar Structure. *M. Tamura, Ian Gatley, R. R. Joyce, M. Ueno, H. Suto, & M. Sekiguchi.* 378, 611, 160-A1 (1991)
Massive Star Formation and Superwinds in IRAS 19254−7245 (The "Superantennae"). *Luis Colina, Sebastian Lípari, & F. Macchetto.* 379, 113, 164-D5 (1991)
An Observational Connection between Circumstellar Disk Mass and Molecular Outflows. *Sylvie Cabrit & Philippe André.* 379, L25, 169-C6 (1991)
A Catalog of Bright-rimmed Clouds with *IRAS* Point Sources: Candidates for Star Formation by Radiation-driven Implosion. I. The Northern Hemisphere. *Koji Sugitani, Yasuo Fukui, & Katsuo Ogura.* 77, 59, 44-B1 (1991)
Star Formation and the Molecular Content of IC 342. *Leslie J. Sage & P. M. Solomon.* 380, 392, 183-B7 (1991)
Millimeter Continuum Observations of Galactic Center Giant Molecular Cloud Cores. *D. C. Lis, J. E. Carlstrom, & Jocelyn Keene.* 380, 429, 183-E7 (1991)
Fragmentation of Elongated Cylindrical Clouds. II. Polytropic Clouds. *Jean-Pierre Arcoragi, Ian Bonnell, Hugo Martel, Willy Benz, & Pierre Bastien.* 380, 476, 184-B7 (1991)
The Discovery of a New, Very Strong, and Widespread Interstellar Methanol Maser Line. *Karl M. Menten.* 380, L75, 188-E1 (1991)
The Starburst Ring around the Seyfert Nucleus in NGC 7469. *A. S. Wilson, T. T. Helfer, C. A. Haniff, & M. J. Ward.* 381, 79, 190-A6 (1991)
Orbit Crowding of Molecular Gas at a Bar-Spiral Arm Transition Zone in M83. *Jeffrey D. P. Kenney & Steven D. Lord.* 381, 118, 190-D13 (1991)
Recent Star Formation in the Interacting Galaxy System NGC 520. *S. A. Stanford.* 381, 409, 195-G1 (1991)
On the Evolution of Gravitationally Unstable Protostellar Disks. *Leslie Tomley, Patrick Cassen, & Thomas Steiman-Cameron.* 382, 530, 208-B6 (1991)
Asymptotic Theory for the Spatial Distribution of Protostellar Emission. *Fred C. Adams.* 382, 544, 208-C8 (1991)
First Observations of the CO $J = 6$–5 Transition in Starburst Galaxies. *A. I. Harris, R. E. Hills, J. Stutzki, U. U. Graf, A. P. G. Russell, & R. Genzel.* 382, L75, 211-C7 (1991)
The Formation of Primordial Binaries in Globular Clusters by Star-Disk Interactions. *Stephen D. Murray, C. J. Clarke, & J. E. Pringle.* 383, 192, 214-D7 (1991)
Time-dependent Radio Sources in the Star-forming Region Cepheus A (East). *V. A. Hughes.* 383, 280, 215-F1 (1991)
Gravitational Fragmentation: A Comparison with W49A. *Eric R. Keto, John C. Lattanzio, & Joe J. Monaghan.* 383, 639, 222-B12 (1991)
Aperture Synthesis CS(2–1) Observations of a Young Stellar Object GL 490: Accretion Flow in Gas Disk. *Akiko Nakamura, Ryohei Kawabe, Yoshimi Kitamura, Masato Ishiguro, Yasuhiro Murata, & Nagayoshi Ohashi.* 383, L81, 226-F5 (1991)
^{13}CO in IC 342: Evidence for a Spiral Density Wave in the Nucleus. *Jean L. Turner & Robert L. Hurt.* 384, 72, 1-G13 (1992)
The Zeeman Effect in Astrophysical Water Masers and the Observation of Strong Magnetic Fields in Regions of Star Formation. *Gerald E. Nedoluha & William D. Watson.* 384, 185, 3-C5 (1992)
The Origin of the Optical Emission Lines Associated with Extragalactic Radio Sources. *S. M. Viegas & Elisabete M. de Gouveia Dal Pino.* 384, 467, 8-A1 (1992)
On the Origin of Submillimeter Emission from Young Stars in Taurus-Auriga. *Mary Barsony & Scott J. Kenyon.* 384, L53, 11-D1 (1992)
A Study of the Stellar Population in the Chamaeleon Dark Clouds. *Lisa S. Gauvin & Karen M. Strom.* 385, 217, 14-F1 (1992)
The Molecular Core in G34.3+0.2: Millimeter Interferometric Observations of HCO^+, $H^{13}CN$, $HC^{15}N$, and SO. *Patricia Carral & William J. Welch.* 385, 244, 15-A4 (1992)
Discovery of Outflows from Young Stellar Objects in Bok Globules. *João Lin Yun & Dan P. Clemens.* 385, L21, 17-C6 (1992)
Origin of Far-Infrared Emission in Seyfert and Starburst Galaxies. *Hideaki Mouri & Yoshiaki Taniguchi.* 386, 68, 25-A1 (1992)
Numerical Models for the Collapse and Fragmentation of Centrally Condensed Molecular Cloud Cores. *Elizabeth A. Myhill & William M. Kaula.* 386, 578, 32-E4 (1992)
A Survey of CS $J = 7 \rightarrow 6$ in Regions of Massive Star Formation. *René Plume, D. T. Jaffe, & Neal J. Evans II.* 78, 505, 9-F5 (1992)

Evolution of Spiral Galaxies. I. Halo-Disk Connection for the Evolution of the Solar Neighborhood. *Federico Ferrini, Francesca Matteucci, Chiara Pardi, & Umberto Penco.* 387, 138, 38-F5 (1992)

A Triggering Mechanism for Enhanced Star Formation in Colliding Galaxies. *Chanda J. Jog & P. M. Solomon.* 387, 152, 38-G6 (1992)

Properties of Swept-up Molecular Outflows. *Colin R. Masson & Lawrence M. Chernin.* 387, L47, 43-F1 (1992)

The Molecular Hydrogen Emission around L1551 IRS 5: Shock- Heated Molecular Gas at the Base of the Molecular Outflow. *Takuya Yamashita & Motohide Tamura.* 387, L93, 48-E5 (1992)

The Star Formation History of the Large Magellanic Cloud. *Gianpaolo Bertelli, Mario Mateo, Cesare Chiosi, & Alessandro Bressan.* 388, 400, 55-C11 (1992)

The Stability of Accretion Tori. IV. Fission and Fragmentation of Slender, Self-gravitating Annuli. *Dimitris M. Christodoulou & Ramesh Narayan.* 388, 451, 56-A1 (1992)

Subarcsecond Mid-Infrared Imaging of the Nuclei of the Infrared Bright Galaxies NGC 1614 and NGC 7469. *Eric Keto, Roger Ball, John Arens, Garrett Jernigan, & Margaret Meixner.* 389, 223, 62-F9 (1992)

The Juggler: A Three-lobed Near-Infrared Reflection Nebula toward CRL 2136 = OH 17.6+0.2. *Joel H. Kastner, David A. Weintraub, & C. Aspin.* 389, 357, 64-D1 (1992)

Thermal Dust Imaging: The Onset of Asymmetry in the Ultracompact H II Region G5.89−0.39. *Roger Ball, John F. Arens, J. Garrett Jernigan, Eric Keto, & Margaret M. Meixner.* 389, 616, 69-B1 (1992)

Star Formation and the Distribution of H I and Infrared Emission in M51. *Richard J. Rand, Shrinivas R. Kulkarni, & W. Rice.* 390, 66, 74-G9 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. II. Results and a Length Scale for Protostellar Cores. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 144, 75-G1 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. III. A Further Parameter Study and Magnetically Controlled Accretion Rate. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 166, 76-A11 (1992)

Probing the Circumstellar Environments of Very Young Low-Mass Stars Using Water Masers. *S. Terebey, S. N. Vogel, & P. C. Myers.* 390, 181, 76-C1 (1992)

Bipolar Outflow in B335: The Small-Scale Structure. *Naomi Hirano, Osamu Kameya, Takashi Kasuga, & Tomofumi Umemoto.* 390, L85, 85-B1 (1992)

Ambipolar Diffusion and Star Formation: Formation and Contraction of Axisymmetric Cloud Cores. I. Formulation of the Problem and Method of Solution. *Robert A. Fiedler & Telemachos Ch. Mouschovias.* 391, 199, 88-D12 (1992)

Far-Ultraviolet MAMA Detector Imagery and Emission-Line CCD Imagery of NGC 6240. *Andrew M. Smith, Robert S. Hill, Frederick J. Vrba, & J. Gethyn Timothy.* 391, L81, 99-F5 (1992)

Initiation of Bipolar Flows by Magnetic Field Twisting in Protostellar Nebulae. *William I. Newman, Alice L. Newman, & Richard V. E. Lovelace.* 392, 622, 110-A1 (1992)

The Outflow in the L1157 Dark Cloud: Evidence for Shock Heating of the Interacting Gas. *T. Umemoto, T. Iwata, Y. Fukui, H. Mikami, S. Yamamoto, O. Kameya, & N. Hirano.* 392, L83, 113-E6 (1992)

Detection of SiO Emission in the L1157 Dark Cloud. *Hitomi Mikami, Tomofumi Umemoto, Satoshi Yamamoto, & Shuji Saito.* 392, L87, 113-E11 (1992)

The Formation of Primordial Degenerate Protostars. *Paolo Lenzuni, David F. Chernoff, & Edwin E. Salpeter.* 393, 232, 117-A11 (1992)

Global Star Formation in the L1630 Molecular Cloud. *Elizabeth A. Lada.* 393, L25, 120-D7 (1992)

Water Masers in W49N—The Youngest Stellar Jet? *Mordecai-Mark Mac Low & Moshe Elitzur.* 393, L33, 120-E6 (1992)

Color Gradients in Cooling Flows in Clusters of Galaxies. *Brian R. McNamara & Robert W. O'Connell.* 393, 579, 123-B1 (1992)

In Search of Evidence for Protostellar Collapse: A Systematic Study of Line Formation in Low-Mass Dense Cores. *Shudong Zhou.* 394, 204, 130-E4 (1992)

Planar H_2O Masers in Star-forming Regions. *Moshe Elitzur, David J. Hollenbach, & Christopher F. McKee.* 394, 221, 130-F10 (1992)

Star Formation in Protogalactic Clouds. *Douglas N. C. Lin & Stephen D. Murray.* 394, 523, 135-G8 (1992)

Implications of Ultraviolet Imaging Telescope Observations for Star Formation Histories in NGC 1275. *Eric P. Smith, Robert W. O'Connell, Ralph C. Bohlin, Kwang-Ping Cheng, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Paul Hintzen, Wayne B. Landsman, Susan G. Neff, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L49, 145-D9 (1992)

Evidence for a Wind-swept Cavity in HH 34? *Alexander Rudolph & William J. Welch.* 395, 488, 148-F3 (1992)

Global Aspects of Dynamics and Star Formation in Taurus. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 395, 501, 148-G13 (1992)

Twin Peaks of CO Emission in the Central Regions of Barred Galaxies. *Jeffrey D. P. Kenney, Christine D. Wilson, Nick Z. Scoville, Nicholas A. Devereux, & Judith S. Young.* 395, L79, 153-G5 (1992)

Extremely High Velocity CO Emission from NGC 2071. *Lawrence M. Chernin & Colin R. Masson.* 396, L35, 160-F8 (1992)

Density Structure and Star Formation in Dense Cores with Thermal and Nonthermal Motions. *P. C. Myers & G. A. Fuller.* 396, 631, 165-C1 (1992)

On the Use of Far-Infrared Luminosity as a Star Formation Indicator in Galaxies. *Marc Sauvage & Trinh X. Thuan.* 396, L69, 167-A9 (1992)

On the Detectability of the Gas of Other Solar Nebulae. *Toshihiro Omodaka, Yoshimi Kitamura, & Eiko Kawazoe.* 396, L87, 167-C7 (1992)

[C I] Emission at $z = 2.286$ in the Protogalaxy IRAS F10214+4724. *Robert L. Brown & Paul A. Vanden Bout.* 397, L11, 173-B10 (1992)

IRAS F10214+4724: An Extended CO Emission Source at $z = 2.2867$. *Robert L. Brown & Paul A. Vanden Bout.* 397, L19, 173-C6 (1992)

Dusty Disks in the Multiple Systems UZ Tauri and GG Tauri. *M. Simon & S. Guilloteau.* 397, L47, 173-F9 (1992)

IRAS Observations and the Stellar Content of H II Regions in the Large Magellanic Cloud. *Kathleen DeGioia-Eastwood.* 397, 542, 177-F7 (1992)

Resolving the Forbidden-Line Emission Regions of Young Stellar Objects: DD Tauri. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 397, L107, 181-D7 (1992)

High-Velocity HCO^+ Emission from L1551 IRS 5: Evidence for Wind-Cloud Interactions. *Alexander Rudolph.* 397, L111, 181-D13 (1992)

^{26}Al and Time Scales of the Solar Nebula. *Kurt Liffman.* 398, L111, 194-F1 (1992)

Large Infrared and Optical Color Gradients in the Cartwheel Ring Galaxy: Evidence for the First Epoch of Star Formation in the Wake of an Expanding Ring. *P. M. Marcum, P. N. Appleton, & J. L. Higdon.* 399, 57, 195-G3 (1992)

Near-resonant Excitation and Propagation of Eccentric Density Waves by External Forcing. *Eve C. Ostriker, Frank H. Shu, & Fred C. Adams.* 399, 192, 197-E13 (1992)

Infrared Line Diagnostics of Active Galactic Nuclei. *Luigi Spinoglio & Matthew A. Malkan.* 399, 504, 204-B11 (1992)

Corrugations and Star Formation Activity: The Carina-Sagittarius Arm. *Emilio J. Alfaro, Jesús Cabrera-Caño, & Antonio J. Delgado.* 399, 576, 205-A9 (1992)

Galaxy Formation and Physical Bias. *Renyue Cen & Jeremiah P. Ostriker.* 399, L113, 207-F7 (1992)

Cool Mass-losing Boundary Layers of T Tauri Accretion Disks. *Claude Bertout & Oded Regev.* 399, L163, 208-E1 (1992)

Models of Star Formation in Interacting and Merging Disk Galaxies. *J. Christopher Mihos, Douglas O. Richstone, & Gregory D. Bothun.* 400, 153, 210-G4 (1992)

Globular Cluster Formation: The Fossil Record. *Stephen D. Murray & Douglas N. C. Lin.* 400, 265, 212-C3 (1992)

Interacting H_2O Masers in Star-forming Regions. *Nikolaos D. Kylafis & Konstantinos G. Pavlakis.* 400, 344, 213-B12 (1992)

Starbursts Triggered by Central Overpressure in Interacting Galaxies. *Chanda J. Jog & Mousumi Das.* 400, 476, 216-C1 (1992)

Fragmentation of Elongated Cylindrical Clouds. IV. Clouds with Solid-Body Rotation about an Arbitrary Axis. *Ian Bonnell, Jean-Pierre Arcoragi, Hugo Martel, & Pierre Bastien.* 400, 579, 217-E8 (1992)

A Binary Origin for FU Orionis Stars. *Ian Bonnell & Pierre Bastien.* 401, L31, 227-E1 (1992)

VLBI Observations of the 6.7 GHz Methanol Masers toward W3(OH). *K. M. Menten, M. J. Reid, P. Pratap, J. M. Moran, & T. L. Wilson.* 401, L39, 227-F1 (1992)

Fragmentation of Elongated Cylindrical Clouds. V. Dependence of Mass Ratios on Initial Conditions. *Ian Bonnell & Pierre Bastien.* 401, 654, 230-F1 (1992)

Protostellar Hydrodynamics: Constructing and Testing a Spatially and Temporally Second-Order–accurate Method. I. Spherical Coordinates. *Alan P. Boss & Elizabeth A. Myhill.* 83, 311, 62-B13 (1992)

Tidally Triggered Galaxy Formation. II. Galaxy Number Counts. *Cedric Lacey, Bruno Guiderdoni, Brigitte Rocca-Volmerange, & Joseph Silk.* 402, 15, 1-C6 (1993)

Dust Temperature Distributions in Star-forming Condensations. *Taoling Xie, Paul F. Goldsmith, Ronald L. Snell, & Weimin Zhou.* 402, 216, 3-F11 (1993)

Millimeter-Wavelength Aperture Synthesis Observations of Massive Star-forming Regions in Sagittarius B2. *D. C. Lis, P. F. Goldsmith, J. E. Carlstrom, & N. Z. Scoville.* 402, 238, 4-A12 (1993)

Gravitational Formation Times and Stellar Mass Distributions for Stars of Mass 0.3–30 $M_{\odot}$. *P. C. Myers & G. A. Fuller.* 402, 635, 10-E1 (1993)

OH and H_2O Masers in Sagittarius B1: Evidence for Ongoing Star Formation. *David M. Mehringer, Patrick Palmer, & W. M. Goss.* 402, L69, 13-A1 (1993)

Magnetic Nonthermal Activity in the T Tauri System. *Robert B. Phillips, Colin J. Lonsdale, & Eric D. Feigelson.* 403, L43, 20-E5 (1993)

An *IUE* Search for Star Formation in Ellipticals with Gaseous Disks. *Francesco Bertola, David Burstein, Lucio M. Buson, & Alvio Renzini.* 403, 577, 22-G1 (1993)

Formation of Globular Clusters from Gas in Large-Scale Unorganized Motion in Galaxies. *Yasuki Kumai, Baidyanath Basu, & Mitsuaki Fujimoto.* 404, 144, 29-G1 (1993)

Evidence for Protostellar Collapse in B335. *Shudong Zhou, Neal J. Evans II, Carsten Kömpe, & C. M. Walmsley.* 404, 232, 30-F11 (1993)

PIG (Partially Ionized Globule) Anatomy: Density and Temperature Structure of the Bright-rimmed Globule IC 1396E. *E. Serabyn, R. Güsten, & L. Mundy.* 404, 247, 31-A1 (1993)

Magnetic Field in a Low-Mass Protostar Disk: Millimeter Polarimetry of IRAS 16293−2422. *Motohide Tamura, Saeko S. Hayashi, Takuya Yamashita, William D. Duncan, & James H. Hough.* 404, L21, 33-F1 (1993)

Molecular Cloud Cores in the Orion A Cloud. I. Nobeyama CS (1–0) Survey. *Ken'ichi Tatematsu, Tomofumi Umemoto, Osamu Kameya, Naomi Hirano, Tetsuo Hasegawa, Masahiko Hayashi, Takahiro Iwata, Norio Kaifu, Hitomi Mikami, Yasuhiro Murata, Makoto Nakano, Takenori Nakano, Nagayoshi Ohashi, Kazuyoshi Sunada, Hiroshi Takaba, & Satoshi Yamamoto.* 404, 643, 37-A5 (1993)

Discovery of a Rotating Protoplanetary Gas Disk around the Young Star GG Tauri. *R. Kawabe, M. Ishiguro, T. Omodaka, Y. Kitamura, & S. M. Miyama.* 404, L63, 40-E1 (1993)

CO Lines toward NGC 2024 and Other Star-forming Regions: A Closer Look at the Warm Gas Component. *U. U. Graf, A. Eckart, R. Genzel, A. I. Harris, A. Poglitsch, A. P. G. Russell, & J. Stutzki.* 405, 249, 44-B13 (1993)

An *IRAS* Survey of Star-forming Regions toward Cygnus. *Sten F. Odenwald & Phil R. Schwartz.* 405, 706, 51-G7 (1993)

The Internal Mass Distribution of a Giant Molecular Cloud without Star Formation. *Jonathan P. Williams & Leo Blitz.* 405, L75, 54-E1 (1993)

N_2H^+ in the Orion Ambient Ridge: Cloud Clumping versus Rotation. *Maria Womack, L. M. Ziurys, & L. J. Sage.* 406, L29, 61-A1 (1993)

Dense Cores in Dark Clouds. VIII. Velocity Gradients. *A. A. Goodman, P. J. Benson, G. A. Fuller, & P. C. Myers.* 406, 528, 64-D3 (1993)

Heavy-Element Abundances and Massive Star Formation. *Boqi Wang & Joseph Silk.* 406, 580, 65-B1 (1993)

Fragmentation of Elongated Cylindrical Clouds. VI. Comparison with Observations. *Ian Bonnell & Pierre Bastien.* 406, 614, 65-E1 (1993)

The Circumstellar Density Distribution of L1551NE. *M. Barsony & C. J. Chandler.* 406, L71, 68-E1 (1993)

Near-Infrared Observations of the HH 111 Region. *Roland Gredel & Bo Reipurth.* 407, L29, 75-D1 (1993)

Chemical and Luminosity Evolution, and Counts of Galaxies in a Merger Model. *P. Colín & D. N. Schramm.* 407, 510, 77-A1 (1993)

Dynamical Instabilities in Two-Phase Media and the Minimum Masses of Stellar Systems. *Stephen D. Murray, Simon D. M. White, John M. Blondin, & Douglas N. C. Lin.* 407, 588, 77-G11 (1993)

Infrared and Optical Imaging of *IRAS* Sources with CO Outflow: A Snapshot of Early Star Formation. *H. Chen, A. T. Tokunaga, K. M. Strom, & K.-W. Hodapp.* 407, 639, 78-E4 (1993)

Embedded Star Clusters Associated with Luminous *IRAS* Point Sources. *John M. Carpenter, Ronald L. Snell, F. Peter Schloerb, & M. F. Skrutskie.* 407, 657, 78-F11 (1993)

Centrifugally Driven Winds from Protostellar Disks. I. Wind Model and Thermal Structure. *Pedro N. Safier.* 408, 115, 84-E6 (1993)

The Spectral Energy Distribution of Star-forming Regions. *Ralf Siebenmorgen.* 408, 218, 85-G3 (1993)

Multiplicity and the Ages of the Stars in the Taurus Star-forming Region. *M. Simon, A. M. Ghez, & Ch. Leinert.* 408, L33, 89-B1 (1993)

Infrared Images of the Young Cluster NGC 2264. *Charles J. Lada, Erick T. Young, & Thomas P. Greene.* 408, 471, 91-A11 (1993)

Massive Star Formation near the Galactic Center and the Fate of the Stellar Remnants. *Mark Morris.* 408, 496, 91-D1 (1993)

Chemical Differentiation between Star-forming Regions: The Orion Hot Core and Compact Ridge. *P. Caselli, T. I. Hasegawa, & Eric Herbst.* 408, 548, 92-A11 (1993)

Gas and Dust in the Pre–Main-Sequence Multiple System GG Tauri. *D. W. Koerner, A. I. Sargent, & S. V. W. Beckwith.* 408, L93, 95-D7 (1993)

Near-Infrared Discovery of the L810 Nebula Illuminator. *João Lin Yun, Dan P. Clemens, Mark J. McCaughrean, & Marcia Rieke.* 408, L101, 95-E9 (1993)

21 Centimeter Study of Spiral Galaxies in Clusters. III. Neutral Gas Content, Star Formation, and Radio Continuum Properties. *Marco Scodeggio & Giuseppe Gavazzi.* 409, 110, 98-C8 (1993)

Evolution of Elliptical Galaxies. I. The Multiphase Model. *Federico Ferrini & Bianca Maria Poggianti.* 410, 44, 112-F4 (1993)

A Similarity Solution to the Kinematic $\alpha^2\omega$ Dynamo Equation with Time-dependent Coefficients. *Chung-Ming Ko.* 410, 128, 113-F8 (1993)

Collapse and Fragmentation of Molecular Cloud Cores. I. Moderately Centrally Condensed Cores. *Alan P. Boss.* 410, 157, 114-B1 (1993)

Discovery of New Objects in the Orion Nebula on *HST* Images: Shocks, Compact Sources, and Protoplanetary Disks. *C. R. O'Dell, Zheng Wen, & Xihai Hu.* 410, 696, 122-C11 (1993)

The Formation of Protostellar Disks. I. 1 $M_{\odot}$. *Harold W. Yorke, Peter Bodenheimer, & Gregory Laughlin.* 411, 274, 130-E13 (1993)

The Inner-Disk and Stellar Properties of the Young Stellar Object WL 16. *John S. Carr, Alan T. Tokunaga, Joan Najita, Frank H. Shu, & Alfred E. Glassgold.* 411, L37, 134-A13 (1993)

Bifurcation Analysis of a Simple Analytic Model of Self-propagating Star Formation. *Thomas Neukirch & Michael Hesse.* 411, 840, 140-C5 (1993)

An Alternative to Unseen Companions to T Tauri Stars. *Alan P. Boss & Harold W. Yorke.* 411, L99, 142-F11 (1993)

Starburst Modeling of M82: Test Case for a Biased Initial Mass Function. *G. H. Rieke, K. Loken, M. J. Rieke, & P. Tamblyn.* 412, 99, 143-C9 (1993)

Magnetohydrodynamic Wave Propagation in One-dimensional Nonhomogeneous, Self-gravitating Clouds. *Marco Fatuzzo & Fred C. Adams.* 412, 146, 143-G10 (1993)

Synthesis Images of 6.7 GHz Methanol Masers. *R. P. Norris, J. B. Whiteoak, J. L. Caswell, M. H. Wieringa, & R. G. Gough.* 412, 222, 144-G8 (1993)

Infrared Luminosity Functions for the Young Stellar Population Associated with the L1641 Molecular Cloud. *Karen M. Strom, Stephen E. Strom, & K. M. Merrill.* 412, 233, 145-A8 (1993)

Subarcsecond Images of CW Tauri: Constraints on Disk Size and Jet Formation. *Ana I. Gómez de Castro.* 412, L43, 148-E5 (1993)

Stellar Birthrate in the Galaxy: Constraints from X-Ray Flux-limited Surveys. *G. Micela, S. Sciortino, & F. Favata.* 412, 618, 151-D10 (1993)

Radio Continuum and Radio Recombination Line Observations of Sagittarius B2. *David M. Mehringer, Patrick Palmer, W. M. Goss, & F. Yusef-Zadeh.* 412, 684, 152-C11 (1993)

The Stability of Accretion Tori. V. Unstable Modes and Avoided Crossings in Extended, Self-gravitating Annuli. *Dimitris M. Christodoulou.* 412, 696, 152-D13 (1993)

The Discovery of Two FU Orionis Objects in L1641. *Karen M. Strom & Stephen E. Strom.* 412, L63, 155-D1 (1993)

Infrared CO Emission from Young Stars: High-Resolution Spectroscopy. *C. J. Chandler, J. E. Carlstrom, N. Z. Scoville, W. R. F. Dent, & T. R. Geballe.* 412, L71, 155-D13 (1993)

The Molecular Gas and Star Formation in *IRAS* Bright Early-Type Disk Galaxies. I. NGC 7625. *Jonathan G. Li, E. R. Seaquist, J. M. Wrobel, Zhong Wang, & L. J. Sage.* 413, 150, 158-A6 (1993)

Fragmentation and Kinematics of the W49N Cloud Core. *E. Serabyn, R. Güsten, & A. Schulz.* 413, 571, 163-E9 (1993)

The Detection of a New Methanol Maser Transition at 9.9 GHz. *V. I. Slysh, S. V. Kalenskii, & I. E. Val'tts.* 413, L133, 169-C6 (1993)

The Faintest Stars: The Luminosity and Mass Functions at the Bottom of the Main Sequence. *Christopher G. Tinney.* 414, 279, 173-D12 (1993)

The Small-Scale Structure and Kinematics of B335. *Claire J. Chandler & Anneila I. Sargent.* 414, L29, 175-E13 (1993)

Induced Star Formation in a Radio Lobe of 3C 285? *Wil J. M. van Breugel & Arjun Dey.* 414, 563, 178-C3 (1993)

The Embedded Young Stars in the Taurus-Auriga Molecular Cloud. I. Models for Spectral Energy Distributions. *Scott J. Kenyon, Nuria Calvet, & Lee Hartmann.* 414, 676, 179-F1 (1993)

The Embedded Young Stars in the Taurus-Auriga Molecular Cloud. II. Models for Scattered Light Images. *Scott J. Kenyon, Barbara A. Whitney, Mercedes Gomez, & Lee Hartmann.* 414, 773, 180-G9 (1993)

The Triple Radio Continuum Source in Serpens: The Birth of a Herbig-Haro System? *S. Curiel, L. F. Rodríguez, J. M. Moran, & J. Cantó.* 415, 191, 187-D5 (1993)

Star Formation in the L1641 North Cluster. *Klaus-Werner Hodapp & James Deane.* 88, 119, 42-A1 (1993)

Ambipolar Diffusion and Star Formation: Formation and Contraction of Axisymmetric Cloud Cores. II. Results. *Robert A. Fiedler & Telemachos Ch. Mouschovias.* 415, 680, 196-C7 (1993)

Hubble Space Telescope Images of the Subarcsecond Jet in DG Tauri. *J. Kepner, P. Hartigan, C. Yang, & S. Strom.* 415, L119, 200-C8 (1993)

Shear in the IRAS 3282 Outflow. *M. Tafalla, R. Bachiller, J. Martín-Pintado, & M. C. H. Wright.* 415, L139, 200-F1 (1993)

HH 80–81: A Highly Collimated Herbig-Haro Complex Powered by a Massive Young Star. *J. Martí, L. F. Rodríguez, & B. Reipurth.* 416, 208, 203-F1 (1993)

Gravitational Collapse of an Isothermal Sphere. *Prudence N. Foster & Roger A. Chevalier.* 416, 303, 204-G8 (1993)

Star Formation in the Spiral Arms of NGC 4321. II. H I Distribution and Kinematics. *Johan H. Knapen, Jordi Cepa, John E. Beckman, M. Soledad del Rio, & Alan Pedlar.* 416, 563, 210-D1 (1993)

On the Angular Momentum Transport Associated with Convective Eddies in Accretion Disks. *W. Kley, J. C. B. Papaloizou, & D. N. C. Lin.* 416, 679, 211-G7 (1993)

On the Nonaxisymmetric Convective Instabilities in Accretion Disks. *D. N. C. Lin, J. C. B. Papaloizou, & W. Kley.* 416, 689, 212-A4 (1993)

Galactic Chemical Evolution with Nearly Constant Star-Formation Rates. *Sarbani Basu & N. C. Rana.* 417, 145, 219-C1 (1993)

Collapse of Magnetized Molecular Cloud Cores. I. Semianalytical Solution. *Daniele Galli & Frank H. Shu.* 417, 220, 220-C1 (1993)

Collapse of Magnetized Molecular Cloud Cores. II. Numerical Results. *Daniele Galli & Frank H. Shu.* 417, 243, 220-D13 (1993)

Dynamics of Conductive/Cooling Fronts: Cloud Implosion and Thermal Solitons. *A. Ferrara & Yu. Shchekinov.* 417, 595, 226-F13 (1993)

Modeling the Spatial Distribution of Star Formation in Interacting Disk Galaxies. *J. Christopher Mihos, Gregory D. Bothun, & Douglas O. Richstone.* 418, 82, 232-B5 (1993)

The L1448 Molecular Jet. *John Bally, Elizabeth A. Lada, & Adair P. Lane.* 418, 322, 235-A10 (1993)

Synthetic UV Lines of Si IV, C IV, and He II from a Population of Massive Stars in Starburst Galaxies. *Carmelle Robert, Claus Leitherer, & Timothy M. Heckman.* 418, 749, 241-G7 (1993)

On the Formation of Spheroidal Stellar Systems and the Nature of Supersonic Turbulence in Star-forming Regions. *Guillermo Tenorio-Tagle, Casiana Muñoz-Tuñon, & Donald P. Cox.* 418, 767, 242-B3 (1993)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. I. Basic Physics and Formulation of the Problem. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 418, 774, 242-B13 (1993)

A Dynamically Accreting Gas Disk around HL Tauri. *Masahiko Hayashi, Nagayoshi Ohashi, & Shoken M. Miyama.* 418, L71, 245-C13 (1993)

Molecular Hydrogen in the IRAS 03282+3035 Stellar Jet. *John Bally, David Devine, Mark Hereld, & Bernard J. Rauscher.* 418, L75, 245-D7 (1993)

Star Formation at Compressed Interfaces in Turbulent Self-gravitating Clouds. *B. G. Elmegreen.* 419, L29, 252-E1 (1993)

A Well-shaped Bipolar Outflow Shell in Monoceros R2. *Taoling Xie, Paul F. Goldsmith, & Nimesh Patel.* 419, L33, 252-E7 (1993)

Kiloparsec-Scale Radio Emission in Seyfert Galaxies: Evidence for Starburst-driven Superwinds? *S. A. Baum, C. P. O'Dea, D. Dallacassa, A. G. de Bruyn, & A. Pedlar.* 419, 553, 254-F1 (1993)

Protostellar Hydrodynamics: Constructing and Testing a Spatially and Temporally Second-Order Accurate Method. II. Cartesian Coordinates. *Elizabeth A. Myhill & Alan P. Boss.* 89, 345, 54-C12 (1993)

The Stability of Thick, Self-gravitating Disks in Protostellar Systems. *John W. Woodward, Joel E. Tohline, & Izumi Hachisu.* 420, 247, 4-A7 (1994)

Sequential Star Formation in Taurus Molecular Cloud 1. *Tomoyuki Hanawa, Satoshi Yamamoto, & Yasuhiro Hirahara.* 420, 318, 4-G5 (1994)

Vorticity, Angular Momentum, and Cloud Fragmentation. *J. J. Monaghan.* 420, 692, 11-D7 (1994)

Evolution of Spiral Galaxies. II. The Star Formation History in the Solar Neighborhood. *Maria Chiara Pardi & Federico Ferrini.* 421, 491, 24-C7 (1994)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. II. Numerical Method of Solution. *Scott A. Morton, Telemachos Ch. Mouschovias, & Glenn E. Ciolek.* 421, 561, 25-B6 (1994)

Formation, Early Evolution, and Gravitational Stability of Protoplanetary Disks. *Taishi Nakamoto & Yoshitsugu Nakagawa.* 421, 640, 26-C1 (1994)

The Kinematics of Molecular Outflows. *Steven W. Stahler.* 422, 616, 39-E1 (1994)

Further Studies of Gravitationally Unstable Protostellar Disks. *Leslie Tomley, Thomas Y. Steiman-Cameron, & Patrick Cassen.* 422, 850, 42-D8 (1994)

Wavelength-dependent Kinematics in the Dusty Inclined Galaxy NGC 2146. *F. Prada, J. E. Beckman, C. D. McKeith, J. Castles, & A. Greve.* 423, L35, 53-E8 (1994)

Star Formation in the Galactic Center Dust Ridge. *D. C. Lis, K. M. Menten, E. Serabyn, & R. Zylka.* 423, L39, 53-F1 (1994)

A Molecular Jet from LkHα 234. *George F. Mitchell & Henry E. Matthews.* 423, L55, 53-G8 (1994)

A Numerical Study of Viscous Flows in Axisymmetric α-Accretion Disks. *Michał Różyczka, Peter Bodenheimer, & K. R. Bell.* 423, 736, 57-F10 (1994)

Fueling Nuclear Activity in Disk Galaxies: Starbursts and Monsters. *Clayton H. Heller & Isaac Shlosman.* 424, 84, 63-B1 (1994)

Submillimeter Continuum Survey of the Galactic Center. *D. C. Lis & J. E. Carlstrom.* 424, 189, 64-C8 (1994)

A Multiwavelength Study of Star Formation in the L1495E Cloud in Taurus. *Karen M. Strom & Stephen E. Strom.* 424, 237, 64-G4 (1994)

The W3 IRS 5 Cluster: Radio Continuum and Water Maser Observations. *M. J. Claussen, R. A. Gaume, K. J. Johnston, & T. L. Wilson.* 424, L41, 69-E13 (1994)

The Formation of Stellar Groups and Clusters in Molecular Cloud Cores. *Kanan Patel & Ralph E. Pudritz.* 424, 688, 73-D7 (1994)

On the Size and Formation Mechanism of the Largest Star-forming Complexes in Spiral and Irregular Galaxies. *Debra Meloy Elmegreen, Bruce G. Elmegreen, Cornelia Lang, & Carnella Stephens.* 425, 57, 80-G11 (1994)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. III. Typical Axisymmetric Solutions. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 425, 142, 82-A6 (1994)

Discovery of Three Binary Millisecond Pulsars. *M. Bailes, P. A. Harrison, D. R. Lorimer, S. Johnston, A. G. Lyne, R. N. Manchester, N. D'Amico, L. Nicastro, T. M. Tauris, & C. Robinson.* 425, L41, 85-F5 (1994)

Evidence for HCO^+ Infall toward T Tauri? *Huib Jan van Langevelde, Ewine F. van Dishoeck, & Geoffrey A. Blake.* 425, L45, 85-F11 (1994)

The Massive Molecular Outflow from CRL 2136 IRS 1. *Joel H. Kastner, David A. Weintraub, Ronald L. Snell, G. Sandell, C. Aspin, D. H. Hughes, & F. Baas.* 425, 695, 90-C9 (1994)

A Near-Infrared Study of the Monoceros R2 Star Formation Region. *Eric M. Howard, Judith L. Pipher, & William J. Forrest.* 425, 707, 90-D12 (1994)

Starbursts by Gravitational Collapse in the Inner Lindblad Resonance Rings of Galaxies. *B. G. Elmegreen.* 425, L73, 94-C8 (1994)

Successive Ejection Events in the L1551 Molecular Outflow. *R. Bachiller, M. Tafalla, & J. Cernicharo.* 425, L93, 94-F1 (1994)

Radio Continuum and Radio Recombination Line Observations of W51. *David M. Mehringer.* 91, 713, 29-A2 (1994)

General Analytic Results for Nonlinear Waves and Solitons in Molecular Clouds. *Fred C. Adams, Marco Fatuzzo, & Richard Watkins.* 426, 629, 106-C5 (1994)

Molecular Lines in Bok Globules and around Herbig Ae/Be Stars. *F. Scappini, G. G. C. Palumbo, G. Bruni, & P. Bergman.* 427, 259, 113-B12 (1994)

Are Cosmic Rays Effective for Ionization of Protoplanetary Disks? *Arkady Z. Dolginov & Tomasz F. Stepinski.* 427, 377, 114-E3 (1994)

A *Q* Condition for Long-Range Propagating Star Formation. *B. G. Elmegreen.* 427, 384, 114-E12 (1994)

Outflows from Young Stellar Objects in Bok Globules: Maps. *João Lin Yun & Dan P. Clemens.* 92, 145, 33-C5 (1994)

A Catalog of Bright-rimmed Clouds with *IRAS* Point Sources: Candidates for Star Formation by Radiation-driven Implosion. II. The Southern Hemisphere. *Koji Sugitani & Katsuo Ogura.* 92, 163, 33-D11 (1994)

H II Regions in M81 Group Dwarf Galaxies. *Bryan W. Miller & Paul Hodge.* 427, 656, 120-G11 (1994)

Gravitational Instability and Disk Star Formation. *Boqi Wang & Joseph Silk.* 427, 759, 122-B4 (1994)

Structure and Evolution of Magnetically Supported Molecular Clouds: Evidence for Ambipolar Diffusion in the Barnard 1 Cloud. *R. M. Crutcher, Telemachos Ch. Mouschovias, T. H. Troland, & Glenn E. Ciolek.* 427, 839, 123-A13 (1994)

A Protostellar Jet Model for the Water Masers in W49N. *Mordecai-Mark Mac Low, Moshe Elitzur, James M. Stone, & Arieh Königl.* 427, 914, 124-A7 (1994)

Using FU Orionis Outbursts to Constrain Self-regulated Protostellar Disk Models. *K. R. Bell & D. N. C. Lin.* 427, 987, 125-A1 (1994)

CS Multitransitional Study of Density Distribution in Star-forming Regions. II. The S140 Region. *Shudong Zhou, Harold M. Butner, Neal J. Evans II, Rolf Güsten, Marc L. Kutner, & Lee G. Mundy.* 428, 219, 130-G10 (1994)

Gravitational Instabilities in a Proto–Planetary Disk Including the Effects of Magnetic Fields. *Hyerim Noh, Ethan T. Vishniac, & William D. Cochran.* 428, 275, 131-E9 (1994)

Determining Structure in Molecular Clouds. *Jonathan P. Williams, Eugène J. de Geus, & Leo Blitz.* 428, 693, 139-A1 (1994)

A Parsec-Scale "Superjet" and Quasi-periodic Structure in the HH 34 Outflow? *John Bally & David Devine.* 428, L65, 142-F8 (1994)

A Multiwavelength Study of IRAS 19550+3248: A Protostar Possibly Formed by a Cloud-Cloud Collision. *Bon-Chul Koo, Youngung Lee, G. A. Fuller, Myung Gyoon Lee, Suk-Minn Kwon, & Jae-Hoon Jung.* 429, 233, 147-A7 (1994)

A Connection between Submillimeter Continuum Flux and Separation in Young Binaries. *Eric L. N. Jensen, Robert D. Mathieu, & Gary A. Fuller.* 429, L29, 150-D9 (1994)

Radial Motions of Molecular Gas in the W49 Cloud Core. *James M. Jackson & Kathleen E. Kraemer.* 429, L37, 150-E7 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. I. A Generalized Model. *Frank Shu, Joan Najita, Eve Ostriker, Frank Wilkin, Steven Ruden, & Susana Lizano.* 429, 781, 155-D5 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. II. Formulation of the Dynamical Problem. *Frank H. Shu, Joan Najita, Steven P. Ruden, & Susana Lizano.* 429, 797, 155-E9 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. III. Numerical Solution of the Sub-Alfvénic Region. *Joan R. Najita & Frank H. Shu.* 429, 808, 155-F9 (1994)

A Large-Scale Cloud Collision in the Galactic Center Molecular Cloud Near Sagittarius B2. *Tetsuo Hasegawa, Fumio Sato, John B. Whiteoak, & Ryosuke Miyawaki.* 429, L77, 158-C1 (1994)

High-Resolution Observations of a New Ammonia Maser Line in G9.62+0.19. *P. Hofner, S. Kurtz, E. Churchwell, C. M. Walmsley, & R. Cesaroni.* 429, L85, 158-D1 (1994)

The Relationship between Past and Present Star Formation in Galactic Disks from CCD Surface Photometry. *Stuart D. Ryder & Michael A. Dopita.* 430, 142, 160-G8 (1994)

On the Law of Star Formation in Disk Galaxies. *Michael A. Dopita & Stuart D. Ryder.* 430, 163, 161-B3 (1994)

Interaction, Star Formation, and H I Deficiency in E + S Pairs. *A. V. Zasov & Jack W. Sulentic.* 430, 179, 161-C8 (1994)

The True Nucleus of NGC 253 Revealed by High-Resolution Near-Infrared Imaging. *Bruce J. Sams III, R. Genzel, A. Eckart, L. Tacconi-Garman, & R. Hofmann.* 430, L33, 165-E5 (1994)

Protostellar Collapse in a Self-gravitating Sheet. *Lee Hartmann, Alan Boss, Nuria Calvet, & Barbara Whitney.* 430, L49, 165-G5 (1994)

Cepheus A HW2: A Powerful Thermal Radio Jet. *Luis F. Rodríguez, Guido Garay, Salvador Curiel, Solange Ramírez, José M. Torrelles, Yolanda Gómez, & Arturo Velázquez.* 430, L65, 166-B2 (1994)

Star Formation in NGC 4449: MAMA-Detector UV Imagery and Fabry-Perot Balmer-Line Imagery. *Robert S. Hill, Allen T. Home, Andrew M. Smith, Fred C. Bruhweiler, K. P. Cheng, Paul M. N. Hintzen, & Ronald J. Oliversen.* 430, 568, 168-G5 (1994)

Coagulation of Grains in Static and Collapsing Protostellar Clouds. *S. J. Weidenschilling & T. V. Ruzmaikina.* 430, 713, 170-F6 (1994)

On the Influence of Bars and Star Formation on Galactic Abundance Gradients. *D. Friedli, W. Benz, & R. Kennicutt.* 430, L105, 174-F3 (1994)

Detection of Formaldehyde Maser Emission near the Ultracompact H II Region G29.96−0.02. *Preethi Pratap, Karl M. Menten, & Lewis E. Snyder.* 430, L129, 175-A13 (1994)

The Early Evolution of Protostellar Disks. *Steven W. Stahler, D. G. Korycansky, Maxwell J. Brothers, & Jihad Touma.* 431, 341, 180-C11 (1994)

Self-similar, Spherical Collapse of a Nonrotating Magnetized Cloud. *Tzihong Chiueh & Jien-Kuo Chou.* 431, 380, 180-F13 (1994)

A Comparison of CO ($J = 1 \rightarrow 0$) and CO ($J = 2 \rightarrow 1$) Emission in the Milky Way Molecular Ring. *Jean E. Chiar, Marc L. Kutner, Frances Verter, & James Leous.* 431, 658, 186-F13 (1994)

Spectroscopic Signatures of Infall in Young Protostellar Systems. *Christopher K. Walker, Gopal Narayanan, & Alan P. Boss.* 431, 767, 188-B5 (1994)

Galaxy Properties in Different Environments. II. Star Formation in Bulges of Late-Type Spirals. *M. G. Pastoriza, E. Bica, M. Maia, Ch. Bonatto, & H. Dottori.* 432, 128, 194-G3 (1994)

Evolution of Galaxies in Clusters. *Stéphane Charlot & Joseph Silk.* 432, 453, 201-E6 (1994)

The Distribution and Nature of Star Formation Regions in NGC 1792. *Michael Dahlem, Dominik J. Bomans, & Jean-Marie Will.* 432, 590, 203-C10 (1994)

VLA Recombination Line Observations of the Cometary H II Region G34.3+0.2: Dynamics and Physical Properties. *Ralph A. Gaume, Alan L. Fey, & Mark J. Claussen.* 432, 648, 204-B1 (1994)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. I. Axisymmetric Solutions. *Shantanu Basu & Telemachos Ch. Mouschovias.* 432, 720, 205-A6 (1994)

Dense Clumps in the Monoceros R2 Outflow. *M. Tafalla, R. Bachiller, & M. C. H. Wright.* 432, L127, 207-B13 (1994)

Supercloud Formation by Gravitational Collapse of Magnetic Gas in the Crest of a Spiral Density Wave. *B. G. Elmegreen.* 433, 39, 208-F5 (1994)

Galactic Magnetic Field Strengths and Star Formation Parameters. *J. P. Vallée.* 433, 778, 220-G1 (1994)

Protostellar Accretion Disks Resolved with the JCMT-CSO Interferometer. *O. P. Lay, J. E. Carlstrom, R. E. Hills, & T. G. Phillips.* 434, L75, 241-G9 (1994)

A K' Imaging Survey of Molecular Outflow Sources. *Klaus-Werner Hodapp.* 94, 615, 60-D12 (1994)

Past and Future Star Formation in Disk Galaxies. *Robert C. Kennicutt, Jr., Peter Tamblyn, & Charles W. Congdon.* 435, 22, 243-E5 (1994)

A New Look at the Dark Cloud L1251: Sensitive Observations of the Molecular Emission. *Fumio Sato, Akira Mizuno, Tomoo Nagahama, Toshikazu Onishi, Yoshinori Yonekura, & Yasuo Fukui.* 435, 279, 247-B11 (1994)

VLA Spectral Line Observations of the H II Complex G34.3+0.2. *Alan L. Fey, Ralph A. Gaume, Gerald E. Nedoluha, & Mark J. Claussen.* 435, 738, 256-C3 (1994)

Is HL Tauri an FU Orionis System in Quiescence? *D. N. C. Lin, M. Hayashi, K. R. Bell, & N. Ohashi.* 435, 821, 257-D4 (1994)

When Star Formation Stops: Galaxy Edges and Low Surface Brightness Disks. *B. G. Elmegreen & A. Parravano.* 435, L121, 260-A3 (1994)

Mass-Loss Rates, Ionization Fractions, Shock Velocities, and Magnetic Fields of Stellar Jets. *Patrick Hartigan, Jon A. Morse, & John Raymond.* 436, 125, 263-A6 (1994)

Nonaxisymmetric Evolution in Protostellar Disks. *Gregory Laughlin & Peter Bodenheimer.* 436, 335, 265-G13 (1994)

On the Massive Star–forming Capacity of Molecular Clouds. *José Franco, Steven N. Shore, & Guillermo Tenorio-Tagle.* 436, 795, 276-E6 (1994)

Circumprotostellar Environments. II. Envelopes, Activity, and Evolution. *G. H. Moriarty-Schieven, P. G. Wannier, Jocelyn Keene, & M. Tamura.* 436, 800, 276-F1 (1994)

A Molecular Outflow Driven by an Optical Jet. *George F. Mitchell, Tatsuhiko I. Hasegawa, William R. F. Dent, & Henry E. Matthews.* 436, L177, 282-A11 (1994)

Discovery of a Molecular Hydrogen Jet near IC 348. *Mark J. McCaughrean, John T. Rayner, & Hans Zinnecker.* 436, L189, 282-C9 (1994)

Shocked Molecular Gas around the Extremely Young Source IRAS 03282+3035. *R. Bachiller, S. Terebey, T. Jarrett, J. Martín-Pintado, C. A. Beichman, & D. Van Buren.* 437, 296, 287-C2 (1994)

Resonantly Driven Nonlinear Density Waves in Protostellar Disks. *Chi Yuan & Pat Cassen.* 437, 338, 287-G6 (1994)

Star-forming Galaxy Models: Blending Star Formation into TREESPH. *J. Christopher Mihos & Lars Hernquist.* 437, 611, 294-B9 (1994)

Formation and Evolution of Massive Stars. *Martin Beech & R. Mitalas.* 95, 517, 71-D9 (1994)

Collapse and Fragmentation of Magnetized Cylindrical Clouds. *Kohji Tomisaka.* 438, 226, 4-E3 (1995)

Jeans Mass for Anisotropic Matter. *L. Herrera & N. O. Santos.* 438, 308, 5-F7 (1995)

A Theory for the Initial Mass Function. *Joseph Silk.* 438, L41, 10-C13 (1995)

The NGC 7538 IRS 1 Region of Star Formation: Observations of the H66α Recombination Line with a Spatial Resolution of 300 AU. *R. A. Gaume, W. M. Goss, H. R. Dickel, T. L. Wilson, & K. J. Johnston.* 438, 776, 15-A1 (1995)

Multiple Star Formation in Bok Globule CB 34. *João F. Alves & João L. Yun.* 438, L107, 20-C1 (1995)

Collapse and Fragmentation of Molecular Cloud Cores. II. Collapse Induced by Stellar Shock Waves. *Alan P. Boss.* 439, 224, 24-C7 (1995)

ROSAT X-Ray Sources Embedded in the ρ Ophiuchi Cloud Core. *Sophie Casanova, Thierry Montmerle, Eric D. Feigelson, & Philippe André.* 439, 752, 35-A7 (1995)

Spectral Energy of First Protostellar Cores: Detecting "Class −I" Protostars with *ISO* and *SIRTF*. *Alan P. Boss & Harold W. Yorke.* 439, L55, 40-E11 (1995)

Discovery of a Possible Wolf-Rayet Star at the Galactic Center. *R. D. Blum, K. Sellgren, & D. L. DePoy.* 440, L17, 48-D1 (1995)

Hot Spots in the NGC 2071 Molecular Outflow. *Lawrence M. Chernin & W. J. Welch.* 440, L21, 48-D8 (1995)

Water Masers in the L1448C Outflow. *Lawrence M. Chernin.* 440, L97, 58-C9 (1995)

Dense Gas in High-Latitude Molecular Clouds. *William T. Reach, Marc W. Pound, David J. Wilner, & Youngung Lee.* 441, 244, 62-F5 (1995)

A Molecular Line Study of NGC 1333/IRAS 4. *Geoffrey A. Blake, Göran Sandell, Ewine F. van Dishoeck, T. D. Groesbeck, Lee G. Mundy, & Colin Aspin.* 441, 689, 71-D13 (1995)

A Turbulent Model for the Interstellar Medium. I. Threshold Star Formation and Self-Gravity. *Enrique Vázquez-Semadeni, Thierry Passot, & Annick Pouquet.* 441, 702, 71-F1 (1995)

The Relationship of Dense Gas to Star Formation in the Monoceros OB1 Dark Cloud. *Grace A. Wolf-Chase, Christopher K. Walker, & Charles J. Lada.* 442, 197, 79-G9 (1995)

Yet Another Theory for the Origin of Halo Globular Clusters and Spheroid Stars. *Mario Vietri & Enrico Pesce.* 442, 618, 88-D8 (1995)

Powerful Jets and Weak Outflows: HH 1–2 and HH 34. *Lawrence M. Chernin & Colin R. Masson.* 443, 181, 97-E11 (1995)

The Formation of Protostellar Disks. II. Disks around Intermediate-Mass Stars. *Harold W. Yorke, Peter Bodenheimer, & Gregory Laughlin.* 443, 199, 97-G7 (1995)

Ammonia Emission from Bow Shocks in the L1157 Outflow. *M. Tafalla & R. Bachiller.* 443, L37, 102-G4 (1995)

A New Criterion for Bar-forming Instability in Rapidly Rotating Gaseous and Stellar Systems. I. Axisymmetric Form. *Dimitris M. Christodoulou, Isaac Shlosman, & Joel E. Tohline.* 443, 551, 105-D8 (1995)

A New Criterion for Bar-forming Instability in Rapidly Rotating Gaseous and Stellar Systems. II. Nonaxisymmetric Form. *Dimitris M. Christodoulou, Isaac Shlosman, & Joel E. Tohline.* 443, 563, 105-E10 (1995)

Ultraviolet to Optical Spectral Distributions of Northern Star-forming Galaxies. *Kerry McQuade, Daniela Calzetti, & Anne L. Kinney.* 97, 331, 16-C5 (1995)

Star Formation Activity in Spiral Galaxy Disks and the Properties of Radio Halos: Observational Evidence for a Direct Dependence. *Michael Dahlem, Ute Lisenfeld, & Götz Golla.* 444, 119, 115-A3 (1995)

Infrared Imaging and Spectroscopy of NGC 7469. *R. Genzel, L. Weitzel, L. E. Tacconi-Garman, M. Blietz, M. Cameron, A. Krabbe, D. Lutz, & A. Sternberg.* 444, 129, 115-B3 (1995)

Nonaxisymmetric Secular Instabilities Driven by Star/Disk Coupling. *James N. Imamura, Joseph Toman, Richard H. Durisen, Brian K. Pickett, & Shelby Yang.* 444, 363, 118-E4 (1995)

Noncoeval Star Formation, Starbursts, and the Growth of Supershells in OB Associations. *J. Michael Shull & Jon M. Saken.* 444, 663, 125-D9 (1995)

Line Broadening in the W3(OH) Champagne Flow. *E. R. Keto, W. J. Welch, M. J. Reid, & P. T. P. Ho.* 444, 765, 127-A8 (1995)

Fragmentation of Filamentary Molecular Clouds with Longitudinal Magnetic Fields: Formation of Disks and Their Collapse. *Fumitaka Nakamura, Tomoyuki Hanawa, & Takenori Nakano.* 444, 770, 127-B2 (1995)

Hydromagnetic Waves and the Linewidth-Size Relation in Interstellar Molecular Clouds. *Telemachos Ch. Mouschovias & Dimitrios Psaltis.* 444, L105, 131-A8 (1995)

Growth of Protoplanetary Disks around Young Stellar Objects. *Taishi Nakamoto & Yoshitsugu Nakagawa.* 445, 330, 137-A12 (1995)

An Extremely High Velocity Multipolar Outflow around IRAS 20050+2720. *R. Bachiller, A. Fuente, & M. Tafalla.* 445, L51, 141-A13 (1995)

The L1551NE Molecular Outflow. *G. H. Moriarty-Schieven, H. M. Butner, & P. G. Wannier.* 445, L55, 141-B6 (1995)

Complex Molecules in Sagittarius B2(N): The Importance of Grain Chemistry. *Yanti Miao, David M. Mehringer, Yi-Jehng Kuan, & Lewis E. Snyder.* 445, L59, 141-B13 (1995)

Numerical Simulations of Stratified Compressible Convection with Internal Heating and Disklike Variable Gravity. *W. Cabot, K. W. Thompson, & J. B. Pollack.* 98, 315, 26-C4 (1995)

What is Powering the Orion Kleinmann-Low Infrared Nebula? *Karl M. Menten & Mark J. Reid.* 445, L157, 152-A12 (1995)

Overall Distribution of Dense Molecular Gas and Star Formation in the Taurus Cloud Complex. *A. Mizuno, T. Onishi, Y. Yonekura, T. Nagahama, H. Ogawa, & Y. Fukui.* 445, L161, 152-B7 (1995)

Phase-Transition Theory of Instabilities. I. Second-Harmonic Instability and Bifurcation Points. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 472, 162-E12 (1995)

Phase-Transition Theory of Instabilities. II. Fourth-Harmonic Bifurcations and λ-Transitions. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 485, 162-G3 (1995)

Phase-Transition Theory of Instabilities. III. The Third-Harmonic Bifurcation on the Jacobi Sequence and the Fission Problem. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 500, 163-A8 (1995)

Phase-Transition Theory of Instabilities. IV. Critical Points on the Maclaurin Sequence and Nonlinear Fission Processes. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 510, 163-B7 (1995)

Are Nuclear Hot Spots in Galaxies Sites of Sequential Star Formation? *V. Korchagin, A. K. Kembhavi, Y. D. Mayya, & T. P. Prabhu.* 446, 574, 164-A10 (1995)

The Line Width–Size Relation in Massive Cloud Cores. *P. Caselli & P. C. Myers.* 446, 665, 165-C7 (1995)

Two New Wolf-Rayet Stars and a Luminous Blue Variable Star in the Quintuplet (AFGL 2004) near the Galactic Center. *Donald F. Figer, Ian S. McLean, & Mark Morris.* 447, L29, 180-G9 (1995)

Were There Significant Starburst Episodes near the Galactic Center? *Dieter H. Hartmann.* 447, 646, 185-A11 (1995)

Dust Evaporation in Protostellar Cores. *Paolo Lenzuni, Hans-Peter Gail, & Thomas Henning.* 447, 848, 187-E10 (1995)

The Nuclear Cluster of the Milky Way: Star Formation and Velocity Dispersion in the Central 0.5 Parsec. *A. Krabbe, R. Genzel, A. Eckart, F. Najarro, D. Lutz, M. Cameron, H. Kroker, L. E. Tacconi-Garman, N. Thatte, L. Weitzel, S. Drapatz, T. Geballe, A. Sternberg, & R. Kudritzki.* 447, L95, 190-F7 (1995)

A Circumstellar H_2O Maser Associated with the Circumnuclear Molecular Disk at the Galactic Center? *Deborah A. Levine, Donald F. Figer, Mark Morris, & Ian S. McLean.* 447, L101, 190-G7 (1995)

The Location of Stellar Clusters in the Big Dent: An Age Gradient along the Z-Axis. *Jesús Cabrera-Caño, Edmundo Moreno, José Franco, & Emilio J. Alfaro.* 448, 149, 194-B11 (1995)

Modeling Line Profiles of Protostellar Collapse in B335 with the Monte Carlo Method. *Minho Choi, Neal J. Evans II, Erik M. Gregersen, & Yangsheng Wang.* 448, 742, 204-A9 (1995)

Protostellar Collapse with a Shock. *John C. Tsai & Juliana J. L. Hsu.* 448, 774, 205-D8 (1995)

Large Proper Motions and Ejection of New Condensations in the HH 80–81 Thermal Radio Jet. *J. Martí, L. F. Rodríguez, & Bo Reipurth.* 449, 184, 212-F6 (1995)

Gravitational Infall in the Dense Cores L1527 and L483. *P. C. Myers, R. Bachiller, P. Caselli, G. A. Fuller, D. Mardones, M. Tafalla, & D. J. Wilner.* 449, L65, 217-B1 (1995)

Sub-Arcsecond Imaging of W3(OH) at 87.7 GHz. *D. J. Wilner, W. J. Welch, & J. R. Forster.* 449, L73, 217-C1 (1995)

A Merger Model and Globular Cluster Formation. *Sangjin Lee, David N. Schramm, & Grant J. Mathews.* 449, 616, 221-C1 (1995)

The Sagittarius B2 Star-forming Region. I. Sensitive 1.3 Centimeter Continuum Observations. *R. A. Gaume, M. J. Claussen, C. G. De Pree, W. M. Goss, & D. M. Mehringer.* 449, 663, 221-G5 (1995)

Dust Emission from Protostars: The Disk and Envelope of HH 24 MMS. *Claire J. Chandler, David W. Koerner, Anneila I. Sargent, & Douglas O. S. Wood.* 449, L139, 227-D1 (1995)

The Onset of the Cold H I Phase in Disks of Protogalaxies. *Edvige Corbelli & Edwin E. Salpeter.* 450, 32, 228-E3 (1995)

The Mass of a Star Formed in a Cloud Core: Theory and Its Application to the Orion A Cloud. *Takenori Nakano, Tetsuo Hasegawa, & Colin Norman.* 450, 183, 230-E7 (1995)

Star Formation in the Gemini OB1 Molecular Cloud Complex. *John M. Carpenter, Ronald L. Snell, & F. Peter Schloerb.* 450, 201, 230-G5 (1995)

Exponential Tails in the Centroid Velocity Distributions of Star-forming Regions. *Mark S. Miesch & John M. Scalo.* 450, L27, 235-G9 (1995)

Ammonia Maser in a Molecular Outflow toward W51. *Q. Zhang & Paul T. P. Ho.* 450, L63, 244-G1 (1995)

H II Regions in Four Galaxies in and near the Local Group. *Paul Hodge & Bryan W. Miller.* 451, 176, 248-D9 (1995)

Collapse and Fragmentation of Molecular Cloud Cores. III. Initial Differential Rotation. *Alan P. Boss & Elizabeth A. Myhill.* 451, 218, 249-A6 (1995)

The Density Structure in the Rosette Molecular Cloud: Signposts of Evolution. *Jonathan P. Williams, Leo Blitz, & Anthony A. Stark.* 451, 252, 249-D9 (1995)

Vortices in Circumstellar Disks. *Fred C. Adams & Richard Watkins.* 451, 314, 250-C3 (1995)

A Model of the Galactic X-Ray Binary Population. II. Low-Mass X-Ray Binaries in the Galactic Disk. *Icko Iben, Jr., Alexander V. Tutukov, & Lev R. Yungelson.* 100, 233, 49-C5 (1995)

Sequential Star Formation in OB Associations: The Role of Molecular Cloud Turbulence. *Bruce G. Elmegreen, Toshiya Kimura, & Makoto Tosa.* 451, 675, 256-E1 (1995)

Si Emission in a Jetlike Molecular Outflow toward L1157. *Q. Zhang, Paul T. P. Ho, M. C. H. Wright, & D. J. Wilner.* 451, L71, 260-G1 (1995)

CCS Observations of the Protostellar Envelope of B335. *T. Velusamy, T. B. H. Kuiper, & W. D. Langer.* 451, L75, 260-G11 (1995)

Interpretation of ^{26}Al in Meteoritic Inclusions. *Donald D. Clayton & Liping Jin.* 451, L87, 261-B12 (1995)

Triggered Star Formation and the Dynamics of a Superbubble in the LMC: The OB Association LH 47/48 in DEM 152. *M. S. Oey & Philip Massey.* 452, 210, 264-G11 (1995)

High-Resolution Far-Infrared Mapping of the Star-forming Region RCW 122C. *C. Y. Zhang, P. M. Harvey, Beverly J. Smith, C. Colomé, & J. DiFrancesco.* 452, 308, 266-D1 (1995)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. II. A Parameter Study. *Shantanu Basu & Telemachos Ch. Mouschovias.* 452, 386, 267-D7 (1995)

Aperture Synthesis Imaging of the Circumstellar Dust Disk around DO Tauri. *D. W. Koerner, C. J. Chandler, & A. I. Sargent.* 452, L69, 270-E14 (1995)

NGC 1333 IRAS 4: Further Multiplicity Revealed with the CSO-JCMT Interferometer. *O. P. Lay, J. E. Carlstrom, & R. E. Hills.* 452, L73, 270-F7 (1995)

On Coagulation and the Stellar Mass Spectrum. *Eric J. Allen & Pierre Bastien.* 452, 652, 273-F5 (1995)

Disk Accretion and Mass Loss from Young Stars. *Patrick Hartigan, Suzan Edwards, & Louma Ghandour.* 452, 736, 274-G4 (1995)

Constraints on Circumstellar Disk Masses in the Trapezium Cluster. *Lee G. Mundy, Leslie W. Looney, & Elizabeth A. Lada.* 452, L137, 280-D12 (1995)

Are Galaxies Optically Thin to Their Own Lyman-Continuum Radiation? II. NGC 6822. *Kanan Patel & Christine D. Wilson.* 453, 162, 283-D13 (1995)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. III. Effect of the Initial Mass-to-Flux Ratio. *Shantanu Basu & Telemachos Ch. Mouschovias.* 453, 271, 284-G9 (1995)

Study of Structure and Small-Scale Fragmentation in TMC-1. *W. D. Langer, T. Velusamy, T. B. H. Kuiper, S. Levin, E. Olsen, & V. Migenes.* 453, 293, 285-B9 (1995)

Aperture Synthesis ^{12}CO and ^{13}CO Observations of DM Tauri: 350 AU Radius Circumstellar Gas Disk. *M. Saito, R. Kawabe, M. Ishiguro, S. M. Miyama, M. Hayashi, T. Handa, Y. Kitamura, & T. Omodaka.* 453, 384, 286-D6 (1995)

Warm Molecular Gas Associated with Cometary H II Regions. *Yolanda Gómez, Guido Garay, & Susana Lizano.* 453, 727, 293-G8 (1995)

Ambipolar Diffusion, Interstellar Dust, and the Formation of Cloud Cores and Protostars. IV. Effect of Ultraviolet Ionization and Magnetically Controlled Infall Rate. *Glenn E. Ciolek & Telemachos Ch. Mouschovias.* 454, 194, 302-A10 (1995)

The Star Formation Histories and Efficiencies of Two Giant H II Regions in M33. *Christine D. Wilson & Brenda C. Matthews.* 455, 125, 320-A1 (1995)

Momentum Distribution in Molecular Outflows. *Lawrence M. Chernin & Colin R. Masson.* 455, 182, 320-F3 (1995)

Encounters with Protostellar Disks. II. Disruption and Binary Formation. *Clayton H. Heller.* 455, 252, 321-E10 (1995)

Young Star Clusters in Bright-rimmed Clouds: Small-Scale Sequential Star Formation? *Koji Sugitani, Motohide Tamura, & Katsuo Ogura.* 455, L39, 324-G9 (1995)

Vibrational Ground-State SiO J = 1–0 Emission in Orion IRc2 Imaged with the VLA. *Claire J. Chandler & Christopher G. De Pree.* 455, L67, 325-E13 (1995)

Magnetocentrifugally Driven Flows from Young Stars and Disks. V. Asymptotic Collimation into Jets. *Frank H. Shu, Joan Najita, Eve C. Ostriker, & Hsien Shang.* 455, L155, 334-C6 (1995)

Photon Heating of Envelopes around Young Stellar Objects: An Explanation for CO J = 6–5. *Marco Spaans, Michiel R. Hogerheijde, Lee G. Mundy, & Ewine F. van Dishoeck.* 455, L167, 334-D12 (1995)

SiO Emission from a 1000 AU Disk in Orion KL. *M. C. H. Wright, R. L. Plambeck, L. G. Mundy, & L. W. Looney.* 455, L185, 334-G3 (1995)

Subarcsecond-Resolution 86 GHz Continuum Maps of Orion KL. *R. L. Plambeck, M. C. H. Wright, L. G. Mundy, & L. W. Looney.* 455, L189, 334-G10 (1995)

STARS: FUNDAMENTAL PARAMETERS

On the Mass Discrepancy of the Cepheid Stars. *C. Chiosi, P. R. Wood, G. Bertelli, A. Bressan, & M. Mateo.* 385, 205, 14-E1 (1992)

The Inverse Planckian Transform and Temperature Spectra. *Luis Salas.* 385, 288, 15-D12 (1992)

The Luminosity of the Double-Mode Cepheid Y Carinae. *Nancy Remage Evans.* 385, 680, 21-E6 (1992)

The Baade-Wesselink Method and the Distances to RR Lyrae Stars. VII. The Field Stars SW Andromedae and DX Delphini and a Comparison of Recent Baade-Wesselink Analyses. *Rodney V. Jones, Bruce W. Carney, Jesper Storm, & David W. Latham.* 386, 646, 33-C14 (1992)

The Baade-Wesselink Method and the Distances to RR Lyrae Stars. VIII. Comparisons with Other Techniques and Implications for Globular Cluster Distances and Ages. *Bruce W. Carney, Jesper Storm, & Rodney V. Jones.* 386, 663, 33-E5 (1992)

Spectroscopy and Spectral Types for 387 Stellar Objects from the Large, Bright QSO Survey. *Christopher Berg, Gary Wegner, Craig B. Foltz, Frederic H. Chaffee, Jr., & Paul C. Hewett.* 78, 409, 8-B7 (1992)

Candidate Brown Dwarfs in the Hyades. *Claia Bryja, Terry J. Jones, Roberta M. Humphreys, Geoffrey Lawrence, Robert L. Pennington, & William Zumach.* 388, L23, 52-C1 (1992)

A Theoretical Calibration of the Planetary Nebular Cosmic Distance Scale. *Michael A. Dopita, George H. Jacoby, & E. Vassiliadis.* 389, 27, 60-D1 (1992)

New Calibrators for the Cepheid Period-Luminosity Relation. *Nancy Remage Evans.* 389, 657, 69-E8 (1992)

The Luminosity of Supernovae of Type Ia. I. Apparent Magnitudes at Maximum Light. *Sidney van den Bergh & John Pazder.* 390, 34, 74-D13 (1992)

A Measurement of the Primordial Helium Abundance Using μ Cassiopeiae. *James W. Haywood, Dennis J. Hegyi, & Donald H. Gudehus.* 392, 172, 103-B1 (1992)

Upper Limit to the Mass of Pulsationally Stable Stars with Uniform Chemical Composition. *Richard B. Stothers.* 392, 706, 111-A7 (1992)
MAP-based Trigonometric Parallaxes of Open Clusters. II. The Hyades: 51 Tauri. *George Gatewood, Michael Castelaz, Joost Kiewiet de Jonge, Timothy Persinger, John Stein, & Bruce Stephenson.* 392, 710, 111-A12 (1992)
Breakdown of the Core Mass–Luminosity Relation at High Luminosities on the Asymptotic Giant Branch. *Arnold I. Boothroyd & I.-Juliana Sackmann.* 393, L21, 120-D1 (1992)
A Spectroscopic Determination of the Mass Distribution of DA White Dwarfs. *P. Bergeron, Rex A. Saffer, & James Liebert.* 394, 228, 130-G5 (1992)
Two Ultramassive White Dwarfs Found among Candidates for Magnetic Fields. *Gary D. Schmidt, P. Bergeron, James Liebert, & Rex A. Saffer.* 394, 603, 136-G11 (1992)
Astro-1 Ultraviolet Imaging of the 30 Doradus and SN 1987A Fields with the Ultraviolet Imaging Telescope. *Kwang-Ping Cheng, Andrew G. Michalitsianos, Paul Hintzen, Ralph C. Bohlin, Robert W. O'Connell, Robert H. Cornett, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L29, 145-A1 (1992)
On the Absolute Magnitude of RR Lyrae Stars: UU Ceti, RV Phoenicis, and W Tucanae. *C. Cacciari, G. Clementini, & J. A. Fernley.* 396, 219, 157-G5 (1992)
A Homogeneous Catalog of New *UBV* and Hβ Photometry of B- and A-Type Stars in and around the Scorpius-Centaurus OB Association. *Robert W. Slawson, Robert J. Hill, & John D. Landstreet.* 82, 117, 50-E9 (1992)
Spectral Synthesis in the Ultraviolet. IV. A Library of Mean Stellar Groups. *Michael N. Fanelli, Robert W. O'Connell, David Burstein, & Chi-Chao Wu.* 82, 197, 52-A1 (1992)
Infrared Colors of Low-Mass Stars. *S. K. Leggett.* 82, 351, 54-C1 (1992)
Infrared Emission from Dust Structures Surrounding Herbig Ae/Be Stars. *F. Berrilli, G. Corciulo, G. Ingrosso, D. Lorenzetti, B. Nisini, & F. Strafella.* 398, 254, 185-A1 (1992)
Discovery of a Sub-Megagauss Magnetic White Dwarf through Spectropolarimetry. *Gary D. Schmidt, H. S. Stockman, & Paul S. Smith.* 398, L57, 188-A7 (1992)
The Young Large Magellanic Cloud Cluster NGC 2214 with a Single Supergiant Branch. *Myung Gyoon Lee.* 399, L133, 208-B1 (1992)
A Catalog of Faint A, F, and G Stars at the South Galactic Pole. *Phillip K. Lu, Jeffrey Miller, & Donald Platt.* 83, 203, 59-E3 (1992)
Carbon Star Luminosity Indicators. *Paul J. Green, Bruce Margon, Scott F. Anderson, & D. Jack MacConnell.* 400, 659, 218-E12 (1992)
A Distance-independent Calibration of the Luminosity of Type Ia Supernovae and the Hubble Constant. *Bruno Leibundgut & Philip A. Pinto.* 401, 49, 221-F1 (1992)
On the Mass-Ratio Distribution of Spectroscopic Binaries with Solar-Type Primaries. *Tsevi Mazeh, Dorit Goldberg, Antoine Duquennoy, & Michel Mayor.* 401, 265, 224-C9 (1992)
Photometric and Spectroscopic Analysis of High Galactic Latitude Molecular Clouds. I. Distances and Extinctions of Stars toward 25 Selected Regions. *B. E. Penprase.* 83, 273, 61-E7 (1992)
M Dwarf Spectra from 0.6 to 1.5 Microns: A Spectral Sequence, Model Atmosphere Fitting, and the Temperature Scale. *J. Davy Kirkpatrick, Douglas M. Kelly, George H. Rieke, James Liebert, France Allard, & Rainer Wehrse.* 402, 643, 10-E11 (1993)
Angular Diameter Measurements of Cool Giant Stars in Strong TiO Bands and in the Continuum. *A. Quirrenbach, D. Mozurkewich, J. T. Armstrong, D. F. Buscher, & C. A. Hummel.* 406, 215, 57-F9 (1993)
Multiplicity and the Ages of the Stars in the Taurus Star-forming Region. *M. Simon, A. M. Ghez, & Ch. Leinert.* 408, L33, 89-B1 (1993)
Circumstellar Material in Algol: A Study of the Balmer Line Profiles. *Mercedes T. Richards.* 86, 255, 17-D3 (1993)
Spectrophotometry of Wolf-Rayet Stars. I. Continuum Energy Distributions. *Patrick W. Morris, Kenneth R. Brownsberger, Peter S. Conti, Philip Massey, & William D. Vacca.* 412, 324, 146-B10 (1993)
MK Spectral Types for OB$^+$ Stars in the Southern Milky Way. *Jyotsna Vijapurkar & John S. Drilling.* 89, 293, 53-E8 (1993)
The Masses of V838 Herculis (Nova Herculis 1991) and QZ Aurigae. *Paula Szkody & Doug Ingram.* 420, 830, 13-C3 (1994)
The Enigmatic Supernova S Andromedae. *Sidney van den Bergh.* 424, 345, 66-B8 (1994)
Cygnus X-3 as a Benchmark for Fundamental Properties of Wolf-Rayet Stars. *Anatol M. Cherepashchuk & Anthony F. J. Moffat.* 424, L53, 69-G6 (1994)
Stellar Spectral Classification Using Automated Schemes. *R. K. Gulati, Ranjan Gupta, Pradeep Gothoskar, & Shyam Khobragade.* 426, 340, 100-D5 (1994)
The Effectiveness of Oscillation Frequencies in Constraining Stellar Model Parameters. *Timothy M. Brown, J. Christensen-Dalsgaard, Barbara Weibel-Mihalas, & Ronald L. Gilliland.* 427, 1013, 125-C3 (1994)
The Temperature and Granulation Stability of η Cephei. *David F. Gray.* 428, 765, 139-F13 (1994)
The Detection of Pulsed X-Ray Emission from a Nearby Radio Pulsar. *S. Yancopoulos, T. T. Hamilton, & D. J. Helfand.* 429, 832, 156-A9 (1994)
A Pulsational Approach to the Luminosity of RR Lyrae Variables. *V. Castellani & R. De Santis.* 430, 624, 169-E11 (1994)
An Asteroseismological Determination of the Structure of the DBV White Dwarf GD 358. *P. A. Bradley & D. E. Winget.* 430, 850, 172-E2 (1994)
On Cepheid Diameter and Distance Measurement. *Dimitar D. Sasselov & Margarita Karovska.* 432, 367, 197-F6 (1994)
On the Application of the Baade-Wesselink Method to RR Lyrae Stars. *G. Bono, F. Caputo, & R. F. Stellingwerf.* 432, L51, 199-G7 (1994)
Ultraviolet Spectral Classification and Stellar Winds in a Sample of Be and Standard Stars. *Arne Slettebak.* 94, 163, 54-A5 (1994)
Further Mid-Infrared Study of the ρ Ophiuchi Cloud Young Stellar Population: Luminosities and Masses of Pre–Main-Sequence Stars. *Thomas P. Greene, Bruce A. Wilking, Philippe André, Erick T. Young, & Charles J. Lada.* 434, 614, 236-C6 (1994)
Old Stellar Populations. V. Absorption Feature Indices for the Complete Lick/IDS Sample of Stars. *Guy Worthey, S. M. Faber, J. Jesús González, & D. Burstein.* 94, 687, 61-E4 (1994)
Constraints to the Masses of Brown Dwarf Candidates from the Lithium Test. *Eduardo L. Martín, Rafael Rebolo, & Antonio Magazzù.* 436, 262, 264-G9 (1994)
Comprehensive Stellar Population Models and the Disentanglement of Age and Metallicity Effects. *Guy Worthey.* 95, 107, 65-E2 (1994)
A Study of Carina OB2 Association. II. Analysis and Discussion of the Data. *Beatriz García.* 436, 705, 275-B13 (1994)
On Possible Implications of Orbital Parallaxes of Wide Orbit Binary Pulsars and Their Measurability. *S. M. Kopeikin.* 439, L5, 29-E11 (1995)
Infrared Zeeman Analysis of ϵ Eridani. *Jeff A. Valenti, Geoffrey W. Marcy, & Gibor Basri.* 439, 939, 37-E9 (1995)
Time-dependent Behavior and Physical Conditions of the LMC Planetary Nebula N66. *M. Peña, M. Peimbert, S. Torres-Peimbert, M. T. Ruiz, & J. Maza.* 441, 343, 64-B1 (1995)
A Spectroscopic Database for Stephenson-Sanduleak Southern Luminous Stars. *B. Cameron Reed & Amy E. Beatty.* 97, 189, 13-D8 (1995)
Temperatures, Gravities, and Masses for a Sample of Bright DA White Dwarfs and the Initial-to-Final Mass Relation. *Angela Bragaglia, Alvio Renzini, & P. Bergeron.* 443, 735, 108-A7 (1995)
Magnetic Moments and Angular Momenta of Stars and Planets. *C. N. Arge, D. J. Mullan, & A. Z. Dolginov.* 443, 795, 108-G1 (1995)
Masses of DA White Dwarfs with Gravitational Redshift Determinations. *P. Bergeron, James Liebert, & M. S. Fulbright.* 444, 810, 127-F1 (1995)
Bolometric Temperature and Young Stars in the Taurus and Ophiuchus Complexes. *H. Chen, P. C. Myers, E. F. Ladd, & D. O. S. Wood.* 445, 377, 137-F9 (1995)
The Mass Ratios of Cepheid Binaries. *Nancy Remage Evans.* 445, 393, 138-A1 (1995)
The Case Low-Dispersion Northern Sky Survey. XV. A Region in Ursa Major and Canes Venatici. *Peter Pesch, C. B. Stephenson, & D. Jack MacConnell.* 98, 41, 21-E5 (1995)
Neural Network Classification of the Near-Infrared Spectra of A-Type Stars. *Wm. Bruce Weaver & Ana V. Torres-Dodgen.* 446, 300, 157-D1 (1995)
HST/GHRS Observations of the β Pictoris System: Basic Parameters of the Age of the System. *Thierry Lanz, Sara R. Heap, & Ivan Hubeny.* 447, L41, 181-B5 (1995)
PSR J0045−7319: A Dual-Line Binary Radio Pulsar. *J. F. Bell, M. S. Bessell, B. W. Stappers, M. Bailes, & V. M. Kaspi.* 447, L117, 191-B6 (1995)
Variation of Gravitational Delay in Pulsar Timing Observations due to Proper Motion of Foreground Stars and Measurement of Stellar Mass. *Kouji Ohnishi, Mizuhiko Hosokawa, Toshio Fukushima, & Mine Takeuti.* 448, 271, 196-A1 (1995)
The Relation between Rotational Velocities and Spectral Peculiarities among A-Type Stars. *Helmut A. Abt & Nidia I. Morrell.* 99, 135, 36-A1 (1995)
The Effect of the Stellar Size on Microlensing at the Baade Window. *Hans J. Witt.* 449, 42, 210-F13 (1995)

The 11 Micron Emissions of Carbon Stars. *J. H. Goebel, P. Cheeseman, & F. Gerbault.* 449, 246, 213-E9 (1995)

Atmospheric Parameters and LTE Abundances for 22 Galactic, A-Type Supergiants. *Kim A. Venn.* 99, 659, 44-A6 (1995)

An Infrared Spectroscopic Survey of the ρ Ophiuchi Young Stellar Cluster: Masses and Ages from the H-R Diagram. *Thomas P. Greene & Michael R. Meyer.* 450, 233, 231-C3 (1995)

Whole Earth Telescope Observations and Seismological Analysis of the Pre–White Dwarf PG 2131+066. *S. D. Kawaler, M. S. O'Brien, J. C. Clemens, R. E. Nather, D. E. Winget, T. K. Watson, K. Yanagida, J. S. Dixson, P. A. Bradley, M. A. Wood, D. J. Sullivan, S. J. Kleinman, E. Meištas, E. M. Leibowitz, P. Moskalik, S. Zoła, G. Pajdosz, J. Krzesiński, J.-E. Solheim, A. Bruvold, D. O'Donoghue, M. Katz, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, A. Kanaan, S. O. Kepler, O. Giovannini, J. L. Provencal, & C. J. Hansen.* 450, 350, 232-G1 (1995)

MAP-based Trigonometric Parallaxes of Altair and Vega. *George Gatewood & Joost Kiewiet de Jonge.* 450, 364, 233-A4 (1995)

Full Adaptive Optics Images of ADS 9731 and μ Cassiopeiae: Orbits and Masses. *Jack D. Drummond, Julian C. Christou, & Robert Q. Fugate.* 450, 380, 233-B12 (1995)

Accurate Multiconfiguration Hartree-Fock Calculations of Oscillator Strengths in Light Atoms: The Boron (B II) Line at 1362 Å. *Michel Godefroid, Jeppe Olsen, Per Jönsson, & Charlotte Froese Fischer.* 450, 473, 234-E3 (1995)

Wind-Wind Interaction in the Close Wolf-Rayet Binary CQ Cephei (WN6+O9 II–Ib). *S. V. Marchenko, A. F. J. Moffat, P. R. J. Eenens, G. M. Hill, & A. Grandchamps.* 450, 811, 241-G10 (1995)

Empirical Approach to Cepheid Period-Luminosity-Color and Period-Luminosity Relations by Surface Brightness. *G. P. Di Benedetto.* 452, 195, 264-F7 (1995)

Are the Nearby and Photometric Stellar Luminosity Functions Different? *Pavel Kroupa.* 453, 350, 286-A2 (1995)

A Millisecond Pulsar in a 6 Hour Orbit: PSR J0751+1807. *S. C. Lundgren, A. F. Zepka, & J. M. Cordes.* 453, 419, 286-G10 (1995)

Extreme Ultraviolet Emission from the Millisecond Pulsar J0437−4715. *J. Edelstein, R. S. Foster, & S. Bowyer.* 454, 442, 305-D4 (1995)

New Far-Ultraviolet Intrinsic Spectral Fluxes of Hot Stars and Their Photospheric Temperatures. *Richard H. Buss, Jr., J. W. Kruk, & H. C. Ferguson.* 454, L55, 308-C12 (1995)

A Non-LTE Analysis of the ζ Aurigae B-Type Secondary. I. Determination of the Fundamental Stellar Parameters. *Philip D. Bennett, Alexander Brown, & Jeffrey L. Linsky.* 455, 317, 322-D14 (1995)

STARS: U GEMINORUM

A Study of the Ultraviolet Evolution of U Geminorum between Outbursts. *Alan L. Kiplinger, Edward M. Sion, & Paula Szkody.* 366, 569, 10-B1 (1991)

STARS: GENERAL

Interior Opacities and the Standard Solar Model. *John Faulkner & Fritz J. Swenson.* 386, L55, 36-D1 (1992)

Do Quiescent Soft X-Ray Transients Contain Millisecond Radio Pulsars? *L. Stella, S. Campana, M. Colpi, S. Mereghetti, & M. Tavani.* 423, L47, 53-F11 (1994)

STARS: GIANTS

The Chemical Composition of Blue Horizontal Branch Stars in M4 and NGC 6397. *David L. Lambert, Andrew McWilliam, & Verne V. Smith.* 386, 685, 33-G1 (1992)

Discovery of a Fast Wind from a Field Population II Giant Star. *A. K. Dupree, Dimitar D. Sasselov, & John B. Lester.* 387, L85, 48-D11 (1992)

Mass Loss from OH/IR Stars: Models for the Infrared Emission of Circumstellar Dust Shells. *K. Justtanont & A. G. G. M. Tielens.* 389, 400, 64-G10 (1992)

Asymptotic Giant Branch Stars in the Central Regions of M32. *T. J. Davidge & J.-L. Nieto.* 391, L13, 92-A1 (1992)

Constraints on the Galactic Bulge Using *IRAS* Variable Point Sources. *Martin D. Weinberg.* 392, L67, 113-C10 (1992)

The Creation of Superrich Lithium Giants. *I.-Juliana Sackmann & Arnold I. Boothroyd.* 392, L71, 113-D3 (1992)

SiC Particles from Asymptotic Giant Branch Stars: Mg Burning and the *s*-Process. *Lawrence E. Brown & Donald D. Clayton.* 392, L79, 113-E1 (1992)

SO and SO_2 in Mass-Loss Envelopes of Red Giants: Probes of Nonequilibrium Circumstellar Chemistry and Mass-Loss Rates. *Raghvendra Sahai & Peter G. Wannier.* 394, 320, 132-A3 (1992)

Abundances for Giant Stars in the Draco Dwarf Galaxy. *Matthew D. Lehnert, R. A. Bell, James E. Hesser, & J. B. Oke.* 395, 466, 148-C9 (1992)

Sodium, Aluminum, and Oxygen Abundance Variations in Giants in the Globular Cluster M4. *Jeremy J. Drake, Verne V. Smith, & Nicholas B. Suntzeff.* 395, L95, 154-A10 (1992)

Lithium and Rapid Rotation in Chromospherically Active Single Giants. *Francis C. Fekel & Suchitra Balachandran.* 403, 708, 24-E4 (1993)

A Spectroscopic and Photometric Study of FK Comae in 1989. *David P. Huenemoerder, Lawrence W. Ramsey, Derek L. Buzasi, & Harold L. Nations.* 404, 316, 31-G1 (1993)

Angular Diameter Measurements of Cool Giant Stars in Strong TiO Bands and in the Continuum. *A. Quirrenbach, D. Mozurkewich, J. T. Armstrong, D. F. Buscher, & C. A. Hummel.* 406, 215, 57-F9 (1993)

On Partial Mixing Zones in Horizontal-Branch Stellar Cores. *Ben Dorman & Robert T. Rood.* 409, 387, 101-G3 (1993)

Chromospheric Heating by Acoustic Shocks: A Confrontation of GHRS Observations of α Tauri (K5 III) with Ab Initio Calculations. *P. G. Judge & M. Cuntz.* 409, 776, 108-F13 (1993)

The *s*-Process between A = 120 and 124: Signature of Neutron Density and Temperature in Red Giants. *F. Käppeler, W. Schanz, K. Wisshak, & G. Reffo.* 410, 370, 116-F3 (1993)

Abundance Inhomogeneities and Atmospheric Structure in CN-Bimodal Globular Cluster Giants. *Jeremy J. Drake, Bertrand Plez, & Verne V. Smith.* 412, 612, 151-D1 (1993)

Long-Period Radial Velocity Variations in Three K Giants. *Artie P. Hatzes & William D. Cochran.* 413, 339, 160-D13 (1993)

High-Dispersion Spectroscopy of Giants in Metal-poor Globular Clusters. I. Iron Abundances. *Dante Minniti, Doug Geisler, Ruth C. Peterson, & Juan J. Claria.* 413, 548, 163-C8 (1993)

Reaction Rates of the *s*-Process Neutron Sources ^{22}Ne(α, n)^{25}Mg and ^{13}C(α, n)^{16}O. *H. W. Drotleff, A. Denker, H. Knee, M. Soiné, G. Wolf, J. W. Hammer, U. Greife, C. Rolfs, & H. P. Trautvetter.* 414, 735, 180-D3 (1993)

On Why Intermediate-Mass Stars Become Giants after the Exhaustion of Hydrogen in Their Cores. *Icko Iben, Jr.* 415, 767, 197-D5 (1993)

ROSAT X-Ray Detection of ϵ Taurus: Revisiting the Coronal and Transition Region Emission of the Hyades Giants. *A. Collura, A. Maggio, G. Micela, S. Sciortino, F. R. Harnden, Jr., & R. Rosner.* 416, 204, 203-E8 (1993)

An Evolutionary Scenario for Primeval Stellar Populations. *Santi Cassisi & Vittorio Castellani.* 88, 509, 47-B1 (1993)

Abundances in CH Subgiants: Evidence of Mass Transfer onto Main-Sequence Companions. *Verne V. Smith, Howard Coleman, & David L. Lambert.* 417, 287, 221-A13 (1993)

The Tip of the Red Giant Branch as a Distance Indicator for Resolved Galaxies. *Myung Gyoon Lee, Wendy L. Freedman, & Barry F. Madore.* 417, 553, 226-B13 (1993)

Spectroscopy of Giants in the Sextans Dwarf Spheroidal Galaxy. *Nicholas B. Suntzeff, Mario Mateo, Donald M. Terndrup, Edward W. Olszewski, Doug Geisler, & W. Weller.* 418, 208, 233-E12 (1993)

The Extreme Ultraviolet Spectrum of Alpha Aurigae (Capella). *A. K. Dupree, N. S. Brickhouse, G. A. Doschek, J. C. Green, & J. C. Raymond.* 418, L41, 238-E10 (1993)

Spectroscopy of Chromospheric Lines of Giants in the Globular Cluster NGC 6752. *A. K. Dupree, Lee Hartmann, Graeme H. Smith, A. W. Rodgers, W. H. Roberts, & D. B. Zucker.* 421, 542, 24-G9 (1994)

An Observational Estimate of the Probability of Encounters between Mass-losing Evolved Stars and Molecular Clouds. *Joel H. Kastner & P. C. Myers.* 421, 605, 25-G3 (1994)

Radial Velocities of M Giants at 300 Parsec Projected Radius from the Galactic Center. *R. D. Blum, J. S. Carr, D. L. DePoy, K. Sellgren, & D. M. Terndrup.* 422, 111, 31-D9 (1994)

Standard and Nonstandard Plasma Neutrino Emission Revisited. *Martin Haft, Georg Raffelt, & Achim Weiss.* 425, 222, 83-A8 (1994)

The First Detailed Abundance Analysis of Galactic Bulge K Giants in Baade's Window. *Andrew McWilliam & R. Michael Rich.* 91, 749, 29-D1 (1994)

The Determination of the Core Mass at the Helium Flash in Globular Cluster Stars. *Allen V. Sweigart.* 426, 612, 106-A11 (1994)

ROSAT All-Sky Survey Observations of X-Ray Variability in Cool Giant Stars. *Bernhard Haisch & J. H. M. M. Schmitt.* 426, 716, 107-C13 (1994)

The Temperature and Granulation Stability of η Cephei. *David F. Gray.* 428, 765, 139-F13 (1994)

Induced Nucleation of Carbon Dust in Red Giant Stars. *Brian J. Cadwell, Hai Wang, Eric D. Feigelson, & Michael Frenklach.* 429, 285, 147-E10 (1994)

Predictions of Oxygen Isotope Ratios in Stars and of Oxygen-rich Interstellar Grains in Meteorites. *Arnold I. Boothroyd, I.-Juliana Sackmann, & G. J. Wasserburg.* 430, L77, 166-C7 (1994)

The Metallicity of M4: Accurate Spectroscopic Fundamental Parameters for Four Giants. *J. J. Drake, V. V. Smith, & N. B. Suntzeff.* 430, 610, 169-D8 (1994)

Chromospheric Heating and Metal Deficiency in Cool Giants: Theoretical Results versus Observations. *M. Cuntz, W. Rammacher, & P. Ulmschneider.* 432, 690, 204-E12 (1994)

The Radial Velocity Variability of the K Giant β Ophiuchi. I. The Detection of Low-Amplitude, Short-Period Pulsations. *Artie P. Hatzes & William D. Cochran.* 432, 763, 205-E1 (1994)

Four Experiments on Thermal Instabilities in Stellar Envelopes. *Alvio Renzini & Claudio Ritossa.* 433, 293, 212-A5 (1994)

Sodium in Weak G-Band Giants. *Jeremy J. Drake & David L. Lambert.* 435, 797, 257-A13 (1994)

Molecular Rotational Line Profiles from Oxygen-rich Red Giant Winds. *K. Justtanont, C. J. Skinner, & A. G. G. M. Tielens.* 435, 852, 257-G6 (1994)

Missing Opacity in the Atmospheric Models of Red Giants. *C. Ian Short & John B. Lester.* 436, L165, 281-G1 (1994)

Lithium Abundances in Strong Lithium K Giant Stars: LTE and Non-LTE Analyses. *Ramiro de la Reza & Licio da Silva.* 439, 917, 37-C3 (1995)

STARS: HERTZSPRUNG-RUSSELL DIAGRAM

On the Instability Strip of the Cepheid Stars. *C. Chiosi, P. Wood, G. Bertelli, & A. Bressan.* 387, 320, 41-A1 (1992)

The Evolution of Intermediate-Mass Protostars. II. Influence of the Accretion Flow. *Francesco Palla & Steven W. Stahler.* 392, 667, 110-E5 (1992)

Stellar Models and the Brightening of P Cygni. *Mounib F. El Eid & Dieter H. Hartmann.* 404, 271, 31-C5 (1993)

The Structure of the Core of 47 Tucanae from *Hubble Space Telescope* Observations. *Guido De Marchi, Francesco Paresce, & Francesco R. Ferraro.* 85, 293, 11-B3 (1993)

The Distance to Nearby Galaxy NGC 3109 Based on the Tip of the Red Giant Branch. *Myung Gyoon Lee.* 408, 409, 90-C8 (1993)

Reddening Errors and the Post–Main-Sequence Distribution of Stars in the H-R Diagram of the Large Magellanic Cloud. *N. Rathnasree.* 410, L99, 126-B5 (1993)

Interacting Massive Binaries, H-R Diagram of the Large Magellanic Cloud and SN 1987A. *N. Rathnasree.* 411, 848, 140-D1 (1993)

Bolometric Temperatures of Young Stellar Objects. *P. C. Myers & E. F. Ladd.* 413, L47, 162-G1 (1993)

The Tip of the Red Giant Branch as a Distance Indicator for Resolved Galaxies. *Myung Gyoon Lee, Wendy L. Freedman, & Barry F. Madore.* 417, 553, 226-B13 (1993)

The Population of Massive Stars in R136 from Faint Object Camera Ultraviolet Observations. *Guido De Marchi, Antonella Nota, Claus Leitherer, Roberto Ragazzoni, & Cesare Barbieri.* 419, 658, 255-G10 (1993)

The Stellar Population in the Core of M15. *Guido De Marchi & Francesco Paresce.* 422, 597, 39-C6 (1994)

An Ultraviolet-Visible Investigation of the Globular Cluster NGC 1851. *Ronald A. Parise, Stephen P. Maran, Wayne B. Landsman, Ralph C. Bohlin, Kwang-Ping Cheng, Michael R. Greason, Paul M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 423, 305, 49-G7 (1994)

The Initial Mass Function for Massive Stars in the Magellanic Clouds. I. *UBV* Photometry and Color-Magnitude Diagrams for 14 OB Associations. *Robert J. Hill, Barry F. Madore, & Wendy L. Freedman.* 91, 583, 27-C8 (1994)

The Gap in the Color-Magnitude Diagram of NGC 2420: A Test of Convective Overshoot and Cluster Age. *Pierre Demarque, Ata Sarajedini, & X.-J. Guo.* 426, 165, 98-B12 (1994)

Color-Magnitude Diagram Distribution of the Bulge Red Clump Stars: Evidence for the Galactic Bar. *K. Z. Stanek, M. Mateo, A. Udalski, M. Szymański, J. Kałużny, & M. Kubiak.* 429, L73, 158-B9 (1994)

Constraints to the Masses of Brown Dwarf Candidates from the Lithium Test. *Eduardo L. Martín, Rafael Rebolo, & Antonio Magazzù.* 436, 262, 264-G9 (1994)

Classical Cepheids with Terminal Age Main-Sequence Companions: Constraints on Evolution. *Nancy Remage Evans.* 436, 273, 265-A12 (1994)

Comprehensive Stellar Population Models and the Disentanglement of Age and Metallicity Effects. *Guy Worthey.* 95, 107, 65-E2 (1994)

A Study of Carina OB2 Association. II. Analysis and Discussion of the Data. *Beatriz García.* 436, 705, 275-B13 (1994)

Formation and Evolution of Massive Stars. *Martin Beech & R. Mitalas.* 95, 517, 71-D9 (1994)

Very Low Mass Stars and White Dwarfs in NGC 6397. *Francesco Paresce, Guido De Marchi, & Martino Romaniello.* 440, 216, 44-B13 (1995)

Magnitude Offset between Lensed Stars and Observed Stars: A New Probe of the Structure of the Galactic Bar. *K. Z. Stanek.* 441, L29, 66-G3 (1995)

The Hot End of Evolutionary Horizontal Branches. *V. Castellani, S. Degl'Innocenti, & L. Pulone.* 446, 228, 156-C8 (1995)

The Intermediate Stellar Mass Population in R136 Determined from *Hubble Space Telescope* Planetary Camera 2 Images. *Deidre A. Hunter, Edward J. Shaya, Jon A. Holtzman, Robert M. Light, Earl J. O'Neil, Jr., & Roger Lynds.* 448, 179, 194-E7 (1995)

An Infrared Spectroscopic Survey of the ρ Ophiuchi Young Stellar Cluster: Masses and Ages from the H-R Diagram. *Thomas P. Greene & Michael R. Meyer.* 450, 233, 231-C3 (1995)

Ages for Globular Clusters with Predominantly Red Horizontal Branches. *Ata Sarajedini, Young-Wook Lee, & Dong-Han Lee.* 450, 712, 240-E7 (1995)

STARS: HIGH-VELOCITY

Two High-Velocity Stars Shot Out from the Core of the Globular Cluster 47 Tucanae. *G. Meylan, P. Dubath, & M. Mayor.* 383, 587, 221-E4 (1991)

STARS: HORIZONTAL-BRANCH

Application of Oxygen-enhanced Evolutionary Sequences to the Horizontal Branch of M15. *Ben Dorman, Young-Wook Lee, & Don A. VandenBerg.* 366, 115, 2-D11 (1991)

Evolutionary Models of Halo Stars with Rotation. I. Evidence for Differential Rotation with Depth in Stars. *Marc H. Pinsonneault, Constantine P. Deliyannis, & Pierre Demarque.* 367, 239, 15-A12 (1991)

Stellar Evolution and Period Changes in RR Lyrae Stars. *Young-Wook Lee.* 367, 524, 19-G7 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

The Globular Cluster ω Centauri: The Origin of the Mysterious Correlation between the RR Lyrae Luminosity and [Fe/H]. *Young-Wook Lee.* 373, L43, 97-B7 (1991)

Detection of a Galactic Color Gradient for Blue Horizontal-Branch Stars of the Halo Field and Implications for the Halo Age and Density Distributions. *George W. Preston, Stephen A. Shectman, & Timothy C. Beers.* 375, 121, 112-E1 (1991)

The Evolution of He-burning Stars: Horizontal and Asymptotic Branches in Galactic Globulars. *V. Castellani, A. Chieffi, & L. Pulone.* 76, 911, 37-C5 (1991)

Photoelectric *UBV* Photometry of Stars Selected in the HK Objective-Prism Survey. *George W. Preston, Stephen A. Shectman, & Timothy C. Beers.* 76, 1001, 38-G5 (1991)

Population Studies. X. Constraints on the Mass and Extent of the Galaxy's Dark Corona. *John E. Norris & M. R. S. Hawkins.* 380, 104, 177-C11 (1991)

JHK Imaging of a Field in Baade's Window. *T. J. Davidge.* 380, 116, 177-E1 (1991)

The Galactic Globular Cluster System: Theoretical Constraints for α-enhanced Compositions. *D. Bencivenni, F. Caputo, M. Manteiga, & M. L. Quarta.* 380, 484, 184-C1 (1991)

The Chemical Composition of Blue Horizontal Branch Stars in M4 and NGC 6397. *David L. Lambert, Andrew McWilliam, & Verne V. Smith.* 386, 685, 33-G1 (1992)

The Evolution of High-Metallicity Horizontal-Branch Stars and the Origin of the Ultraviolet Light in Elliptical Galaxies. *E. Horch, P. Demarque, & M. Pinsonneault.* 388, L53, 59-B7 (1992)

The Structure of Horizontal-Branch Models. I. The Zero-Age Horizontal Branch. *Ben Dorman.* 80, 701, 33-B5 (1992)

Oxygen-enhanced Models for Globular Cluster Stars. III. Horizontal-Branch Sequences. *Ben Dorman.* 81, 221, 38-A3 (1992)

Optical and Infrared Imaging of Stars in the Metal-rich Globular Clusters NGC 6304 and NGC 6316. *T. J. Davidge, William E. Harris, T. J. Bridges, & D. A. Hanes.* 81, 251, 38-D5 (1992)

An Ultraviolet Imaging Telescope Study of the Globular Cluster M79 (NGC 1904). *Robert S. Hill, Jesse K. Hill, Wayne B. Landsman, Ralph C. Bohlin, K.-P. Cheng, Paul M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L17, 144-F1 (1992)

Ultraviolet Properties of Individual Hot Stars in Globular Cluster Cores. I. NGC 1904 (M79). *B. Altner & T. A. Matilsky.* 410, 116, 113-E8 (1993)

The Case Low-Dispersion Northern Sky Survey. XIV. A–F Stars in a Region in Southern Canes Venatici. *D. Jack MacConnell, C. B. Stephenson, & Peter Pesch.* 86, 453, 20-D9 (1993)

The Proto-Galaxy, Globular Clusters, and Quasars. *Sidney van den Bergh.* 411, 178, 129-C13 (1993)

The Effect of Livermore Opal Opacities on the Evolutionary Masses of RR Lyrae Stars. *Sukyoung Yi, Young-Wook Lee, & Pierre Demarque.* 411, L25, 133-G8 (1993)

The Ultraviolet Radiation in Metal-rich Elliptical Galaxies. *Uffe Grå Jørgensen & Peter Thejll.* 411, L67, 142-C5 (1993)

A Method for Quantitative Detection of Hot Horizontal Branches in Early-Type Galaxies. *Guy Worthey.* 415, L91, 199-G6 (1993)

Ultraviolet Morphologies of Globular Clusters Observed with the Ultraviolet Imaging Telescope. *Eric P. Smith, Wayne B. Landsman, Robert S. Hill, Ralph C. Bohlin, Kwang-Ping Cheng, Paul Hintzen, Stephen P. Maran, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 418, 850, 243-B8 (1993)

The Horizontal-Branch Stars in Globular Clusters. II. The Second Parameter Phenomenon. *Young-Wook Lee, Pierre Demarque, & Robert Zinn.* 423, 248, 49-B9 (1994)

Oosterhoff Dichotomy in the Galaxy and Globular Clusters in the Large Magellanic Cloud. *Giuseppe Bono, Filippina Caputo, & Robert F. Stellingwerf.* 423, 294, 49-F8 (1994)

An Ultraviolet-Visible Investigation of the Globular Cluster NGC 1851. *Ronald A. Parise, Stephen P. Maran, Wayne B. Landsman, Ralph C. Bohlin, Kwang-Ping Cheng, Michael R. Greason, Paul M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 423, 305, 49-G7 (1994)

Mass Loss during the RR Lyrae Phase of the Horizontal Branch: Mass Dispersion on the Horizontal Branch and RR Lyrae Period Changes. *Rebecca A. Koopmann, Young-Wook Lee, Pierre Demarque, & Jamie M. Howard.* 423, 380, 50-G7 (1994)

The Determination of the Core Mass at the Helium Flash in Globular Cluster Stars. *Allen V. Sweigart.* 426, 612, 106-A11 (1994)

The Global Second Parameter Phenomenon and the Origin of the Ultraviolet Radiation from Elliptical Galaxies. *Young-Wook Lee.* 430, L113, 174-G3 (1994)

Atmospheric Parameters of Field Subdwarf B Stars. *Rex A. Saffer, P. Bergeron, D. Koester, & James Liebert.* 432, 351, 197-E1 (1994)

On the Application of the Baade-Wesselink Method to RR Lyrae Stars. *G. Bono, F. Caputo, & R. F. Stellingwerf.* 432, L51, 199-G7 (1994)

Far-Ultraviolet Imaging of the Globular Cluster NGC 6681 with WFPC2. *Alan M. Watson, Jeremy R. Mould, John S. Gallagher III, Gilda E. Ballester, Christopher J. Burrows, Stefano Casertano, John T. Clarke, David Crisp, Richard E. Griffiths, J. Jeff Hester, John G. Hoessel, Jon A. Holtzman, Paul A. Scowen, Karl R. Stapelfeldt, John T. Trauger, & James A. Westphal.* 435, L55, 252-D4 (1994)

Ultraviolet Radiation from Evolved Stellar Populations. II. The Ultraviolet Upturn Phenomenon in Elliptical Galaxies. *Ben Dorman, Robert W. O'Connell, & Robert T. Rood.* 442, 105, 78-F6 (1995)

The RR Lyrae Fundamental Red Edge. *G. Bono, F. Caputo, V. Castellani, M. Marconi, L. Staiano, & R. F. Stellingwerf.* 442, 159, 79-D1 (1995)

Transient Phenomena and Modal Stability in RR Lyrae and BL Herculis Variable Stars. *G. Bono, V. Castellani, & R. F. Stellingwerf.* 445, L145, 151-G3 (1995)

Synthetic Mean Colors for RR Lyrae Variables. *Giuseppe Bono, Filippina Caputo, & Robert F. Stellingwerf.* 99, 263, 37-F8 (1995)

RR Lyrae Variable Stars: Pulsational Constraints Relevant to the Oosterhoff Controversy. *Giuseppe Bono, Filippina Caputo, Vittorio Castellani, & Marcella Marconi.* 448, L115, 209-E3 (1995)

Are the Luminosities of RR Lyrae Stars Affected by Second Parameter Effects? *Sidney van den Bergh.* 451, L65, 260-F1 (1995)

Rotation and Oxygen Line Strengths in Blue Horizontal-Branch Stars. *Ruth C. Peterson, Robert T. Rood, & Deborah A. Crocker.* 453, 214, 284-B1 (1995)

STARS: IMAGING

Multiple Jets from the Young Star IRAS 21334+5039. *Howard A. Smith & Jacqueline Fischer.* 398, L99, 194-D1 (1992)

The Asymmetric Envelope of γ Cassiopeiae Observed with the Mk III Optical Interferometer. *A. Quirrenbach, C. A. Hummel, D. F. Buscher, J. T. Armstrong, D. Mozurkewich, & N. M. Elias II.* 416, L25, 207-D7 (1993)

Mid-Infrared Images of the Post–Asymptotic Giant Branch Star HD 161796. *C. J. Skinner, M. M. Meixner, G. W. Hawkins, E. Keto, J. G. Jernigan, & J. F. Arens.* 423, L135, 61-B11 (1994)

Estimating the Cramér-Rao Bound for Restored Astronomical Observations. *T. S. Zaccheo, R. A. Gonsalves, S. M. Ebstein, & P. Nisenson.* 439, L43, 40-C11 (1995)

The Dust Disk around the Vega-Excess Star SAO 26804. *C. J. Skinner, R. J. Sylvester, J. R. Graham, M. J. Barlow, M. Meixner, E. Keto, J. F. Arens, & J. G. Jernigan.* 444, 861, 128-C13 (1995)

The Discovery of a Jetlike Feature from the Massive Star Herschel 36. *B. Stecklum, T. Henning, A. Eckart, R. R. Howell, & M. G. Hoare.* 445, L153, 152-A3 (1995)

Vertical Disk Structure in HL Tauri. *Steven V. W. Beckwith & Christoph C. Birk.* 449, L59, 217-A4 (1995)

STARS: INDIVIDUAL

Constellation Name: α Andromedae

Determination of the Visual Orbit of the Spectroscopic Binary α Andromedae with Submilliarcsecond Precison. *Xiaopei Pan, Michael Shao, M. Mark Colavita, J. Thomas Armstrong, David Mozurkewich, Maddali Vivekanand, Craig S. Denison, Richard S. Simon, & Kenneth J. Johnston.* 384, 624, 9-G9 (1992)

Constellation Name: ϕ Andromedae

Imaging Spectroscopy with High Spatial Resolution. *Naoshi Baba, Susumu Kuwamura, Noriaki Miura, & Yuji Norimoto.* 431, L111, 192-A1 (1994)

Constellation Name: AR Andromedae

A Radial Velocity Study of the Dwarf Nova AR Andromedae: Comparison of the Quiescent and Outburst States. *A. W. Shafter, J. M. Veal, & E. L. Robinson.* 440, 853, 54-G10 (1995)

Constellation Name: PX Andromedae

PX Andromedae and the SW Sexantis Phenomenon. *Coel Hellier & E. L. Robinson.* 431, L107, 191-G6 (1994)

Constellation Name: SW Andromedae

The Baade-Wesselink Method and the Distances to RR Lyrae Stars. VII. The Field Stars SW Andromedae and DX Delphini and a Comparison of Recent Baade-Wesselink Analyses. *Rodney V. Jones, Bruce W. Carney, Jesper Storm, & David W. Latham.* 386, 646, 33-C14 (1992)

Constellation Name: Z Andromedae

The Active Phase of the Hot Component of Z Andromedae. *T. Fernández-Castro, R. González-Riestra, A. Cassatella, A. R. Taylor, & E. R. Seaquist.* 442, 366, 82-B4 (1995)

Constellation Name: AE Aquarii

The Pulse-timing and Emission-Line Orbits of the White Dwarf in the Cataclysmic Variable AE Aquarii. *Edward L. Robinson, Allen W. Shafter, & S. Balachandran.* 374, 298, 101-G1 (1991)

The Unusual X-Ray Pulse Timing of AE Aquarii. *O. C. de Jager.* 378, 286, 154-E1 (1991)

AE Aquarii: An Emitter of Pulsed TeV Gamma Rays Resembling Optical Emission during Flares. *P. J. Meintjes, B. C. Raubenheimer, O. C. de Jager, C. Brink, H. I. Nel, A. R. North, G. van Urk, & B. Visser.* 401, 325, 225-A11 (1992)

Optical Spectrophotometry of Oscillations and Flickering in AE Aquarii. *William F. Welsh, Keith Horne, & J. B. Oke.* 406, 229, 57-G12 (1993)

The Spectrum and Variability of Radio Emission from AE Aquarii. *Meil Abada-Simon, Alain Lecacheux, Tim S. Bastian, Jay A. Bookbinder, & George A. Dulk.* 406, 692, 66-D12 (1993)

On the Location of the Oscillations in AE Aquarii. *William F. Welsh, Keith Horne, & Richard Gomer.* 410, L39, 118-D1 (1993)

Evidence for Particle Acceleration in a Magnetized White Dwarf from Radio and Gamma-Ray Observations. *O. C. De Jager.* 90, 775, 13-D3 (1994)

The Ultraviolet Pulsations of the Cataclysmic Variable AE Aquarii as Observed with the *Hubble Space Telescope*. *Michael Eracleous, Keith Horne,*

Edward L. Robinson, Er-Ho Zhang, Thomas R. Marsh, & Janet H. Wood. 433, 313, 212-C1 (1994)

Simultaneous Optical and TeV Gamma-Ray Observations of the Cataclysmic Variable AE Aquarii. *P. J. Meintjes, O. C. de Jager, B. C. Raubenheimer, H. I. Nel, A. R. North, D. A. H. Buckley, & C. Koen.* 434, 292, 229-E1 (1994)

Constellation Name: FO Aquarii

Spectroscopy of FO Aquarii: Evidence for Reprocessing in a Hot Wind. *Phillip J. Martell & Ronald H. Kaitchuck.* 366, 286, 4-E5 (1991)

On Martell and Kaitchuck's Model for the Intermediate Polar FO Aquarii. *Koji Mukai & Coel Hellier.* 391, 295, 89-E10 (1992)

Constellation Name: R Aquarii

First Results from the Faint Object Camera: Imaging the Core of R Aquarii. *F. Paresce, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 369, L67, 46-B7 (1991)

Ultraviolet and Optical Spectroscopy of the R Aquarii Symmetrical Jet. *J. M. Hollis, R. J. Oliversen, M. Kafatos, A. G. Michalitsianos, & R. M. Wagner.* 377, 227, 140-F11 (1991)

R Aquarii: Hα Map of Subarcsecond Inner Structure. *E. K. Hege, C. K. Allen, & W. J. Cocke.* 381, 543, 197-D6 (1991)

Comparing Restored *HST* and VLA Imagery of R Aquarii. *J. M. Hollis, J. E. Dorband, & F. Yusef-Zadeh.* 386, 293, 27-G3 (1992)

The Structure of the Inner Arcsecond of R Aquarii Observed with the *Hubble Space Telescope*. *Denis Burgarella & Francesco Paresce.* 389, L29, 66-D10 (1992)

Evidence Signaling the Start of Enhanced Counterjet Flow in the Symbiotic System R Aquarii. *A. G. Michalitsianos, M. Perez, & M. Kafatos.* 423, 441, 51-E13 (1994)

Ultraviolet Temporal Variability of the Peculiar Star R Aquarii. *S. R. Meier & M. Kafatos.* 451, 359, 250-G5 (1995)

Constellation Name: UU Aquarii

Multicolor Eclipse Studies of UU Aquarii. I. Observations and System Parameters. *R. Baptista, J. E. Steiner, & D. Cieslinski.* 433, 332, 212-D8 (1994)

Constellation Name: Aquila X-1

Detection of Coherent 7.6 Hz Oscillations during a Burst from Aquila X-1. *R. J. Schoelkopf & R. L. Kelley.* 375, 696, 121-D1 (1991)

Thermonuclear Flash Model for Long X-Ray Tails from Aquila X-1. *Ikko Fushiki, Ronald E. Taam, S. E. Woosley, & D. Q. Lamb.* 390, 634, 83-B9 (1992)

The Unstable Long-Term Periodicity of Aquila X-1. *Shunji Kitamoto, Hiroshi Tsunemi, Sigenori Miyamoto, & Diane Roussel-Dupre.* 403, 315, 17-F13 (1993)

Constellation Name: α Aquilae

A Search for Chromospheric Emission in A-Type Stars Using the Goddard High-Resolution Spectrograph. *Theodore Simon, Wayne B. Landsman, & Ronald L. Gilliland.* 428, 319, 132-B5 (1994)

Chromospheric Models for Altair (A7 IV–V). *R. Freire Ferrero, P. Gouttebroze, S. Catalano, E. Marilli, F. Bruhweiler, Y. Kondo, K. van der Hucht, & A. Talavera.* 439, 1011, 38-E12 (1995)

Constellation Name: 20 Aquilae

The Diffuse Interstellar Cloud toward HD 179406 (20 Aquilae). *Margaret Murray Hanson, Theodore P. Snow, & John H. Black.* 392, 571, 109-C12 (1992)

Constellation Name: V603 Aquilae

Possible First Detection of Ultraviolet Pulses from an Intermediate Polar: V603 Aquila. *A. Schwarzenberg-Czerny, A. Udalski, & R. Monier.* 401, L19, 227-C7 (1992)

The 1991 V603 Aquilae Campaign: Superhumps and *P*-Dots. *Joseph Patterson, Gino Thomas, David R. Skillman, & Marcos Diaz.* 86, 235, 17-B7 (1993)

Constellation Name: V794 Aquilae

The High-State/Low-State Transition in V794 Aquilae. *R. Kent Honeycutt, John K. Cannizzo, & Jeff W. Robertson.* 425, 835, 92-B9 (1994)

Constellation Name: Nova Aquilae 1995

Hopkins Ultraviolet Telescope Observations of Nova Circini 1995 and Nova Aquilae 1995. *Bradford W. Greeley, William P. Blair, & Knox S. Long.* 454, L43, 308-B1 (1995)

Constellation Name: UX Arietis

Flaring and Quiescent Radio Emission of UX Arietis: A Time-dependent Model. *F. Chiuderi Drago & E. Franciosini.* 410, 301, 115-G3 (1993)

Correlations between the Flaring Radio Emission and Starspot Distribution of UX Arietis. *Nicholas M. Elias II, Andreas Quirrenbach, Arno Witzel, Christian E. Naundorf, Ralf Wegner, Edward F. Guinan, & George P. McCook.* 439, 983, 38-B13 (1995)

Constellation Name: α Aurigae

The Many Faces of F Stars: A Rotational Modulation Study of Capella, Procyon, and Caph with the *International Ultraviolet Explorer*. *Thomas R. Ayres.* 375, 704, 121-D11 (1991)

Extreme Ultraviolet Spectroscopy of Capella. *James C. Green, Erik Wilkinson, Thomas R. Ayres, & Webster Cash.* 397, L99, 181-C8 (1992)

Goddard High-Resolution Spectrograph Observations of the Local Interstellar Medium and the Deuterium/Hydrogen Ratio along the Line of Sight toward Capella. *Jeffrey L. Linsky, Alexander Brown, Ken Gayley, Athanassios Diplas, Blair D. Savage, Thomas R. Ayres, Wayne Landsman, Steven N. Shore, & Sara R. Heap.* 402, 694, 11-C1 (1993)

The Hydrogen Lyman-Alpha Emission of Capella. *Thomas R. Ayres, A. Brown, K. G. Gayley, & Jeffrey L. Linsky.* 402, 710, 11-D5 (1993)

The Extreme Ultraviolet Spectrum of Alpha Aurigae (Capella). *A. K. Dupree, N. S. Brickhouse, G. A. Doschek, J. C. Green, & J. C. Raymond.* 418, L41, 238-E10 (1993)

The Extreme Ultraviolet Spectrograph: A Radial Groove Grating, Sounding Rocket–borne, Astronomical Instrument. *Erik Wilkinson, James C. Green, & Webster Cash.* 89, 211, 51-F5 (1993)

The Transition Regions of Capella. *Jeffrey L. Linsky, Brian E. Wood, Philip Judge, Alexander Brown, Catherine Andrulis, & Thomas R. Ayres.* 442, 381, 82-C9 (1995)

A Reanalysis of the SWP-HI *IUE* Observations of Capella. *Brian E. Wood & Thomas R. Ayres.* 443, 329, 99-F7 (1995)

New Model of Iron Spectra in the Extreme Ultraviolet and Application to SERTS and *EUVE* Observations: A Solar Active Region and Capella. *N. S. Brickhouse, J. C. Raymond, & B. W. Smith.* 97, 551, 19-F4 (1995)

Deuterium and the Local Interstellar Medium Properties for the Procyon and Capella Lines of Sight. *Jeffrey L. Linsky, Athanassios Diplas, Brian E. Wood, Alexander Brown, Thomas R. Ayres, & Blair D. Savage.* 451, 335, 250-E2 (1995)

Constellation Name: ϵ Aurigae

Interpreting Epsilon Aurigae. *Sean M. Carroll, Edward F. Guinan, George P. McCook, & Robert A. Donahue.* 367, 278, 15-E1 (1991)

Constellation Name: ι Aurigae

X-Ray Emission on Hybrid Stars: *ROSAT* Observations of α Trianguli Australis and ι Aurigae. *V. Kashyap, R. Rosner, F. R. Harnden, Jr., A. Maggio, G. Micela, & S. Sciortino.* 431, 402, 181-A13 (1994)

Constellation Name: ζ Aurigae

On the Chromospheric Structure of ζ Aurigae. *Joel A. Eaton.* 404, 305, 31-F1 (1993)

A Non-LTE Analysis of the ζ Aurigae B-Type Secondary. I. Determination of the Fundamental Stellar Parameters. *Philip D. Bennett, Alexander Brown, & Jeffrey L. Linsky.* 455, 317, 322-D14 (1995)

Constellation Name: AB Aurigae

Spatially Resolved Mid-Infrared Observations of Circumstellar Dust around AB Aurigae. *Kenneth A. Marsh, Jeffrey E. Van Cleve, M. J. Mahoney, T. L. Hayward, & J. R. Houck.* 451, 777, 257-G10 (1995)

Constellation Name: KR Aurigae

Quasi-periodic Oscillations in the Cataclysmic Variable KR Aurigae. *Jyoti Singh, P. Vivekananda Rao, P. C. Agrawal, K. M. V. Apparao, R. K. Manchanda, B. B. Sanwal, & M. B. K. Sarma.* 419, 337, 250-D3 (1993)

Constellation Name: QZ Aurigae

The Masses of V838 Herculis (Nova Herculis 1991) and QZ Aurigae. *Paula Szkody & Doug Ingram.* 420, 830, 13-C3 (1994)

A Multicolor Eclipse Study of the Classical Nova QZ Aurigae (Nova Aurigae 1964). *R. D. Campbell & A. W. Shafter.* 440, 336, 45-G1 (1995)

Constellation Name: RW Aurigae

Asymmetries in Bipolar Jets from Young Stars. *Gerhard A. Hirth, Reinhard Mundt, Josef Solf, & Thomas P. Ray.* 427, L99, 127-B11 (1994)

Constellation Name: SU Aurigae

A Synoptic Study of Hα Line Profile Variability in the T Tauri Star SU Aurigae. *Mark S. Giampapa, Gibor S. Basri, Christopher M. Johns, & Catherine L. Imhoff.* 89, 321, 54-A8 (1993)

The Line Profile Variability of SU Aurigae. *Christopher M. Johns & Gibor Basri.* 449, 341, 214-G3 (1995)

Constellation Name: SX Aurigae

A Spectrum Synthesis Program for Binary Stars. *Albert P. Linnell & Ivan Hubeny.* 434, 738, 238-A4 (1994)

Constellation Name: α Bootis

Digging in the Coronal Graveyard: A *ROSAT* Observation of the Red Giant Arcturus. *Thomas R. Ayres, Thomas A. Fleming, & Juergen H. M. M. Schmitt.* 376, L45, 137-C7 (1991)

The Nonsolar Abundance Ratios of Arcturus Deduced from Spectrum Synthesis. *Ruth C. Peterson, Cristina M. Dalle Ore, & Robert L. Kurucz.* 404, 333, 32-A8 (1993)

Short-Period Radial Velocity Variations of α Bootis: Evidence for Radial Pulsations. *Artie P. Hatzes & William D. Cochran.* 422, 366, 34-E11 (1994)

Generation of Mass Loss in K Giants: The Failure of Global Oscillation Modes and Possible Implications. *G. Sutmann & M. Cuntz.* 442, L61, 94-E7 (1995)

Constellation Name: η Bootis

Modeling Solar-like Oscillations in η Bootis. *Jørgen Christensen-Dalsgaard, Timothy R. Bedding, & Hans Kjeldsen.* 443, L29, 102-F1 (1995)

Constellation Name: ξ Bootis

Can the Starpatch on ξ Bootis A Be Explained by Using Tangential Flows? *Clifford G. Toner & Barry J. LaBonte.* 368, 633, 33-A10 (1991)

Constellation Name: CN Bootis

Digging in the Coronal Graveyard: A *ROSAT* Observation of the Red Giant Arcturus. *Thomas R. Ayres, Thomas A. Fleming, & Juergen H. M. M. Schmitt.* 376, L45, 137-C7 (1991)

Constellation Name: TY Bootis

Analysis and Solution of the Light and Radial Velocity Curves of the Contact Binary TY Bootis. *E. F. Milone, G. Groisman, D. J. I. Fry, & D. H. Bradstreet.* 370, 677, 56-G5 (1991)

Constellation Name: α Camelopardalis

The Visual and Ultraviolet Polarimetric Data of α Camelopardalis and κ Cassiopeia: Evidence of Shocked Regions. *Geoffrey K. Fox, John C. Brown, & Karen S. Bjorkman.* 447, 889, 188-B8 (1995)

Constellation Name: BY Camelopardalis

Broad-Band X-Ray Telescope Observations of the Magnetic Cataclysmic Variable H0538+608 = BY Camelopardalis. *T. R. Kallman, E. M. Schlegel, P. J. Serlemitsos, R. Petre, F. Marshall, K. Jahoda, E. A. Boldt, S. S. Holt, R. F. Mushotzky, J. Swank, A. E. Szymkowiak, R. L. Kelley, A. Smale, K. Arnaud, K. Weaver, & F. B. Paerels.* 411, 869, 140-E12 (1993)

Phase-resolved *IUE* and Optical Observations of the Polar BY Camelopardalis. *D. B. Zucker, J. C. Raymond, A. Silber, P. Mason, S. Curiel, S. Vrtilek, & E. Schlegel.* 449, 310, 214-D1 (1995)

Constellation Name: TX Camelopardalis

Observation of a Ring Structure in SiO Maser Emission from Late-Type Stars. *P. J. Diamond, A. J. Kemball, W. Junor, A. Zensus, J. Benson, & V. Dhawan.* 430, L61, 166-A10 (1994)

Constellation Name: Z Camelopardalis

Spectroscopy of Z Camelopardalis in Outburst with the Hopkins Ultraviolet Telescope. *Knox S. Long, William P. Blair, Arthur F. Davidsen, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Richard C. Henry, Gerard A. Kriss, Jeffrey W. Kruk, H. Warren Moos, Olaf Vancura, Henry C. Ferguson, & Randy A. Kimble.* 381, L25, 194-D5 (1991)

Constellation Name: 53 Camelopardalis

A Crucial Test of the Diffusion Model: 53 Camelopardalis. *J. Babel & G. Michaud.* 366, 560, 10-A5 (1991)

The Abundances of Pt, Au, and Hg in the Chemically Peculiar HgMn-Type Stars κ Cancri and χ Lupi. *Glenn M. Wahlgren, David S. Leckrone, Sveneric G. Johansson, Maria Rosberg, & Tomas Brage.* 444, 438, 119-E11 (1995)

Constellation Name: UU Cancri

Mass Loss in the 96 Day Binary UU Cancri. *Joel A. Eaton, Douglas S. Hall, & R. Kent Honeycutt.* 376, 289, 128-E1 (1991)

Constellation Name: β Canis Majoris

The Interstellar Tunnel of Neutral-free Gas toward β Canis Majoris. *Barry Y. Welsh.* 373, 556, 94-G8 (1991)

Constellation Name: ε Canis Majoris

Intense Extreme Ultraviolet Emission from the B Star ε Canis Majoris. *John V. Vallerga, Peter W. Vedder, & Barry Y. Welsh.* 414, L65, 185-C11 (1993)

EUVE Spectroscopy of ε Canis Majoris (B2 II) from 70 to 730 Å. *J. P. Cassinelli, D. H. Cohen, J. J. MacFarlane, J. E. Drew, A. E. Lynas-Gray, M. G. Hoare, J. V. Vallerga, B. Y. Welsh, P. W. Vedder, I. Hubeny, & T. Lanz.* 438, 932, 17-A8 (1995)

ε Canis Majoris and the Ionization of the Local Cloud. *J. V. Vallerga & B. Y. Welsh.* 444, 702, 126-A9 (1995)

Constellation Name: 29 Canis Majoris

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. III. 29 UW Canis Majoris. *Michael S. Wiggs & Douglas R. Gies.* 407, 252, 72-B11 (1993)

Constellation Name: 29 UW Canis Majoris

Tomographic Separation of Composite Spectra. II. The Components of 29 UW Canis Majoris. *William G. Bagnuolo, Jr., Douglas R. Gies, Michael E. Hahula, Rafael Wiemker, & Michael S. Wiggs.* 423, 446, 51-F7 (1994)

Constellation Name: EZ Canis Majoris

On the Wind Geometry of the Wolf-Rayet Star EZ Canis Majoris. *R. E. Schulte-Ladbeck, K. H. Nordsieck, M. Taylor, M. A. Nook, K. S. Bjorkman, A. M. Magalhães, & C. M. Anderson.* 382, 301, 204-A1 (1991)

The First Linear Polarization Spectra of Wolf-Rayet Stars in the Ultraviolet: EZ Canis Majoris and θ Muscae. *R. E. Schulte-Ladbeck, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, D. Shepherd, M. Taylor, & B. A. Whitney.* 391, L37, 92-C6 (1992)

Photometry, Polarimetry, Spectroscopy, and Spectropolarimetry of the Enigmatic Wolf-Rayet Star EZ Canis Majoris. *Carmelle Robert, Anthony F. J. Moffat, Laurent Drissen, Robert Lamontagne, Wilhelm Seggewiss, Virpi S. Niemela, Miguel A. Cerruti, Paul Barrett, Jeremy Bailey, Jorge Garcia, & Santiago Tapia.* 397, 277, 171-D1 (1992)

The Spectrum of EZ Canis Majoris (HD 50896) to the Lyman Limit with the Hopkins Ultraviolet Telescope. *Stephan R. McCandliss, Richard H. Buss, Jr., William P. Blair, Charles W. Bowers, Arthur F. Davidsen, Paul D. Feldman, & Jeffrey W. Kruk.* 416, 372, 205-F3 (1993)

Constellation Name: VY Canis Majoris

Circular and Linear Polarization of the SiO Masers in VY Canis Majoris. *G. C. McIntosh, C. Read Predmore, & Nimesh A. Patel.* 428, L29, 134-E1 (1994)

Constellation Name: Z Canis Majoris

The High State of the FU Orionis Variable Z Canis Majoris. *F. V. Hessman, J. Eislöffel, R. Mundt, L. W. Hartmann, W. Herbst, & J. Krautter.* 370, 384, 52-A10 (1991)

Optical Spectroscopy of Z Canis Majoris, V1057 Cygni, and FU Orionis: Accretion Disks and Signatures of Disk Winds. *Alan D. Welty, Stephen E. Strom, Suzan Edwards, Scott J. Kenyon, & Lee W. Hartmann.* 397, 260, 171-B11 (1992)

A Binary Origin for FU Orionis Stars. *Ian Bonnell & Pierre Bastien.* 401, L31, 227-E1 (1992)

Spectrum of the "Invisible" Companion of Z Canis Majoris Revealed in Polarized Light. *Barbara A. Whitney, Geoffrey C. Clayton, Regina E. Schulte-Ladbeck, Nuria Calvet, Lee Hartmann, & Scott J. Kenyon.* 417, 687, 228-A1 (1993)

Constellation Name: α Canis Minoris

Detection of Possible *p*-Mode Oscillations on Procyon. *Timothy M. Brown, Ronald L. Gilliland, Robert W. Noyes, & Lawrence W. Ramsey.* 368, 599, 32-E8 (1991)

The Many Faces of F Stars: A Rotational Modulation Study of Capella, Procyon, and Caph with the *International Ultraviolet Explorer*. *Thomas R. Ayres.* 375, 704, 121-D11 (1991)

Evolution and Seismology of Procyon. *D. B. Guenther & P. Demarque.* 405, 298, 44-G6 (1993)

Detection of Radio Continuum Emission from Procyon. *Stephen A. Drake, Theodore Simon, & Alexander Brown.* 406, 247, 58-B5 (1993)

Acoustic Heating of the Chromosphere and Cool Corona in the F Star α Canis Minoris (Procyon). *D. J. Mullan & Q. Q. Cheng.* 435, 435, 249-D7 (1994)

Stellar Coronal Abundances. II. The First Ionization Potential Effect and Its Absence in the Corona of Procyon. *Jeremy J. Drake, J. Martin Laming, & Kenneth G. Widing.* 443, 393, 100-E2 (1995)

Deuterium and the Local Interstellar Medium Properties for the Procyon and Capella Lines of Sight. *Jeffrey L. Linsky, Athanassios Diplas, Brian E. Wood, Alexander Brown, Thomas R. Ayres, & Blair D. Savage.* 451, 335, 250-E2 (1995)

Constellation Name: AM Canum Venaticorum

On the Certification of AM Canum Venaticorum as a Cataclysmic Variable. *Joseph Patterson, Emily Sterner, Jules P. Halpern, & John C. Raymond.* 384, 234, 3-G6 (1992)

Evidence for Accretion Disk Precession in the Cataclysmic Binary AM Canum Venaticorum. *Joseph Patterson, Jules Halpern, & Anouk Shambrook.* 419, 803, 257-E13 (1993)

The Unusual Helium Variable AM Canum Venaticorum. *J. L. Provencal, D. E. Winget, R. E. Nather, E. L. Robinson, J.-E. Solheim, J. C. Clemens, P. A. Bradley, S. J. Kleinman, A. Kanaan, C. F. Claver, C. J. Hansen, T. M. K. Marar, S. Seetha, B. N. Ashoka, E. M. Leibowitz, E. G. Meištas, A. Bruvold, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, A. E. Sansom, R. W. Tweedy, G. Fontaine, P. Bergeron, S. O. Kepler, M. A. Wood, & A. D. Grauer.* 445, 927, 148-A11 (1995)

Constellation Name: RS Canum Venaticorum

Radio Continuum and X-Ray Properties of the Coronae of RS Canum Venaticorum and Related Active Binary Systems. *Stephen A. Drake, Theodore Simon, & Jeffrey L. Linsky.* 82, 311, 53-F5 (1992)

Constellation Name: η Carinae

η Carinae: A New Model. *J. M. Borgwald & M. W. Friedlander.* 408, 230, 86-A3 (1993)

Dynamical Instability as the Cause of the Massive Outbursts in η Carinae and Other Luminous Blue Variables. *Richard B. Stothers & Chao-wen Chin.* 408, L85, 95-C5 (1993)

The Radio Source around η Carinae. *S. M. White, R. A. Duncan, J. Lim, G. J. Nelson, S. A. Drake, & M. R. Kundu.* 429, 380, 148-G1 (1994)

Intense Radio Outburst from the Supermassive Star η Carinae. *R. A. Duncan, S. M. White, J. Lim, G. J. Nelson, S. A. Drake, & M. R. Kundu.* 441, L73, 76-A6 (1995)

The Homunculus of η Carinae: An Interacting Stellar Winds Paradigm. *Adam Frank, Bruce Balick, & Kris Davidson.* 441, L77, 76-B2 (1995)

First Detection of X-Ray Variability of η Carinae. *M. F. Corcoran, G. L. Rawley, J. H. Swank, & R. Petre.* 445, L121, 151-C9 (1995)

Constellation Name: θ Carinae

Interstellar Absorption along the Line of Sight to Theta Carinae Using *Copernicus* Observations. *M. M. Allen, E. B. Jenkins, & T. P. Snow.* 83, 261, 61-D1 (1992)

Constellation Name: l Carinae

Emission Lines in the Long-Period Cepheid l Carinae. *Erika Böhm-Vitense & Stanley G. Love.* 420, 401, 5-G5 (1994)

Constellation Name: AG Carinae

Mapping AG Carinae: Long-Slit Spectroscopy and Coronographic Imaging of the Nebula and Jet. *Antonella Nota, Claus Leitherer, Mark Clampin, Perry Greenfield, & David A. Golimowski.* 398, 621, 191-G6 (1992)

Geometry and Physical Conditions in the Stellar Wind of AG Carinae. *Claus Leitherer, Richard Allen, Bruce Altner, Augusto Damineli, Laurent Drissen, Thais Idiart, Olivia Lupie, Antonella Nota, Carmelle Robert, Werner Schmutz, & Steven N. Shore.* 428, 292, 131-G4 (1994)

The Axisymmetric Stellar Wind of AG Carinae. *Regina E. Schulte-Ladbeck, Geoffrey C. Clayton, D. John Hillier, Tim J. Harries, & Ian D. Howarth.* 429, 846, 156-B13 (1994)

Constellation Name: IW Carinae

The Chemical Composition of the RV Tauri Variable IW Carinae. *Sunetra Giridhar, N. Kameswara Rao, & David L. Lambert.* 437, 476, 289-F1 (1994)

Constellation Name: OY Carinae

HST Eclipse Mapping of Dwarf Nova OY Carinae in Quiescence: An "Fe II Curtain" with Mach $\simeq 6$ Velocity Dispersion Veils the White Dwarf. *Keith Horne, T. R. Marsh, F. H. Cheng, Ivan Hubeny, & Thierry Lanz.* 426, 294, 99-G1 (1994)

Constellation Name: PP Carinae

Ultraviolet Spectropolarimetry of the Be Star PP Carinae with the Wisconsin Ultraviolet Photo-Polarimeter Experiment. *K. S. Bjorkman, M. R. Meade, K. H. Nordsieck, C. M. Anderson, B. L. Babler, G. C. Clayton, A. D. Code, A. M. Magalhães, R. E. Schulte-Ladbeck, M. Taylor, & B. A. Whitney.* 412, 810, 153-G11 (1993)

Constellation Name: Y Carinae

The Luminosity of the Double-Mode Cepheid Y Carinae. *Nancy Remage Evans.* 385, 680, 21-E6 (1992)

Constellation Name: γ Cassiopeiae

The Asymmetric Envelope of γ Cassiopeiae Observed with the Mk III Optical Interferometer. *A. Quirrenbach, C. A. Hummel, D. F. Buscher, J. T. Armstrong, D. Mozurkewich, & N. M. Elias II.* 416, L25, 207-D7 (1993)

Dynamic Processes in Be Star Atmospheres. III. Rapid Multiwavelength Variability in γ Cassiopeiae. *Myron A. Smith.* 442, 812, 91-D2 (1995)

Constellation Name: κ Cassiopeiae

First Ultraviolet Spectropolarimetry of Hot Supergiants. *M. Taylor, A. D. Code, K. H. Nordsieck, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, R. E. Schulte-Ladbeck, & B. A. Whitney.* 382, L85, 211-D5 (1991)

The Visual and Ultraviolet Polarimetric Data of α Camelopardalis and κ Cassiopeia: Evidence of Shocked Regions. *Geoffrey K. Fox, John C. Brown, & Karen S. Bjorkman.* 447, 889, 188-B8 (1995)

Constellation Name: β Cassiopeiae

The Many Faces of F Stars: A Rotational Modulation Study of Capella, Procyon, and Caph with the *International Ultraviolet Explorer*. *Thomas R. Ayres.* 375, 704, 121-D11 (1991)

Constellation Name: μ Cassiopeiae

A Measurement of the Primordial Helium Abundance Using μ Cassiopeiae. *James W. Haywood, Dennis J. Hegyi, & Donald H. Gudehus.* 392, 172, 103-B1 (1992)

Full Adaptive Optics Images of ADS 9731 and μ Cassiopeiae: Orbits and Masses. *Jack D. Drummond, Julian C. Christou, & Robert Q. Fugate.* 450, 380, 233-B12 (1995)

Constellation Name: ϕ Cassiopeiae

A Determination of the Basic Atmospheric Parameters of ϕ Cassiopeiae. *Patricia Rosenzweig & Lawrence Anderson.* 411, 207, 129-F13 (1993)

Constellation Name: AO Cassiopeiae

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. I. AO Cassiopeiae. *Douglas R. Gies & Michael S. Wiggs.* 375, 321, 114-G10 (1991)

Tomographic Separation of Composite Spectra: The Components of the O-Star Spectroscopic Binary AO Cassiopeiae. *William G. Bagnuolo, Jr., & Douglas R. Gies.* 376, 266, 128-C1 (1991)

Wind Collision Effects in the Early-Type Close Binaries HD 47129 and AO Cassiopeiae. *Jorge Sahade & Estela Brandi.* 379, 706, 173-E1 (1991)

Constellation Name: HT Cassiopeiae

Eclipse Studies of the Dwarf Nova HT Cassiopeiae. I. Observations and System Parameters. *Keith Horne, Janet H. Wood, & Rae F. Stiening.* 378, 271, 154-C11 (1991)

Eclipse Studies of the Dwarf Nova HT Cassiopeiae. II. White Dwarf and Accretion Disk. *Janet H. Wood, Keith Horne, & Stephane Vennes.* 385, 294, 15-E6 (1992)

The K-Band Surface Brightness of Late-Type Stars and the Distance to Cataclysmic Variables. *Tod F. Ramseyer.* 425, 243, 83-C5 (1994)

Constellation Name: R Cassiopeiae

A 7 Micron Dust Emission Feature in Oxygen-rich Circumstellar Shells. *J. H. Goebel, J. D. Bregman, & F. C. Witteborn.* 430, 317, 163-B3 (1994)

Constellation Name: V705 Cassiopeiae

The Infrared Spectrum of the Optically Thin Dust Shell of V705 Cassiopeiae (Nova Cassiopeiae 1993). *R. D. Gehrz, M. A. Greenhouse, T. L. Hayward, J. R. Houck, C. G. Mason, & C. E. Woodward.* 448, L119, 209-E9 (1995)

Constellation Name: Centaurus X-4

Li Abundances in Late-Type Companions to Neutron Stars and Black Hole Candidates. *Eduardo L. Martín, Rafael Rebolo, Jorge Casares, & Philip A. Charles.* 435, 791, 257-A4 (1994)

Constellation Name: Centaurus X-3

An X-Ray Excited Wind in Centaurus X-3. *C. S. R. Day & Ian R. Stevens.* 403, 322, 17-G9 (1993)

Upper Limits on TeV Gamma-Ray Emission from Centaurus A, Vela X-1, Centaurus X-3, and Circinus X-1. *W. H. Allen, I. A. Bond, E. Budding, M. J. Conway, A. Daniel, K. B. Fenton, H. Fujii, Z. Fujii, N. Hayashida, K. Hibino, M. Honda, J. E. Humble, S. Kabe, K. Kasahara, T. Kifune, G. D. Lythe, A. Masaike, Y. Matsubara, K. Mitsui, Y. Miura, M. Mori, Y. Muraki, M. Nagano, T. Nakamura, M. Nishizawa, P. M. Norris, S. Ogio, To. Saito, M. Sakata, H. Sato, H. M. Shimizu, M. Spencer, J. R.*

Storey, T. Tanimori, M. Teshima, S. Torii, A. Wadsworth, Y. Watase, M. D. Woodhams, Y. Yamamoto, P. C. M. Yock, & T. Yuda (The JANZOS Collaboration). 405, 554, 50-A1 (1993)

The Discovery of Pulsed Iron Line Emission from Centaurus X-3. *C. S. R. Day, F. Nagase, K. Asai, & T. Takeshima.* 408, 656, 93-D1 (1993)

Constellation Name: α Centauri

Evolutionary Models and the p-Mode Oscillation Spectrum of α Centauri A and B. *Peter Edmonds, Lawrence Cram, Pierre Demarque, D. B. Guenther, & Marc H. Pinsonneault.* 394, 313, 131-G9 (1992)

A Formulation of Convection for Stellar Structure and Evolution Calculations without the Mixing-Length Theory Approximations. II. Application to α Centauri A and B. *Thomas Joseph Lydon, Peter A. Fox, & Sabatino Sofia.* 413, 390, 161-B6 (1993)

Extreme Ultraviolet Emission from Late-Type Stars: Initial Results from *Extreme Ultraviolet Explorer*. *Peter W. Vedder, Robert J. Patterer, Patrick Jelinsky, Alex Brown, & Stuart Bowyer.* 414, L61, 185-C5 (1993)

Constellation Name: SV Centauri

Does SV Centauri Harbor an Accretion Disk? *Albert P. Linnell & Xania Scheick.* 379, 721, 173-F7 (1991)

Constellation Name: V834 Centauri

X-Ray to Infrared Observations of the AM Herculis System E1405−451 (V834 Centauri). *R. M. Sambruna, L. Chiappetti, A. Treves, J. M. Bonnet-Bidaud, P. Bouchet, L. Maraschi, C. Motch, & M. Mouchet.* 374, 744, 108-C10 (1991)

High-Speed Multicolor Photometry of V834 Centaurus. *John Middleditch, James N. Imamura, Michael T. Wolff, & Thomas Y. Steiman-Cameron.* 382, 315, 204-B1 (1991)

Transition in the X-Ray Light Curve of the AM Herculis System V834 Centauri (E1405−451): 1985–1986 *EXOSAT* Observations. *Rita M. Sambruna, Arvind N. Parmar, Lucio Chiappetti, Laura Maraschi, & Aldo Treves.* 424, 947, 76-E7 (1994)

Constellation Name: V854 Centauri

The Unusual Ultraviolet Chromospheric Spectrum of the R Coronae Borealis Star, V854 Centauri (NSV 6708), at Minimum Light. *Geoffrey C. Clayton, Barbara A. Whitney, S. Adam Stanford, John S. Drilling, & P. G. Judge.* 384, L19, 6-C8 (1992)

Constellation Name: Cepheus A2

Further Mapping of the Radio Emission from Massive Young Stellar Objects. *Melvin G. Hoare & Simon T. Garrington.* 449, 874, 224-F11 (1995)

Constellation Name: DH Cephei

Circumstellar Material around the Massive Close Binary DH Cephei. *M. F. Corcoran.* 366, 308, 4-G8 (1991)

Constellation Name: CX Cephei

A Spectroscopic Study of the Short-Period Eclipsing Wolf-Rayet Binary CX Cephei (WN5+O5 V). *David Lewis, Anthony F. J. Moffat, Jaymie M. Matthews, Carmelle Robert, & Sergey V. Marchenko.* 405, 312, 45-A11 (1993)

Constellation Name: U Cephei

Simultaneous Light and Radial Velocity Curve Solutions for U Cephei. *J. B. Rafert & N. L. Markworth.* 377, 278, 141-D5 (1991)

Constellation Name: VW Cephei

Photometric Imaging of VW Cephei. *Paul D. Hendry, Stefan W. Mochnacki, & Andrew Collier Cameron.* 399, 246, 198-C8 (1992)

Constellation Name: η Cephei

The Temperature and Granulation Stability of η Cephei. *David F. Gray.* 428, 765, 139-F13 (1994)

Constellation Name: β Ceti

ASCA X-Ray Spectra of the Active Single Stars β Ceti and π^1 Ursae Majoris. *S. A. Drake, K. P. Singh, N. E. White, & Theodore Simon.* 436, L87, 269-G11 (1994)

Constellation Name: o Ceti

Distribution of Dust about o Ceti and α Orionis Based on 11 Micron Spatial Interferometry. *M. Bester, W. C. Danchi, C. G. Degiacomi, C. H. Townes, & T. R. Geballe.* 367, L27, 17-E1 (1991)

Asymmetries in the Atmosphere of Mira. *M. Karovska, P. Nisenson, C. Papaliolios, & R. P. Boyle.* 374, L51, 110-D1 (1991)

Speckle Observations of Mira's Companion. *M. Karovska, P. Nisenson, & J. Beletic.* 402, 311, 5-A7 (1993)

Evidence for the Cospatial Origin of SiO Masers in Different Rotational Transitions. *G. C. McIntosh & C. Read Predmore.* 404, L71, 40-E11 (1993)

Constellation Name: τ Ceti

The Activity Cycle of τ Ceti. *David F. Gray & Sallie L. Baliunas.* 427, 1042, 125-E8 (1994)

Constellation Name: Z Chamaeleontis

Hubble Space Telescope Observations of the Dwarf Nova Z Chamaeleontis through Two Eruption Cycles. *E. L. Robinson, Janet H. Wood, R. C. Bless, J. C. Clemens, J. F. Dolan, J. L. Elliot, M. J. Nelson, J. W. Percival, M. J. Taylor, G. W. van Citters, & E. Zhang.* 443, 295, 99-C9 (1995)

A Study of the Long-Term Behavior of the SU Ursae Majoris Dwarf Novae VW Hydri and Z Chamaeleontis. *Pritiraj Mohanty & Eric M. Schlegel.* 449, 330, 214-F1 (1995)

Constellation Name: Circinus X-1

Upper Limits on TeV Gamma-Ray Emission from Centaurus A, Vela X-1, Centaurus X-3, and Circinus X-1. *W. H. Allen, I. A. Bond, E. Budding, M. J. Conway, A. Daniel, K. B. Fenton, H. Fujii, Z. Fujii, N. Hayashida, K. Hibino, M. Honda, J. E. Humble, S. Kabe, K. Kasahara, T. Kifune, G. D. Lythe, A. Masaike, Y. Matsubara, K. Mitsui, Y. Miura, M. Mori, Y. Muraki, M. Nagano, T. Nakamura, M. Nishizawa, P. M. Norris, S. Ogio, To. Saito, M. Sakata, H. Sato, H. M. Shimizu, M. Spencer, J. R. Storey, T. Tanimori, M. Teshima, S. Torii, A. Wadsworth, Y. Watase, M. D. Woodhams, Y. Yamamoto, P. C. M. Yock, & T. Yuda (The JANZOS Collaboration).* 405, 554, 50-A1 (1993)

Constellation Name: Nova Circini 1995

Hopkins Ultraviolet Telescope Observations of Nova Circini 1995 and Nova Aquilae 1995. *Bradford W. Greeley, William P. Blair, & Knox S. Long.* 454, L43, 308-B1 (1995)

Constellation Name: μ Columbae

High-Resolution Ultraviolet Observations of the Interstellar Diffuse Clouds toward μ Columbae. *Ulysses J. Sofia, Blair D. Savage, & Jason A. Cardelli.* 413, 251, 159-D3 (1993)

Constellation Name: AL Comae

Two Unusual Cataclysmic Variables at High Galactic Latitude: CP Eridani and AL Comae. *Timothy M. C. Abbott, Edward L. Robinson, Gary J. Hill, & Carole A. Haswell.* 399, 680, 206-D1 (1992)

Constellation Name: FK Comae

A Spectroscopic and Photometric Study of FK Comae in 1989. *David P. Huenemoerder, Lawrence W. Ramsey, Derek L. Buzasi, & Harold L. Nations.* 404, 316, 31-G1 (1993)

The Shape of FK Comae Berenices: Evidence for a Recently Coalesced Binary. *Alan D. Welty & Lawrence W. Ramsey.* 435, 848, 257-F13 (1994)

Constellation Name: GP Comae Berenices

Evidence for CNO Processed Material in the Accretion Disk of GP Comae. *T. R. Marsh, Keith Horne, & Simon Rosen.* 366, 535, 9-F1 (1991)

Constellation Name: σ^2 Coronae Borealis

Coordinated *Ginga*, *IUE*, and VLA Observations of Stellar Activity in σ^2 Coronae Borealis. *R. A. Stern, Y. Uchida, F. Walter, O. Vilhu, D. Hannikainen, A. Brown, A. Veale, & B. M. Haisch.* 391, 760, 97-D7 (1992)

Constellation Name: T Coronae Borealis

The Secondary Outburst Maximum of T Coronae Borealis: Implications for the Physics of Accretion Disks. *John K. Cannizzo & Scott J. Kenyon.* 386, L17, 29-C7 (1992)

The Nature of the Recurrent Nova T Coronae Borealis: Ultraviolet Evidence for a White Dwarf Accretor. *Pier Luigi Selvelli, Angelo Cassatella, & Roberto Gilmozzi.* 393, 289, 117-F12 (1992)

The Secondary Outburst Maximum of T Coronae Borealis: Hydrodynamic Simulations of the Blob and Accretion Disk. *Maximilian Ruffert, John K. Cannizzo, & Scott J. Kenyon.* 419, 780, 257-D1 (1993)

Constellation Name: U Coronae Borealis

Doppler Tomography of the Gas Stream in Short-Period Algol Binaries. *Mercedes T. Richards, Geary E. Albright, & Larissa M. Bowles.* 438, L103, 20-B8 (1995)

Constellation Name: TV Corvi

Ultraviolet Observations of SW Ursae Majoris, BC Ursae Majoris, and TV Corvi (1217–18): *IUE* Spectroscopy and Outburst Light Curves. *Steve B. Howell, Paula Szkody, George Sonneborn, Robert Fried, Janet*

Mattei, Ronald J. Oliversen, Doug Ingram, & Guy M. Hurst. 453, 454, 287-D1 (1995)

Constellation Name: TT Crateris

TT Crateris: A Long-Period, Double-lined Dwarf Nova. *Paula Szkody, Robert E. Williams, Bruce Margon, Steve B. Howell, & Mario Mateo.* 387, 357, 41-D4 (1992)

Constellation Name: γ Crucis

GHRS Observations of Cool, Low-Gravity Stars. II. Flow and Turbulent Velocities in the Outer Atmosphere of γ Crucis (M3.4 III). *Kenneth G. Carpenter, Richard D. Robinson, & Philip G. Judge.* 444, 424, 119-D7 (1995)

Constellation Name: Cygnus X-1

Shot Model Parameters for Cygnus X-1 through Phase Portrait Fitting. *James C. Lochner, J. H. Swank, & A. E. Szymkowiak.* 376, 295, 128-E9 (1991)

SMM/HXRBS Observations of Cygnus X-1 from 1986 December to 1988 April. *R. A. Schwartz, L. E. Orwig, B. R. Dennis, J. C. Ling, & W. A. Wheaton.* 376, 312, 128-G1 (1991)

An Ionized Accretion Disk in Cygnus X-1. *C. Done, J. S. Mulchaey, R. F. Mushotzky, & K. A. Arnaud.* 395, 275, 143-E5 (1992)

A Self-consistent Model for the Long-Term Gamma-Ray Spectral Variability of Cygnus X-1. *Fulvio Melia & Ranjeev Misra.* 411, 797, 139-F8 (1993)

High-Energy Spectrum of Cygnus X-1 Revisited. *F. Haardt, C. Done, G. Matt, & A. C. Fabian.* 411, L95, 142-F5 (1993)

The X-Ray Spectrum of Cygnus X-1. *F. E. Marshall, R. F. Mushotzky, R. Petre, & P. J. Serlemitsos.* 419, 301, 250-A2 (1993)

Hard X-Ray Timing Observation of the Crab Pulsar and Cygnus X-1. *P. Ubertini, A. Bazzano, M. Cocchi, C. La Padula, V. F. Polcaro, R. Staubert, & E. Kendziorra.* 421, 269, 19-C11 (1994)

Structure of X-Ray Shots of Cygnus X-1 in Its Low State. *Hitoshi Negoro, Sigenori Miyamoto, & Shunji Kitamoto.* 423, L127, 61-A13 (1994)

Discovery of a Low-Frequency Broad Quasi-periodic Oscillation Peak in the Power Density Spectrum of Cygnus X-1 with *Granat*/SIGMA. *A. Vikhlinin, E. Churazov, M. Gilfanov, R. Sunyaev, A. Dyachkov, N. Khavenson, R. Kremnev, K. Sukhanov, J. Ballet, P. Laurent, L. Salotti, A. Claret, J. F. Olive, M. Denis, P. Mandrou, & J. P. Roques.* 424, 395, 66-F14 (1994)

Observations of Cygnus X-1 by COMPTEL during 1991. *M. McConnell, D. Forrest, J. Ryan, W. Collmar, V. Schönfelder, H. Steinle, A. Strong, R. van Dijk, W. Hermsen, & K. Bennett.* 424, 933, 76-D1 (1994)

Phase Lags in Cygnus X-1. *M. Coleman Miller.* 441, 770, 72-E6 (1995)

Large Hysteretic Behavior of Stellar Black Hole Candidate X-Ray Binaries. *Sigenori Miyamoto, Shunji Kitamoto, Kiyoshi Hayashida, & Wataru Egoshi.* 442, L13, 84-F1 (1995)

Hot Accretion Disks with Electron-Positron Pair Winds. *Ranjeev Misra & Fulvio Melia.* 449, 813, 224-A1 (1995)

Statistics of X-Ray Fluctuations from Cygnus X-1: Reservoirs in the Disk? *H. Negoro, S. Kitamoto, M. Takeuchi, & S. Mineshige.* 452, L49, 270-C1 (1995)

Constellation Name: Cygnus X-2

Resolving the Iron K Line in Cygnus X-2: An Observation with BBXRT. *A. P. Smale, C. Done, R. F. Mushotzky, K. A. Weaver, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, E. A. Boldt, J. H. Swank, A. E. Szymkowiak, R. L. Kelley, & K. Arnaud.* 410, 796, 123-F1 (1993)

Dynamically Comptonized Spectra from Near-critical Accretion onto Neutron Stars. *Luca Zampieri, Roberto Turolla, & Aldo Treves.* 419, 311, 250-B1 (1993)

Accretion Disk Structure and Branch Behavior of Cygnus X-2. *Akira Hirano, Shunji Kitamoto, Tatsuya T. Yamada, Shin Mineshige, & Jun Fukue.* 446, 350, 158-A10 (1995)

Burstlike Events in the Z Source Cygnus X-2. *E. Kuulkers, M. van der Klis, & J. van Paradijs.* 450, 748, 241-A11 (1995)

Constellation Name: Cygnus X-3

Problems of Ultra–High-Energy Particle Acceleration in Cygnus X-3: A Critical Reappraisal. *Abhas Mitra.* 370, 345, 51-E7 (1991)

Mayflower Mine 1500 GV Detector: Cosmic-Ray Anisotropy and Search for Cygnus X-3. *D. J. Cutler & D. E. Groom.* 376, 322, 128-G12 (1991)

Is There a Recycled Old Pulsar in Cygnus X-3? *Abhas Mitra.* 384, 255, 4-B3 (1992)

Time Variations in the X-Rays from Cygnus X-3 Observed with *Ginga*. *Shunji Kitamoto, Seiko Mizobuchi, Koujun Yamashita, & Hiroshi Nakamura.* 384, 263, 4-B13 (1992)

Evidence for Time Variability of PeV Energy Flux from Cygnus X-3: Ooty Observations during the Period 1984–1987. *S. C. Tonwar, S. K. Gupta, M. R. Rajeev, B. V. Sreekantan, & R. Srivatsan.* 390, 273, 77-D1 (1992)

What Drives the Mass Transfer in Cygnus X-3? *Abhas Mitra.* 390, 645, 83-C8 (1992)

A Search for TeV Emission from Cygnus X-3. *K. S. O'Flaherty, M. F. Cawley, D. J. Fegan, R. C. Lamb, M. J. Lang, D. A. Lewis, M. Punch, P. T. Reynolds, G. Vacanti, & T. C. Weekes.* 396, 674, 165-F9 (1992)

Search for Periodic Gamma-Ray Emission from Cygnus X-3 by the Egret Telescope on the *Compton Gamma-Ray Observatory*. *P. F. Michelson, D. L. Bertsch, J. Chiang, C. E. Fichtel, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, C. von Montigny, P. L. Nolan, K. Pinkau, H. Rothermel, E. Schneid, M. Sommer, P. Sreekumar, & D. J. Thompson.* 401, 724, 231-E1 (1992)

Positron Annihilation Radiation from X-Ray Binary Systems. *Mei Wu, Chun-sheng Zhang, & Ti-pei Li.* 404, 276, 31-C11 (1993)

Cygnus X-3 in an "Ultrahigh" X-Ray State with No Detected Kα Line Emission. *A. P. Smale, R. F. Mushotzky, E. M. Schlegel, K. A. Weaver, P. J. Serlemitsos, F. E. Marshall, R. Petre, & K. Jahoda.* 418, 894, 243-F7 (1993)

The Status of Ultra–High-Energy Gamma-Ray Observations. *R. J. Protheroe.* 90, 883, 14-F10 (1994)

Generalized Spectral Model for 1–100 keV X-Ray Emission from Cygnus X-3 Based on *EXOSAT* Data. *M. R. Rajeev, V. R. Chitnis, A. R. Rao, & K. P. Singh.* 424, 376, 66-E7 (1994)

Cygnus X-3 as a Benchmark for Fundamental Properties of Wolf-Rayet Stars. *Anatol M. Cherepashchuk & Anthony F. J. Moffat.* 424, L53, 69-G6 (1994)

On the New Theory of Ultra–High-Energy Gamma-Ray Production in Cygnus X-3. *Abhas Mitra.* 425, 782, 91-E1 (1994)

Compton Reflection in Scorpius X-1 and Cygnus X-3? *Michael Maisack, Eckhard Kendziorra, Hongchao Pan, Gerry Skinner, Jakob Englhauser, Claus Reppin, Valeri Efremov, & Rashid Sunyaev.* 92, 473, 38-B7 (1994)

Ionization Structure of Cygnus X-3: A Massive Iron-depleted Companion? *Nobuo Terasawa & Hiroshi Nakamura.* 92, 477, 38-B13 (1994)

Correlation between X-Ray Intensity and Radio Outbursts of Cygnus X-3. *Hiroaki Watanabe, Shunji Kitamoto, Sigenori Miyamoto, R. L. Fiedler, E. B. Waltman, K. J. Johnston, & F. D. Ghigo.* 433, 350, 212-F1 (1994)

Interstellar Scattering toward Cygnus X-3: Measurements of Anisotrophy and of the Inner Scale. *L. A. Molnar, R. L. Mutel, M. J. Reid, & K. J. Johnston.* 438, 708, 14-A2 (1995)

VLBI Observations of Cygnus X-3 during the 1985 October Radio Outburst. *C. J. Schalinski, K. J. Johnston, A. Witzel, R. E. Spencer, R. Fiedler, E. Waltman, G. G. Pooley, R. Hjellming, & L. A. Molnar.* 447, 752, 186-D1 (1995)

Constellation Name: Cygnus XR-1

A Reanalysis of the Orbital Inclination of Cygnus XR-1 Determined Polarimetrically. *Joseph F. Dolan.* 384, 249, 4-A9 (1992)

Constellation Name: CG Cygni

A Connection between Long-Term Luminosity Variations and Orbital Period Changes in Chromospherically Active Binaries. *Douglas S. Hall.* 380, L85, 188-F1 (1991)

Long-Term Starspot Activity of Short-Period RS Canum Venaticorum Stars. V. CG Cygni. *M. Zeilik, S. Gordon, E. Jaderlund, M. Ledlow, D. L. Summers, P. A. Heckert, E. Budding, & T. S. Banks.* 421, 303, 19-F8 (1994)

Constellation Name: CH Cygni

ROSAT PSPC Observations of the Symbiotic CH Cygni. *D. A. Leahy & K. Volk.* 440, 847, 54-G1 (1995)

Constellation Name: P Cygni

First Ultraviolet Spectropolarimetry of Hot Supergiants. *M. Taylor, A. D. Code, K. H. Nordsieck, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, R. E. Schulte-Ladbeck, & B. A. Whitney.* 382, L85, 211-D5 (1991)

Stellar Models and the Brightening of P Cygni. *Mounib F. El Eid & Dieter H. Hartmann.* 404, 271, 31-C5 (1993)

Properties and Variability of the Stellar Wind from P Cygni. *S. Scuderi, G. Bonanno, D. Spadaro, N. Panagia, H. J. G. L. M. Lamers, & A. de Koter.* 437, 465, 289-E1 (1994)

Constellation Name: SS Cygni

Spectral Evolution of Accretion Disks of Dwarf Novae. III. Outburst Cycle of SS Cygni. *F. H. Cheng & D. N. C. Lin.* 389, 714, 70-C5 (1992)

On the Long-Term Behavior of SS Cygni. *John K. Cannizzo & Janet A. Mattei.* 401, 642, 230-E1 (1992)

Mass Transfer Rate and Outburst Cycle of SS Cygni. *Alexander Hempelmann & Jürgen Kurths.* 412, L41, 148-E1 (1993)

The Accretion Disk Limit Cycle Model: Toward an Understanding of the Long-Term Behavior of SS Cygni. *John K. Cannizzo.* 419, 318, 250-B10 (1993)

EUVE Observations of the Anomalous 1993 August Outburst of SS Cygni. *Christopher W. Mauche, John C. Raymond, & Janet A. Mattei.* 446, 842, 167-F7 (1995)

Constellation Name: V367 Cygni

Elliptical Polarimetry of the Interacting Binary Star V367 Cygni. *Nicholas M. Elias II.* 410, 785, 123-E1 (1993)

Constellation Name: V404 Cygni

High-Speed Photometry of V404 Cygni in Outburst. *Eric Gotthelf, Joseph Patterson, & Richard J. Stover.* 374, 340, 102-C11 (1991)

Optical Identification of the X-Ray Source GS 2023+338 as V404 Cygni. *R. Mark Wagner, Sumner G. Starrfield, Steve B. Howell, Tobias J. Kreidl, S. J. Bus, A. Cassatella, R. Bertram, & R. Fried.* 378, 293, 154-E10 (1991)

Radio Observations of the 1989 Transient Event in V404 Cygni (= GS 2023+338). *Xiaohong Han & R. M. Hjellming.* 400, 304, 212-F6 (1992)

Periodic Photometric Variability of the Black Hole Binary V404 Cygni. *R. Mark Wagner, T. J. Kreidl, S. B. Howell, & S. G. Starrfield.* 401, L97, 233-C13 (1992)

ROSAT Observations of the Black Hole Candidate V404 Cygni in Quiescence. *R. Mark Wagner, S. G. Starrfield, R. M. Hjellming, S. B. Howell, & T. J. Kreidl.* 429, L25, 150-D3 (1994)

Constellation Name: V444 Cygni

Colliding Winds from Early-Type Stars in Binary Systems. *Ian R. Stevens, John M. Blondin, & A. M. T. Pollock.* 386, 265, 27-E1 (1992)

Polarization Eclipse Model of the Wolf-Rayet Binary V444 Cygni with Constraints on the Stellar Radii and an Estimate of the Wolf-Rayet Mass-Loss Rate. *N. St-Louis, A. F. J. Moffat, L. Lapointe, Yu. S. Efimov, N. M. Shakhovskoy, G. K. Fox, & V. Piirola.* 410, 342, 116-C10 (1993)

The Wolf-Rayet Binary V444 Cygni under the Spectroscopic Microscope. I. Improved Characteristics of the Components and Their Interaction Seen in He I. *Sergey V. Marchenko, Anthony F. J. Moffat, & Gloria Koenigsberger.* 422, 810, 42-A5 (1994)

Line Profile Variations from Atmospheric Eclipses: Constraints on the Wind Structure in Wolf-Rayet Stars. *L. H. Auer & G. Koenigsberger.* 436, 859, 277-E5 (1994)

Constellation Name: V503 Cygni

A Spectroscopic Study of DV Ursae Majoris (US 943), AY Piscium (PG 0134+070), and V503 Cygni. *Paula Szkody & Steve B. Howell.* 403, 743, 25-A6 (1993)

Constellation Name: V1016 Cygni

Transition Probabilities for the UV0.01 Multiplet in N III. *Tomas Brage, Charlotte Froese Fischer, & Philip G. Judge.* 445, 457, 138-G7 (1995)

Constellation Name: V1057 Cygni

Optical Spectroscopy of Z Canis Majoris, V1057 Cygni, and FU Orionis: Accretion Disks and Signatures of Disk Winds. *Alan D. Welty, Stephen E. Strom, Suzan Edwards, Scott J. Kenyon, & Lee W. Hartmann.* 397, 260, 171-B11 (1992)

Constellation Name: V1500 Cygni

Synchronization of the Magnetic Nova V1500 Cygni. *Gary D. Schmidt & H. S. Stockman.* 371, 749, 70-G7 (1991)

Detection of the Hot White Dwarf in the Magnetic Nova V1500 Cygni with the *Hubble Space Telescope*. *Gary D. Schmidt, James Liebert, & H. S. Stockman.* 441, 414, 65-A11 (1995)

Constellation Name: V1727 Cygni

X-Ray Emission from 4U 2129+47 (=V1727 Cygni) in Quiescence. *Michael R. Garcia.* 435, 407, 249-A9 (1994)

Constellation Name: V1853 Cygni

High-Resolution Spectroscopy of V1853 Cygni (LS II +34°26): Birth of a Planetary Nebula? *Verne V. Smith & David L. Lambert.* 424, L123, 79-D13 (1994)

Constellation Name: V1974 Cygni

The Photometric Period of V1974 Cygni (Nova Cygni 1992). *James A. DeYoung & Richard E. Schmidt.* 431, L47, 183-A3 (1994)

Constellation Name: Nova Cygni 1975

The Temporal Evolution of the 4–14 Micron Spectrum of V1974 Cygni (Nova Cygni 1992). *R. D. Gehrz, Charles E. Woodward, M. A. Greenhouse, S. Starrfield, D. H. Wooden, F. C. Witteborn, S. A. Sandford, L. J. Allamandola, J. D. Bregman, & M. Klapisch.* 421, 762, 27-F6 (1994)

Constellation Name: Nova Cygni 1978

Optically Thick Winds in Nova Outbursts. *Mariko Kato & Izumi Hachisu.* 437, 802, 296-F1 (1994)

Constellation Name: Nova Cygni 1992

The Early Bolometric Evolution of Nova Cygni 1992. *Steven N. Shore, George Sonneborn, Sumner Starrfield, Rosario Gonzalez-Riestra, & Ronald S. Polidan.* 421, 344, 20-B13 (1994)

Non–LTE Model Atmosphere Analysis of Nova Cygni 1992. *P. H. Hauschildt, S. Starrfield, S. Austin, R. M. Wagner, S. N. Shore, & G. Sonneborn.* 422, 831, 42-C1 (1994)

Ultraviolet Photometry of Nova Cygni 1992 Obtained with the High Speed Photometer. *M. Taylor, R. C. Bless, H. Ögelman, J. L. Elliot, J. S. Gallagher, M. J. Nelson, J. W. Percival, E. L. Robinson, & G. W. van Citters.* 424, L45, 69-F6 (1994)

Spectropolarimetry of Nova Cygni 1992: Evidence for an Asymmetric Geometry. *K. S. Bjorkman, K. A. Johansen, K. H. Nordsieck, J. S. Gallagher, & A. J. Barger.* 425, 247, 83-C12 (1994)

The Temporal Evolution of the 1–5 Micron Spectrum of V1974 Cygni (Nova Cygni 1992). *Charles E. Woodward, Matthew A. Greenhouse, R. D. Gehrz, Y. J. Pendleton, R. R. Joyce, D. Van Buren, J. Fischer, N. J. Jennerjohn, & C. D. Kaminski.* 438, 921, 16-G7 (1995)

Constellation Name: Nova V1974 Cygni

The X-Ray Halo of Nova V1974 Cygni (Nova Cygni 1992) and the Nature of Interstellar Dust. *John S. Mathis, David Cohen, John P. Finley, & J. Krautter.* 449, 320, 214-E1 (1995)

Constellation Name: 32 Cygni

Interpretation of Anomalous Ultraviolet Transitions of Fe II Observed in Laboratory Fourier Transform Spectra and Stellar *HST* and *IUE* Spectra. *Sveneric Johansson, Tomas Brage, David S. Leckrone, Gillian Nave, & Glenn M. Wahlgren.* 446, 361, 158-C1 (1995)

Constellation Name: 68 Cygni

Stellar-Wind Variability in *IUE* Spectra of 68 Cygni. *Ian D. Howarth & Keith C. Smith.* 439, 431, 27-B3 (1995)

Constellation Name: DX Delphini

The Baade-Wesselink Method and the Distances to RR Lyrae Stars. VII. The Field Stars SW Andromedae and DX Delphini and a Comparison of Recent Baade-Wesselink Analyses. *Rodney V. Jones, Bruce W. Carney, Jesper Storm, & David W. Latham.* 386, 646, 33-C14 (1992)

Constellation Name: AB Doradus

Directivity of the Radio Emission from the K1 Dwarf Star AB Doradus. *Jeremy Lim, Stephen M. White, Graham J. Nelson, & Arnold O. Benz.* 430, 332, 163-C9 (1994)

Spectroscopic *EUVE* Observations of the Active Star AB Doradus. *Slavek M. Rucinski, Rolf Mewe, Jelle S. Kaastra, Osmi Vilhu, & Stephen M. White.* 449, 900, 225-B11 (1995)

Constellation Name: σ Draconis

The Activity Cycle of σ Draconis. *David F. Gray, Sallie L. Baliunas, G. W. Lockwood, & Brian A. Skiff.* 400, 681, 219-A1 (1992)

Constellation Name: AG Draconis

Extended Variability of the Symbiotic Star AG Draconis. *M. Kafatos, S. R. Meier, & I. Martin.* 84, 201, 4-B7 (1993)

Constellation Name: X Draconis

Search for an Optical Counterpart of the Source of GRB 911001. *S. Klose.* 446, 357, 158-B6 (1995)

Constellation Name: YY Draconis

Near-Infrared Time-resolved Spectroscopy of the Cataclysmic Variable YY Draconis. *Mario Mateo, Paula Szkody, & Peter Garnavich.* 370, 370, 51-G8 (1991)

Rapid Oscillations in Cataclysmic Variables. VIII. YY Draconis (=3A 1148+719. *J. Patterson, D. A. Schwartz, J. P. Pye, W. P. Blair, G. A. Williams, & J.-P. Caillault.* 392, 233, 103-G3 (1992)

Constellation Name: ϵ Eridani

The Fundamental Parameters of the Chromospherically Active K2 Dwarf ϵ Eridani. *Jeremy J. Drake & Geoffrey Smith.* 412, 797, 153-F9 (1993)

Infrared Zeeman Analysis of ϵ Eridani. *Jeff A. Valenti, Geoffrey W. Marcy, & Gibor Basri.* 439, 939, 37-E9 (1995)

Magnetic Activity Variations of ϵ Eridani. *David F. Gray & Sallie L. Baliunas.* 441, 436, 65-D4 (1995)

Constellation Name: λ Eridani

Circumstellar Material around λ Eridani (B2e). I. Geometry and Kinematics during 1987–1988. *Myron A. Smith, Geraldine J. Peters, & C. A. Grady.* 367, 302, 15-G1 (1991)

Dynamic Processes in Be Star Atmospheres. I. "Dimple" Formation in the He sci λ6678 Line of λ Eridani. *Myron A. Smith & Ronald S. Polidan.* 408, 323, 87-B8 (1993)

A Giant X-Ray Flare on λ Eridani (B2e). *Myron A. Smith, Carol A. Grady, Geraldine J. Peters, & Eric D. Feigelson.* 409, L49, 111-D1 (1993)

Dynamic Processes in Be Star Atmospheres. II. He I $2P$–nD Line Formation in λ Eridani (Outburst). *Myron A. Smith, Ivan Hubeny, Thierry Lanz, & Thomas Meylan.* 432, 392, 198-A10 (1994)

Constellation Name: ν Eridani

Analysis of *Voyager* Spectra of the β Cephei Star ν Eridani. *A. Porri, R. Stalio, B. Ali, R. S. Polidan, & C. Morossi.* 424, 401, 66-G7 (1994)

Constellation Name: CP Eridani

Two Unusual Cataclysmic Variables at High Galactic Latitude: CP Eridani and AL Comae. *Timothy M. C. Abbott, Edward L. Robinson, Gary J. Hill, & Carole A. Haswell.* 399, 680, 206-D1 (1992)

Constellation Name: EF Eridani

Bowen Fluorescence in AM Herculis Stars. *Jonathan Schachter, Alexei V. Filippenko, Steven M. Kahn, & Frits B. S. Paerels.* 373, 633, 95-G4 (1991)

Constellation Name: UZ Fornacis

Extreme Ultraviolet Light Curves of UZ Fornacis: Evidence for Accretion Stream Absorption and Vertical Extent of the Accretion Spot. *John K. Warren, Martin M. Sirk, & John V. Vallerga.* 445, 909, 147-F13 (1995)

Constellation Name: U Geminorum

A Study of the Ultraviolet Evolution of U Geminorum between Outbursts. *Alan L. Kiplinger, Edward M. Sion, & Paula Szkody.* 366, 569, 10-B1 (1991)

Observations of the White Dwarf in the U Geminorum System with the Hopkins Ultraviolet Telescope. *Knox S. Long, William P. Blair, Charles W. Bowers, Arthur F. Davidsen, Gerard A. Kriss, Edward M. Sion, & Ivan Hubeny.* 405, 327, 45-C1 (1993)

Cooling of the White Dwarf in U Geminorum between Outbursts. *Knox S. Long, Edward M. Sion, Min Huang, & Paula Szkody.* 424, L49, 69-F13 (1994)

Hubble Space Telescope Goddard High-Resolution Spectrograph Observation of U Geminorum during Quiescence: Evidence for a Slowly Rotating White Dwarf. *Edward M. Sion, Knox S. Long, Paula Szkody, & Min Huang.* 430, L53, 165-G12 (1994)

Hopkins Ultraviolet Telescope Observations of U Geminorum Far from Outburst. *Knox S. Long, William P. Blair, & John C. Raymond.* 454, L39, 308-A8 (1995)

Constellation Name: YY Geminorum

An *ASCA* Observation of the Castor System. *Eric V. Gotthelf, Lalit Jalota, Koji Mukai, & Nicholas E. White.* 436, L91, 270-A5 (1994)

Constellation Name: σ Geminorum

Doppler Imaging Stars with Moderate Rotation: The Spot Distribution on σ Geminorum. *Artie P. Hatzes.* 410, 777, 123-D7 (1993)

Constellation Name: α Gruis

Tomography/Power Spectrum Techniques for Removal of Fixed Pattern Noise from *Hubble Space Telescope* Spectra. *Cheng-Hsuan Lyu, Frederick C. Bruhweiler, & Andrew M. Smith.* 447, 880, 188-A10 (1995)

Constellation Name: Hercules X-1

Phase Coherence for TeV/PeV Binary Sources. *D. A. Lewis, R. C. Lamb, & S. D. Biller.* 369, 479, 43-F4 (1991)

A Model for the 35 Day Variations in the Pulse Profile of Hercules X-1. *J. A. Petterson, R. E. Rothschild, & D. E. Gruber.* 378, 696, 161-A11 (1991)

A Model of Pulsed Gamma Radiation from the X-Ray Binary Hercules X-1/HZ Herculis. *F. A. Aharonian & A. M. Atoyan.* 381, 220, 191-F8 (1991)

Search for TeV Gamma-Ray Emission from Hercules X-1. *P. T. Reynolds, M. F. Cawley, D. J. Fegan, A. M. Hillas, P. W. Kwok, R. C. Lamb, M. J. Lang, D. A. Lewis, D. J. Macomb, K. S. O'Flaherty, G. Vacanti, & T. C. Weekes.* 382, 640, 209-E7 (1991)

Decrease in the Orbital Period of Hercules X-1. *John E. Deeter, Paul E. Boynton, Sigenori Miyamoto, Shunji Kitamoto, Fumiaki Nagase, & Nobuyuki Kawai.* 383, 324, 216-C1 (1991)

An X-Ray Spectroscopic Study of the Pre-Eclipse Dips of Hercules X-1. *C. S. Choi, F. Nagase, F. Makino, T. Dotani, & K. W. Min.* 422, 799, 41-G5 (1994)

Evidence of Circumstellar Matter Surrounding the Hercules X-1 System. *C. S. Choi, T. Dotani, F. Nagase, F. Makino, J. E. Deeter, & K. W. Min.* 427, 400, 114-G5 (1994)

Spectral Evolution during Pre-Eclipse Dips in Hercules X-1. *D. A. Leahy, A. Yoshida, & M. Matsuoka.* 434, 341, 230-B6 (1994)

Iron Line Intensity Variations of Hercules X-1 over the Pulse Phase and the 35 Day Cycle. *C. S. Choi, F. Nagase, F. Makino, T. Dotani, S. Kitamoto, & S. Takahama.* 437, 449, 289-C6 (1994)

Five Eclipses of Hercules X-1 Observed by *Ginga*. *D. A. Leahy.* 450, 339, 232-F1 (1995)

An Archival Study of *Hubble Space Telescope* Observations of Hercules X-1/HZ Herculis. *F. H. Cheng, S. D. Vrtilek, & John C. Raymond.* 452, 825, 276-A10 (1995)

Constellation Name: 30 Herculis

The Chromospheric Structure of the Cool Giant Star g Herculis. *Donald G. Luttermoser, Hollis R. Johnson, & Joel A. Eaton.* 422, 351, 34-D7 (1994)

Constellation Name: AM Herculis

Possible Detection of TeV Gamma Rays from AM Herculis. *C. L. Bhat, R. K. Kaul, H. S. Rawat, V. K. Senecha, R. C. Rannot, M. L. Sapru, A. K. Tickoo, & H. Razdan.* 369, 475, 43-E12 (1991)

Bowen Fluorescence in AM Herculis Stars. *Jonathan Schachter, Alexei V. Filippenko, Steven M. Kahn, & Frits B. S. Paerels.* 373, 633, 95-G4 (1991)

Simultaneous Soft and Hard X-Ray Spectroscopy of AM Herculis with *EXOSAT*: Discovery of Photospheric Absorption Features. *Frits Paerels, John Heise, & André van Teeseling.* 426, 313, 100-A10 (1994)

ORFEUS Observations of AM Herculis. *John C. Raymond, Christopher W. Mauche, Stuart Bowyer, & Mark Hurwitz.* 440, 331, 45-F7 (1995)

Constellation Name: DI Herculis

On the Nature of the Anomalously Slow Apsidal Motion of DI Herculis. *Kh. F. Khaliullin, S. A. Khodykin, & A. I. Zakharov.* 375, 314, 114-G1 (1991)

Constellation Name: DQ Herculis

Taking the Pulse of DQ Herculis. *Phillip J. Martell, Keith Horne, Christopher M. Price, & Richard H. Gomer.* 448, 380, 197-D6 (1995)

The 71 Second Oscillation in the Light Curve of the Old Nova DQ Herculis. *E. Zhang, E. L. Robinson, R. F. Stiening, & Keith Horne.* 454, 447, 305-D12 (1995)

Constellation Name: HZ Herculis

Search for TeV Gamma-Ray Emission from Hercules X-1. *P. T. Reynolds, M. F. Cawley, D. J. Fegan, A. M. Hillas, P. W. Kwok, R. C. Lamb, M. J. Lang, D. A. Lewis, D. J. Macomb, K. S. O'Flaherty, G. Vacanti, & T. C. Weekes.* 382, 640, 209-E7 (1991)

Ultraviolet Spectra of HZ Herculis/Hercules X-1 from *HST*: Hot Gas during Total Eclipse of the Neutron Star. *Scott F. Anderson, Stefanie Wachter, Bruce Margon, Ronald A. Downes, William P. Blair, & Jules P. Halpern.* 436, 319, 265-F5 (1994)

Constellation Name: U Herculis

Observation of a Ring Structure in SiO Maser Emission from Late-Type Stars. *P. J. Diamond, A. J. Kemball, W. Junor, A. Zensus, J. Benson, & V. Dhawan.* 430, L61, 166-A10 (1994)

Constellation Name: V446 Herculis

Periodic Outbursts in the Old Nova V446 Herculis. *R. K. Honeycutt, J. W. Robertson, & G. W. Turner.* 446, 838, 167-E13 (1995)

Constellation Name: V795 Herculis

V795 Herculis (=PG 1711+336), A Peculiar Intermediate Polar without Strong X-Ray Emission. *Erho Zhang, Edward L. Robinson, Tod F. Ramseyer, Mathew D. Shetrone, & Rae F. Stiening.* 381, 534, 197-C10 (1991)

Constellation Name: V838 Herculis

ROSAT Observation of the Decline of V838 Herculis (Nova Herculis 1991). *Paula Szkody & D. W. Hoard.* 429, 857, 156-C12 (1994)

Constellation Name: Nova DQ Herculis

On the Mass of Nova DQ Herculis (1934). *Keith Horne, William F. Welsh, & Richard A. Wade.* 410, 357, 116-E1 (1993)

Constellation Name: Nova Herculis 1991

The Peculiar, Fast Nova Herculis 1991. *Charles E. Woodward, R. D. Gehrz, Terry J. Jones, & G. F. Lawrence.* 384, L41, 11-C1 (1992)

The Presence of an Accretion Disk in the Eclipsing Binary System Nova Herculis 1991 Three Weeks after Outburst. *Elia M. Leibowitz, Haim Mendelson, Ezra Mashal, Dina Prialnik, & Waltraut C. Seitter.* 385, L49, 23-D1 (1992)

8–13 Micron Spectroscopy of Nova Herculis 1991. *David K. Lynch, John A. Hackwell, & Ray W. Russell.* 398, 632, 192-A5 (1992)

The Optical Light Curve of Nova Herculis 1991 and of Other Classical Novae. *Elia M. Leibowitz.* 411, L29, 134-A1 (1993)

Nova Herculis 1991: Thermonuclear Runaway on a Massive ONeMg White Dwarf. *Thomas Matheson, Alexei V. Filippenko, & Luis C. Ho.* 418, L29, 238-D6 (1993)

The Masses of V838 Herculis (Nova Herculis 1991) and QZ Aurigae. *Paula Szkody & Doug Ingram.* 420, 830, 13-C3 (1994)

Infrared Photometry and Spectrophotometry of Nova Herculis 1991 (= V838 Herculis): Observations of the Formation of Dust in the Ejecta of a Very Fast Nova. *Thomas E. Harrison & Guy S. Stringfellow.* 437, 827, 297-A3 (1994)

Constellation Name: β Hydri

The Distant Future of Solar Activity: A Case Study of β Hydri. I. Stellar Evolution, Lithium Abundance, and Photospheric Structure. *D. Dravins, L. Lindegren, Å. Nordlund, & D. A. VandenBerg.* 403, 385, 18-E10 (1993)

The Distant Future of Solar Activity: A Case Study of β Hydri. II. Chromospheric Activity and Variability. *D. Dravins, P. Linde, K. Fredga, & G. F. Gahm.* 403, 396, 18-F9 (1993)

The Distant Future of Solar Activity: A Case Study of β Hydri. III. Transition Region, Corona, and Stellar Wind. *D. Dravins, P. Linde, T. R. Ayres, J. L. Linsky, B. Monsignori-Fossi, T. Simon, & F. Wallinder.* 403, 412, 18-G13 (1993)

X-Ray Emission from the Sun in Its Youth and Old Age. *J. D. Dorren, M. Güdel, & E. F. Guinan.* 448, 431, 198-B3 (1995)

Constellation Name: V Hydrae

Evidence for Rapid Rotation of the Carbon Star V Hydrae. *Cecilia Barnbaum, Mark Morris, & Claudine Kahane.* 450, 862, 242-G7 (1995)

Constellation Name: VW Hydri

On the X-Ray–emitting Boundary Layer of the Dwarf Nova VW Hydri. *Christopher W. Mauche, Richard A. Wade, Ronald S. Polidan, Hans van der Woerd, & Frits B. S. Paerels.* 372, 659, 83-G7 (1991)

A Study of the Long-Term Behavior of the SU Ursae Majoris Dwarf Novae VW Hydri and Z Chamaeleontis. *Pritiraj Mohanty & Eric M. Schlegel.* 449, 330, 214-F1 (1995)

Constellation Name: AR Lacertae

A Study of the Spatial and Spectral Characteristics of the Corona of AR Lacertae. *R. Ottmann, J. H. M. M. Schmitt, & M. Kürster.* 413, 710, 165-C6 (1993)

Extreme Ultraviolet Explorer Observations of the RS Canum Venaticorum Systems AR Lacertae and II Pegasi. *R. J. Patterer, P. W. Vedder, P. Jelinsky, A. Brown, & S. Bowyer.* 414, L57, 185-B13 (1993)

Constellation Name: SW Lacertae

Analysis of the *IUE* Satellite and the Ground-based Observations of SW Lacertae. *Jang Hae Jeong, Yong Woon Kang, Woo Baik Lee, & Eon Chang Sung.* 421, 779, 27-G13 (1994)

Constellation Name: AD Leonis

The Great Flare of 1985 April 12 on AD Leonis. *Suzanne L. Hawley & Bjørn R. Pettersen.* 378, 725, 161-D1 (1991)

Simultaneous *Extreme-Ultraviolet Explorer* and Optical Observations of AD Leonis: Evidence for Large Coronal Loops and the Neupert Effect in Stellar Flares. *Suzanne L. Hawley, George H. Fisher, Theodore Simon, Scott L. Cully, Susana E. Deustua, Marek Jablonski, Christopher M. Johns-Krull, Bjørn R. Pettersen, Verne Smith, William J. Spiesman, & Jeffrey Valenti.* 453, 464, 287-D14 (1995)

Constellation Name: CN Leonis

A Search for Microflaring Activity on dMe Flare Stars. I. Observations of the dM8e Star CN Leonis. *R. D. Robinson, K. G. Carpenter, J. W. Percival, & J. A. Bookbinder.* 451, 795, 258-B6 (1995)

Constellation Name: DP Leonis

Eclipse Mapping of the Accreting Magnetic White Dwarf in DP Leonis with *HST*. *H. S. Stockman, Gary D. Schmidt, James Liebert, & J. B. Holberg.* 430, 323, 163-B11 (1994)

X-Ray Variability and Period Determinations in the Eclipsing Polar DP Leonis. *Craig R. Robinson & France A. Córdova.* 437, 436, 289-B4 (1994)

Constellation Name: R Leonis

The Spatial Size of the SiO Masers in R Leonis Derived from Lunar Occultations. *J. Cernicharo, W. Brunswig, G. Paubert, & S. Liechti.* 423, L143, 61-C13 (1994)

Constellation Name: χ Lupi

First Results from the Goddard High-Resolution Spectrograph: High-Resolution Observations of the 1942 Å Resonance Line of Hg II in the Chemically Peculiar B Star, χ Lupi. *David S. Leckrone, Glenn M. Wahlgren, & Sveneric G. Johansson.* 377, L37, 143-E1 (1991)

First Results from the Goddard High-Resolution Spectrograph: A Demonstration of Spectral Resolution and Experiments with Deconvolution. *Glenn M. Wahlgren, David S. Leckrone, Steven N. Shore, Don J. Lindler, Ronald L. Gilliland, & Dennis C. Ebbets.* 377, L41, 143-E6 (1991)

Comparison of New Experimental and Astrophysical *f*-Values for Some Ru II Lines, Observed in *HST* Spectra of χ Lupi. *Sveneric G. Johansson, Ali Joueizadeh, Ulf Litzén, Jörgen Larsson, Anders Persson, Claes-Göran Wahlström, Sune Svanberg, David S. Leckrone, & Glenn M. Wahlgren.* 421, 809, 28-C8 (1994)

An Optical Region Elemental Abundance Analysis of the Chemically Peculiar HgMn Star χ Lupi. *Glenn M. Wahlgren, Saul J. Adelman, & Richard D. Robinson.* 434, 349, 230-C3 (1994)

The Pursuit of Heavy Elements in the HgMn-Type Star χ Lupi: Observations with the GHRS in the COSTAR Era. *Glenn M. Wahlgren, Tomas Brage, Ronald L. Gilliland, Sveneric G. Johansson, David S. Leckrone, Don J. Lindler, & Ulf Litzén.* 435, L67, 252-F3 (1994)

The Abundances of Pt, Au, and Hg in the Chemically Peculiar HgMn-Type Stars κ Cancri and χ Lupi. *Glenn M. Wahlgren, David S. Leckrone, Sveneric G. Johansson, Maria Rosberg, & Tomas Brage.* 444, 438, 119-E11 (1995)

Interpretation of Anomalous Ultraviolet Transitions of Fe II Observed in Laboratory Fourier Transform Spectra and Stellar *HST* and *IUE* Spectra. *Sveneric Johansson, Tomas Brage, David S. Leckrone, Gillian Nave, & Glenn M. Wahlgren.* 446, 361, 158-C1 (1995)

Constellation Name: α Lyrae

Metallic Line Profiles of the A0 V Star Vega. *Austin F. Gulliver, Saul J. Adelman, Charles R. Cowley, & J. Murray Fletcher.* 380, 223, 178-G1 (1991)

Line Shapes of Rotating Stars with Application to Alpha Lyrae. *G. H. Elste.* 384, 284, 4-D10 (1992)

A New Solar Irradiance Calibration from 3295 Å to 8500 Å Derived from Absolute Spectrophotometry of Vega. *G. W. Lockwood, H. Tüg, & N. M. White.* 390, 668, 83-E9 (1992)

Vega: A Rapidly Rotating Pole-on Star. *Austin F. Gulliver, Graham Hill, & Saul J. Adelman.* 429, L81, 158-C9 (1994)

Constellation Name: β Lyrae

Ultraviolet Light Curves of β Lyrae: Comparison of *OAO* A-2, *IUE*, and *Voyager* Observations. *Yoji Kondo, George E. McCluskey, Jeffrey M. S. Silvis, Ronald S. Polidan, Carolina P. S. McCluskey, & Joel A. Eaton.* 421, 787, 28-A9 (1994)

Constellation Name: AU Microscopii

A Search for Proton Beams during Flares on AU Microscopii. *R. D. Robinson, K. G. Carpenter, B. E. Woodgate, & S. P. Maran.* 414, 872, 182-B5 (1993)

Observing Stellar Coronae with the Goddard High Resolution Spectrograph. I. The dMe Star AU Microscopii. *S. P. Maran, R. D. Robinson, S. N. Shore, J. W. Brosius, K. G. Carpenter, B. E. Woodgate, J. L. Linsky, A. Brown, P. B. Byrne, M. R. Kundu, S. White, J. C. Brandt, R. A. Shine, & F. M. Walter.* 421, 800, 28-B10 (1994)

High-Velocity Plasma in the Transition Region of AU Microscopii: Evidence for Magnetic Reconnection and Saturated Heating during Quiescent and Flaring Conditions. *Jeffrey L. Linsky & Brian E. Wood.* 430, 342, 163-D8 (1994)

A Coronal Mass Ejection Model for the 1992 July 15 Flare on AU Microscopii Observed by the *Extreme Ultraviolet Explorer*. *Scott L. Cully, George H. Fisher, Mark J. Abbott, & Oswald H. W. Siegmund.* 435, 449, 249-E11 (1994)

Constellation Name: β Monocerotis A

The 3 Micron Spectrum of the Classical Be Star β Monocerotis A. *K. Sellgren & R. G. Smith.* 388, 178, 51-B13 (1992)

Constellation Name: U Monocerotis

Period Changes and Evolution in RV Tauri Stars. *John R. Percy, Dimitar D. Sasselov, Amy Alfred, & Greg Scott.* 375, 691, 121-C7 (1991)

Constellation Name: θ Muscae

The First Linear Polarization Spectra of Wolf-Rayet Stars in the Ultraviolet: EZ Canis Majoris and θ Muscae. *R. E. Schulte-Ladbeck, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, D. Shepherd, M. Taylor, & B. A. Whitney.* 391, L37, 92-C6 (1992)

Constellation Name: Nova Muscae 1991

Periodic Variability in the Optical Counterpart of X-Ray Nova Muscae 1991. *Charles D. Bailyn.* 391, 298, 89-F1 (1992)

Discovery and X-Ray Properties of GS 1124−683 (=Nova Muscae). *Shunji Kitamoto, Hiroshi Tsunemi, Sigenori Miyamoto, & Kiyoshi Hayashida.* 394, 609, 137-A6 (1992)

The *Hubble Space Telescope* Observations of X-Ray Nova Muscae 1991 and Its Spectral Evolution. *F. H. Cheng, Keith Horne, N. Panagia, C. R. Shrader, R. Gilmozzi, F. Paresce, & N. Lund.* 397, 664, 179-C11 (1992)

Another Canonical Time Variation of X-Rays from Black Hole Candidates in the Very High Flare State? *Sigenori Miyamoto, Sayuri Iga, Shunji Kitamoto, & Yasuhide Kamado.* 403, L39, 20-D13 (1993)

Time-dependent Disk Accretion in X-Ray Nova Muscae 1991. *Shin Mineshige, Akira Hirano, Shunji Kitamoto, Tatsuya T. Yamada, & Jun Fukue.* 426, 308, 100-A3 (1994)

Secondary Maxima of Black Hole X-Ray Transients: A Clue to Understanding X-Ray Irradiation. *S. Mineshige.* 431, L99, 191-F7 (1994)

Quiescent Accretion Disks in Black Hole X-Ray Novae. *Jerome A. Orosz, Charles D. Bailyn, Ronald A. Remillard, Jeffrey E. McClintock, & Craig B. Foltz.* 436, 848, 277-D3 (1994)

Constellation Name: GQ Muscae

On the Magnetic Nature of GQ Muscae. *M. P. Diaz & J. E. Steiner.* 425, 252, 83-D5 (1994)

The Soft X-Ray Turnoff of Nova Muscae 1983. *L. Shanley, H. Ögelman, J. S. Gallagher, M. Orio, & J. Krautter.* 438, L95, 20-A8 (1995)

Constellation Name: S Muscae

Absorption-Line Profiles in a Companion Spectrum of a Mass-losing Cool Supergiant. *Liliya L. Rodrigues & Erika Böhm-Vitense.* 401, 695, 231-B10 (1992)

Constellation Name: RS Ophiuchi

Theoretical Light Curve for the Recurrent Nova RS Ophiuchi—Determination of the White Dwarf Mass, Composition, and Distance. *Mariko Kato.* 369, 471, 43-E6 (1991)

Is Drag Luminosity Effective in Recurrent Novae? *Mariko Kato & Izumi Hachisu.* 373, 620, 95-F1 (1991)

Constellation Name: ζ Ophiuchi

Interstellar $^{12}C/^{13}C$ Ratio Revisited. *Philippe Crane, Dennis J. Hegyi, & David L. Lambert.* 378, 181, 153-C1 (1991)

Interstellar Gas Phase Abundance of Carbon, Oxygen, Nitrogen, Copper, Gallium, Germanium, and Krypton toward ζ Ophiuchi. *Jason A. Cardelli, Blair D. Savage, & Dennis C. Ebbets.* 383, L23, 219-D1 (1991)

Kinematics and Morphology of Material Occulting ζ Ophiuchi. *H. S. Liszt.* 390, 226, 76-G1 (1992)

Fractionation of CO in the Diffuse Clouds toward ζ Ophiuchi. *Yaron Sheffer, S. R. Federman, David L. Lambert, & Jason A. Cardelli.* 397, 482, 176-G3 (1992)

Ultraviolet Observations of the Gas Phase Abundances in the Diffuse Clouds toward ζ Ophiuchi at 3.5 Kilometers per Second Resolution. *Blair D. Savage, Jason A. Cardelli, & Ulysses J. Sofia.* 401, 706, 231-C9 (1992)

Abundance of Interstellar Carbon toward ζ Ophiuchi. *Jason A. Cardelli, John S. Mathis, Dennis C. Ebbets, & Blair D. Savage.* 402, L17, 6-D1 (1993)

Density, Temperature, and Isotopic Abundance in Molecular Gas around ζ Ophiuchi. *Harvey S. Liszt.* 414, 242, 173-A10 (1993)

Time-Series Observations of O Stars. II. Optical Observations of ζ Ophiuchi. *A. H. N. Reid, C. T. Bolton, R. A. Crowe, M. S. Fieldus, A. W. Fullerton, D. R. Gies, I. D. Howarth, D. McDavid, R. K. Prinja, & K. C. Smith.* 417, 320, 221-E1 (1993)

Time-Series Observations of O Stars. III. *IUE* and *HST* Spectroscopy of ζ Ophiuchi and Implications for the "Photospheric Connection." *Ian D. Howarth, C. T. Bolton, R. A. Crowe, D. C. Ebbets, M. S. Fieldus, A. W. Fullerton, D. R. Gies, D. McDavid, R. K. Prinja, A. H. N. Reid, S. N. Shore, & K. C. Smith.* 417, 338, 221-F10 (1993)

Interstellar Detection of the Intersystem Line Si II] λ2335 toward ζ Ophiuchi. *Jason A. Cardelli, Ulysses J. Sofia, Blair D. Savage, Francis P. Keenan, & Philip L. Dufton.* 420, L29, 7-D13 (1994)

Interstellar Carbon Monoxide toward ζ Ophiuchi. *David L. Lambert, Yaron Sheffer, Ronald L. Gilliland, & S. R. Federman.* 420, 756, 12-C10 (1994)

Al III, Si IV, and C IV Absorption toward ζ Ophiuchi: Evidence for Photoionized and Collisionally Ionized Gas. *Kenneth R. Sembach, Blair D. Savage, & Edward B. Jenkins.* 421, 585, 25-D12 (1994)

A Statistical Equilibrium Analysis of Interstellar CO toward ζ Ophiuchi as Recorded by the Goddard High Resolution Spectrograph. *Cheng-Hsuan Lyu, Andrew M. Smith, & Frederick C. Bruhweiler.* 426, 254, 99-C7 (1994)

HD 93521, ζ Ophiuchi, and the Effects of Rapid Rotation on the Atmospheres and Winds of O9.5 V Stars. *Derck Massa.* 438, 376, 6-F1 (1995)

Vibrationally Excited H_2, HCl, and NO^+ in the Diffuse Clouds toward ζ Ophiuchi. *S. R. Federman, Jason A. Cardelli, Ewine F. van Dishoeck, David L. Lambert, & J. H. Black.* 445, 325, 137-A4 (1995)

Atomic Physics with the Goddard High-Resolution Spectrograph on the *Hubble Space Telescope*. I. Oscillator Strengths for Neutral Sulfur. *S. R. Federman & Jason A. Cardelli.* 452, 269, 265-G6 (1995)

Constellation Name: ρ Ophiuchi

The Anomalous Extinction Curve in the Direction of ρ Ophiuchi from 950 to 1180 Å. *James C. Green, Theodore P. Snow, Timothy A. Cook, Webster C. Cash, & Orion Poplawski.* 395, 289, 143-E9 (1992)

Constellation Name: ρ Ophiuchi A

Submillimeter Continuum Observations of ρ Ophiuchi A: The Candidate Protostar VLA 1623 and Prestellar Clumps. *Philippe André, Derek Ward-Thompson, & Mary Barsony.* 406, 122, 56-F3 (1993)

Constellation Name: V2214 Ophiuchi 1988

Nova V2214 Ophiuchi 1988: A Magnetic Nova inside the Period Gap. *R. Baptista, F. J. Jablonski, D. Cieslinski, & J. E. Steiner.* 406, L67, 68-D9 (1993)

Constellation Name: 51 Ophiuchi

The Circumstellar Gas Surrounding 51 Ophiuchi: A Candidate Proto–Planetary System Similar to β Pictoris. *C. A. Grady & J. M. S. Silvis.* 402, L61, 12-G1 (1993)

Detection of Silicates in the 51 Ophiuchi System. *S. B. Fajardo-Acosta, C. M. Telesco, & R. F. Knacke.* 417, L33, 223-B9 (1993)

Constellation Name: α Orionis

Distribution of Dust about o Ceti and α Orionis Based on 11 Micron Spatial Interferometry. *M. Bester, W. C. Danchi, C. G. Degiacomi, C. H. Townes, & T. R. Geballe.* 367, L27, 17-E1 (1991)

The Temperature of the Circumstellar Envelope of Alpha Orionis. *Bernadette Rodgers & Alfred E. Glassgold.* 382, 606, 209-B1 (1991)

Spatially Resolved Spectra of Silicate Dust around α Orionis. *G. C. Sloan, G. L. Grasdalen, & Paul D. LeVan.* 404, 328, 32-A3 (1993)

Detection of O I and Si II Far-Infrared Fine-Structure Emission from α Orionis. *Michael R. Haas & Alfred E. Glassgold.* 410, L111, 126-C9 (1993)

Neutral Carbon in the Circumstellar Envelope of α Orionis. *P. J. Huggins, R. Bachiller, P. Cox, & T. Forveille.* 424, L127, 79-E5 (1994)

GHRS Observations of Cool, Low-Gravity Stars. I. The Far-Ultraviolet Spectrum of α Orionis (M2 Iab). *Kenneth G. Carpenter, Richard D. Robinson, Glenn M. Wahlgren, Jeffrey L. Linsky, & Alexander Brown.* 428, 329, 132-C6 (1994)

A 7 Micron Dust Emission Feature in Oxygen-rich Circumstellar Shells. *J. H. Goebel, J. D. Bregman, & F. C. Witteborn.* 430, 317, 163-B3 (1994)

Constellation Name: δ Orionis

ASCA Solid State Imaging Spectrometer Observations of O Stars. *M. F. Corcoran, W. L. Waldron, J. J. MacFarlane, W. Chen, A. M. T. Pollock, K. Torii, S. Kitamoto, N. Miura, M. Egoshi, & Y. Ohno.* 436, L95, 270-B1 (1994)

Constellation Name: λ Orionis

ASCA Solid State Imaging Spectrometer Observations of O Stars. *M. F. Corcoran, W. L. Waldron, J. J. MacFarlane, W. Chen, A. M. T. Pollock, K. Torii, S. Kitamoto, N. Miura, M. Egoshi, & Y. Ohno.* 436, L95, 270-B1 (1994)

Constellation Name: ι Orionis

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. IV. ι Orionis. *Douglas R. Gies, Michael S. Wiggs, & William G. Bagnuolo, Jr.* 403, 752, 25-B4 (1993)

Constellation Name: θ^1 Orionis C

A Large, Periodic Variation in the Stellar Wind of θ^1 Orionis C. *Nolan R. Walborn & Joy S. Nichols.* 425, L29, 85-E1 (1994)

ROSAT HRI Observations of Hot Stars in the Orion Nebula. *Jean-Pierre Caillault, Marc Gagné, & John R. Stauffer.* 432, 386, 198-A2 (1994)

Photoevaporating Stellar Envelopes Observed with Rayleigh Beacon Adaptive Optics. *P. R. McCullough, R. Q. Fugate, J. C. Christou, B. L. Ellerbroek, C. H. Higgins, J. M. Spinhirne, R. A. Cleis, & J. F. Moroney.* 438, 394, 6-G11 (1995)

Constellation Name: χ^1 Orionis

The Extreme Ultraviolet Coronal Spectrum of the Solar-Type Star χ^1 Orionis. *Bernhard Haisch, Jeremy J. Drake, & J. H. M. M. Schmitt.* 421, L39, 22-A5 (1994)

Constellation Name: FU Orionis

On the Near-Infrared Spectrum of FU Orionis. *Nuria Calvet, Lee Hartmann, & Scott J. Kenyon.* 383, 752, 223-E6 (1991)

On the Interpretation of the Spectrum of FU Orionis. *P. P. Petrov & G. H. Herbig.* 392, 209, 103-E1 (1992)

Optical Spectroscopy of Z Canis Majoris, V1057 Cygni, and FU Orionis: Accretion Disks and Signatures of Disk Winds. *Alan D. Welty, Stephen E. Strom, Suzan Edwards, Scott J. Kenyon, & Lee W. Hartmann.* 397, 260, 171-B11 (1992)

Constellation Name: AG Pegasi

AG Pegasi: A Multishell Radio Source. *H. T. Kenny, A. R. Taylor, & E. R. Seaquist.* 366, 549, 9-G7 (1991)

Constellation Name: τ Pegasi

τ Pegasi: A Fourier Representation of Line-Profile Variations. *E. J. Kennelly, G. A. H. Walker, & William J. Merryfield.* 400, L71, 220-E8 (1992)

Constellation Name: EE Pegasi

A Spectrum Synthesis Program for Binary Stars. *Albert P. Linnell & Ivan Hubeny.* 434, 738, 238-A4 (1994)

Constellation Name: EQ Pegasi

Extreme-Ultraviolet Spectroscopy and Photometry of EQ Pegasi. *Brunella C. Monsignori Fossi, Massimo Landini, Antonella Fruscione, & Jean Dupuis.* 449, 376, 215-C7 (1995)

Constellation Name: II Pegasi

Extreme Ultraviolet Explorer Observations of the RS Canum Venaticorum Systems AR Lacertae and II Pegasi. *R. J. Patterer, P. W. Vedder, P. Jelinsky, A. Brown, & S. Bowyer.* 414, L57, 185-B13 (1993)

Absolute Measurements of Starspot Area and Temperature: II Pegasi in 1989 October. *James E. Neff, Douglas O'Neal, & Steven H. Saar.* 452, 879, 276-G6 (1995)

Constellation Name: RU Pegasi

Concurrent X-Ray and Optical Observations of Two Dwarf Novae during Eruption. *A. Silber, S. D. Vrtilek, & J. C. Raymond.* 425, 829, 92-B1 (1994)

Constellation Name: α Persei

Ginga Observations of X-Ray Flares on Algol. *R. A. Stern, Y. Uchida, S. Tsuneta, & F. Nagase.* 400, 321, 212-G13 (1992)

Circumstellar Material in Algol: A Study of the Balmer Line Profiles. *Mercedes T. Richards.* 86, 255, 17-D3 (1993)

VLBI Astrometric Identification of the Radio-emitting Region in Algol and Determination of the Orientation of the Close Binary. *Jean-François Lestrade, Robert B. Phillips, Mark W. Hodges, & Robert A. Preston.* 410, 808, 123-G1 (1993)

High Angular Resolution Measurements of Algol. *Xiaopei Pan, Michael Shao, & M. Mark Colavita.* 413, L129, 169-C1 (1993)

Doppler Tomography of the Gas Stream in Short-Period Algol Binaries. *Mercedes T. Richards, Geary E. Albright, & Larissa M. Bowles.* 438, L103, 20-B8 (1995)

Hydrodynamic Simulations of the Mass Transfer in Algol. *John M. Blondin, Mercedes T. Richards, & Michael L. Malinowski.* 445, 939, 148-B13 (1995)

The Radial Velocity Variability of α Persei: A Low-Amplitude Cepheid outside the Instability Strip? *Artie P. Hatzes & William D. Cochran.* 452, 401, 267-E11 (1995)

Constellation Name: ϕ Persei

Tomographic Separation of Composite Spectra. III. Ultraviolet Detection of the Hot Companion of ϕ Persei. *Michelle L. Thaller, William G. Bagnuolo, Jr., Douglas R. Gies, & Laura R. Penny.* 448, 878, 207-A10 (1995)

Constellation Name: ζ Persei

The Interstellar $^{12}CN/^{13}CN$ Ratio toward ζ Persei. *Mary Elizabeth Kaiser, Isabel Hawkins, & Edward L. Wright.* 379, 267, 166-D1 (1991)

Constellation Name: ξ Persei

First Results from the Goddard High-Resolution Spectrograph: Element Abundances as a Function of Velocity in the Neutral Gas toward ξ Persei. *Blair D. Savage, Jason A. Cardelli, Frederick C. Bruhweiler, Andrew M. Smith, Dennis C. Ebbets, & Kenneth R. Sembach.* 377, L53, 143-F6 (1991)

First Results from the Goddard High-Resolution Spectrograph: Elemental Abundances in the Diffuse Clouds toward ξ Persei. *Jason A. Cardelli, Blair D. Savage, Frederick C. Bruhweiler, Andrew M. Smith, Dennis C. Ebbets, Kenneth R. Sembach, & Ulysses J. Sofia.* 377, L57, 143-F11 (1991)

Goddard High-Resolution Spectrograph Observations of Narrow Discrete Stellar Wind Absorption Features in the Ultraviolet Spectrum of the O7.5 III Star ξ Persei. *Steven N. Shore, Bruce Altner, C. T. Bolton, Jason A. Cardelli, & Dennis C. Ebbets.* 411, 864, 140-E5 (1993)

Constellation Name: GK Persei

Disk Instability and Outburst Properties of the Intermediate Polar GK Persei. *Soon-Wook Kim, J. Craig Wheeler, & Shin Mineshige.* 384, 269, 4-C7 (1992)

Disk Instability and the Time-dependent X-Ray Emission from the Intermediate Polar GK Persei. *Insu Yi, Soon-Wook Kim, Ethan T. Vishniac, & J. Craig Wheeler.* 391, L25, 92-B6 (1992)

On High Mass Accretion Rates in Magnetized Column Accretion onto White Dwarfs. *Insu Yi.* 422, 289, 33-F5 (1994)

Disk-Overflow Accretion in GK Persei? *Coel Hellier & Mario Livio.* 424, L57, 69-G12 (1994)

The Hard X-Ray Emission Spectra from Accretion Columns in Intermediate Polars. *Insu Yi & Ethan T. Vishniac.* 435, 829, 257-E1 (1994)

Nova Persei 1901: Detection of the Site of Its Brightest Light Echo. *R. W. Tweedy.* 438, 917, 16-F13 (1995)

Constellation Name: IX Persei

ASCA and *ROSAT* Observations of NRAO 140 and IX Persei. *T. J. Turner, I. M. George, G. M. Madejski, S. Kitamoto, & T. Suzuki.* 445, 660, 144-B11 (1995)

Constellation Name: V Persei

Eclipse Maps of the Accretion Disk in the Classical Nova V Persei. *Janet H. Wood, Timothy M. C. Abbott, & Allen W. Shafter.* 393, 729, 124-G10 (1992)

Constellation Name: X Persei

A Broad-Band X-Ray Telescope Spectrum of the Massive X-Ray Binary X Persei. *Eric M. Schlegel, Peter J. Serlemitsos, Keith Jahoda, Frank Marshall, Robert Petre, Elihu Boldt, Richard Mushotzky, Jean Swank, Andrew Szymkowiak, Alan Smale, & Kim Weaver.* 407, 744, 79-F13 (1993)

Constellation Name: 53 Persei

A Multisite *UBV* Photometric Campaign on 53 Persei in 1991 January. *L. Huang, Z. Guo, J. Hao, J. R. Percy, M. S. Fieldus, R. Fried, K Pavlovski, H. Božić, Ž. Ružić, M. Paparó, & B. Vetö.* 431, 850, 189-C5 (1994)

Constellation Name: Nova Persei 1992

SIGMA Observations of the Bright X-Ray Transient Nova Persei: A New Black Hole Candidate? *J. P. Roques, L. Bouchet, E. Jourdain, P. Mandrou, A. Goldwurm, J. Ballet, A. Claret, F. Lebrun, A. Finoguenov, E. Churazov, M. Gilfanov, R. Sunyaev, B. Novikov, I. Chulkov, N. Kuleshova, & I. Tserenin.* 92, 451, 37-G2 (1994)

Noise Variability of the Hard X-Ray Transient Nova Persei. *M. Denis, J.-F. Olive, P. Mandrou, J. P. Roques, J. Ballet, A. Goldwurm, Ph. Laurent, B. Cordier, A. Vikhlinin, E. Churazov, M. Gilfanov, R. Sunyaev, A. Dyachkov, N. Khavenson, R. Kremnev, & V. Kovtunenko.* 92, 459, 38-A1 (1994)

Hard X-Ray Variability of X-Ray Nova Persei 1992: *Granat*/SIGMA Results. *A. Vikhlinin, E. Churazov, M. Gilfanov, R. Sunyaev, A. Finoguenov, A. Dyachkov, R. Kremnev, K. Sukhanov, J. Ballet, A. Goldwurm,*

B. Cordier, A. Claret, M. Denis, J. F. Olive, J. P. Roques, & P. Mandrou. 441, 779, 72-F7 (1995)

Constellation Name: AI Phoenicis

The Eclipsing Binary AI Phoenicis: New Results Based on an Improved Light Curve Analysis Program. *E. F. Milone, C. R. Stagg, & R. L. Kurucz.* 79, 123, 14-E11 (1992)

Constellation Name: β Pictoris

Mass Outflow in the Nearby Proto–Planetary System β Pictoris. *Frederick C. Bruhweiler, Yoji Kondo, & C. A. Grady.* 371, L27, 66-D7 (1991)

Infrared Observations and Thermal Models of the β Pictoris Disk. *D. E. Backman, F. C. Gillett, & F. C. Witteborn.* 385, 670, 21-D8 (1992)

Coronagraphic Imaging of the β Pictoris Circumstellar Disk: Evidence of Changing Disk Structure within 100 AU. *David A. Golimowski, Samuel T. Durrance, & Mark Clampin.* 411, L41, 134-B6 (1993)

The Silicates in the Disk of β Pictoris. *R. F. Knacke, S. B. Fajardo-Acosta, C. M. Telesco, J. A. Hackwell, D. K. Lynch, & R. W. Russell.* 418, 440, 236-D13 (1993)

HST/GHRS Observations of the β Pictoris System: Basic Parameters of the Age of the System. *Thierry Lanz, Sara R. Heap, & Ivan Hubeny.* 447, L41, 181-B5 (1995)

Constellation Name: AY Piscium

A Spectroscopic Study of DV Ursae Majoris (US 943), AY Piscium (PG 0134+070), and V503 Cygni. *Paula Szkody & Steve B. Howell.* 403, 743, 25-A6 (1993)

Constellation Name: TX Piscium

Dust Temperatures in the Circumstellar Shell of TX Piscium. *J. Wirsich.* 377, 285, 141-E1 (1991)

A Deep Envelope Composition for TX Piscium? *J. H. Goebel, D. Goorvitch, H. P. Larson, & D. R. Alexander.* 402, 680, 11-B1 (1993)

The Photodissociation of Circumstellar HCN and SiS. *J. Wirsich.* 424, 370, 66-D14 (1994)

Constellation Name: VZ Piscium

A Study of the Chromospherically Active, Short-Period Binary VZ Piscium. *Bruce J. Hrivnak, Edward F. Guinan, & Wenxian Lu.* 455, 300, 322-C8 (1995)

Constellation Name: ζ Puppis

Time Series Observations of O Stars. I. *IUE* Observations of Variability in the Stellar Wind of ζ Puppis. *R. K. Prinja, L. A. Balona, C. T. Bolton, R. A. Crowe, M. S. Fieldus, A. W. Fullerton, D. R. Gies, I. D. Howarth, D. McDavid, & A. H. N. Reid.* 390, 266, 77-C6 (1992)

Broad-Band X-Ray Telescope Spectroscopy of ζ Puppis. *M. F. Corcoran, J. H. Swank, P. J. Serlemitsos, E. Boldt, R. Petre, F. E. Marshall, K. Jahoda, R. Mushotzky, A. Szymkowiak, K. Arnaud, A. P. Smale, K. Weaver, & S. S. Holt.* 412, 792, 153-F1 (1993)

Evolution of Solitary Density Waves in Stellar Winds of Early-Type Stars: A Simple Explanation of Discrete Absorption Component Behavior. *Wayne L. Waldron, Larry Klein, & Bruce Altner.* 426, 725, 107-D10 (1994)

Constellation Name: CP Puppis

CP Puppis: No Ordinary Old Nova. *James C. White II, R. Kent Honeycutt, & Keith Horne.* 412, 278, 145-E6 (1993)

ROSAT Observation of the Old Classical Nova CP Puppis. *Şölen Balman, Marina Orio, & Hakki Ögelman.* 449, L47, 216-F11 (1995)

Constellation Name: VV Puppis

The Quasi-periodic Oscillations of VV Puppis. *James N. Imamura, John Middleditch, Jeffrey D. Scargle, Thomas Y. Steiman-Cameron, Laura A. Whitlock, Michael T. Wolff, & Kent S. Wood.* 419, 793, 257-E1 (1993)

Extreme Ultraviolet Spectroscopy and Photometry of VV Puppis during a High Accretion State. *Stéphane Vennes, Paula Szkody, Edward M. Sion, & Knox S. Long.* 445, 921, 148-A1 (1995)

Constellation Name: V347 Puppis

Optical, *IUE*, and *ROSAT* Observations of the Eclipsing Nova-like Variable V347 Puppis (LB 1800). *Christopher W. Mauche, John C. Raymond, David A. H. Buckley, Martine Mouchet, Jerry Bonnell, Denis J. Sullivan, Jean-Marc Bonnet-Bidaud, & Wolfram H. Bunk.* 424, 347, 66-B12 (1994)

Constellation Name: T Pyxidis

Is Drag Luminosity Effective in Recurrent Novae? *Mariko Kato & Izumi Hachisu.* 373, 620, 95-F1 (1991)

The Photometric Period of the Recurrent Nova T Pyxidis. *Bradley E. Schaefer, Arlo U. Landolt, Nikolaus Vogt, David Buckley, Brian Warner, Alistair R. Walker, & Howard E. Bond.* 81, 321, 39-C9 (1992)

Constellation Name: FG Sagittae

The Infrared Temporal Evolution of FG Sagittae. *Charles E. Woodward, G. F. Lawrence, R. D. Gehrz, Terry J. Jones, H. A. Kobulnicky, James Cole, Tracy Hodge, & Harley A. Thronson, Jr.* 408, L37, 89-B8 (1993)

Constellation Name: U Sagittae

IUE Investigation of Mass Flow in the Interacting Binary U Sagittae. *George E. McCluskey, Jr., Carolina Paciencia Salas McCluskey, & Yoji Kondo.* 378, 281, 154-D9 (1991)

Doppler Tomography of the Gas Stream in Short-Period Algol Binaries. *Mercedes T. Richards, Geary E. Albright, & Larissa M. Bowles.* 438, L103, 20-B8 (1995)

The Transient Accretion Disk in the Algol-Type Binary U Sagittae. *Geary E. Albright & Mercedes T. Richards.* 441, 806, 73-B2 (1995)

Constellation Name: WZ Sagittae

Hubble Space Telescope FOS Spectroscopy of the Ultrashort-Period Dwarf Nova WZ Sagittae: The Underlying Degenerate. *Edward M. Sion, F. H. Cheng, Knox S. Long, Paula Szkody, Ron L. Gilliland, Min Huang, & Ivan Hubeny.* 439, 957, 37-G3 (1995)

Constellation Name: RY Sagittarii

An Ultraviolet and Visible Spectroscopic Study of a Pulsational Cycle of RY Sagittarii. *Geoffrey C. Clayton, W. A. Lawson, P. L. Cottrell, Barbara A. Whitney, S. Adam Stanford, & Frank de Ruyter.* 432, 785, 205-F13 (1994)

Constellation Name: VX Sagittarii

Interferometric Observations of the SiO Masers and Dust Shell of VX Sagittarii. *L. J. Greenhill, F. Colomer, J. M. Moran, D. C. Backer, W. C. Danchi, & M. Bester.* 449, 365, 215-B7 (1995)

Constellation Name: V505 Sagittarii

Secondaries of Eclipsing Binaries. VII. The Spectroscopic Triple and Visual Double V505 Sagittarii. *Jocelyn Tomkin.* 387, 631, 46-E1 (1992)

Constellation Name: Scorpius X-1

The Ultraviolet Spectrum of Scorpius X-1 as Observed by *IUE*: 1978–1988. *T. R. Kallman, J. C. Raymond, & S. D. Vrtilek.* 370, 717, 57-C11 (1991)

Observations of Scorpius X-1 with *IUE*: Ultraviolet Results from a Multiwavelength Campaign. *S. D. Vrtilek, W. Penninx, J. C. Raymond, F. Verbunt, P. Hertz, K. Wood, W. H. G. Lewin, & K. Mitsuda.* 376, 278, 128-D1 (1991)

The Radio "Lobes" of Scorpius X-1 Are Unrelated Background Sources. *E. B. Fomalont & B. J. Geldzahler.* 383, 289, 215-G1 (1991)

Hard X-Ray Observation of Scorpius X-1. *P. Ubertini, A. Bazzano, M. Cocchi, C. La Padula, & R. K. Sood.* 386, 710, 34-B4 (1992)

X-Ray Variability of Scorpius X-1 during a Multiwavelength Campaign. *P. Hertz, B. Vaughan, K. S. Wood, J. P. Norris, K. Mitsuda, P. F. Michelson, & T. Dotani.* 396, 201, 157-E12 (1992)

Compton Reflection in Scorpius X-1 and Cygnus X-3? *Michael Maisack, Eckhard Kendziorra, Hongchao Pan, Gerry Skinner, Jakob Englhauser, Claus Reppin, Valeri Efremov, & Rashid Sunyaev.* 92, 473, 38-B7 (1994)

A Search for an X-Ray Scattering Halo around Scorpius X-1. *Dennis Gallagher, Webster Cash, & James Green.* 439, 976, 38-B2 (1995)

Constellation Name: α Scorpii

Direct Measurement of the Inner Radius of the Dust Shell around the Cool Supergiant Star α Scorpii. *E. E. Bloemhof & R. M. Danen.* 440, L93, 58-C2 (1995)

Constellation Name: π Scorpii

Ultraviolet Interstellar Lines in the Spectrum of π Scorpii Recorded at 2 Kilometers per Second Resolution. *Charles L. Joseph & Edward B. Jenkins.* 368, 201, 25-E9 (1991)

Dense Clumps of Ionized Gas near π Scorpii, as Revealed by the Fine-Structure Excitation of N II. *Frank Bertoldi & Edward B. Jenkins.* 388, 495, 56-D9 (1992)

Constellation Name: U Scorpii

Is Drag Luminosity Effective in Recurrent Novae? *Mariko Kato & Izumi Hachisu.* 373, 620, 95-F1 (1991)

Spectroscopy of the Recurrent Nova U Scorpii. *Helen M. Johnston & Shrinivas R. Kulkarni.* 396, 267, 158-D4 (1992)

An Improved Orbital Period for the Recurrent Nova U Scorpii. *Bradley E. Schaefer & F. A. Ringwald.* 447, L45, 181-C1 (1995)

Constellation Name: T Scorpii

Cataclysmic and Close Binaries in Star Clusters. III. Recovery of the Quiescent Nova 1860 A.D. (T Scorpii) in the Core of the Globular Cluster M80. *Michael M. Shara & Laurent Drissen.* 448, 203, 195-A1 (1995)

Constellation Name: V926 Scorpii

A Study of the Hα Line in X1735−444. *Alan P. Smale & Robin H. D. Corbet.* 383, 853, 224-G6 (1991)

Constellation Name: R Scuti

Period Changes and Evolution in RV Tauri Stars. *John R. Percy, Dimitar D. Sasselov, Amy Alfred, & Greg Scott.* 375, 691, 121-C7 (1991)

Constellation Name: RY Scuti

RY Scuti: Infrared and Radio Observations of the Mass-Loss Wind of a Massive Binary Star System. *R. D. Gehrz, T. L. Hayward, J. R. Houck, J. W. Miles, R. M. Hjellming, T. J. Jones, Charles E. Woodward, Ricarda Prentice, W. J. Forrest, S. Libonate, & S. Solomon.* 439, 417, 26-G11 (1995)

Constellation Name: NN Serpentis

IUE Spectra of the Eclipsing Binary NN Serpentis. *Janet H. Wood & Thomas R. Marsh.* 381, 551, 197-E1 (1991)

Constellation Name: W Serpentis

Goddard High-Resolution Spectrograph Observations of the Interacting Binary System W Serpentis. *J. L. Weiland, S. N. Shore, E. A. Beaver, R. W. Lyons, & E. I. Rosenblatt.* 447, 401, 177-G13 (1995)

Constellation Name: α Tauri

First Results from the Goddard High-Resolution Spectrograph: The Chromosphere of α Tauri. *Kenneth G. Carpenter, Richard D. Robinson, Glenn M. Wahlgren, Thomas B. Ake, Dennis C. Ebbets, Jeffrey L. Linsky, Alexander Brown, & Frederick M. Walter.* 377, L45, 143-E11 (1991)

First Ultraviolet Spectropolarimetry of Be Stars from the Wisconsin Ultraviolet Photo-Polarimeter Experiment. *K. S. Bjorkman, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, G. C. Clayton, A. M. Magalhães, M. R. Meade, M. A. Nook, R. E. Schulte-Ladbeck, M. Taylor, & B. A. Whitney.* 383, L67, 226-E1 (1991)

Chromospheric Heating by Acoustic Shocks: A Confrontation of GHRS Observations of α Tauri (K5 III) with Ab Initio Calculations. *P. G. Judge & M. Cuntz.* 409, 776, 108-F13 (1993)

The "Monochromatic Density Diagnostic" Technique: First Detection of Multiple Density Components in the Chromosphere of α Tauri. *P. G. Judge.* 430, 351, 163-E5 (1994)

Constellation Name: ζ Tauri

First Ultraviolet Spectropolarimetry of Be Stars from the Wisconsin Ultraviolet Photo-Polarimeter Experiment. *K. S. Bjorkman, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, G. C. Clayton, A. M. Magalhães, M. R. Meade, M. A. Nook, R. E. Schulte-Ladbeck, M. Taylor, & B. A. Whitney.* 383, L67, 226-E1 (1991)

Constellation Name: BP Tauri

The Lithium Abundance of the T Tauri Star BP Tauri. *Douglas K. Duncan.* 373, 250, 89-B1 (1991)

Constellation Name: CW Tauri

Subarcsecond Images of CW Tauri: Constraints on Disk Size and Jet Formation. *Ana I. Gómez de Castro.* 412, L43, 148-E5 (1993)

Constellation Name: DD Tauri

Resolving the Forbidden-Line Emission Regions of Young Stellar Objects: DD Tauri. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 397, L107, 181-D7 (1992)

Constellation Name: DG Tauri

10 AU Scale Halo Structure around DG Tauri. *Wen Ping Chen, R. R. Howell, M. Simon, & J. A. Benson.* 387, L43, 43-E8 (1992)

High-Resolution Long-Slit Spectral Imaging of the Mass Outflows in the Immediate Vicinity of DG Tauri. *J. Solf & K. H. Böhm.* 410, L31, 118-F13 (1993)

Hubble Space Telescope Images of the Subarcsecond Jet in DG Tauri. *J. Kepner, P. Hartigan, C. Yang, & S. Strom.* 415, L119, 200-C8 (1993)

Constellation Name: DM Tauri

Detection of a Circumstellar Gas around DM Tauri: A Protoplanetary Disk around a Single Star? *Toshihiro Handa, Shoken M. Miyama, Takuya Yamashita, Toshihiro Omodaka, Yoshimi Kitamura, Masahiko Hayashi, Toshikazu Onishi, Ronald L. Snell, Stephen E. Strom, Karen M. Strom, Michael F. Skrutskie, Suzan Edwards, Nagayoshi Ohashi, Kazuyoshi Sunada, Masao Saito, Yasuo Fukui, Akira Mizuno, Jun-ichi Watanabe, & Hirokazu Kataza.* 449, 894, 225-B1 (1995)

Constellation Name: DO Tauri

Asymmetries in Bipolar Jets from Young Stars. *Gerhard A. Hirth, Reinhard Mundt, Josef Solf, & Thomas P. Ray.* 427, L99, 127-B11 (1994)

Aperture Synthesis Imaging of the Circumstellar Dust Disk around DO Tauri. *D. W. Koerner, C. J. Chandler, & A. I. Sargent.* 452, L69, 270-E14 (1995)

Radio Continuum Detection of the Exciting Sources of the DG Tauri B and L1551NE Outflows. *Luis F. Rodríguez, Guillem Anglada, & Alejandro Raga.* 454, L149, 316-F5 (1995)

Constellation Name: DP Tauri

Asymmetries in Bipolar Jets from Young Stars. *Gerhard A. Hirth, Reinhard Mundt, Josef Solf, & Thomas P. Ray.* 427, L99, 127-B11 (1994)

Constellation Name: FM Tauri

Subarcsecond Images of CW Tauri: Constraints on Disk Size and Jet Formation. *Ana I. Gómez de Castro.* 412, L43, 148-E5 (1993)

Constellation Name: GG Tauri

Gas and Dust in the Pre–Main-Sequence Multiple System GG Tauri. *D. W. Koerner, A. I. Sargent, & S. V. W. Beckwith.* 408, L93, 95-D7 (1993)

Detection of Circumstellar Gas Associated with GG Tauri. *M. F. Skrutskie, R. L. Snell, K. M. Strom, S. E. Strom, S. Edwards, Y. Fukui, A. Mizuno, M. Hayashi, & N. Ohashi.* 409, 422, 102-C1 (1993)

Constellation Name: HL Tauri

Upper Limits to the Detection of Ammonia from Protoplanetary Disks around HL Tauri and L1551-IRS 5. *José F. Gómez, José M. Torrelles, Paul T. P. Ho, Luis F. Rodríguez, & Jorge Cantó.* 414, 333, 174-B6 (1993)

Is HL Tauri an FU Orionis System in Quiescence? *D. N. C. Lin, M. Hayashi, K. R. Bell, & N. Ohashi.* 435, 821, 257-D4 (1994)

Vertical Disk Structure in HL Tauri. *Steven V. W. Beckwith & Christoph C. Birk.* 449, L59, 217-A4 (1995)

WFPC2 Imaging of the Circumstellar Nebulosity of HL Tauri. *Karl R. Stapelfeldt, Christopher J. Burrows, John E. Krist, John T. Trauger, J. Jeff Hester, Jon A. Holtzman, Gilda E. Ballester, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, John S. Gallagher III, Richard E. Griffiths, John G. Hoessel, Jeremy R. Mould, Paul A. Scowen, Alan M. Watson, & James A. Westphal.* 449, 888, 225-A4 (1995)

Constellation Name: IK Tauri

Detection of Ammonia Emission toward Oxygen-rich Evolved Stars. *Karl M. Menten & Javier Alcolea.* 448, 416, 197-G10 (1995)

Constellation Name: T Tauri

Near-Infrared Polarized Images of a Nebula around T Tauri. *David A. Weintraub, Joel H. Kastner, B. Zuckerman, & Ian Gatley.* 391, 784, 97-F7 (1992)

A Sub-Arcsecond–Scale Spectroscopic Study of the Complex Mass Outflows in the Vicinity of T Tauri. *K.-H. Böhm & J. Solf.* 430, 277, 162-E6 (1994)

Constellation Name: UZ Tauri

10 Micron Imaging of UZ Tauri: Evidence for Circumstellar Disk Clearing due to a Close Companion Star. *A. M. Ghez, J. P. Emerson, J. R. Graham, M. Meixner, & C. J. Skinner.* 434, 707, 237-E3 (1994)

Constellation Name: V410 Tauri

Doppler Imaging of the Cool Spot Distribution on the Weak T Tauri Star V410 Tauri. *Artie P. Hatzes.* 451, 784, 258-A6 (1995)

Constellation Name: V471 Tauri

Inefficient Accretion by the DA2 White Dwarf in V471 Tauri. *D. J. Mullan, H. L. Shipman, E. M. Sion, & J. MacDonald.* 374, 707, 107-G8 (1991)

Evidence for External Plasma around the K Dwarf Component of the Eclipsing Binary V471 Tauri. *Arthur Young, Lee Rottler, & Andrew Skumanich.* 378, L25, 157-D1 (1991)

Whole Earth Telescope Observations of V471 Tauri: The Nature of the White Dwarf Variations. *J. C. Clemens, R. E. Nather, D. E. Winget, E. L. Robinson, M. A. Wood, C. F. Claver, J. Provencal, S. J. Kleinman, P. A. Bradley, M. L. Frueh, A. D. Grauer, B. P. Hine, G. Fontaine, N. Achilleos, D. T. Wickramasinghe, T. M. K. Marar, S. Seetha, B. N. Ashoka, D. O'Donoghue, B. Warner, D. W. Kurtz, P. Martinez, G. Vauclair, M. Chevreton, M. A. Barstow, A. Kanaan, S. O. Kepler, T. Augusteijn, J. van Paradijs, & C. J. Hansen.* 391, 773, 97-E8 (1992)

Clumping and Mass Loss in Hot Star Winds. *Anthony F. J. Moffat & Carmelle Robert.* 421, 310, 19-G1 (1994)

Constellation Name: V773 Tauri

Subarcsecond Images of CW Tauri: Constraints on Disk Size and Jet Formation. *Ana I. Gómez de Castro.* 412, L43, 148-E5 (1993)

Constellation Name: 51 Tauri

MAP-based Trigonometric Parallaxes of Open Clusters. II. The Hyades: 51 Tauri. *George Gatewood, Michael Castelaz, Joost Kiewiet de Jonge, Timothy Persinger, John Stein, & Bruce Stephenson.* 392, 710, 111-A12 (1992)

Constellation Name: RR Telescopii

Al II Emission-Line Strengths in Low-Density Astrophysical Plasmas. *F. P. Keenan, L. K. Harra, K. M. Aggarwal, & W. A. Feibelman.* 385, 375, 16-E1 (1992)

An Improved Ultraviolet Spectral Line List for the Symbiotic Star RR Telescopii. *G. A. Doschek & W. A. Feibelman.* 87, 331, 31-C7 (1993)

IUE Short-Wavelength High-Dispersion Line List for the Symbiotic Nova RR Telescopii. *Jason P. Aufdenberg.* 87, 337, 31-D3 (1993)

Transition Probabilities for the UV0.01 Multiplet in N III. *Tomas Brage, Charlotte Froese Fischer, & Philip G. Judge.* 445, 457, 138-G7 (1995)

Simultaneous Observation of Direct and Raman-scattered O VI Lines in the Symbiotic Nova RR Telescopii. *Brian R. Espey, Regina E. Schulte-Ladbeck, Gerard A. Kriss, Fred Hamann, Hans M. Schmid, & Joni J. Johnson.* 454, L61, 308-D8 (1995)

Constellation Name: Triangulum Australe X-1

SIGMA Observation of Hard X-Ray Emission from the Ultrasoft X-Ray Transient Triangulum Australe X-1 (A1524−62). *D. Barret, J. P. Roques, P. Mandrou, L. Bouchet, F. Lebrun, A. Goldwurm, P. Laurent, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, A. Diachkov, N. Kavenson, B. Novikov, I. Chulkov, & A. Kuznetsov.* 392, L19, 106-C7 (1992)

Constellation Name: α Trianguli Australis

X-Ray Emission on Hybrid Stars: *ROSAT* Observations of α Trianguli Australis and ι Aurigae. *V. Kashyap, R. Rosner, F. R. Harnden, Jr., A. Maggio, G. Micela, & S. Sciortino.* 431, 402, 181-A13 (1994)

A Semiempirical Determination of the Wind Velocity Structure for the Hybrid-Chromosphere Star α Trianguli Australis. *Graham M. Harper, Brian E. Wood, Jeffrey L. Linsky, Philip D. Bennett, Thomas R. Ayres, & Alexander Brown.* 452, 407, 267-F6 (1995)

Constellation Name: KX Trianguli Australis

The Ultraviolet Spectrum of KX Trianguli Australis. *Walter A. Feibelman.* 375, 335, 115-A12 (1991)

Constellation Name: BS 47 Tuscanae

Observations of the Ultraviolet-Bright Star in 47 Tucanae with the Hopkins Ultraviolet Telescope. *W. Van Dyke Dixon, Arthur F. Davidsen, & Henry C. Ferguson.* 454, L47, 308-B9 (1995)

Constellation Name: π^1 Ursae Majoris

ASCA X-Ray Spectra of the Active Single Stars β Ceti and π^1 Ursae Majoris. *S. A. Drake, K. P. Singh, N. E. White, & Theodore Simon.* 436, L87, 269-G11 (1994)

Constellation Name: υ Ursae Majoris

Nightly Variations of Nonradial Oscillations in the Delta Scuti Star υ Ursae Majoris. *S. G. Korzennik, R. W. Noyes, T. Brown, P. Nisenson, & S. Horner.* 443, L25, 102-E7 (1995)

Constellation Name: SU Ursae Majoris

Concurrent X-Ray and Optical Observations of Two Dwarf Novae during Eruption. *A. Silber, S. D. Vrtilek, & J. C. Raymond.* 425, 829, 92-B1 (1994)

Constellation Name: SW Ursae Majoris

Ultraviolet Observations of SW Ursae Majoris, BC Ursae Majoris, and TV Corvi (1217–18): *IUE* Spectroscopy and Outburst Light Curves. *Steve B. Howell, Paula Szkody, George Sonneborn, Robert Fried, Janet Mattei, Ronald J. Oliversen, Doug Ingram, & Guy M. Hurst.* 453, 454, 287-D1 (1995)

Constellation Name: W Ursae Majoris

A Light Synthesis Study of W Ursae Majoris. *Albert P. Linnell.* 374, 307, 102-A1 (1991)

The Ultraviolet Light Curves of W Ursae Majoris. *Albert P. Linnell.* 379, 338, 167-C3 (1991)

A Test of the Starspot Hypothesis for W-Type W Ursae Majoris Light Curves. *Albert P. Linnell.* 383, 330, 216-C8 (1991)

Constellation Name: B Ursae Majoris

Ultraviolet Observations of SW Ursae Majoris, BC Ursae Majoris, and TV Corvi (1217–18): *IUE* Spectroscopy and Outburst Light Curves. *Steve B. Howell, Paula Szkody, George Sonneborn, Robert Fried, Janet Mattei, Ronald J. Oliversen, Doug Ingram, & Guy M. Hurst.* 453, 454, 287-D1 (1995)

Constellation Name: BE Ursae Majoris

The Spectacular Emission-Line Reflection Effect of BE Ursae Majoris. *Donald H. Ferguson & Thomas A. James.* 94, 723, 62-A1 (1994)

BE Ursae Majoris: Precataclysmic Binary System and Planetary Nucleus. *James Liebert, R. W. Tweedy, R. Napiwotzki, & M. S. Fulbright.* 441, 424, 65-B11 (1995)

Constellation Name: DV Ursae Majoris

A Spectroscopic Study of DV Ursae Majoris (US 943), AY Piscium (PG 0134+070), and V503 Cygni. *Paula Szkody & Steve B. Howell.* 403, 743, 25-A6 (1993)

Constellation Name: TX Ursae Majoris

Circumstellar Material in TX Ursae Majoris. *Geary E. Albright & Mercedes T. Richards.* 414, 830, 181-E6 (1993)

Constellation Name: UX Ursae Majoris

Hubble Space Telescope and *R*-Band Eclipse Maps of the UX Ursae Majoris Accretion Disk. *R. Baptista, Keith Horne, R. W. Hilditch, K. O. Mason, & J. E. Drew.* 448, 395, 197-E13 (1995)

Constellation Name: α Ursae Minoris

Goodbye to Polaris the Cepheid. *J. D. Fernie, Karl W. Kamper, & S. Seager.* 416, 820, 213-F1 (1993)

Constellation Name: Vela X-1

Upper Limits on TeV Gamma-Ray Emission from Centaurus A, Vela X-1, Centaurus X-3, and Circinus X-1. *W. H. Allen, I. A. Bond, E. Budding, M. J. Conway, A. Daniel, K. B. Fenton, H. Fujii, Z. Fujii, N. Hayashida, K. Hibino, M. Honda, J. E. Humble, S. Kabe, K. Kasahara, T. Kifune, G. D. Lythe, A. Masaike, Y. Matsubara, K. Mitsui, Y. Miura, M. Mori, Y. Muraki, M. Nagano, T. Nakamura, M. Nishizawa, P. M. Norris, S. Ogio, To. Saito, M. Sakata, H. Sato, H. M. Shimizu, M. Spencer, J. R. Storey, T. Tanimori, M. Teshima, S. Torii, A. Wadsworth, Y. Watase, M. D. Woodhams, Y. Yamamoto, P. C. M. Yock, & T. Yuda (The JANZOS Collaboration).* 405, 554, 50-A1 (1993)

TeV Gamma-Ray Properties of Vela X-1. *B. C. Raubenheimer, A. R. North, O. C. de Jager, P. J. Meintjes, & H. I. Nel.* 428, 777, 140-A1 (1994)

Variable Soft X-Ray Absorption and Excess of Vela X-1. *H. C. Pan, P. Kretschmar, G. K. Skinner, E. Kendziorra, R. A. Sunyaev, & K. N. Borozdin.* 92, 448, 37-F11 (1994)

Constellation Name: γ_2 Velorum

Ultraviolet Observations of Selective Wind Eclipses in γ Velorum and Evidence for Colliding Winds. *N. St-Louis, A. J. Willis, & I. R. Stevens.* 415, 298, 188-F8 (1993)

Constellation Name: KO Velorum

A New Candidate Orbital Period for KO Velorum (E1013−477). *K. Mukai & R. H. D. Corbet.* 378, 701, 161-B3 (1991)

X-Ray to Infrared Observations of the Cataclysmic Variable KO Velorum (E1013−477). *R. M. Sambruna, L. Chiappetti, A. Treves, J. M. Bonnet-Bidaud, P. Bouchet, L. Maraschi, C. Motch, M. Mouchet, & S. Van Amerongen.* 391, 750, 97-C9 (1992)

Constellation Name: IX Velorum

High-Resolution *IUE* Spectra of the Nova-like Variable IX Velorum. *Christopher W. Mauche.* 373, 624, 95-F7 (1991)

Observations of the Bright Novalike Variable IX Velorum with the Hopkins Ultraviolet Telescope. *Knox S. Long, Richard A. Wade, William P. Blair, Arthur F. Davidsen, & Ivan Hubeny.* 426, 704, 107-B13 (1994)

Constellation Name: Nova Velorum 1993

Minioutbursts from the Black Hole Candidate Nova Velorum 1993. *Charles D. Bailyn & Jerome A. Orosz.* 440, L73, 57-G8 (1995)

Constellation Name: H Virginis

The 1992 Outburst of the SU Ursae Majoris–Type Dwarf Nova HV Virginis. *Elia M. Leibowitz, Haim Mendelson, Albert Bruch, Hilmar W. Duerbeck, Waltraut C. Seitter, & Gerold A. Richter.* 421, 771, 27-G3 (1994)

Constellation Name: PW Vulpeculae

PW Vulpeculae: A Nova with Nearly Solar Abundances. *Pedro Saizar, Sumner Starrfield, Gary J. Ferland, R. Mark Wagner, James W. Truran, Scott J.*

Kenyon, Warren M. Sparks, Robert E. Williams, & L. L. Stryker. 367, 310, 15-G11 (1991)

Constellation Name: QU Vulpeculae

A Multiwavelength Study of Nova QU Vulpeculae 1984. *Pedro Saizar, Sumner Starrfield, Gary J. Ferland, R. Mark Wagner, James W. Truran, Scott J. Kenyon, Warren M. Sparks, Robert E. Williams, & L. L. Stryker.* 398, 651, 192-B13 (1992)

Hot Gas and the Origin of the Nebular Continuum in Novae. *Pedro Saizar & Gary J. Ferland.* 425, 755, 91-B10 (1994)

QU Vulpeculae: An Eclipsing Neon Nova in the Period Gap. *A. W. Shafter, K. A. Misselt, P. Szkody, & M. Politano.* 448, L33, 199-F13 (1995)

Constellation Name: QV Vulpeculae

The Peculiar Infrared Temporal Development of Nova Vulpeculae 1987 (QV Vulpeculae). *R. D. Gehrz, T. J. Jones, C. E. Woodward, M. A. Greenhouse, R. M. Wagner, T. E. Harrison, T. L. Hayward, & J. Benson.* 400, 671, 218-G1 (1992)

Constellation Name: RS Vulpeculae

Doppler Tomography of the Gas Stream in Short-Period Algol Binaries. *Mercedes T. Richards, Geary E. Albright, & Larissa M. Bowles.* 438, L103, 20-B8 (1995)

Bright Star Number: HR 10

A Search for Circumstellar Dust around HR 10, a Proposed β Pictoris Star. *Kwang-Ping Cheng, C. A. Grady, & Frederick C. Bruhweiler.* 366, L87, 11-E7 (1991)

Bright Star Number: HR 1362

HR 1362: The Evolved 53 Camelopardalis. *K. Stępień.* 416, 368, 205-E11 (1993)

Bright Star Number: HR 3126

An Infrared Study of the Remarkable Dusty M Star HR 3126. *J. E. Chiar, D. C. B. Whittet, D. K. Aitken, P. F. Roche, C. H. Smith, H. J. Walker, P. A. Whitelock, & C. Wright.* 409, 404, 102-A8 (1993)

Bright Star Number: HR 4796

The Fate of the Solid Matter Orbiting HR 4796A. *M. Jura, A. M. Ghez, Russel J. White, D. W. McCarthy, R. C. Smith, & P. G. Martin.* 445, 451, 138-F11 (1995)

An Age Estimate for the β Pictoris Analog HR 4796A. *John R. Stauffer, Lee W. Hartmann, & David Barrado y Navascues.* 454, 910, 314-D1 (1995)

Bright Star Number: HR 8427

The Equations of Ellipsoidal Star Variability Applied to HR 8427. *Steven L. Morris & Stephen A. Naftilan.* 419, 344, 250-D13 (1993)

Henry Draper Number: HD 108

A Study of the Spectrum of HD 108, An Unusual Of Star. *Anne B. Underhill.* 420, 869, 13-F6 (1994)

A Study of the Spectrum of HD 108, An Unusual Of Star. *Anne B. Underhill.* 420, 869, 13-F6 (1994)

Henry Draper Number: HD 698

The Orbital Parameters and the *IUE* Spectrum of the Single-lined Spectroscopic Binary HD 698. *Jorge Sahade, Rodolfo Barbá, & Yoji Kondo.* 81, 303, 39-B1 (1992)

Henry Draper Number: HD 2909

Study of Spectroscopic Binaries with TODCOR. II. The Highly Eccentric Binary HD 2909. *Tsevi Mazeh, Shay Zucker, Dorit Goldberg, David W. Latham, Robert P. Stefanik, & Bruce W. Carney.* 449, 909, 225-C10 (1995)

Henry Draper Number: HD 5980

Remarkable Long-Term Changes in the Small Magellanic Cloud Wolf-Rayet System HD 5980. *G. Koenigsberger, A. F. J. Moffat, N. St-Louis, L. H. Auer, L. Drissen, & W. Seggewiss.* 436, 301, 265-D8 (1994)

Ultraviolet Observations of the Eruption in the Small Magellanic Cloud Wolf-Rayet System HD 5980. *Gloria Koenigsberger, Ed Guinan, Lawrence Auer, & Leonid Georgiev.* 452, L107, 279-G11 (1995)

Henry Draper Number: HD 6833

Discovery of a Fast Wind from a Field Population II Giant Star. *A. K. Dupree, Dimitar D. Sasselov, & John B. Lester.* 387, L85, 48-D11 (1992)

Henry Draper Number: HD 7252

Ultraviolet Interstellar Polarization Observed with the *Hubble Space Telescope*. *W. B. Somerville, R. G. Allen, D. J. Carnochan, Lida He, D. McNally, P. G. Martin, D. H. Morgan, K. Nandy, J. R. Walsh, D. C. B. Whittet, R. Wilson, & M. J. Wolff.* 427, L47, 117-F13 (1994)

Henry Draper Number: HD 12545

Multiple Starspots and the Solar Analogy: A New Approach and Applications to HD 12545. *Zeki Eker.* 445, 526, 142-C10 (1995)

Henry Draper Number: HD 19445

The ^{6}Li/^{7}Li Ratio in the Metal-poor Halo Dwarfs HD 19445 and HD 84937. *Verne V. Smith, David L. Lambert, & Poul E. Nissen.* 408, 262, 86-D1 (1993)

Henry Draper Number: HD 29647

Diffuse Band Profiles in the Spectrum of HD 29647: Evidence for a Molecular Origin? *Theodore P. Snow & C. G. Seab.* 382, 189, 202-E7 (1991)

Henry Draper Number: HD 34656

Detection of Small-Amplitude Pulsations in HD 34656 (O7 II). *A. W. Fullerton, D. R. Gies, & C. T. Bolton.* 368, L35, 35-C1 (1991)

Henry Draper Number: HD 35155

An Interactive Companion to the S Star HD 35155. *Thomas B. Ake III, Hollis R. Johnson, & Mudhaffer M. Ameen.* 383, 842, 224-F7 (1991)

Henry Draper Number: HD 37043

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. IV. ι Orionis. *Douglas R. Gies, Michael S. Wiggs, & William G. Bagnuolo, Jr.* 403, 752, 25-B4 (1993)

Henry Draper Number: HD 37903

High-Density CN Filaments in NGC 2023. *A. Fuente, J. Martín-Pintado, & R. Gaume.* 442, L33, 85-A11 (1995)

Henry Draper Number: HD 38218

The Mid-Infrared Spectrum of the Carbon Star HD 38218 and Its Possible Relation to Polycyclic Aromatic Hydrocarbons. *Richard H. Buss, Jr., A. G. G. M. Tielens, & Theodore P. Snow.* 372, 281, 77-D8 (1991)

Henry Draper Number: HD 39060

First Results from the Goddard High-Resolution Spectrograph: Resolved Velocity and Density Structure in the β Pictoris Circumstellar Gas. *A. Boggess, Frederick C. Bruhweiler, C. A. Grady, Dennis C. Ebbets, Yoji Kondo, L. M. Trafton, John C. Brandt, & S. R. Heap.* 377, L49, 143-F1 (1991)

Henry Draper Number: HD 44179

Spatial Structure in the 10 Micron Spectrum of HD 44179 (The Red Rectangle). *G. L. Grasdalen, G. C. Sloan, & P. D. LeVan.* 384, L25, 6-D1 (1992)

Spatially Resolved Spectra of the Unidentified Infrared Features around HD 44179 (The Red Rectangle). *G. C. Sloan, G. L. Grasdalen, & Paul D. LeVan.* 409, 412, 102-B3 (1993)

3.3 and 11.3 Micron Images of HD 44179: Evidence for an Optically Thick Polycyclic Aromatic Hydrocarbon Disk. *Jesse D. Bregman, David Rank, Pasquale Temi, Doug Hudgins, & Laura Kay.* 411, 794, 139-F1 (1993)

Henry Draper Number: HD 45677

Evidence for a Bipolar Nebula around the Peculiar B[e] Star HD 45677 from Ultraviolet Spectropolarimetry. *R. E. Schulte-Ladbeck, D. S. Shepherd, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, M. Taylor, & B. A. Whitney.* 401, L105, 233-D12 (1992)

Detection of Accreting Gas toward HD 45677: A Newly Recognized, Herbig Be Proto–Planetary System. *C. A. Grady, K. S. Bjorkman, D. Shepherd, R. E. Schulte-Ladbeck, M. R. Pérez, D. de Winter, & P. S. Thé.* 415, L39, 192-B6 (1993)

Variable Extinction in HD 45677 and the Evolution of Dust Grains in Pre–Main-Sequence Disks. *Michael L. Sitko, Elaine M. Halbedel, Geoffrey F. Lawrence, J. Allyn Smith, & Ken Yanow.* 432, 753, 205-D3 (1994)

The Growth of Solids, Destruction of Molecules, and Shielding of Radiation in the Young Stellar Disk of HD 45677. *Thomas M. Brown, Richard Buss, Jr., Carol Grady, & Karen Bjorkman.* 440, 865, 55-A11 (1995)

Henry Draper Number: HD 47129

Wind Collision Effects in the Early-Type Close Binaries HD 47129 and AO Cassiopeiae. *Jorge Sahade & Estela Brandi.* 379, 706, 173-E1 (1991)

Tomographic Separation of Composite Spectra. I. The Components of Plaskett's Star. *William G. Bagnuolo, Jr., Douglas R. Gies, & Michael S. Wiggs.* 385, 708, 21-G12 (1992)

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. II. Plaskett's Star (HD 47129). *Michael S. Wiggs & Douglas R. Gies.* 396, 238, 158-A12 (1992)

Plaskett's Star (HD 47129): More and More Curious. *Anne B. Underhill.* 410, 365, 116-E11 (1993)

Henry Draper Number: HD 50896

HD 50896: Blobs in a Wind with a Collapsed Companion or Rotating Disk with Central Filaments? *Anne B. Underhill & Stephenson Yang.* 368, 588, 32-D9 (1991)

Polarization Variability among Wolf-Rayet Stars. VIII. Emission Lines versus Continuum in WR+O Binaries. *Anthony F. J. Moffat & Vilppu Piirola.* 413, 724, 165-D8 (1993)

Henry Draper Number: HD 53975

HD 53975: An O-Type Spectroscopic Binary with a Large Mass Ratio. *D. R. Gies, A. W. Fullerton, C. T. Bolton, W. G. Bagnuolo, Jr., M. E. Hahula, & R. Wiemker.* 422, 823, 42-B6 (1994)

Henry Draper Number: HD 56925

On the Wind-powered Nebula NGC 2359 and the WN Star HD 56925. *Yang Chen, Zhen-ru Wang, & Qin-yue Qu.* 438, 950, 17-C1 (1995)

Henry Draper Number: HD 60435

High-Speed Ultraviolet Photometry of HD 60435. *M. Taylor, M. J. Nelson, R. C. Bless, J. F. Dolan, J. L. Elliot, J. W. Percival, E. L. Robinson, & G. W. van Citters.* 413, L125, 169-B10 (1993)

Sudden Luminous Blue Variable–Like Behavior of the Wolf-Rayet Binary System HD 5980 in the Small Magellanic Cloud. *Rodolfo H. Barbá, Virpi S. Niemela, Gustavo Baume, & R. A. Vazquez.* 446, L23, 160-D13 (1995)

Henry Draper Number: HD 60535

Nonperiodic Variations in Astrophysical Systems: Investigating Frequency Evolution. *Patricia T. Boyd, Patricia H. Carter, Robert Gilmore, & Joseph F. Dolan.* 445, 861, 147-A12 (1995)

Henry Draper Number: HD 62542

Interstellar Extinction in the Infrared: The Molecular Cloud toward HD 62542. *D. C. B. Whittet, P. G. Martin, E. L. Fitzpatrick, & D. Massa.* 408, 573, 92-C11 (1993)

Henry Draper Number: HD 64740

Highly Ionized Gas in the Gum Nebula and Elsewhere: A Comparison of *IUE* and *Copernicus* Satellite Results. *Richard J. Edgar & Blair D. Savage.* 396, 124, 156-F4 (1992)

Henry Draper Number: HD 64760

The *IUE* MEGA Campaign: Modulated Structure in the Wind of HD 64760 (B0.5 Ib). *Raman K. Prinja, Derck Massa, & Alexander W. Fullerton.* 452, L61, 270-D13 (1995)

Wind Variability of B Supergiants. I. The Rapid Rotator HD 64760 (B0.5 Ib). *Derck Massa, Raman K. Prinja, & Alexander W. Fullerton.* 452, 842, 276-C7 (1995)

Periodic Variations in Ultraviolet Spectral Lines of the B0.5 Ib Star HD 64760: Evidence for Corotating Wind Streams Rooted in Surface Variations. *Stanley P. Owocki, Steven R. Cranmer, & Alexander W. Fullerton.* 453, L37, 289-G1 (1995)

Henry Draper Number: HD 66811

The *IUE* MEGA Campaign: The Rotationally Modulated Wind of ζ Puppis. *Ian D. Howarth, Raman K. Prinja, & Derck Massa.* 452, L65, 270-E6 (1995)

Henry Draper Number: HD 68273

Composition of Interstellar Clouds in the Disk and Halo. II. γ^2 Velorum. *Edward L. Fitzpatrick & Lyman Spitzer, Jr.* 427, 232, 112-G8 (1994)

Henry Draper Number: HD 72088

Evidence for a Thermally Unstable Shock Wave in the Vela Supernova Remnant. *John C. Raymond, George Wallerstein, & Bruce Balick.* 383, 226, 214-G5 (1991)

Henry Draper Number: HD 72089

High-Velocity, High-Excitation Neutral Carbon in a Cloud in the Vela Supernova Remnant. *Edward B. Jenkins & George Wallerstein.* 440, 227, 44-C13 (1995)

Henry Draper Number: HD 72127

Variable Interstellar Absorption toward HD 72127A. II. 1981–1988. *L. M. Hobbs, R. Ferlet, D. E. Welty, & G. Wallerstein.* 378, 586, 159-F1 (1991)

Interstellar Lines in HD 72127A and B: A Binary Star behind the Vela Supernova Remnant. *George Wallerstein, Andrew Vanture, & Edward B. Jenkins.* 455, 590, 330-A9 (1995)

Henry Draper Number: HD 84937

The ^{6}Li/^{7}Li Ratio in the Metal-poor Halo Dwarfs HD 19445 and HD 84937. *Verne V. Smith, David L. Lambert, & Poul E. Nissen.* 408, 262, 86-D1 (1993)

Henry Draper Number: HD 89499

Lithium in the Binary Halo Star HD 89499. *Suchitra Balachandran, Bruce W. Carney, Anne M. Fry, Laura K. Fullton, & Ruth C. Peterson.* 413, 368, 160-G7 (1993)

Henry Draper Number: HD 93521

Highly Ionized Atoms toward HD 93521. *Lyman Spitzer, Jr., & Edward L. Fitzpatrick.* 391, L41, 92-C11 (1992)

Composition of Interstellar Clouds in the Disk and Halo. I. HD 93521. *Lyman Spitzer, Jr., & Edward L. Fitzpatrick.* 409, 299, 100-G3 (1993)

Neutrino Decay and the Heat Budget of the Warm Interstellar Medium. *D. W. Sciama.* 409, L25, 104-D9 (1993)

Evidence for a Disk in the Wind of HD 93521: UV Line Profiles from an Axisymmetric Model. *J. E. Bjorkman, R. Ignace, T. M. Tripp, & J. P. Cassinelli.* 435, 416, 249-B12 (1994)

HD 93521, ζ Ophiuchi, and the Effects of Rapid Rotation on the Atmospheres and Winds of O9.5 V Stars. *Derck Massa.* 438, 376, 6-F1 (1995)

Henry Draper Number: HD 93721

Detection of a Local High-Velocity Absorption-Line System toward HD 93721. *B. E. Penprase & J. C. Blades.* 391, 276, 89-D1 (1992)

Henry Draper Number: HD 97152

Polarization Variability among Wolf-Rayet Stars. VIII. Emission Lines versus Continuum in WR+O Binaries. *Anthony F. J. Moffat & Vilppu Piirola.* 413, 724, 165-D8 (1993)

Henry Draper Number: HD 98800

Study of Spectroscopic Binaries with TODCOR. IV. The Multiplicity of the Young Nearby Star HD 98800. *Guillermo Torres, Robert P. Stefanik, David W. Latham, & T. Mazeh.* 452, 870, 276-F7 (1995)

Henry Draper Number: HD 100018

Study of Spectroscopic Binaries with TODCOR. III. Application to Triple-lined Systems. *Shay Zucker, Guillermo Torres, & Tsevi Mazeh.* 452, 863, 276-E10 (1995)

Henry Draper Number: HD 100276

Highly Ionized Gas in the Galactic Disk: The $l = 295°$, $b = 0°$ Interarm Direction. *Kenneth R. Sembach.* 434, 244, 228-G3 (1994)

Henry Draper Number: HD 103779

Highly Ionized Gas in the Galactic Disk: The $l = 295°$, $b = 0°$ Interarm Direction. *Kenneth R. Sembach.* 434, 244, 228-G3 (1994)

Henry Draper Number: HD 104705

Highly Ionized Gas in the Galactic Disk: The $l = 295°$, $b = 0°$ Interarm Direction. *Kenneth R. Sembach.* 434, 244, 228-G3 (1994)

Henry Draper Number: HD 114710

Evidence of Differential Surface Rotation in the Solar-Type Star HD 114710. *Robert A. Donahue & Sallie L. Baliunas.* 393, L63, 127-D1 (1992)

Henry Draper Number: HD 116852

Gas Kinematics and Ionization along the Extended Sight Line to HD 116852. *Kenneth R. Sembach & Blair D. Savage.* 431, 201, 178-F1 (1994)

Henry Draper Number: HD 129333

HD 129333: The Sun in Its Infancy. *J. David Dorren & Edward F. Guinan.* 428, 805, 140-C9 (1994)

X-Ray Emission from the Sun in Its Youth and Old Age. *J. D. Dorren, M. Güdel, & E. F. Guinan.* 448, 431, 198-B3 (1995)

Henry Draper Number: HD 135345

A Cool Supergiant with Anomalous Behavior of the 2800 Mg II Doublet. *G. A. Gurzadyan, Y. Kondo, S. S. Rustambekyan, Yervant Terzian, & Mario R. Perez.* 378, 298, 154-F1 (1991)

Henry Draper Number: HD 140283

First Detection of Beryllium in a Very Metal Poor Star: A Test of the Standard Big Bang Model. *Gerard Gilmore, Bengt Edvardsson, & P. E. Nissen.* 378, 17, 151-C1 (1991)

Henry Draper Number: HD 147889

Diffuse Band Profiles in the ρ Ophiuchi Cloud. *C. Gregory Seab & Theodore P. Snow, Jr.* 443, 698, 107-E1 (1995)

A Search for Interstellar C_3 in the Translucent Cloud toward HD 147889. *L. Matthew Haffner & David M. Meyer.* 453, 450, 287-C8 (1995)

Henry Draper Number: HD 148937

Hubble Space Telescope Imaging of the Wind-blown Lobe NGC 6165. *Paul Scowen, Jeff Hester, Arthur Code, Glen Mackie, C. Roger Lynds, & Earl J. O'Neil, Jr.* 450, 196, 230-F9 (1995)

Henry Draper Number: HD 149881

Composition of Interstellar Clouds in the Disk and Halo. III. HD 149881. *Lyman Spitzer, Jr., & Edward L. Fitzpatrick.* 445, 196, 135-C3 (1995)

Henry Draper Number: HD 151804

Propagating Absorption Enhancements in the Wind of the Extreme Of Supergiant HD 151804. *A. W. Fullerton, D. R. Gies, & C. T. Bolton.* 390, 650, 83-D1 (1992)

Henry Draper Number: HD 152270

Polarization Variability among Wolf-Rayet Stars. VIII. Emission Lines versus Continuum in WR+O Binaries. *Anthony F. J. Moffat & Vilppu Piirola.* 413, 724, 165-D8 (1993)

Henry Draper Number: HD 152408

Low-Velocity Variability in the Stellar Wind of HD 152408 (O8: Iafpe). *Raman K. Prinja & A. W. Fullerton.* 426, 345, 100-D12 (1994)

Henry Draper Number: HD 153919

Properties of the Massive X-Ray Binary 4U 1700−37 = HD 153919. *S. R. Heap & M. F. Corcoran.* 387, 340, 41-B11 (1992)

Henry Draper Number: HD 156359

Ultraviolet Interstellar Absorption toward HD 156359, a Halo Star at 11 Kiloparsecs in the Direction $l = 329°$ and $b = -15°$. *Kenneth R. Sembach, Blair D. Savage, & Derck Massa.* 372, 81, 75-A11 (1991)

Probing the Galactic Disk and Halo. II. Hot Interstellar Gas toward the Inner Galaxy Star HD 156359. *Kenneth R. Sembach, Blair D. Savage, & Limin Lu.* 439, 672, 33-F12 (1995)

Henry Draper Number: HD 161056

Ultraviolet Interstellar Polarization Observed with the *Hubble Space Telescope*. *W. B. Somerville, R. G. Allen, D. J. Carnochan, Lida He, D. McNally, P. G. Martin, D. H. Morgan, K. Nandy, J. R. Walsh, D. C. B. Whittet, R. Wilson, & M. J. Wolff.* 427, L47, 117-F13 (1994)

Henry Draper Number: HD 161796

Mid-Infrared Images of the Post–Asymptotic Giant Branch Star HD 161796. *C. J. Skinner, M. M. Meixner, G. W. Hawkins, E. Keto, J. G. Jernigan, & J. F. Arens.* 423, L135, 61-B11 (1994)

Henry Draper Number: HD 167756

Highly Ionized Gas Absorption in the Disk and Halo toward HD 167756 at 3.5 Kilometers per Second Resolution. *Blair D. Savage, Kenneth R. Sembach, & Jason A. Cardelli.* 420, 183, 3-C1 (1994)

Gas Phase Abundances and Conditions along the Sight Line to the Low-Halo, Inner Galaxy Star HD 167756. *Jason A. Cardelli, Kenneth R. Sembach, & Blair D. Savage.* 440, 241, 44-E2 (1995)

Henry Draper Number: HD 179821

Discovery of an Extended Nebula around AFGL 2343 (HD 179821) at 10 Microns. *G. W. Hawkins, C. J. Skinner, M. M. Meixner, J. G. Jernigan, J. F. Arens, E. Keto, & J. R. Graham.* 452, 314, 266-D10 (1995)

The Massive Post–Red Supergiants IRC +10420 and HD 179821. *Joel H. Kastner & David A. Weintraub.* 452, 833, 276-B7 (1995)

Henry Draper Number: HD 183143

The Diffuse Interstellar Bands. VIII. New Features between 6000 and 8650 Å. *G. H. Herbig & K. D. Leka.* 382, 193, 202-E12 (1991)

Spectropolarimetry of the 5797 Å Diffuse Interstellar Band. *A. J. Adamson & D. C. B. Whittet.* 398, L69, 188-C1 (1992)

HR 1362: The Evolved 53 Camelopardalis. *K. Stępień.* 416, 368, 205-E11 (1993)

Henry Draper Number: HD 190603

Velocity Structure in Optical CH^+ Lines toward HD 190603 and Implications for the Formation of CH^+. *M. M. Allen & Theodore P. Snow.* 391, 152, 87-G13 (1992)

Henry Draper Number: HD 190918

A Study of the Moderately Wide Wolf-Rayet Spectroscopic Binary HD 190918. *Anne B. Underhill & Grant M. Hill.* 432, 770, 205-E10 (1994)

Henry Draper Number: HD 191765

The Wind Geometry of the Wolf-Rayet Star HD 191765. *R. E. Schulte-Ladbeck, K. H. Nordsieck, M. Taylor, K. S. Bjorkman, A. M. Magalhães, & M. J. Wolff.* 387, 347, 41-C6 (1992)

Intensive High-Precision Photometric Monitoring of the Variable WN6 Wolf-Rayet Star HD 191765. *I. I. Antokhin, T. R. Irsmambetova, A. F. J. Moffat, A. M. Cherepashchuk, & S. V. Marchenko.* 82, 395, 54-G9 (1992)

Henry Draper Number: HD 192641

The Spectrum of the Peculiar WC7+OB Star HD 192641. *Anne B. Underhill.* 398, 636, 192-A10 (1992)

Henry Draper Number: HD 193793

Colliding Winds from Early-Type Stars in Binary Systems. *Ian R. Stevens, John M. Blondin, & A. M. T. Pollock.* 386, 265, 27-E1 (1992)

An Eight-Year Study of the Radio Emission from the Wolf-Rayet Binary HD 193793 = WR 140. *Richard L. White & Robert H. Becker.* 451, 352, 250-F8 (1995)

Henry Draper Number: HD 194279

Spectropolarimetry of the 5797 Å Diffuse Interstellar Band. *A. J. Adamson & D. C. B. Whittet.* 398, L69, 188-C1 (1992)

Henry Draper Number: HD 197770

A Search for Polarization in Diffuse Interstellar Bands toward HD 197770. *A. J. Adamson & D. C. B. Whittet.* 448, L49, 200-B3 (1995)

Henry Draper Number: HD 200775

H I, CO, and *IRAS* Observations of NGC 7023. *C. Rogers, Mark H. Heyer, & P. E. Dewdney.* 442, 694, 89-F10 (1995)

Henry Draper Number: HD 203664

Optical and H I Observations of High-Velocity Gas toward HD 203664. *J. E. Little, P. L. Dufton, F. P. Keenan, E. S. Conlon, & R. D. Davies.* 427, 267, 113-C8 (1994)

Properties of the +70 Kilometers per Second Cloud toward HD 203664. *Kenneth R. Sembach.* 445, 314, 136-G3 (1995)

Henry Draper Number: HD 204827

Ultraviolet Interstellar Linear Polarization. II. The Wavelength Dependence. *Geoffrey C. Clayton, Michael J. Wolff, R. G. Allen, & O. L. Lupie.* 445, 947, 148-C11 (1995)

Henry Draper Number: HD 210121

Ultraviolet, Optical, and Infrared Observations of the High-Latitude Molecular Cloud toward HD 210121. *Daniel E. Welty & James R. Fowler.* 393, 193, 116-D13 (1992)

Henry Draper Number: HDE 269227

Non–LTE Analysis of the Ofpe/WN9 Star HDE 269227 (R84). *Werner Schmutz, Claus Leitherer, Ivan Hubeny, Manfred Vogel, Wolf-Rainer Hamann, & Ulf Wessolowski.* 372, 664, 84-A1 (1991)

Henry Draper Number: HDE 283572

Multiwavelength Study of the Magnetically Active T Tauri Star HD 283447. *Eric D. Feigelson, Alan D. Welty, Catherine L. Imhoff, Jeffrey C. Hall, Paul B. Etzel, Robert B. Phillips, & Colin J. Lonsdale.* 432, 373, 197-G1 (1994)

Henry Draper Number: HDE 311884

Ultraviolet Variability of the Massive W-R Binary System HDE 311884 = WR 47. *Gloria Koenigsberger, Anthony F. J. Moffat, & Lawrence H. Auer.* 376, 272, 128-C9 (1991)

Name: Arcturus

Missing Opacity in the Atmospheric Models of Red Giants. *C. Ian Short & John B. Lester.* 436, L165, 281-G1 (1994)

Name: Algol

Consequences of the Star-Stream Interaction in Algol. *Mercedes T. Richards.* 387, 329, 41-A12 (1992)

ASCA Observations of the Coronal X-Ray Emission of Algol. *A. Antunes, F. Nagase, & N. E. White.* 436, L83, 269-G3 (1994)

Name: Altair

MAP-based Trigonometric Parallaxes of Altair and Vega. *George Gatewood & Joost Kiewiet de Jonge.* 450, 364, 233-A4 (1995)

Name: Betelgeuse

Neutral Carbon in the Circumstellar Envelope of α Orionis. *P. J. Huggins, R. Bachiller, P. Cox, & T. Forveille.* 424, L127, 79-E5 (1994)

Name: Castor

An *ASCA* Observation of the Castor System. *Eric V. Gotthelf, Lalit Jalota, Koji Mukai, & Nicholas E. White.* 436, L91, 270-A5 (1994)

Name: Elias 1

Silicates and Aromatic Hydrocarbons in the 10 Micron Spectrum of the Taurus Dark Cloud Source Elias 1. *Martha S. Hanner, Timothy Y. Brooke, & Alan T. Tokunaga.* 433, L97, 224-C7 (1994)

Name: Feige 7

Exploring the Peculiar Magnetic Field of Feige 7. *N. Achilleos, D. T. Wickramasinghe, James Liebert, Rex A. Saffer, & A. D. Grauer.* 396, 273, 158-D13 (1992)

Name: Feige 55

The Binary Double-degenerate Nature of the Bright DAO White Dwarf Feige 55. *J. B. Holberg, Rex A. Saffer, R. W. Tweedy, & M. A. Barstow.* 452, L133, 280-D4 (1995)

Name: Geminga

Locating Very High Energy Gamma-Ray Sources with Arcminute Accuracy. *C. W. Akerlof, M. F. Cawley, M. Chantell, D. J. Fegan, K. Harris, A. M. Hillas, D. G. Jennings, R. C. Lamb, M. A. Lawrence, M. J. Lang, D. A. Lewis, D. I. Meyer, G. Mohanty, K. S. O'Flaherty, M. Punch, P. T. Reynolds, M. S. Schubnell, T. C. Weekes, & T. Whitaker.* 377, L97, 150-E6 (1991)

Name: Gliese 105A

Detection of a Very Low Mass Companion to the Astrometric Binary Gliese 105A. *D. A. Golimowski, T. Nakajima, S. R. Kulkarni, & B. R. Oppenheimer.* 444, L101, 131-A1 (1995)

Hubble Space Telescope Observations of the Very Low Mass Companion to Gliese 105A. *David A. Golimowski, William G. Fastie, Daniel J. Schroeder, & Alan Uomoto.* 452, L125, 280-C1 (1995)

Name: Gliese 586A

The Orbital Evolution of Highly Eccentric Binaries. *Itzhak Goldman & Tsevi Mazeh.* 429, 362, 148-E7 (1994)

Name: Haro 6-10

Disks around Pre–Main-Sequence Binary Systems: The Case of Haro 6-10. *François Ménard, Jean-Louis Monin, Françoise Angelucci, & Daniel Rouan.* 414, L117, 186-B5 (1993)

Name: Hubble 4

Circularly Polarized Radio Emission from the T Tauri Star Hubble 4. *Stephen L. Skinner.* 408, 660, 93-D6 (1993)

Name: Melnick 42

First Results from the Goddard High-Resolution Spectrograph: Spectroscopic Determination of Stellar Parameters of Melnick 42, an O3f Star in the Large Magellanic Cloud. *S. R. Heap, B. Altner, D. Ebbets, I. Hubeny, J. B. Hutchings, R. P. Kudritzki, S. A. Voels, S. Haser, A. Pauldrach, J. Puls, & K. Butler.* 377, L29, 143-D6 (1991)

First Results from the Goddard High-Resolution Spectrograph: Evidence for Photospheric Microturbulence in Early O Stars: Are Surface Gravities Systematically Underestimated? *I. Hubeny, S. R. Heap, & B. Altner.* 377, L33, 143-D11 (1991)

Ultraviolet and Optical Spectral Morphology of Melnick 42 and Radcliffe 136a in 30 Doradus. *Nolan R. Walborn, Dennis C. Ebbets, Joel Wm. Parker, Joy Nichols-Bohlin, & Richard L. White.* 393, L13, 120-C1 (1992)

Theoretical Modeling of GHRS Observations of the Of/WN-Type Star R136a5. *Alex de Koter, Ivan Hubeny, Sara R. Heap, & Thierry Lanz.* 435, L71, 252-F9 (1994)

Theoretical Modeling of GHRS Observations of the Of/WN-Type Star R136a5. *Alex de Koter, Ivan Hubeny, Sara R. Heap, & Thierry Lanz.* 435, L71, 252-F9 (1994)

Name: Rapid Burster 1730−335

On the Nature of Photospheric Oscillations in Strong X-Ray Bursts. *Iosif Lapidus, Luciano Nobili, & Roberto Turolla.* 431, L103, 191-F13 (1994)

Name: Sanders 1045

Lithium in a Short-Period Tidally Locked Binary of M67: Implications for Stellar Evolution, Galactic Lithium Evolution, and Cosmology. *Constantine P. Deliyannis, Jeremy R. King, Ann M. Boesgaard, & Sean G. Ryan.* 434, L71, 241-G1 (1994)

Name: Vega

MAP-based Trigonometric Parallaxes of Altair and Vega. *George Gatewood & Joost Kiewiet de Jonge.* 450, 364, 233-A4 (1995)

Alphanumeric: 1608−522

On the Nature of Photospheric Oscillations in Strong X-Ray Bursts. *Iosif Lapidus, Luciano Nobili, & Roberto Turolla.* 431, L103, 191-F13 (1994)

Alphanumeric: 1755−338

New Features of the X-Ray Dip Source 1755−338. *Kwang-Il Seon, Kyoung-Wook Min, Kenji Yoshida, Fumiyoshi Makino, Michiel van der Klis, Jan van Paradijs, & Walter H. G. Lewin.* 454, 463, 305-F3 (1995)

Alphanumeric: 2127+119

On the Nature of Photospheric Oscillations in Strong X-Ray Bursts. *Iosif Lapidus, Luciano Nobili, & Roberto Turolla.* 431, L103, 191-F13 (1994)

Alphanumeric: A0535+26

Accretion Mechanisms in the Be/X-Ray Transient System A0535+26. *C. Motch, L. Stella, E. Janot-Pacheco, & M. Mouchet.* 369, 490, 43-G5 (1991)

Observation of A0535+26 at Energies above 150 keV with the Figaro II Experiment. *G. Cusumano, T. Mineo, B. Sacco, L. Scarsi, G. Gerardi, B. Agrinier, E. Barouch, R. Comte, B. Parlier, J. L. Masnou, E. Massaro, G. Matt, E. Costa, M. Salvati, P. Mandrou, M. Niel, & J. F. Olive.* 398, L103, 194-E1 (1992)

The Soft Gamma-Ray Spectrum of A0535+26: Detection of an Absorption Feature at 110 keV by OSSE. *J. E. Grove, M. S. Strickman, W. N. Johnson, J. D. Kurfess, R. L. Kinzer, C. H. Starr, G. V. Jung, E. Kendziorra, P. Kretschmar, M. Maisack, & R. Staubert.* 438, L25, 10-A9 (1995)

Alphanumeric: A0620−00

On the Mass of the Compact Object in the Black Hole Binary A0620−00. *Carole A. Haswell, Edward L. Robinson, Keith Horne, Rae F. Stiening, & Timothy M. C. Abbott.* 411, 802, 139-G1 (1993)

Quiescent Accretion Disks in Black Hole X-Ray Novae. *Jerome A. Orosz, Charles D. Bailyn, Ronald A. Remillard, Jeffrey E. McClintock, & Craig B. Foltz.* 436, 848, 277-D3 (1994)

Quiescent Accretion Disks in Black Hole X-Ray Novae. *Jerome A. Orosz, Charles D. Bailyn, Ronald A. Remillard, Jeffrey E. McClintock, & Craig B. Foltz.* 436, 848, 277-D3 (1994)

The Dim Inner Accretion Disk of the Quiescent Black Hole A0620−00. *Jeffrey E. McClintock, Keith Horne, & Ronald A. Remillard.* 442, 358, 82-A6 (1995)

Alphanumeric: A1524−62

SIGMA Observation of Hard X-Ray Emission from the Ultrasoft X-Ray Transient Triangulum Australe X-1 (A1524−62). *D. Barret, J. P. Roques, P. Mandrou, L. Bouchet, F. Lebrun, A. Goldwurm, P. Laurent, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, A. Diachkov, N. Kavenson, B. Novikov, I. Chulkov, & A. Kuznetsov.* 392, L19, 106-C7 (1992)

Alphanumeric: A1742−294

Detection of the A1742−294 X-Ray Burster above 35 keV. *E. Churazov, M. Gilfanov, R. Sunyaev, B. Novickov, I. Chulkov, V. Kovtunenko, A. Sheikhet, K. Sukhanov, A. Goldwurm, B. Cordier, J. Paul, P. O. Petrucci, E. Jourdain, J. P. Roques, L. Bouchet, & P. Mandrou.* 443, 341, 99-G8 (1995)

Alphanumeric: 3A 0729+103

Spin-up of the White Dwarf in the Intermediate Polar 3A 0729+103. *Jyoti Singh, P. C. Agrawal, K. M. V. Apparao, P. Vivekananda Rao, & M. B. K. Sarma.* 380, 208, 178-E11 (1991)

Alphanumeric: ADS 9731

Rayleigh Beacon Adaptive Optics Imaging of ADS 9731: Measurements of the Isoplanatic Field of View. *Julian C. Christou, Brent Ellerbroek, Robert Q. Fugate, Domenico Bonaccini, & Ruggero Stanga.* 450, 369, 233-A12 (1995)

Full Adaptive Optics Images of ADS 9731 and μ Cassiopeiae: Orbits and Masses. *Jack D. Drummond, Julian C. Christou, & Robert Q. Fugate.* 450, 380, 233-B12 (1995)

Alphanumeric: ADS 11300

Binary Star Observations with the *Hubble Space Telescope* Fine Guidance Sensors. I. ADS 11300. *O. G. Franz, T. J. N. Kreidl, L. W. Wasserman, A. J. Bradley, G. F. Benedict, P. D. Hemenway, W. H. Jefferys, B. McArthur, J. E. McCartney, E. Nelan, P. J. Shelus, D. Story, A. L. Whipple, R. L. Duncombe, L. W. Fredrick, & Wm. F. van Altena.* 377, L17, 143-C6 (1991)

Alphanumeric: Ap 0323+4853

Spectroscopy of a Brown Dwarf Candidate in the α Persei Open Cluster. *Rafael Rebolo, Eduardo L. Martín, & Antonio Magazzù.* 389, L83, 73-E11 (1992)

Alphanumeric: AS 296

Ultraviolet Observations of the Symbiotic Star AS 296. *A. Gutiérrez-Moreno, H. Moreno, & W. A. Feibelman.* 395, 295, 143-G1 (1992)

Alphanumeric: BD +08° 102

RE 0044+09: A New K Dwarf Rapid Rotator with a White Dwarf Companion? *Barry J. Kellett, Gordon E. Bromage, Alexander Brown, Robin D. Jeffries,*

David J. James, David Kilkenny, Russell M. Robb, David Wonnacott, Christopher Lloyd, & C. Clayton. 438, 364, 6-D13 (1995)

Alphanumeric: BD −13°3442

Stellar Oxygen Abundances. III. The Oxygen Abundance of the Very Metal Poor Halo Star BD −13°3442. *Jeremy R. King.* 436, 331, 265-G6 (1994)

Alphanumeric: BD +28°4211

Absolute Far-Ultraviolet Spectrophotometry of Hot Subluminous Stars from *Voyager*. *J. B. Holberg, B. Ali, T. E. Carone, & R. S. Polidan.* 375, 716, 121-E11 (1991)

Alphanumeric: BD +75°325

First Results from the Goddard High-Resolution Spectrograph: Evidence for Photospheric Microturbulence in Early O Stars: Are Surface Gravities Systematically Underestimated? *I. Hubeny, S. R. Heap, & B. Altner.* 377, L33, 143-D11 (1991)

Alphanumeric: CD −38°10980

The Circumstellar Nature of the Metallic Features in a Hot DA White Dwarf. *J. B. Holberg, F. C. Bruhweiler, & J. Andersen.* 443, 753, 108-C1 (1995)

Alphanumeric: CD −41°13967

Echelle Spectroscopy of CD −41° 13967: The Young Central Star of a New Planetary Nebula. *James K. McCarthy, R. Michael Rich, S. R. Becker, K. Butler, D. Husfeld, & H. G. Groth.* 371, 380, 64-G1 (1991)

Alphanumeric: 2CG 006−00

No Evidence for TeV Gamma Radiation from 2CG 006−00. *H. I. Nel, B. C. Raubenheimer, O. C. de Jager, R. Buccheri, M. Busetta, A. R. North, & C. Brink.* 368, 585, 32-D4 (1991)

Alphanumeric: DD 13

DD 13: A Very Young and Heavily Reddened Early O Star in the Large Magellanic Cloud. *Peter S. Conti & Edward L. Fitzpatrick.* 373, 100, 87-C5 (1991)

Alphanumeric: CRL 2688

Detection of Radio Continuum Emission from Circumstellar Dust around CRL 2688 and IRC +10216. *G. R. Knapp, P. F. Bowers, K. Young, & T. G. Phillips.* 429, L33, 150-E1 (1994)

Alphanumeric: CS 22892−052

Ultra-Metal-poor Halo Stars: The Remarkable Spectrum of CS 22892−052. *Christopher Sneden, George W. Preston, Andrew McWilliam, & Leonard Searle.* 431, L27, 182-E13 (1994)

Evidence of Heavy Element Nucleosynthesis Early in the History of the Galaxy: The Ultra-metal-poor Star CS 22892−052. *John J. Cowan, Debra L. Burris, Christopher Sneden, Andrew McWilliam, & George W. Preston.* 439, L51, 40-E3 (1995)

Alphanumeric: 1E 1024.0−5732

On the Nature of the X-Ray Emission from 1E 1024.0−5732/Wack 2134: The First X-Ray–selected Wolf-Rayet Star. *Sandro Mereghetti, Tomaso Belloni, Michael Shara, & Laurent Drissen.* 424, 943, 76-E1 (1994)

Alphanumeric: 1E 1740.7−2942

Low-Flux Hard State of 1E 1740.7−2942. *E. Churazov, M. Gilfanov, R. Sunyaev, M. Pavlinsky, S. Grebenev, A. Dyachkov, V. Kovtunenko, R. Kremnev, M. Niel, P. Mandrou, G. Vedrenne, J. P. Roques, B. Cordier, A. Goldwurm, F. Lebrun, & J. Paul.* 407, 752, 79-G9 (1993)

Can Isolated Stellar-Mass Black Holes Explain the Hard X-Ray Sources in the Galactic Center Region? *Sergio Campana & Sandro Mereghetti.* 413, L89, 168-E10 (1993)

Formation of a Jet in the Galactic Center Black Hole Candidate 1E 1740.7−2942. *Ranjeev Misra & Fulvio Melia.* 419, L25, 252-D9 (1993)

Near-Infrared Observations of the 1E 1740.7−2942 Field at the Galactic Center. *Joseph W. Haller & Fulvio Melia.* 423, L109, 60-F5 (1994)

Observations of 1E 1740.7−2942 with *ROSAT* and the VLA. *William A. Heindl, Thomas A. Prince, & John M. Grunsfeld.* 430, 829, 172-B12 (1994)

Hot Accretion Disks with Electron-Positron Pair Winds. *Ranjeev Misra & Fulvio Melia.* 449, 813, 224-A1 (1995)

Alphanumeric: 1E 1751+7046

Nonthermal Radio Emission from the X-Ray–Bright K5 IV Star 1E 1751+7046. *Stephen L. Skinner.* 368, 272, 26-D11 (1991)

Alphanumeric: 1E 2259+586

Phase Coherence for TeV/PeV Binary Sources. *D. A. Lewis, R. C. Lamb, & S. D. Biller.* 369, 479, 43-F4 (1991)

The Spectrum and Pulses of 1E 2259+586 from *ASCA* and BBXRT Observations. *R. H. D. Corbet, A. P. Smale, M. Ozaki, K. Koyama, & K. Iwasawa.* 443, 786, 108-F3 (1995)

Alphanumeric: 1ES 1113+432

1ES 1113+432: Luminous, Soft X-Ray Outburst from a Nearby Cataclysmic Variable (AR Ursae Majoris). *R. A. Remillard, J. F. Schachter, A. D. Silber, & P. Slane.* 426, 288, 99-F5 (1994)

Alphanumeric: ESO 207-61

ESO 207-61: A Brown Dwarf Candidate in the Hyades Moving Group. *María Teresa Ruiz, Marianne Y. Takamiya, & Miguel Roth.* 367, L59, 22-C7 (1991)

Alphanumeric: ESO 439-26

The Extremely Low Luminosity White Dwarf ESO 439−26. *María Teresa Ruiz, P. Bergeron, S. K. Leggett, & Claudio Anguita.* 455, L159, 334-C13 (1995)

Alphanumeric: EUVE 0720−317

Discovery of a New White Dwarf in a Binary System (EUVE 0720−317) in the *Extreme Ultraviolet Explorer* Survey and Implications for the Late Stages of Stellar Evolution. *Stéphane Vennes & John R. Thorstensen.* 433, L29, 214-G13 (1994)

Alphanumeric: EXO 0748−676

The Orbital Ephemeris and Eclipse Transitions of the Low-Mass X-Ray Binary EXO 0748−676. *A. N. Parmar, A. P. Smale, F. Verbunt, & R. H. D. Corbet.* 366, 253, 4-B9 (1991)

Ginga Observations of the Dipping Low-Mass X-Ray Binaries XB 1916−053 and EXO 0748−676. *Alan P. Smale, Koji Mukai, O. Rees Williams, Mark H. Jones, & Robin H. D. Corbet.* 400, 330, 213-A10 (1992)

Optical and X-Ray Observations of the Low-Mass X-Ray Binary EXO 0748−676. *Brian Thomas, Robin Corbet, Thomas Augusteijn, Paul Callanan, & Alan P. Smale.* 408, 651, 93-C7 (1993)

Is the Changing Orbital Period of EXO 0748−676 Evidence for a Triple System? *R. H. D. Corbet, K. Asai, T. Dotani, & F. Nagase.* 436, L15, 268-D13 (1994)

Eclipse Timings of the Low-Mass X-Ray Binary EXO 0748−676: Statistical Arguments against Orbital Period Changes. *Paul Hertz, Kent S. Wood, & Lynn Cominsky.* 438, 385, 6-F13 (1995)

Alphanumeric: EXO 2030+375

Flares in the X-Ray Source EXO 2030+375. *Krishna M. V. Apparao.* 375, 701, 121-D7 (1991)

Alphanumeric: G25.5+0.2

High-Velocity Gas Associated with the Massive, Evolved Star G25.5+0.2. *D. S. Shepherd, E. Churchwell, & W. M. Goss.* 448, 426, 198-A9 (1995)

Alphanumeric: G29-38

The Infrared and Optical Pulsations of G29-38. *Joseph Patterson, B. Zuckerman, E. E. Becklin, D. J. Tholen, & T. Hawarden.* 374, 330, 102-C1 (1991)

Observational Limits on Companions to G29-38. *S. J. Kleinman, R. E. Nather, D. E. Winget, J. C. Clemens, P. A. Bradley, A. Kanaan, J. L. Provencal, C. F. Claver, T. K. Watson, K. Yanagida, J. S. Dixson, M. A. Wood, D. J. Sullivan, E. Meištas, E. M. Leibowitz, P. Moskalik, S. Zola, G. Pajdosz, J. Krzesinski, J.-E. Solheim, A. Bruvold, D. O'Donoghue, M. Katz, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, S. O. Kepler, O. Giovannini, C. J. Hansen, & S. D. Kawaler.* 436, 875, 277-G1 (1994)

Alphanumeric: G62-46

G62-46: An Unresolved Double Degenerate Binary Containing a Magnetic DA Component. *P. Bergeron, María-Teresa Ruiz, & S. K. Leggett.* 407, 733, 79-E13 (1993)

Alphanumeric: G117-B15A

The Pulsation Index, Effective Temperature, and Thickness of the Hydrogen Layer in the Pulsating DA White Dwarf G117-B15A. *E. L. Robinson, T. M. Mailloux, E. Zhang, D. Koester, R. F. Stiening, R. C. Bless, J. W. Percival, M. J. Taylor, & G. W. van Citters.* 438, 908, 16-F1 (1995)

Alphanumeric: G191-B2B

Absolute Far-Ultraviolet Spectrophotometry of Hot Subluminous Stars from *Voyager*. *J. B. Holberg, B. Ali, T. E. Carone, & R. S. Polidan.* 375, 716, 121-E11 (1991)

The Hopkins Ultraviolet Telescope: Performance and Calibration during the Astro-1 Mission. *Arthur F. Davidsen, Knox S. Long, Samuel T. Durrance, William P. Blair, Charles W. Bowers, Steven J. Conard, Paul D. Feldman,*

Henry C. Ferguson, Glen H. Fountain, Randy A. Kimble, Gerard A. Kriss, H. Warren Moos, & Kenneth A. Potocki. 392, 264, 104-C1 (1992)

Extreme Ultraviolet Spectroscopy of G191-B2B: Direct Observation of Ionization Edges. *Erik Wilkinson, James C. Green, & Webster Cash.* 397, L51, 173-F13 (1992)

Extreme Ultraviolet Observations of G191-B2B and the Local Interstellar Medium with the Hopkins Ultraviolet Telescope. *Randy A. Kimble, Arthur F. Davidsen, William P. Blair, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Henry C. Ferguson, Richard C. Henry, Gerard A. Kriss, Jeffrey W. Kruk, Knox S. Long, H. Warren Moos, & Olaf Vancura.* 404, 663, 37-B13 (1993)

The Extreme Ultraviolet Spectrograph: A Radial Groove Grating, Sounding Rocket–borne, Astronomical Instrument. *Erik Wilkinson, James C. Green, & Webster Cash.* 89, 211, 51-F5 (1993)

The Discovery of Ni v in the Photospheres of the Hot DA White Dwarfs RE 2214−492 and G191-B2B. *J. B. Holberg, I. Hubeny, M. A. Barstow, T. Lanz, E. M. Sion, & R. W. Tweedy.* 425, L105, 94-G5 (1994)

ORFEUS Observations of G191-B2B: Neutral and Ionized Gas in the Local Interstellar Medium. *M. Hurwitz & S. Bowyer.* 446, 812, 167-C4 (1995)

Alphanumeric: G217-037

The Incidence of Magnetism among White Dwarfs: The First Stars below 100 Kilogauss. *Gary D. Schmidt & Paul S. Smith.* 423, L63, 54-B3 (1994)

Alphanumeric: G226-29

Whole Earth Telescope Observations of the DAV White Dwarf G226-29. *S. O. Kepler, O. Giovannini, M. A. Wood, R. E. Nather, D. E. Winget, A. Kanaan, S. J. Kleinman, P. A. Bradley, J. L. Provencal, J. C. Clemens, C. F. Claver, T. K. Watson, K. Yanagida, K. Krisciunas, T. M. K. Marar, S. Seetha, B. N. Ashoka, E. Leibowitz, H. Mendelson, T. Mazeh, P. Moskalik, J. Krzesiński, G. Pajdosz, S. Zoła, J.-E. Solheim, P.-I. Emanuelsen, N. Dolez, G. Vauclair, M. Chevreton, J.-R. Fremy, M. A. Barstow, A. E. Sansom, R. W. Tweedy, D. T. Wickramasinghe, L. Ferrario, D. J. Sullivan, A. J. van der Peet, D. A. H. Buckley, & A.-L. Chen.* 447, 874, 188-A1 (1995)

Alphanumeric: G227-35

The Strong Magnetic Field in G227-35. *Marshall H. Cohen, Angela Putney, & Robert W. Goodrich.* 405, L67, 54-D5 (1993)

Alphanumeric: GD 50

The Isolated Massive DA White Dwarf GD 50. *P. Bergeron, K. M. Kidder, J. B. Holberg, James Liebert, F. Wesemael, & Rex A. Saffer.* 372, 267, 77-C5 (1991)

Alphanumeric: GD 165

Companions to White Dwarfs: Very Low Mass Stars and the Brown Dwarf Candidate GD 165B. *B. Zuckerman & E. E. Becklin.* 386, 260, 27-D7 (1992)

Alphanumeric: GD 165B

The Unique Spectrum of the Brown Dwarf Candidate GD 165B and Comparison to the Spectra of Other Low-Luminosity Objects. *J. Davy Kirkpatrick, Todd J. Henry, & James Liebert.* 406, 701, 66-E10 (1993)

Alphanumeric: GD 323

GD 323: New Observations and Analysis of the Prototype DAB White Dwarf. *D. Koester, James Liebert, & Rex A. Saffer.* 422, 783, 41-E10 (1994)

Alphanumeric: GD 358

A Critical Analysis of the Ultraviolet Temperature Scale of the Helium-dominated DB and DBV White Dwarfs. *Peter Thejll, Stéphane Vennes, & Harry L. Shipman.* 370, 355, 51-F5 (1991)

Dynamo Generation of a Magnetic Field in the White Dwarf GD 358. *J. Andrew Markiel, John H. Thomas, & H. M. Van Horn.* 430, 834, 172-C7 (1994)

Whole Earth Telescope Observations of the DBV White Dwarf GD 358. *D. E. Winget, R. E. Nather, J. C. Clemens, J. L. Provencal, S. J. Kleinman, P. A. Bradley, C. F. Claver, J. S. Dixson, M. H. Montgomery, C. J. Hansen, B. P. Hine, P. Birch, M. Candy, T. M. K. Marar, S. Seetha, B. N. Ashoka, E. M. Leibowitz, D. O'Donoghue, B. Warner, D. A. H. Buckley, P. Tripe, G. Vauclair, N. Dolez, M. Chevreton, T. Serre, R. Garrido, S. O. Kepler, A. Kanaan, T. Augusteijn, M. A. Wood, P. Bergeron, & A. D. Grauer.* 430, 839, 172-D1 (1994)

An Asteroseismological Determination of the Structure of the DBV White Dwarf GD 358. *P. A. Bradley & D. E. Winget.* 430, 850, 172-E2 (1994)

Thick to Thin: The Evolutionary Connection between PG 1159 Stars and the Thin Helium–enveloped Pulsating White Dwarf GD 358. *Benjamin T. Dehner & Steven D. Kawaler.* 445, L141, 151-F9 (1995)

Dynamo Generation of Magnetic Fields in White Dwarfs. *John H. Thomas, J. Andrew Markiel, & H. M. Van Horn.* 453, 403, 286-F3 (1995)

Alphanumeric: GD 659

The *EUVE* and *IUE* Spectra of the Hot DA White Dwarf GD 659. *J. B. Holberg, M. A. Barstow, F. C. Bruhweiler, & E. M. Sion.* 453, 313, 285-D12 (1995)

Alphanumeric: GL 490

Aperture Synthesis CS(2–1) Observations of a Young Stellar Object GL 490: Accretion Flow in Gas Disk. *Akiko Nakamura, Ryohei Kawabe, Yoshimi Kitamura, Masato Ishiguro, Yasuhiro Murata, & Nagayoshi Ohashi.* 383, L81, 226-F5 (1991)

Alphanumeric: GRO J0422+32

10 Micron Detection of the Hard X-Ray Transient GRO J0422+32: Free-Free Emission from an X-Ray–driven Accretion Disk Wind? *J. van Paradijs, C. M. Telesco, C. Kouveliotou, & G. J. Fishman.* 429, L19, 150-C10 (1994)

Secondary Maxima of Black Hole X-Ray Transients: A Clue to Understanding X-Ray Irradiation. *S. Mineshige.* 431, L99, 191-F7 (1994)

Observations of the X-Ray Nova GRO J0422+32. I. Outburst and the Decay to Quiescence. *Paul J. Callanan, Michael R. Garcia, Jeffrey E. McClintock, Ping Zhao, Ronald A. Remillard, Charles D. Bailyn, Jerome A. Orosz, B. Alan Harmon, & William S. Paciesas.* 441, 786, 72-G3 (1995)

Orbital Parameters of the Candidate Black Hole Binary GRO J0422+32. *Jerome A. Orosz & Charles D. Bailyn.* 446, L59, 170-D12 (1995)

The Mass of the Probable Black Hole in the X-Ray Nova GRO J0422+32. *Alexei V. Filippenko, Thomas Matheson, & Luis C. Ho.* 455, 614, 330-D1 (1995)

Alphanumeric: GRS 1009−45

Minioutbursts from the Black Hole Candidate Nova Velorum 1993. *Charles D. Bailyn & Jerome A. Orosz.* 440, L73, 57-G8 (1995)

Alphanumeric: GRS 1758−258

Can Isolated Stellar-Mass Black Holes Explain the Hard X-Ray Sources in the Galactic Center Region? *Sergio Campana & Sandro Mereghetti.* 413, L89, 168-E10 (1993)

Evidence for a Soft X-Ray Excess in the Spectrum of GRS 1758−258. *S. Mereghetti, T. Belloni, & A. Goldwurm.* 433, L21, 214-F12 (1994)

Alphanumeric: GRS 1915+105

Localization and Spectrum of the X-Ray Transient Source GRS 1915+105. *A. Finoguenov, E. Churazov, M. Gilfanov, R. Sunyaev, A. Vikhlinin, A. Dyachkov, N. Khavenson, I. Tserenin, M. C. Schmitz-Fraysse, M. Denis, J. P. Roques, P. Mandrou, A. Claret, J. Ballet, B. Cordier, & A. Goldwurm.* 424, 940, 76-D10 (1994)

Discovery and Observations by WATCH of the X-Ray Transient GRS 1915+105. *Alberto J. Castro-Tirado, Søren Brandt, Niels Lund, Igor Lapshov, Rashid A. Sunyaev, Aleksei A. Shlyapnikov, Sergei Guziy, & Elena P. Pavlenko.* 92, 469, 38-B1 (1994)

The Velocity of the Emitting Plasma of the Superluminal Galactic Source GRS 1915+105. *Gianluigi Bodo & Gabriele Ghisellini.* 441, L69, 75-G13 (1995)

Alphanumeric: GRW +70°8247

Thomson Scattering in a Magnetic Field. II. Arbitrary Field Orientation. *Barbara A. Whitney.* 369, 451, 43-C10 (1991)

Alphanumeric: GS 1124−68

Another Canonical Time Variation of X-Rays from Black Hole Candidates in the Very High Flare State? *Sigenori Miyamoto, Sayuri Iga, Shunji Kitamoto, & Yasuhide Kamado.* 403, L39, 20-D13 (1993)

Alphanumeric: GS 1124−683

Normalized Power Spectral Densities of Two X-Ray Components from GS 1124−683. *Sigenori Miyamoto, Shunji Kitamoto, Sayuri Iga, Kiyoshi Hayashida, & Kentaro Terada.* 435, 398, 248-G10 (1994)

Large Hysteretic Behavior of Stellar Black Hole Candidate X-Ray Binaries. *Sigenori Miyamoto, Shunji Kitamoto, Kiyoshi Hayashida, & Wataru Egoshi.* 442, L13, 84-F1 (1995)

Alphanumeric: GS 2000+25

A Black Hole in the X-Ray Nova GS 2000+25. *Alexei V. Filippenko, Thomas Matheson, & Aaron J. Barth.* 455, L139, 334-A4 (1995)

Alphanumeric: GX 5−1

Column Accretion with Radiation Drag and the Two-Branch Spectrum of the Low-Mass X-Ray Binary GX 5−1. *J. H. You, T. Lu, C. Y. Wei, & T. G. Wang.* 394, 283, 131-E1 (1992)

Another Canonical Time Variation of X-Rays from Black Hole Candidates in the Very High Flare State? *Sigenori Miyamoto, Sayuri Iga, Shunji Kitamoto, & Yasuhide Kamado.* 403, L39, 20-D13 (1993)

The Time-Delay Spectrum of GX 5−1 in Its Horizontal Branch. *B. Vaughan, M. van der Klis, W. H. G. Lewin, R. A. M. J. Wijers, J. van Paradijs, T. Dotani, & K. Mitsuda.* 421, 738, 27-D6 (1994)

Alphanumeric: GX 301−2

The X-Ray Properties of GX 301−2 (4U 1223−62). *F. Haberl.* 376, 245, 128-A5 (1991)

Alphanumeric: GX 339−4

A Jet Model for a Very High State of GX 339−4. *Sigenori Miyamoto & Shunji Kitamoto.* 374, 741, 108-C6 (1991)

X-Ray Variability of GX 339−4 in Its Very High State. *Sigenori Miyamoto, Kazuhiro Kimura, Shunji Kitamoto, Tadayasu Dotani, & Ken Ebisawa.* 383, 784, 224-A3 (1991)

Another Canonical Time Variation of X-Rays from Black Hole Candidates in the Very High Flare State? *Sigenori Miyamoto, Sayuri Iga, Shunji Kitamoto, & Yasuhide Kamado.* 403, L39, 20-D13 (1993)

Sigma Hard X-Ray Observations of GX 339−4 during the Hard State and a Transition to the Soft State. *L. Bouchet, E. Jourdain, P. Mandrou, J. P. Roques, Ph. Laurent, F. Lebrun, J. Paul, L. Salotti, R. Sunyaev, E. Churazov, M. Gilfanov, N. Khavenson, A. Diachkov, I. Chulkov, B. Novikov, & A. Kuznetsov.* 407, 739, 79-F7 (1993)

Observation of GX 339−4 Hard State Outbursts in 1991 and 1992. *B. A. Harmon, C. A. Wilson, W. S. Paciesas, G. N. Pendleton, M. S. Briggs, B. C. Rubin, M. H. Finger, G. J. Fishman, M. N. Brock, R. B. Wilson, & C. A. Meegan.* 425, L17, 85-C11 (1994)

OSSE Observations of GX 339−4. *D. A. Grabelsky, S. M. Matz, W. R. Purcell, M. P. Ulmer, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, & G. V. Jung.* 441, 800, 73-A6 (1995)

Large Hysteretic Behavior of Stellar Black Hole Candidate X-Ray Binaries. *Sigenori Miyamoto, Shunji Kitamoto, Kiyoshi Hayashida, & Wataru Egoshi.* 442, L13, 84-F1 (1995)

Alphanumeric: 1H 1752+081

1H 1752+081: An Eclipsing Cataclysmic Variable with a Small Accretion Disk. *Andrew D. Silber, Ronald A. Remillard, Keith Horne, & Hale V. Bradt.* 424, 955, 76-F3 (1994)

Alphanumeric: H1−36

Detection of the H92α Radio Recombination Line from the Symbiotic Star H1−36 Arae. *T. S. Bastian.* 387, L77, 48-D1 (1992)

Alphanumeric: H0253+193

The Infrared Counterpart of the Eclipsing X-Ray Binary H0253+193. *B. Zuckerman, E. E. Becklin, I. S. McLean, & Joseph Patterson.* 400, 665, 218-F7 (1992)

Binary Structure and Accretion Flow of the New Intermediate Polar H0253+193. *Yuichi Kamata & Katsuji Koyama.* 405, 307, 45-A3 (1993)

Alphanumeric: H0459+246

The X-Ray Selected Cataclysmic Variables H0459+246 and H0857−242. *R. A. Remillard, H. V. Bradt, R. J. V. Brissenden, D. A. H. Buckley, D. A. Schwartz, A. Silber, B. A. Stroozas, & I. R. Tuohy.* 428, 785, 140-A11 (1994)

Alphanumeric: H0538+608

Ginga Observation of an AM Herculis Type Source H0538+608. *M. Ishida, A. Silber, H. V. Bradt, R. A. Remillard, K. Makishima, & T. Ohashi.* 367, 270, 15-D6 (1991)

H0538+608 (= BY Camelopardalis): An Asynchronously Rotating AM Herculis Binary? *A. Silber, H. V. Bradt, M. Ishida, T. Ohashi, & R. A. Remillard.* 389, 704, 70-B7 (1992)

Alphanumeric: H0857−242

The X-Ray Selected Cataclysmic Variables H0459+246 and H0857−242. *R. A. Remillard, H. V. Bradt, R. J. V. Brissenden, D. A. H. Buckley, D. A. Schwartz, A. Silber, B. A. Stroozas, & I. R. Tuohy.* 428, 785, 140-A11 (1994)

Alphanumeric: H1907+690

The Eclipsing AM Herculis Variable H1907+690. *R. A. Remillard, B. A. Stroozas, S. Tapia, & A. Silber.* 379, 715, 173-E13 (1991)

Alphanumeric: He 3-519

He 3-519: A Peculiar Post-LBV, Pre-WN Star? *Kris Davidson, Roberta M. Humphreys, Arsen Hajian, & Yervant Terzian.* 411, 336, 131-D9 (1993)

Alphanumeric: HH 34

Evidence for a Wind-swept Cavity in HH 34? *Alexander Rudolph & William J. Welch.* 395, 488, 148-F3 (1992)

The Bow Shock and Mach Disk of HH 34. *Jon A. Morse, Patrick Hartigan, Gerald Cecil, John C. Raymond, & Steve Heathcote.* 399, 231, 198-B3 (1992)

Circumstellar Molecular Gas of the HH 34 and HH 111 Exciting Stars. *Karl R. Stapelfeldt & Nicholas Z. Scoville.* 408, 239, 86-B1 (1993)

The Molecular Environment of the HH 34 System. *G. Anglada, R. Estalella, R. Mauersberger, J. M. Torrelles, L. F. Rodríguez, J. Cantó, P. T. P. Ho, & P. D'Alessio.* 443, 682, 107-C9 (1995)

Alphanumeric: HH 34*

A Parsec-Scale "Superjet" and Quasi-periodic Structure in the HH 34 Outflow? *John Bally & David Devine.* 428, L65, 142-F8 (1994)

Alphanumeric: HH 46/47

Observations of Entrainment and Time Variability in the HH 47 Jet. *Patrick Hartigan, Jon A. Morse, Steve Heathcote, & Gerald Cecil.* 414, L121, 186-B11 (1993)

Alphanumeric: HH 46 IRS

A Nearly Unipolar CO Outflow from the HH 46–47 System. *Lawrence M. Chernin & Colin R. Masson.* 382, L93, 211-E3 (1991)

Alphanumeric: HH 47A

Fabry-Perot Observations and New Models of the HH 47A and HH 47D Bow Shocks. *Jon A. Morse, Patrick Hartigan, Steve Heathcote, John C. Raymond, & Gerald Cecil.* 425, 738, 91-A1 (1994)

Alphanumeric: HH 47D

Fabry-Perot Observations and New Models of the HH 47A and HH 47D Bow Shocks. *Jon A. Morse, Patrick Hartigan, Steve Heathcote, John C. Raymond, & Gerald Cecil.* 425, 738, 91-A1 (1994)

Alphanumeric: HH 111

Circumstellar Molecular Gas of the HH 34 and HH 111 Exciting Stars. *Karl R. Stapelfeldt & Nicholas Z. Scoville.* 408, 239, 86-B1 (1993)

The Bow Shock and Mach Disk of HH 111V. *Jon A. Morse, Steve Heathcote, Gerald Cecil, Patrick Hartigan, & John C. Raymond.* 410, 764, 123-C5 (1993)

Alphanumeric: HZ 43

Extreme Ultraviolet Observations of HZ 43 and the Local H/He Ratio with the Hopkins Ultraviolet Telescope. *Randy A. Kimble, Arthur F. Davidsen, Knox S. Long, & Paul D. Feldman.* 408, L41, 89-C1 (1993)

Alphanumeric: IRAS 03282+3035

Molecular Hydrogen in the IRAS 03282+3035 Stellar Jet. *John Bally, David Devine, Mark Hereld, & Bernard J. Rauscher.* 418, L75, 245-D7 (1993)

Alphanumeric: IRAS 05338−0624

The Circumstellar Environment of IRAS 05338−0624. *Joseph P. McMullin, Lee G. Mundy, & Geoff A. Blake.* 437, 305, 287-D6 (1994)

Dust Emission from L1641N: An Optically Thick Circumstellar Disk? *H. Chen, J.-H. Zhao, & N. Ohashi.* 450, L71, 245-A1 (1995)

Alphanumeric: IRAS 16293−2422

IRAS 16293−2422: A Very Young Binary System? *Lee G. Mundy, Alwyn Wootten, Bruce A. Wilking, Geoffrey A. Blake, & Anneila I. Sargent.* 385, 306, 15-F5 (1992)

Magnetic Field in a Low-Mass Protostar Disk: Millimeter Polarimetry of IRAS 16293−2422. *Motohide Tamura, Saeko S. Hayashi, Takuya Yamashita, William D. Duncan, & James H. Hough.* 404, L21, 33-F1 (1993)

Vibrationally Excited CS: A New Probe of Conditions in Young Protostellar Systems. *Christopher K. Walker, Philip R. Maloney, & E. Serabyn.* 437, L127, 299-E3 (1994)

Molecular Abundances and Low-Mass Star Formation. II. Organic and Deuterated Species toward IRAS 16293−2422. *Ewine F. van Dishoeck, Geoffrey A. Blake, David J. Jansen, & T. D. Groesbeck.* 447, 760, 186-D12 (1995)

Alphanumeric: IRAS 17380−3031

IRAS 17380−3031: A New Dusty Late WC-Type Wolf-Rayet Star. *Martin Cohen, K. A. van der Hucht, P. M. Williams, & P. S. Thé.* 378, 302, 154-F7 (1991)

Alphanumeric: IRC +10216

CN and HCN in the Infrared Spectrum of IRC +10216. *G. R. Wiedemann, Kenneth H. Hinkle, John J. Keady, D. Deming, & D. E. Jennings.* 382, 321, 204-B10 (1991)

High Spatial Resolution Maps of Circumstellar SiC_2 in IRC +10216. *P. D. Gensheimer, Lauren Likkel, & L. E. Snyder.* 388, L31, 52-C11 (1992)

A Sensitive Search for Rotational Lines of Vibrationally Excited HC_5N in IRC +10°216. *M. B. Bell, P. A. Feldman, & L. W. Avery.* 396, 643, 165-D1 (1992)

The Excitation Temperature of HC_9N in the Circumstellar Envelope of IRC +10216. *M. B. Bell, L. W. Avery, J. M. MacLeod, & H. E. Matthews.* 400, 551, 217-B12 (1992)

Mass-Loss Rates for *IRAS*-bright Red Giants: A Revised Model of Circumstellar CO Emission. *Joel H. Kastner.* 401, 337, 225-B11 (1992)

A Spectral Line Survey of IRC +10216 at Millimeter and Submillimeter Wavelengths. *L. W. Avery, T. Amano, M. B. Bell, P. A. Feldman, J. W. C. Johns, J. M. MacLeod, H. E. Matthews, D. C. Morton, J. K. G. Watson, B. E. Turner, S. S. Hayashi, G. D. Watt, & A. S. Webster.* 83, 363, 62-G3 (1992)

The IRC +10216 Circumstellar Envelope. III. Infrared Molecular Line Profiles. *J. J. Keady & S. T. Ridgway.* 406, 199, 57-E5 (1993)

The Formation of Cyanopolyyne Molecules in IRC +10216. *Isabelle Cherchneff, Alfred E. Glassgold, & Gary A. Mamon.* 410, 188, 114-D12 (1993)

Atomic Carbon in the Envelope of IRC +10216. *Jocelyn Keene, K. Young, T. G. Phillips, Thomas H. Büttgenbach, & John E. Carlstrom.* 415, L131, 200-E1 (1993)

The Location of Warm HC_3N and Warm HC_5N Gas in the Circumstellar Envelope of IRC +10216. *M. B. Bell.* 417, 305, 221-C9 (1993)

The Formation of Carbon Chain Molecules in IRC +10216. *Isabelle Cherchneff & Alfred E. Glassgold.* 419, L41, 252-F9 (1993)

A Laboratory Approach to the Interstellar Sulfide Dust Problem. *B. Begemann, J. Dorschner, T. Henning, H. Mutschke, & E. Thamm.* 423, L71, 54-C1 (1994)

Submillimeter Molecular Line Observations of IRC +10216: Searches for MgH, SiH_2, and HCO^+, and Detection of Hot HCN. *L. W. Avery, M. B. Bell, C. T. Cunningham, P. A. Feldman, R. H. Hayward, J. M. McLeod, H. E. Matthews, & J. D. Wade.* 426, 737, 107-E12 (1994)

Detection of Radio Continuum Emission from Circumstellar Dust around CRL 2688 and IRC +10216. *G. R. Knapp, P. F. Bowers, K. Young, & T. G. Phillips.* 429, L33, 150-E1 (1994)

The Molecular Emission-Line Spectrum of IRC +10216 between 330 and 358 GHz. *T. D. Groesbeck, T. G. Phillips, & Geoffrey A. Blake.* 94, 147, 53-F12 (1994)

Exotic Fluoride Molecules in IRC +10216: Confirmation of AlF and Searches for MgF and CaF. *L. M. Ziurys, A. J. Apponi, & T. G. Phillips.* 433, 729, 220-B7 (1994)

The Particle-Size Distribution in the Dust Ejected from IRC +10216. *M. Jura.* 434, 713, 237-E12 (1994)

Broken Symmetry: The Structure of the Dust Envelope of IRC +10216. *Joel H. Kastner & David A. Weintraub.* 434, 719, 237-F7 (1994)

^{26}Al and Circumstellar Envelopes. *A. E. Glassgold.* 438, L111, 20-C9 (1995)

Full Synthesis Maps of Circumstellar SiC_2 in IRC +10216. *P. D. Gensheimer, Lauren Likkel, & L. E. Snyder.* 439, 445, 27-C3 (1995)

The Distribution of HCN, $H^{13}CN$, and CN in IRC +10216. *Aditya Dayal & John H. Bieging.* 439, 996, 38-D7 (1995)

Modeling the Light-Travel-Time Effect on the Far-Infrared Size of IRC +10216. *Edward L. Wright & Frederick K. Baganoff.* 440, 322, 45-E9 (1995)

The Structure of the Dust Shells around IRC +10216. *G. C. Sloan & M. P. Egan.* 444, 452, 119-G1 (1995)

Detection of MgCN in IRC +10216: A New Metal-bearing Free Radical. *L. M. Ziurys, A. J. Apponi, M. Guélin, & J. Cernicharo.* 445, L47, 141-A5 (1995)

Alphanumeric: IRC +10420

VLA Observations of 1612 and 1665 MHz OH Masers Associated with IRC +10420. *G. E. Nedoluha & P. F. Bowers.* 392, 249, 104-A9 (1992)

IRC +10420: A Cool Hypergiant near the Top of the H-R Diagram. *Terry Jay Jones, Roberta M. Humphreys, Robert D. Gehrz, Geoffrey F. Lawrence, Franz-Josef Zickgraf, Harvey Moseley, Sean Casey, William J. Glaccum, Carol J. Koch, Robert Pina, Barbara Jones, Kim Venn, Otmar Stahl, & Sumner G. Starrfield.* 411, 323, 131-C6 (1993)

Observations of 13.5 Micron Rotation-Vibration Lines of SiS in IRC +10216. *R. J. Boyle, J. J. Keady, D. E. Jennings, K. L. Hirsch, & G. R. Wiedemann.* 420, 863, 13-E12 (1994)

Detection of Ammonia Emission toward Oxygen-rich Evolved Stars. *Karl M. Menten & Javier Alcolea.* 448, 416, 197-G10 (1995)

The Massive Post–Red Supergiants IRC +10420 and HD 179821. *Joel H. Kastner & David A. Weintraub.* 452, 833, 276-B7 (1995)

Alphanumeric: IRS 7

A Gaseous Tail Ablated from the Supergiant IRS 7 near the Galactic Center. *E. Serabyn, J. H. Lacy, & J. M. Achtermann.* 378, 557, 159-C9 (1991)

Alphanumeric: KS 1731−260

Sigma Detection of Hard X-Ray Emission from the Soft Transient Type I X-Ray Burster KS 1731−260. *D. Barret, L. Bouchet, P. Mandrou, J. P. Roques, B. Cordier, Ph. Laurent, F. Lebrun, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, A. Diachkov, N. Khavenson, B. Novikov, I. Chulkov, & A. Kuznetsov.* 394, 615, 137-B1 (1992)

Alphanumeric: L151−81A/B

The Binary System L151−81A/B: A Potential Test of Accretion Theory. *M. A. Wood & T. D. Oswalt.* 394, L53, 139-D1 (1992)

Alphanumeric: L1551 IRS 5

High-Velocity HCO^+ Emission from L1551 IRS 5: Evidence for Wind-Cloud Interactions. *Alexander Rudolph.* 397, L111, 181-D13 (1992)

Upper Limits to the Detection of Ammonia from Protoplanetary Disks around HL Tauri and L1551-IRS 5. *José F. Gómez, José M. Torrelles, Paul T. P. Ho, Luis F. Rodríguez, & Jorge Cantó.* 414, 333, 174-B6 (1993)

The Circumstellar Molecular Core around L1551 IRS 5. *G. A. Fuller, E. F. Ladd, R. Padman, P. C. Myers, & Fred C. Adams.* 454, 862, 313-F7 (1995)

Alphanumeric: L1551NE

The Circumstellar Density Distribution of L1551NE. *M. Barsony & C. J. Chandler.* 406, L71, 68-E1 (1993)

Radio Continuum Detection of the Exciting Sources of the DG Tauri B and L1551NE Outflows. *Luis F. Rodríguez, Guillem Anglada, & Alejandro Raga.* 454, L149, 316-F5 (1995)

Alphanumeric: LB 1497

Gravitational Redshift for the Pleiad White Dwarf LB 1497. *Gary Wegner, I. Neill Reid, & Robert K. McMahan, Jr.* 376, 186, 127-C6 (1991)

Alphanumeric: LB 11146

Discovery of a Magnetic/Nonmagnetic Double-degenerate Binary System. *James Liebert, P. Bergeron, Gary D. Schmidt, & Rex A. Saffer.* 418, 426, 236-C10 (1993)

Alphanumeric: LHS 1044

Discovery of Two Cool Magnetic White Dwarfs. *P. Bergeron, María-Teresa Ruiz, & S. K. Leggett.* 400, 315, 212-G5 (1992)

Alphanumeric: LHS 1126

The Peculiar Cool White Dwarf LHS 1126 Revisited. *P. Bergeron, María-Teresa Ruiz, S. K. Leggett, D. Saumon, & F. Wesemael.* 423, 456, 51-G5 (1994)

Alphanumeric: LHS 1734

Discovery of Two Cool Magnetic White Dwarfs. *P. Bergeron, María-Teresa Ruiz, & S. K. Leggett.* 400, 315, 212-G5 (1992)

Alphanumeric: LkHα 101

The LkHα 101 Infrared Cluster. *M. Barsony, J. M. Schombert, & K. Kis-Halas.* 379, 221, 165-G1 (1991)

The 1.0–1.3 Micron Spectrum of LkHα 101. *Richard J. Rudy, Peter Erwin, George S. Rossano, & R. C. Puetter.* 383, 344, 216-D7 (1991)

Mapping the Radio Emission from Massive Young Stellar Objects. *Melvin G. Hoare, Janet E. Drew, Tom B. Muxlow, & Richard J. Davis.* 421, L51, 22-B7 (1994)

The Subarcsecond 10 Micron Size of LkHα 101: Constraints on Circumstellar Dust. *R. M. Danen, C. R. Gwinn, & E. E. Bloemhof.* 447, 391, 177-F13 (1995)

Further Mapping of the Radio Emission from Massive Young Stellar Objects. *Melvin G. Hoare & Simon T. Garrington.* 449, 874, 224-F11 (1995)

Alphanumeric: LkHα 198

Infrared Studies of Pre–Main-Sequence Intermediate-Mass Stars: LkHα 198. *Antonella Natta, Francesco Palla, Harold M. Butner, Neal J. Evans II, & Paul M. Harvey.* 391, 805, 98-A1 (1992)

A Deeply Embedded Companion to LkHα 198. *P. O. Lagage, G. Olofsson, S. Cabrit, C. J. Cesarsky, L. Nordh, & J. M. Rodriguez Espinosa.* 417, L79, 230-D6 (1993)

LkHα 198 Revisited. *Harold M. Butner & Antonella Natta.* 440, 874, 55-B10 (1995)

Alphanumeric: LkHα 234

Discovery of a Deeply Embedded Companion to LkHα 234. *David A. Weintraub, Joel H. Kastner, & Ashwin Mahesh.* 420, L87, 15-F1 (1994)

Alphanumeric: LMC R136

Gas near the Center of 30 Doradus As Revealed by *Hubble Space Telescope* Images. *Deidre A. Hunter, Edward J. Shaya, Paul Scowen, J. Jeff Hester, Edward J. Groth, Roger Lynds, & Earl J. O'Neil, Jr.* 444, 758, 126-F11 (1995)

Alphanumeric: LMC X-1

A Broad-Band X-Ray Telescope Observation of the Black Hole Candidate LMC X-1. *Eric M. Schlegel, F. E. Marshall, R. F. Mushotzky, A. P. Smale, K. A. Weaver, P. J. Serlemitsos, R. Petre, & K. M. Jahoda.* 422, 243, 33-B5 (1994)

Alphanumeric: LMC X-3

Discovery of a Long-Term Periodic Variation in LMC X-3. *A. P. Cowley, P. C. Schmidtke, K. Ebisawa, F. Makino, R. A. Remillard, D. Crampton, J. B. Hutchings, S. Kitamoto, & A. Treves.* 381, 526, 197-C1 (1991)

Ultraviolet Observations of the Accretion Disk in LMC X-3. *A. P. Cowley, P. C. Schmidtke, J. B. Hutchings, & D. Crampton.* 429, 826, 156-A1 (1994)

Alphanumeric: LMC X-4

ROSAT Observations of Scattered X-Rays from LMC X-4 in Its Low State. *Jonathan W. Woo, George W. Clark, & Alan M. Levine.* 449, 880, 224-G7 (1995)

Alphanumeric: LS II +34°26

LS II +34°26 is a Low-Mass Post–Asymptotic Giant Branch B Supergiant and Not a Massive Population I B Star Located near the Outer Edge of the Galaxy. *M. Parthasarathy.* 414, L109, 186-A7 (1993)

Alphanumeric: LP 907−037

The Incidence of Magnetism among White Dwarfs: The First Stars below 100 Kilogauss. *Gary D. Schmidt & Paul S. Smith.* 423, L63, 54-B3 (1994)

Alphanumeric: M33 X-7

Accurate Period Determination of an Eclipsing Binary X-Ray Source in M33. *Eric Schulman, Joel N. Bregman, Alfonso Collura, Fabio Reale, & Giovanni Peres.* 418, L67, 245-C6 (1993)

Alphanumeric: MCT 0128−3846

Hot Degenerates in the Montreal-Cambridge-Tololo Survey. II. Two New Hybrid White Dwarfs, MCT 0128−3846 and MCT 0453−2933, and the Nature of the DAB Stars. *F. Wesemael, P. Bergeron, R. Lamontagne, G. Fontaine, A. Beauchamp, S. Demers, M. J. Irwin, J. B. Holberg, S. O. Kepler, & S. Vennes.* 429, 369, 148-F2 (1994)

Alphanumeric: MCT 0453−2933

Hot Degenerates in the Montreal-Cambridge-Tololo Survey. II. Two New Hybrid White Dwarfs, MCT 0128−3846 and MCT 0453−2933, and the Nature of the DAB Stars. *F. Wesemael, P. Bergeron, R. Lamontagne, G. Fontaine, A. Beauchamp, S. Demers, M. J. Irwin, J. B. Holberg, S. O. Kepler, & S. Vennes.* 429, 369, 148-F2 (1994)

Alphanumeric: MWC 349

Positions of the Radio Recombination Line Masers in MWC 349. *P. Planesas, J. Martín-Pintado, & E. Serabyn.* 386, L23, 29-D1 (1992)

Simulated Ratio Recombination Line Emission at 1.3 Centimeters toward MWC 349. *J. Martín-Pintado, R. Gaume, R. Bachiller, K. Johnston, & P. Planesas.* 418, L79, 245-E2 (1993)

Modeling of the Hydrogen Maser Disk in MWC 349. *Victor O. Ponomarev, Howard A. Smith, & Vladimir S. Strelnitski.* 424, 976, 77-A1 (1994)

Alphanumeric: MWC 349A

Time Variations in Millimeter-Wave Radio Recombination Lines from the Be Star MWC 349A. *M. A. Gordon.* 387, 701, 47-D5 (1992)

The Nature of the Radio Recombination Line Emission from MWC 349A. *M. A. Gordon.* 421, 314, 19-G7 (1994)

Rotation in the Ionized Envelope of MWC 349A. *Luis F. Rodríguez & Timothy S. Bastian.* 428, 324, 132-B12 (1994)

Alphanumeric: MWC 560

Observations of the Peculiar Object MWC 560 in Outburst. *A. G. Michalitsianos, S. P. Maran, R. J. Oliversen, B. Bopp, E. Kontizas, A. Dapergolas, & M. Kontizas.* 371, 761, 71-A7 (1991)

Ultraviolet Continuum Variability and Visual Flickering in the Peculiar Object MWC 560. *A. G. Michalitsianos, M. Perez, S. N. Shore, S. P. Maran, M. Karovska, G. Sonneborn, J. R. Webb, Thomas G. Barnes III, Marian L. Frueh, R. J. Oliversen, & S. G. Starrfield.* 409, L53, 111-D8 (1993)

Alphanumeric: MWC 922

The Near-Infrared [Fe II] Lines of MWC 922. *Richard J. Rudy, Peter Erwin, George S. Rossano, & R. C. Puetter.* 398, 278, 185-C1 (1992)

Alphanumeric: MXB 1728−34

SIGMA Hard X-Ray Observations of the Burst Source MXB 1728−34. *A. Claret, A. Goldwurm, B. Cordier, J. Paul, J.-P. Roques, L. Bouchet, M.-C. Schmitz-Fraysse, P. Mandrou, E. Churazov, M. Gilfanov, R. Sunyaev, N. Khavenson, A. Diachkov, B. Novikov, R. Kremnev, & V. Kovtunenko.* 423, 436, 51-E5 (1994)

Alphanumeric: NGC 7538 IRS 9

An Extremely High Velocity CO Outflow from NGC 7538 IRS 9. *George F. Mitchell & Tatsuhiko I. Hasegawa.* 371, L33, 66-E1 (1991)

Alphanumeric: OH 231.8+4.2

Detection of Ammonia Emission toward Oxygen-rich Evolved Stars. *Karl M. Menten & Javier Alcolea.* 448, 416, 197-G10 (1995)

Alphanumeric: PG 0136+251

Two Ultramassive White Dwarfs Found among Candidates for Magnetic Fields. *Gary D. Schmidt, P. Bergeron, James Liebert, & Rex A. Saffer.* 394, 603, 136-G11 (1992)

Alphanumeric: PG 0917+342

Spectroscopic Observations of the Cataclysmic Variable PG 0917+342: An Ultra–Short-Period Nova-like System. *Danuta Dobrzycka & Steve B. Howell.* 388, 614, 57-G6 (1992)

Superhumps in Cataclysmic Binaries. II. PG 0917+342. *David R. Skillman & Joseph Patterson.* 417, 298, 221-B13 (1993)

Alphanumeric: PG 1159−035

Asteroseismology of the DOV Star PG 1159−035 with the Whole Earth Telescope. *D. E. Winget, R. E. Nather, J. C. Clemens, J. Provencal, S. J. Kleinman, P. A. Bradley, M. A. Wood, C. F. Claver, M. L. Frueh, A. D. Grauer, B. P. Hine, C. J. Hansen, G. Fontaine, N. Achilleos, D. T. Wickramasinghe, T. M. K. Marar, S. Seetha, B. N. Ashoka, D. O'Donoghue, B. Warner, D. W. Kurtz, D. A. Buckley, J. Brickhill, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, J. E. Solheim, A. Kanaan, S. O. Kepler, G. W. Henry, & S. D. Kawaler.* 378, 326, 155-A10 (1991)

Thick to Thin: The Evolutionary Connection between PG 1159 Stars and the Thin Helium-enveloped Pulsating White Dwarf GD 358. *Benjamin T. Dehner & Steven D. Kawaler.* 445, L141, 151-F9 (1995)

Alphanumeric: PG 1413+015

Spectroscopic Observations of the Detached Binary PG 1413+015. *Michael S. Fulbright, James Liebert, P. Bergeron, & Richard Green.* 406, 240, 58-A11 (1993)

Alphanumeric: PG 1658+441

Two Ultramassive White Dwarfs Found among Candidates for Magnetic Fields. *Gary D. Schmidt, P. Bergeron, James Liebert, & Rex A. Saffer.* 394, 603, 136-G11 (1992)

Alphanumeric: PG 1707+427

On the Pulsational Stability of the Pre–White Dwarf Star PG 1707+427. *Albert D. Grauer, Richard F. Green, & James Liebert.* 399, 686, 206-D7 (1992)

Alphanumeric: PG 2131+066

Whole Earth Telescope Observations and Seismological Analysis of the Pre–White Dwarf PG 2131+066. *S. D. Kawaler, M. S. O'Brien, J. C. Clemens, R. E. Nather, D. E. Winget, T. K. Watson, K. Yanagida, J. S. Dixson, P. A. Bradley, M. A. Wood, D. J. Sullivan, S. J. Kleinman, E. Meištas, E. M. Leibowitz, P. Moskalik, S. Zoła, G. Pajdosz, J. Krzesiński, J.-E. Solheim, A. Bruvold, D. O'Donoghue, M. Katz, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, A. Kanaan, S. O. Kepler, O. Giovannini, J. L. Provencal, & C. J. Hansen.* 450, 350, 232-G1 (1995)

Alphanumeric: PSR 0655+64

Spectroscopy of the White Dwarf Companions of PSR 0655+64 and PSR 0820+02. *M. H. van Kerkwijk & S. R. Kulkarni.* 454, L141, 316-E3 (1995)

Alphanumeric: PSR 0656+14

The Proper Motion of the Soft X-Ray–emitting Radio Pulsar PSR 0656+14. *R. J. Thompson, Jr., F. A. Córdova, R. M. Hjellming, & E. B. Fomalont.* 366, L83, 11-E1 (1991)

Alphanumeric: PSR 0820+02

Spectroscopy of the White Dwarf Companions of PSR 0655+64 and PSR 0820+02. *M. H. van Kerkwijk & S. R. Kulkarni.* 454, L141, 316-E3 (1995)

Alphanumeric: PSR 0833−45

Explosion of a Rotating Neutron Star near the Minimum Mass. *Monica Colpi, Stuart L. Shapiro, & Saul A. Teukolsky.* 369, 422, 43-A5 (1991)

HEAO 3 Upper Limits to Pulsed Gamma-Ray Emission from PSR 1509−58 and PSR 0833−45. *M. P. Ulmer, W. R. Purcell, W. A. Wheaton, & W. A. Mahoney.* 369, 485, 43-F12 (1991)

Alphanumeric: PSR 1509−58

HEAO 3 Upper Limits to Pulsed Gamma-Ray Emission from PSR 1509−58 and PSR 0833−45. *M. P. Ulmer, W. R. Purcell, W. A. Wheaton, & W. A. Mahoney.* 369, 485, 43-F12 (1991)

Alphanumeric: PSR 1744−24A

Mechanisms for Pulsar Eclipse. *David Eichler.* 370, L27, 53-D11 (1991)

On the Nature and Evolution of the Windy Binary Pulsar PSR 1744−24A. *Jacob Shaham & Marco Tavani.* 377, 588, 147-A11 (1991)

Alphanumeric: PSR 1855+09

High-Precision Timing of Millisecond Pulsars. I. Astrometry and Masses of the PSR 1855+09 System. *M. F. Ryba & J. H. Taylor.* 371, 739, 70-F9 (1991)

Alphanumeric: PSR 1937+21

Refractive Interstellar Scintillation and Millisecond Pulsar Timing. *Wayne Hu, Roger W. Romani, & Daniel R. Stinebring.* 366, L33, 6-D9 (1991)

Alphanumeric: PSR 1957+20

Mechanisms for Pulsar Eclipse. *David Eichler.* 370, L27, 53-D11 (1991)

High-Precision Timing of Millisecond Pulsars. II. Astrometry, Orbital Evolution, and Eclipses of PSR 1957+20. *M. F. Ryba & J. H. Taylor.* 380, 557, 185-B7 (1991)

The Continuum Eclipse of PSR 1957+20. *A. S. Fruchter & W. M. Goss.* 384, L47, 11-C9 (1992)

Alphanumeric: PSR B1758−23

A Young, Glitching Pulsar near the Direction of W28. *V. M. Kaspi, A. G. Lyne, R. N. Manchester, S. Johnston, N. D'Amico, & S. L. Shemar.* 409, L57, 111-E1 (1993)

Alphanumeric: PSR B1802−07

The Masses of Two Binary Neutron Star Systems. *S. E. Thorsett, Z. Arzoumanian, M. M. McKinnon, & J. H. Taylor.* 405, L29, 47-E8 (1993)

Alphanumeric: PSR B2303+46

The Masses of Two Binary Neutron Star Systems. *S. E. Thorsett, Z. Arzoumanian, M. M. McKinnon, & J. H. Taylor.* 405, L29, 47-E8 (1993)

Alphanumeric: R127

The Asymmetric Wind of R127. *R. E. Schulte-Ladbeck, C. Leitherer, G. C. Clayton, C. Robert, M. R. Meade, L. Drissen, A. Nota, & W. Schmutz.* 407, 723, 79-E1 (1993)

Coronographic Imaging of the Bipolar Nebula around the Luminous Blue Variable R127. *Mark Clampin, Antonella Nota, David A. Golimowski, Claus Leitherer, & Samuel T. Durrance.* 410, L35, 118-C5 (1993)

Alphanumeric: R136a2

GHRS Spectroscopy of Individual Stars in R136a. *Sara R. Heap, Dennis Ebbets, Eliot M. Malumuth, Stephen P. Maran, Alex de Koter, & Ivan Hubeny.* 435, L39, 252-A11 (1994)

Alphanumeric: R136a5

GHRS Spectroscopy of Individual Stars in R136a. *Sara R. Heap, Dennis Ebbets, Eliot M. Malumuth, Stephen P. Maran, Alex de Koter, & Ivan Hubeny.* 435, L39, 252-A11 (1994)

Alphanumeric: RE 0623−377

Two New Extremely Iron-rich Hot DA White Dwarfs and the Nature of the EUV Opacity. *J. B. Holberg, M. A. Barstow, D. A. H. Buckley, A. Chen, S. Dreizler, M. C. Marsh, D. O'Donoghue, E. M. Sion, R. W. Tweedy, G. Vauclair, & K. Werner.* 416, 806, 213-D13 (1993)

Alphanumeric: RE 0751+14

The Discovery of Variable Polarization over the 13.9 Minute Spin Period of the Intermediate Polar RE 0751+14. *V. Piirola, P. Hakala, & G. V. Coyne, S.J.* 410, L107, 126-C3 (1993)

Alphanumeric: RE 1149+28

Asymmetric Mass Accretion in the Magnetic Cataclysmic Variable RE 1149+28. *Steve B. Howell, Martin M. Sirk, Roger F. Malina, J. P. D. Mittaz, & K. O. Mason.* 439, 991, 38-C11 (1995)

Alphanumeric: RE 1938−461

Extreme Ultraviolet Explorer Observations of the Magnetic Cataclysmic Variable RE 1938−461. *John K. Warren, John V. Vallerga, Christopher W. Mauche, Koji Mukai, & Oswald H. W. Siegmund.* 414, L69, 185-D2 (1993)

Alphanumeric: RE 2107−05

A Broad Observational Study of the Eclipsing Magnetic Cataclysmic Variable RE 2107−05. *Jason Glenn, Steve B. Howell, Gary D. Schmidt, James Liebert, Albert D. Grauer, & R. Mark Wagner.* 424, 967, 76-G3 (1994)

Alphanumeric: RE 2214−492

Two New Extremely Iron-rich Hot DA White Dwarfs and the Nature of the EUV Opacity. *J. B. Holberg, M. A. Barstow, D. A. H. Buckley, A. Chen, S. Dreizler, M. C. Marsh, D. O'Donoghue, E. M. Sion, R. W. Tweedy, G. Vauclair, & K. Werner.* 416, 806, 213-D13 (1993)

The Discovery of Ni V in the Photospheres of the Hot DA White Dwarfs RE 2214−492 and G191-B2B. *J. B. Holberg, I. Hubeny, M. A. Barstow, T. Lanz, E. M. Sion, & R. W. Tweedy.* 425, L105, 94-G5 (1994)

Alphanumeric: RJ 051542+0104.7

RJ 051542+0104.7: A New Magnetic, Eclipsing, Cataclysmic Variable. *Peter M. Garnavich, Paula Szkody, Russell M. Robb, David R. Zurek, & D. W. Hoard.* 435, L141, 260-C11 (1994)

Alphanumeric: RNO 91

Infrared Spectroscopy and Imaging Polarimetry of the Disk around the T Tauri Star RNO 91. *David A. Weintraub, Stephen C. Tegler, Joel H. Kastner, & Terrence Rettig.* 423, 674, 57-A3 (1994)

Alphanumeric: RX J0045.4+4154

RX J0045.4+4154: A Recurrent Supersoft X-Ray Transient in M31. *N. E. White, P. Giommi, J. Heise, L. Angelini, & S. Fantasia.* 445, L125, 151-D5 (1995)

Alphanumeric: RX J0515.41+0104.6

The Long-Period AM Herculis–like Cataclysmic Variable RXJ 051541+0104.6. *Frederick M. Walter, Scott J. Wolk, & Nancy R. Adams.* 440, 834, 54-E10 (1995)

Properties of the Exceptionally Long-Period AM Herculis System RX J0515.41+0104.6. *J. Frank, J.-P. Lasota, & G. Chanmugam.* 453, 446, 287-C1 (1995)

Alphanumeric: RX J0515.6+0105

RX J0515.6+0105: An Unusual, Eclipsing, Magnetic Cataclysmic Variable. *A. W. Shafter, K. Reinsch, K. Beuermann, K. A. Misselt, D. A. H. Buckley, V. Burwitz, & A. D. Schwope.* 443, 319, 99-E8 (1995)

Alphanumeric: S-154

S-154 in the Large Magellanic Cloud: Spectral Evolution from a Luminous Fe II Variable to a Symbiotic-like Star. *R. A. Remillard, E. Rosenthal, I. R. Tuohy, D. A. Schwartz, D. A. H. Buckley, & R. J. V. Brissenden.* 396, 668, 165-F1 (1992)

Alphanumeric: S106IR

Mapping the Radio Emission from Massive Young Stellar Objects. *Melvin G. Hoare, Janet E. Drew, Tom B. Muxlow, & Richard J. Davis.* 421, L51, 22-B7 (1994)

Alphanumeric: 2S 0114+65

EXOSAT Observations of the X-Ray Source 2S 0114+65. *Krishna M. V. Apparao, P. Bisht, & K. P. Singh.* 371, 772, 71-B6 (1991)

ROSAT/Optical Observations of 2S 0114+65: A Study of the 2.8 Hour Periodic Outbursts. *John P. Finley, MaryJane Taylor, & Tomaso Belloni.* 429, 356, 148-D13 (1994)

Alphanumeric: 2S 0921−630

Radiation Hydrodynamic Models of Eclipsing Low-Mass X-Ray Binaries. *Stephen D. Murray, D. Tod Woods, John I. Castor, Richard I. Klein, & Christopher F. McKee.* 454, L133, 316-D2 (1995)

Alphanumeric: 2S 1543−624

X-Ray Spectral Study of Two X-Ray Binaries: 4U 1957+11 and 2S 1543−624. *Kulinder P. Singh, Krishna M. V. Apparao, & Ralph P. Kraft.* 421, 753, 27-E9 (1994)

Alphanumeric: SAO 26804

The Dust Disk around the Vega-Excess Star SAO 26804. *C. J. Skinner, R. J. Sylvester, J. R. Graham, M. J. Barlow, M. Meixner, E. Keto, J. F. Arens, & J. G. Jernigan.* 444, 861, 128-C13 (1995)

Alphanumeric: SAO 244567

Narrowband *HST* Imagery of the Young Planetary Nebula Henize 1357. *M. Bobrowsky.* 426, L47, 103-F5 (1994)

Alphanumeric: SGR 0525−66

Postburst Nebular Emission of Soft Gamma-Ray Repeaters. *Marco Tavani.* 431, L83, 191-D10 (1994)

Physics of Magnetospheric Emission in Soft Gamma-Ray Repeaters. *Fulvio Melia & Marco Fatuzzo.* 438, 904, 16-E7 (1995)

Alphanumeric: SGR 1806−20

Soft Gamma Repeater 1806−20: Weak Evidence for a Periodicity following the Bursts. *A. Ulmer, E. E. Fenimore, R. I. Epstein, C. Ho, R. W. Klebesadel, J. G. Laros, & F. Delgado.* 418, 395, 235-G13 (1993)

Postburst Nebular Emission of Soft Gamma-Ray Repeaters. *Marco Tavani.* 431, L83, 191-D10 (1994)

The X-Ray Spectrum of the Soft Gamma Repeater 1806−20. *E. E. Fenimore, J. G. Laros, & A. Ulmer.* 432, 742, 205-C3 (1994)

Characteristics of the Persistent Emission of SGR 1806−20. *T. Sonobe, T. Murakami, S. R. Kulkarni, T. Aoki, & A. Yoshida.* 436, L23, 268-F1 (1994)

Optical and Infrared Observations of SGR 1806−20. *S. R. Kulkarni, K. Matthews, G. Neugebauer, I. N. Reid, M. H. van Kerkwijk, & G. Vasisht.* 440, L61, 57-E12 (1995)

A Luminous Companion to SGR 1806−20. *M. H. van Kerkwijk, S. R. Kulkarni, K. Matthews, & G. Neugebauer.* 444, L33, 121-F1 (1995)

Alphanumeric: SMC R31

Hubble Space Telescope Spectra of the Phase-modulated Wind in the SMC O+WR Binary R31. *J. B. Hutchings, L. Bianchi, & S. C. Morris.* 410, 803, 123-F10 (1993)

Alphanumeric: SMC X-1

The Discovery of an X-Ray Burst and a Study of Aperiodic Variability from SMC X-1. *L. Angelini, L. Stella, & N. E. White.* 371, 332, 64-C1 (1991)

Observations of the Small Magellanic Cloud by the *Vela 5B* X-Ray Monitor. *L. Whitlock & James C. Lochner.* 437, 841, 297-B7 (1994)

Wind Dynamics in SMC X-1. I. Hydrodynamic Simulation. *John M. Blondin & Jonathan W. Woo.* 445, 889, 147-D13 (1995)

Wind Dynamics in SMC X-1. II. *Ginga* and *ROSAT* Observations. *Jonathan W. Woo, George W. Clark, John M. Blondin, Timothy R. Kallman, & Fumiaki Nagase.* 445, 896, 147-E10 (1995)

Alphanumeric: SN 1937C

Discovery of Cepheids in IC 4182: Absolute Peak Brightness of SN Ia 1937C and the Value of H_0. *A. Saha, Lukas Labhardt, Hans Schwengeler, F. D. Macchetto, N. Panagia, Allan Sandage, & G. A. Tammann.* 425, 14, 80-C6 (1994)

Alphanumeric: SN 1978K

SN 1978K: An Extraordinary Supernova in the Nearby Galaxy NGC 1313. *Stuart Ryder, Lister Staveley-Smith, Michael Dopita, Robert Petre, Edward Colbert, David Malin, & Eric Schlegel.* 416, 167, 203-B6 (1993)

Alphanumeric: SN 1979C

The 10 Year Radio Light Curves for SN 1979C. *Kurt W. Weiler, Schuyler D. Van Dyk, Nino Panagia, Richard A. Sramek, & Jennifer L. Discenna.* 380, 161, 178-B1 (1991)

Alphanumeric: SN 1984L

The Late-Time Light Curve of SN 1984L. *Douglas A. Swartz & J. Craig Wheeler.* 379, L13, 169-B7 (1991)

Alphanumeric: SN 1987A

Instabilities and Clumping in SN 1987A. I. Early Evolution in Two Dimensions. *Bruce Fryxell, Ewald Müller, & David Arnett.* 367, 619, 21-A5 (1991)

First Results from the Faint Object Camera: SN 1987A. *P. Jakobsen, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, R. P. Kirshner, & N. Panagia.* 369, L63, 46-B1 (1991)

A Large Supershell H II Region Complex in the Large Magellanic Cloud and the Interstellar Environment of SN 1987A. *Frederick C. Bruhweiler, Michelle A. Fitzurka, & Theodore R. Gull.* 370, 551, 55-C9 (1991)

Bremsstrahlung and Energetic Electrons in Supernovae. *Donald D. Clayton & Lih-Sin The.* 375, 221, 113-F12 (1991)

Analysis of SN 1987A Polarimetry. *David J. Jeffery.* 375, 264, 114-C5 (1991)

Properties of the SN 1987A Circumstellar Ring and the Distance to the Large Magellanic Cloud. *N. Panagia, R. Gilmozzi, F. Macchetto, H.-M. Adorf, & R. P. Kirshner.* 380, L23, 181-D1 (1991)

Circumstellar Emission from SN 1987A. *Peter Lundqvist & Claes Fransson.* 380, 575, 185-D1 (1991)

Catalog of SN 1987A Polarimetry Corrected for Interstellar Polarization. *David J. Jeffery.* 77, 405, 50-B5 (1991)

Rayleigh-Taylor Instability in the Asymmetric Supernova Explosion. *Shoichi Yamada & Katsuhiko Sato.* 382, 594, 208-G12 (1991)

Massive Star Evolution and SN 1987A. *David Arnett.* 383, 295, 215-G8 (1991)

Hydrogen Recombination at High Optical Depth and the Spectrum of SN 1987A. *Yueming Xu, Richard McCray, Ernesto Oliva, & Sofia Randich.* 386, 181, 26-D3 (1992)

Excitation of Pressure Modes in Common Envelopes. *Noam Soker.* 386, 190, 26-E1 (1992)

Compton Telescope Observations of Gamma Rays from SN 1987A. *Farid Ait-Ouamer, Alan D. Kerrick, Terrence J. O'Neill, O. Tumay Tumer, Allen D. Zych, & R. Stephen White.* 386, 715, 34-B11 (1992)

Postexplosion Hydrodynamics of SN 1987A. *Marc Herant & Willy Benz.* 387, 294, 40-E9 (1992)

The [O I] λλ6300,6364 Doublet of SN 1987A. *Hongwei Li & Richard McCray.* 387, 309, 40-F12 (1992)

Line Fluorescence from the Ring around SN 1987A. *Eli Dwek & James E. Felten.* 387, 551, 45-E1 (1992)

Gamma-Ray Deposition and Nonthermal Excitation in Supernovae. *Cecilia Kozma & Claes Fransson.* 390, 602, 82-G1 (1992)

The Ring around SN 1987A and Rotation of the Progenitor. *Y. Eriguchi, H. Yamaoka, K. Nomoto, & M. Hashimoto.* 392, 243, 104-A1 (1992)

Postcollapse Hydrodynamics of SN 1987A: Two-dimensional Simulations of the Early Evolution. *Marc Herant, Willy Benz, & Stirling Colgate.* 395, 642, 151-B13 (1992)

Carbon Monoxide in SN 1987A. *Weihong Liu, A. Dalgarno, & S. Lepp.* 396, 679, 165-G1 (1992)

Formation of the Circumstellar Shell around SN 1987A. *John M. Blondin & Peter Lundqvist.* 405, 337, 45-C13 (1993)

The Ca II Emission Lines of SN 1987A. *Hongwei Li & Richard McCray.* 405, 730, 52-B9 (1993)

Interacting Massive Binaries, H-R Diagram of the Large Magellanic Cloud and SN 1987A. *N. Rathnasree.* 411, 848, 140-D1 (1993)

Evidence for Hydrated Silicates toward SN 1987A. *Ralf Timmermann & Harold P. Larson.* 415, 820, 198-A13 (1993)

Magnetic Shaping of Planetary Nebulae and Other Stellar Wind Bubbles. *Roger A. Chevalier & Ding Luo.* 421, 225, 18-G1 (1994)

X-Ray Enhancement of SN 1987A Due to Interaction with Its Ringlike Nebula. *Kuniaki Masai & Ken'ichi Nomoto.* 424, 924, 76-C3 (1994)

Nickel Bubble Instability and Mixing in SN 1987A. *Mikhail Basko.* 425, 264, 83-E5 (1994)

Silicon Monoxide in SN 1987A. *Weihong Liu & A. Dalgarno.* 428, 769, 139-G5 (1994)

Galactic Stars Applied to Tests of the Criterion for Convection and Semiconvection in an Inhomgeneous Star. *Richard B. Stothers & Chao-wen Chin.* 431, 797, 188-E6 (1994)

Energy Deposition and K-Shell Ionization of Supernovae. *Lih-Sin The, William T. Bridgman, & Donald D. Clayton.* 93, 531, 50-C3 (1994)

Ultraviolet Observations of SN 1987A with the *IUE* Satellite. *Chun S. J. Pun, Robert P. Kirshner, George Sonneborn, Peter Challis, George Nassiopoulos, Richard Arquilla, D. Michael Crenshaw, Chris Shrader, Terry Teays, Angelo Cassatella, Roberto Gilmozzi, Antonio Talavera, Willem Wamsteker, Claes Fransson, & Nino Panagia.* 99, 223, 37-B13 (1995)

The Oxygen Temperature of SN 1987A. *Weihong Liu & A. Dalgarno.* 454, 472, 305-G1 (1995)

Alphanumeric: SN 1988A

SN 1988A in M58: Departure from ^{56}Co Decay 700 Days after Explosion. *P. Ruiz-Lapuente, M. Kidger, G. Gómez, R. Canal, & R. López.* 378, L41, 162-E1 (1991)

Alphanumeric: SN 1990N

Premaximum Observations of the Type Ia SN 1990N. *Bruno Leibundgut, Robert P. Kirshner, Alexei V. Filippenko, Joseph C. Shields, Craig B. Foltz, Mark M. Phillips, & George Sonneborn.* 371, L23, 66-D1 (1991)

Possible Models for the Type Ia Supernova 1990N. *Toshikazu Shigeyama, Ken'ichi Nomoto, Hitoshi Yamaoka, & Friedrich-Karl Thielemann.* 386, L13, 29-C1 (1992)

Alphanumeric: SN 1991T

The Peculiar Type Ia SN 1991T: Detonation of a White Dwarf? *Alexei V. Filippenko, Michael W. Richmond, Thomas Matheson, Joseph C. Shields, E. Margaret Burbidge, Ross D. Cohen, Mark Dickinson, Matthew A. Malkan, Brant Nelson, Jochen Pietz, David Schlegel, Patrick Schmeer, Hyron Spinrad, Charles C. Steidel, Hien D. Tran, & William Wren.* 384, L15, 6-C1 (1992)

Alphanumeric: SR 3

Diffuse Band Profiles in the ρ Ophiuchi Cloud. *C. Gregory Seab & Theodore P. Snow, Jr.* 443, 698, 107-E1 (1995)

Alphanumeric: SS 433

Magnetic Focusing of Precessing Jets. *Christopher S. Kochanek.* 371, 289, 63-F7 (1991)

Constraints on the Physical Properties of Optical Bullets in SS 433. *John C. Brown, Joseph P. Cassinelli, & George W. Collins II.* 378, 307, 154-G1 (1991)

Spiral Shocks and Subday Variability in SS 433. *Sandip K. Chakrabarti & T. Matsuda.* 390, 639, 83-C1 (1992)

The Nature of the Doppler Shift Residuals and Some Peculiar Phenomena of SS 433. *T. Iijima.* 410, 295, 115-F10 (1993)

Interaction of a Jet with a Radiation Pressure–dominated Atmosphere: The Case of SS 433. *Nahum Arav & Mitchell C. Begelman.* 413, 700, 165-B8 (1993)

Search for Gamma-Ray Emission Lines from SS 433. II. 1980–1989. *B. J. Geldzahler & H. A. Geller.* 420, 655, 10-G9 (1994)

An Analysis of the Radial Velocity Residuals for Various Models of SS 433. *George W. Collins II & Christopher J. Garasi.* 431, 836, 189-B1 (1994)

Inertial Confinement of Astrophysical Jets. *W. Peter & D. Eichler.* 438, 244, 4-F11 (1995)

Alphanumeric: SVS 13

An Optical/Infrared Outburst in the Exciting Source of HH 7–11. *Jochen Eislöffel, Eike Günther, Frederic V. Hessman, Reinhard Mundt, Ralf Poetzel, John S. Carr, Steven Beckwith, & Tom P. Ray.* 383, L19, 219-C7 (1991)

Alphanumeric: 4U 0115+63

Phase Coherence for TeV/PeV Binary Sources. *D. A. Lewis, R. C. Lamb, & S. D. Biller.* 369, 479, 43-F4 (1991)

Search for TeV Emission from 4U 0115+63. *D. J. Macomb, M. F. Cawley, D. J. Fegan, A. M. Hillas, P. W. Kwok, R. C. Lamb, M. J. Lang, D. A. Lewis, P. T. Reynolds, G. Vacanti, & T. C. Weekes.* 376, 738, 135-D12 (1991)

Alphanumeric: 4U 0142+61

The Discovery of 8.7 Second Pulsations from the Ultrasoft X-Ray Source 4U 0142+61. *G. L. Israel, S. Mereghetti, & L. Stella.* 433, L25, 214-G5 (1994)

Alphanumeric: 4U 0614+09

Spectral Variations in the Low-Mass X-Ray Binary 4U 0614+09. *K. P. Singh & K. M. V. Apparao.* 431, 826, 189-A1 (1994)

EXOSAT Observations of the Low-Luminosity X-Ray Burster 4U 0614+091: Evidence for a Hard Power-Law Tail. *Didier Barret & Jonathan E. Grindlay.* 440, 841, 54-F6 (1995)

Alphanumeric: 4U 1538−52

Multimission Observations of 4U 1538−52. *L. R. Cominsky & F. Moraes.* 370, 670, 56-F10 (1991)

Alphanumeric: 4U 1608−52

Recurrence Times and Periodicities in 4U 1608−52 as Observed by *VELA 5B*. *James C. Lochner & Diane Roussel-Dupré.* 435, 840, 257-F1 (1994)

Alphanumeric: 4U 1626−67

Neon Line Emission in the X-Ray Spectrum of the Pulsar 4U 1626−67. *L. Angelini, N. E. White, F. Nagase, T. R. Kallman, A. Yoshida, T. Takeshima, C. Becker, & F. Paerels.* 449, L41, 216-F3 (1995)

Alphanumeric: 4U 1630−47

Periodic Outbursts from the Ultrasoft X-Ray Transient 4U 1630−47. *A. N. Parmar, L. Angelini, & N. E. White.* 452, L129, 280-C10 (1995)

Alphanumeric: 4U 1957+11

X-Ray Spectral Study of Two X-Ray Binaries: 4U 1957+11 and 2S 1543−624. *Kulinder P. Singh, Krishna M. V. Apparao, & Ralph P. Kraft.* 421, 753, 27-E9 (1994)

Alphanumeric: 4U 2206+54

EXOSAT Observations of the Be/X-Ray Binary 4U 2206+54. *Priyamvada Saraswat & Krishna M. V. Apparao.* 401, 678, 231-A1 (1992)

Alphanumeric: 4U/MXB 1820−30

Winds from Neutron Stars and Strong Type I X-Ray Bursts. *Luciano Nobili, Roberto Turolla, & Iosif Lapidus.* 433, 276, 211-F11 (1994)

Alphanumeric: WD 0552−041

Continuous Absorption by He_2^+ and H_2^+ in Cool White Dwarfs. *P. C. Stancil.* 430, 360, 163-F3 (1994)

Stellar Activity at the End of the Main Sequence: GHRS Observations of the M8 Ve Star VB 10. *Jeffrey L. Linsky, Brian E. Wood, Alexander Brown, Mark S. Giampapa, & Carol Ambruster.* 455, 670, 331-B10 (1995)

Alphanumeric: WD 0637+477

Discovery of a Sub-Megagauss Magnetic White Dwarf through Spectropolarimetry. *Gary D. Schmidt, H. S. Stockman, & Paul S. Smith.* 398, L57, 188-A7 (1992)

Alphanumeric: WD 0752−676

Continuous Absorption by He_2^+ and H_2^+ in Cool White Dwarfs. *P. C. Stancil.* 430, 360, 163-F3 (1994)

Alphanumeric: WD 0950+139

JHK Photometry of WD 0950+139. *Michael S. Fulbright & James Liebert.* 410, 275, 115-E1 (1993)

Alphanumeric: WD 1334+039

Continuous Absorption by He_2^+ and H_2^+ in Cool White Dwarfs. *P. C. Stancil.* 430, 360, 163-F3 (1994)

Alphanumeric: WDHS 1

A Very Hot, Hydrogen-rich, White Dwarf Planetary Nucleus. *James Liebert, P. Bergeron, & R. W. Tweedy.* 424, 817, 75-A3 (1994)

Alphanumeric: WGA J1047.1+6335

A New Magnetic Cataclysmic Variable: WGA J1047.1+6335. *K. P. Singh, P. Szkody, P. Barrett, N. E. White, E. Fierce, A. Silber, D. W. Hoard, P. J. Hakala, V. Piirola, & K. Sohl.* 453, L95, 298-F4 (1995)

Alphanumeric: WGA J1802.1+1804

Identification of the Soft X-Ray Source WGA J1802.1+1804 with a New Magnetic Cataclysmic Variable. *Paula Szkody, Andrew Silber, D. W. Hoard, E. Fierce, K. P. Singh, P. Barrett, E. Schlegel, & V. Piirola.* 455, L43, 325-A6 (1995)

Alphanumeric: WL 16

The 8–13 Micron Spectrum of the Young Stellar Object WL 16. *M. S. Hanner, A. T. Tokunaga, & T. R. Geballe.* 395, L111, 154-C12 (1992)

Alphanumeric: WR 6

The Structure of Wolf-Rayet Winds. I. Observation of Ionization Stratification in WR 6 and WR 111. *Regina E. Schulte-Ladbeck, Philippe R. J. Eenens, & Kevin Davis.* 454, 917, 314-D11 (1995)

Alphanumeric: WR 111

The Structure of Wolf-Rayet Winds. I. Observation of Ionization Stratification in WR 6 and WR 111. *Regina E. Schulte-Ladbeck, Philippe R. J. Eenens, & Kevin Davis.* 454, 917, 314-D11 (1995)

Alphanumeric: X1323−619

Discovery with the Sigma Telescope of Hard X-Rays from the Globular Cluster Terzan 2. *D. Barret, S. Mereghetti, J. P. Roques, P. Mandrou, L. Salotti, F. Lebrun, Ph. Laurent, J. Ballet, E. Churazov, M. Gifanov, R. Sunyaev, N. Khavenson, I. Chulkov, B. Novikov, A. Kuznetzov, & A. Dyachkov.* 379, L21, 169-C1 (1991)

Alphanumeric: X1822−371

Radiation Hydrodynamic Models of Eclipsing Low-Mass X-Ray Binaries. *Stephen D. Murray, D. Tod Woods, John I. Castor, Richard I. Klein, & Christopher F. McKee.* 454, L133, 316-D2 (1995)

Alphanumeric: X1850−087

X-Ray Spectrum and Time Variation of X1850−087 in the Globular Cluster NGC 6712. *Shunji Kitamoto, Hiroshi Tsunemi, & Diane Roussel-Dupre.* 391, 220, 88-F7 (1992)

Alphanumeric: XB 1916−053

Ginga Observations of the Dipping Low-Mass X-Ray Binaries XB 1916−053 and EXO 0748−676. *Alan P. Smale, Koji Mukai, O. Rees Williams, Mark H. Jones, & Robin H. D. Corbet.* 400, 330, 213-A10 (1992)

STARS: INTERIORS

Application of Oxygen-enhanced Evolutionary Sequences to the Horizontal Branch of M15. *Ben Dorman, Young-Wook Lee, & Don A. VandenBerg.* 366, 115, 2-D11 (1991)

Mixing Length and Opacity Effects: Deep Convective Envelopes on the Asymptotic Giant Branch. *I.-Juliana Sackmann & Arnold I. Boothroyd.* 366, 529, 9-E7 (1991)

Evolutionary Models of Halo Stars with Rotation. I. Evidence for Differential Rotation with Depth in Stars. *Marc H. Pinsonneault, Constantine P. Deliyannis, & Pierre Demarque.* 367, 239, 15-A12 (1991)

Cold Nuclear Fusion in Dense Metallic Hydrogen. *Charles J. Horowitz.* 367, 288, 15-E13 (1991)

Adiabatic Properties of Pulsating DA White Dwarfs. I. The Treatment of the Brunt-Väisälä Frequency and the Region of Period Formation. *P. Brassard, G. Fontaine, F. Wesemael, S. D. Kawaler, & M. Tassoul.* 367, 601, 20-F11 (1991)

Instabilities and Clumping in SN 1987A. I. Early Evolution in Two Dimensions. *Bruce Fryxell, Ewald Müller, & David Arnett.* 367, 619, 21-A5 (1991)

Neutron Star Thermal Evolution. *Kenneth A. Van Riper.* 75, 449, 6-G7 (1991)

Asteroseismology of White Dwarf Stars. I. Adiabatic Results. *P. A. Bradley & D. E. Winget.* 75, 463, 7-A13 (1991)

Numerical Simulations of Off-Center Detonations in Helium Shells. *Eli Livne & Ami S. Glasner.* 370, 272, 50-E12 (1991)

Turbulent Compressible Convection. *Fausto Cattaneo, Nicholas H. Brummell, Juri Toomre, Andrea Malagoli, & Neal E. Hurlburt.* 370, 282, 50-F10 (1991)

Stellar Turbulent Convection: A New Model and Applications. *V. M. Canuto & I. Mazzitelli.* 370, 295, 51-A1 (1991)

Helium Star Cataclysmics. *Icko Iben, Jr., & Alexander V. Tutukov.* 370, 615, 56-B5 (1991)

Meridional Circulation and Diffusion in A and Early F Stars. *Paul Charbonneau & Georges Michaud.* 370, 693, 57-A10 (1991)

Lithium in the Most Extreme Halo Stars; Trends with Metallicity. *Constantine P. Deliyannis & Pierre Demarque.* 370, L89, 59-E5 (1991)

He Stars and He-accreting CO White Dwarfs. *Marco Limongi & Amedeo Tornambè.* 371, 317, 64-A9 (1991)

Carbon Isotope Ratios along the Giant Branch of M67. *Kalpana Krishnaswamy Gilroy & Jeffery A. Brown.* 371, 578, 68-F7 (1991)

Diffusion and Mixing of Lithium and Helium in Population II Dwarfs. *Charles R. Proffitt & Georges Michaud.* 371, 584, 68-G1 (1991)

The Shock Process and Light-Element Production in Supernova Envelopes. *Lawrence E. Brown, David S. Dearborn, David N. Schramm, Jon T. Larsen, & Shin Kurokawa.* 371, 648, 69-F1 (1991)

s-Process Nucleosynthesis in Massive Stars and the Weak Component. II. Carbon Burning and Galactic Enrichment. *C. M. Raiteri, M. Busso, R. Gallino, & G. Picchio.* 371, 665, 69-G6 (1991)

How Much Hydrogen Is There in a White Dwarf? *James MacDonald & Stéphane Vennes.* 371, 719, 70-E1 (1991)

White Dwarf and Neutron Star Interior Solutions in the Nonsymmetric Gravitational Theory. *L. M. Campbell, J. W. Moffat, & P. Savaria.* 372, 241, 77-A1 (1991)

Steady State Energy Sources in Neutron Stars. *Kenneth A. Van Riper.* 372, 251, 77-A13 (1991)

The Isolated Massive DA White Dwarf GD 50. *P. Bergeron, K. M. Kidder, J. B. Holberg, James Liebert, F. Wesemael, & Rex A. Saffer.* 372, 267, 77-C5 (1991)

Qualitative Explanations of Red Giant Formation. *R. Bhaskar & Anil Nigam.* 372, 592, 83-A10 (1991)

The Lithium Abundance of M67 Blue Stragglers: A Constraint on the Blue Straggler Phenomenon. *C. J. Pritchet & J. W. Glaspey.* 373, 105, 87-C12 (1991)

Analysis of Radiation Pressure Effects in Pulsating Stars through Perturbative Limit Cycle Solutions. *A. Costa, D. Gómez, & C. Ferro Fontán.* 373, 237, 88-G13 (1991)

Double Core Evolution. IV. The Late Stages of Evolution of a 2 $M_{\odot}$ Red Giant with a 1 $M_{\odot}$ Companion. *Ronald E. Taam & Peter Bodenheimer.* 373, 246, 89-A10 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

Stellar Evolutionary Models from the Zero-Age Main Sequence to the First Thermal Pulse. *John C. Lattanzio.* 76, 215, 27-B9 (1991)

Structure and Stability of Rotating Relativistic Neutron Stars. *F. Weber, N. K. Glendenning, & M. K. Weigel.* 373, 579, 95-B10 (1991)

Ionization by High-Energy Particles and the Electron Scattering Opacity in Supernovae. *Douglas A. Swartz.* 373, 604, 95-D11 (1991)

Model Light Curves of Linear Type II Supernovae. *Douglas A. Swartz, J. Craig Wheeler, & Robert P. Harkness.* 374, 266, 101-D7 (1991)

Blue Loops during Core Helium Burning as the Consequence of Moderate Convective Envelope Overshooting in Stars of Intermediate to High Mass. *Richard B. Stothers & Chao-wen Chin.* 374, 288, 101-F3 (1991)

Shell Helium Burning in Low-Mass Stars. I. Models in Thermal Equilibrium. *Masayuki Y. Fujimoto & Icko Iben, Jr.* 374, 631, 107-A1 (1991)

Thermonuclear Reactions in Dense Stellar Matter: Electron Screening Revisited. *Setsuo Ichimaru & Shuji Ogata.* 374, 647, 107-B5 (1991)

Hydrodynamic Pulsation Models of Yellow Supergiant Stars in the Post-Asymptotic Giant Branch. *Toshiki Aikawa.* 374, 700, 107-F13 (1991)

The Stretching of Magnetic Flux Tubes in the Convective Overshoot Region. *George H. Fisher, Alexander N. McClymont, & Dean-Yi Chou.* 374, 766, 108-E10 (1991)

Isochrones for H-burning Globular Cluster Stars. II. The Metallicity Range $-2.3 < [Fe/H] < -0.5$. *Oscar Straniero & Alessandro Chieffi.* 76, 525, 32-D1 (1991)

The Evolution of Intermediate-Mass Protostars. I. Basic Results. *Francesco Palla & Steven W. Stahler.* 375, 288, 114-E1 (1991)

Rotational Evolution of Solar-Type Stars. I. Main-Sequence Evolution. *K. B. MacGregor & M. Brenner.* 376, 204, 127-D13 (1991)

The Effects of Thermal Radiation on Some General Relativistic Stellar Models. *J. M. Aguirregabiria, J. Ibáñez, A. Di Prisco, & L. Herrera.* 376, 662, 134-E8 (1991)

The RRd Masses Revisited. *Norman R. Simon & Arthur N. Cox.* 376, 717, 135-C1 (1991)

Li Depletion in F Stars by Internal Gravity Waves. *Ramón J. García López & Hendrik C. Spruit.* 377, 268, 141-C7 (1991)

Lithium Abundances in Carbon Stars. *Grant R. Denn, R. Earle Luck, & David L. Lambert.* 377, 657, 147-G5 (1991)

Neutrino-heated Stars and Broad-Line Emission from Active Galactic Nuclei. *James MacDonald, Todor Stanev, & Peter L. Biermann.* 378, 30, 151-D4 (1991)

Discovery and Seismological Interpretation of Low-Amplitude Modes in the Pulsating DO White Dwarf PG 1707+427 (V817 Herculis). *G. Fontaine, P. Bergeron, G. Vauclair, P. Brassard, F. Wesemael, S. D. Kawaler, A. D. Grauer, & D. E. Winget.* 378, L49, 162-F1 (1991)

Lithium in Halo Stars: Constraining the Effects of Helium Diffusion on Globular Cluster Ages and Cosmology. *Constantine P. Deliyannis & Pierre Demarque.* 379, 216, 165-F7 (1991)

On the Sodium Excess in the Atmospheres of Yellow Supergiants. *N. Prantzos, A. Coc, & J. P. Thibaud.* 379, 729, 173-G1 (1991)

High-Mass Stars with Degenerate Neutron Cores. *Garrett T. Biehle.* 380, 167, 178-B9 (1991)

The Galactic Globular Cluster System: Theoretical Constraints for α-enhanced Compositions. *D. Bencivenni, F. Caputo, M. Manteiga, & M. L. Quarta.* 380, 484, 184-C1 (1991)

Three-dimensional Compressible Hydrodynamic Convection in the Sun and Stars. *Murshed Hossain & D. J. Mullan.* 380, 631, 186-A10 (1991)

Evolutionary Sequences of Stellar Models of Intermediate and High Mass Including Convective Core Overshooting. *Chao-wen Chin & Richard B. Stothers.* 77, 299, 48-C1 (1991)

On Equation of State Interpolation Errors in Stellar Interior Calculations. *Ben Dorman, Alan W. Irwin, & Brian B. Pedersen.* 381, 228, 191-G4 (1991)

Advanced Evolutionary Phases of Large-Metallicity Low-Mass Stars and the Problem of the Ultraviolet Excess of Elliptical Galaxies. *Marco Castellani & Amedeo Tornambè.* 381, 393, 195-E9 (1991)

Soft X-Ray Pulses from Neutron Star Glitches. *Kenneth A. Van Riper, Richard I. Epstein, & Guy S. Miller.* 381, L47, 199-C1 (1991)

Metal Opacities and Convective Core Overshooting in Population I Stars. *Richard B. Stothers & Chao-wen Chin.* 381, L67, 199-E7 (1991)
Rayleigh-Taylor Instability in the Asymmetric Supernova Explosion. *Shoichi Yamada & Katsuhiko Sato.* 382, 594, 208-G12 (1991)
Massive Star Evolution and SN 1987A. *David Arnett.* 383, 295, 215-G8 (1991)
Effects of Negatively Charged Massive Particles on Primordial Stars. *R. N. Boyd & G. M. Fuller.* 383, 615, 221-G12 (1991)
A Conjecture Regarding the Evolution of Dwarf Stars into Red Giants. *P. P. Eggleton & R. C. Cannon.* 383, 757, 223-E12 (1991)
Effects of Drag Luminosity in the Common Envelope Phase of Slow Novae. *Mariko Kato & Izumi Hachisu.* 383, 761, 223-F3 (1991)
Post–Asymptotic Giant Branch Nonradial Instability Strips. *Letizia Stanghellini, Arthur N. Cox, & Sumner Starrfield.* 383, 766, 223-F10 (1991)
Observational Tests of Convective Core Overshooting in Stars of Intermediate to High Mass in the Galaxy. *Richard B. Stothers.* 383, 820, 224-D8 (1991)
Implications of Helium Diffusion for Globular Cluster Isochrones and Luminosity Functions. *Charles R. Proffitt & Don A. VandenBerg.* 77, 473, 51-C10 (1991)
Thermal Structure of Neutron Stars with Very Low Accretion Rates. *J. L. Zdunik, P. Haensel, B. Paczyński, & J. Miralda-Escudé.* 384, 129, 2-E12 (1992)
Evolutionary Models of Halo Stars with Rotation. II. Effects of Metallicity on Lithium Depletion, and Possible Implications for the Primordial Lithium Abundance. *M. H. Pinsonneault, Constantine P. Deliyannis, & P. Demarque.* 78, 179, 4-B3 (1992)
Two-Component Gravitating Systems and Red Giant–like Structure. *Masayuki Y. Fujimoto & Kohji Tomisaka.* 385, 445, 18-F10 (1992)
The Frequencies of Supernovae in Binaries. *Alexander V. Tutukov, Lev R. Yungelson, & Icko Iben, Jr.* 386, 197, 26-E9 (1992)
The Structure and Evolution of Thorne-Żytkow Objects. *R. C. Cannon, P. P. Eggleton, A. N. Żytkow, & P. Podsiadlowski.* 386, 206, 26-F5 (1992)
The Evolution through H and He Burning of Galactic Cluster Stars. *Vittorio Castellani, Alessandro Chieffi, & Oscar Straniero.* 78, 517, 9-G11 (1992)
s-Processing in Massive Stars as a Function of Metallicity and Interpretation of Observational Trends. *C. M. Raiteri, R. Gallino, & M. Busso.* 387, 263, 40-C1 (1992)
Postexplosion Hydrodynamics of SN 1987A. *Marc Herant & Willy Benz.* 387, 294, 40-E9 (1992)
Angular Momentum Transport in Magnetized Stellar Radiative Zones. I. Numerical Solutions to the Core Spin-up Model Problem. *P. Charbonneau & K. B. MacGregor.* 387, 639, 46-E11 (1992)
Effects of Fe/C Phase Separation on the Ages of White Dwarfs. *Z. W. Xu & H. M. Van Horn.* 387, 662, 47-A1 (1992)
Carbon, Nitrogen, and Oxygen Abundances in Early B-Type Stars. *Douglas R. Gies & David L. Lambert.* 387, 673, 47-B1 (1992)
The Effect of Helium Diffusion on the Ages of Globular Clusters. *Brian Chaboyer, Constantine P. Deliyannis, Pierre Demarque, M. H. Pinsonneault, & Ata Sarajedini.* 388, 372, 55-A6 (1992)
The Contribution of Advanced Post-Hayashi Track Evolutionary Phases to the Ultraviolet Light of Elliptical Galaxies. *Marco Castellani, Marco Limongi, & Amedeo Tornambè.* 389, 227, 62-G1 (1992)
On the Interior Structure of Contact Binaries and the Light-Curve Paradox. *Jean-Louis Tassoul.* 389, 375, 64-E9 (1992)
Further Improvements of a New Model for Turbulent Convection in Stars. *V. M. Canuto & I. Mazzitelli.* 389, 724, 70-D1 (1992)
Downflows and Entropy Gradient Reversal in Deep Convection. *Kwing L. Chan & Detlef Gigas.* 389, L87, 73-F3 (1992)
Radiative Atomic Rosseland Mean Opacity Tables. *Forrest J. Rogers & Carlos A. Iglesias.* 79, 507, 20-G11 (1992)
Mixing in Ejecta of Supernovae. I. General Properties of Two-dimensional Rayleigh-Taylor Instabilities and Mixing Width in Ejecta of Supernovae. *Izumi Hachisu, Takuya Matsuda, Ken'ichi Nomoto, & Toshikazu Shigeyama.* 390, 230, 76-G7 (1992)
Criterion for Convection in an Inhomogeneous Star. *Richard B. Stothers & Chao-wen Chin.* 390, L33, 78-E9 (1992)
Adiabatic Properties of Pulsating DA White Dwarfs. II. Mode Trapping in Compositionally Stratified Models. *P. Brassard, G. Fontaine, F. Wesemael, & C. J. Hansen.* 80, 369, 27-E3 (1992)
Oxygen-enhanced Models for Globular Cluster Stars. I. Evolutionary Tracks. *Don A. VandenBerg.* 391, 685, 96-E5 (1992)
Turbulent Convection with Overshooting: Reynolds Stress Approach. *V. M. Canuto.* 392, 218, 103-F1 (1992)
Setting the Clock of Stellar Models. *G. Bertelli, A. Bressan, & C. Chiosi.* 392, 522, 108-F13 (1992)
Dynamo Action in Stratified Convection with Overshoot. *Åke Nordlund, Axel Brandenburg, Richard L. Jennings, Michel Rieutord, Juha Ruokolainen, Robert F. Stein, & Ilkka Tuominen.* 392, 647, 110-C6 (1992)
The Evolution of Intermediate-Mass Protostars. II. Influence of the Accretion Flow. *Francesco Palla & Steven W. Stahler.* 392, 667, 110-E5 (1992)
Upper Limit to the Mass of Pulsationally Stable Stars with Uniform Chemical Composition. *Richard B. Stothers.* 392, 706, 111-A7 (1992)
The Structure of Horizontal-Branch Models. I. The Zero-Age Horizontal Branch. *Ben Dorman.* 80, 701, 33-B5 (1992)
The Formation of Primordial Degenerate Protostars. *Paolo Lenzuni, David F. Chernoff, & Edwin E. Salpeter.* 393, 232, 117-A11 (1992)
Minimum Mass for D and H Burning during Slow Accretion. *E. E. Salpeter.* 393, 258, 117-C12 (1992)
Tidal Disruption of a Star by a Massive Disk (The Axisymmetric Roche Problem). *John W. Woodward, Srivaths Sankaran, & Joel E. Tohline.* 394, 248, 131-B1 (1992)
Self-consistent Models of Wolf-Rayet Stars as Helium Stars with Optically Thick Winds. *Mariko Kato & Icko Iben, Jr.* 394, 305, 131-F13 (1992)
Evolutionary Models and the *p*-Mode Oscillation Spectrum of α Centauri A and B. *Peter Edmonds, Lawrence Cram, Pierre Demarque, D. B. Guenther, & Marc H. Pinsonneault.* 394, 313, 131-G9 (1992)
Oxygen-enhanced Models for Globular Cluster Stars. II. Isochrones and Luminosity Functions. *Peter A. Bergbusch & Don A. VandenBerg.* 81, 163, 37-C11 (1992)
Oxygen-enhanced Models for Globular Cluster Stars. III. Horizontal-Branch Sequences. *Ben Dorman.* 81, 221, 38-A3 (1992)
Models of White Dwarfs Distorted by Differential Rotation and Magnetic Fields. *V. S. Geroyannis & A. A. Hadjopoulos.* 81, 377, 40-B13 (1992)
Light-Curve Analysis of Classical Novae. *Mariko Kato & Icko Iben, Jr.* 394, L47, 139-C7 (1992)
A Comparative Study of Synchronization and Circularization in Close Binaries. *Jean-Louis Tassoul & Monique Tassoul.* 395, 259, 143-D1 (1992)
On the Efficiency of Ekman Pumping for Synchronization in Close Binaries. *Monique Tassoul & Jean-Louis Tassoul.* 395, 604, 150-E5 (1992)
Field Theoretical Model for Nuclear and Neutron Matter. V. Slowly Rotating Warm Cores in Neutron Stars. *José V. Romero, J. Díaz Alonso, José M^{a}. Ibáñez, Juan A. Miralles, & Armando Pérez.* 395, 612, 150-F5 (1992)
Neutrino Energy Loss in Stellar Interiors. IV. Plasma Neutrino Process for Strongly Degenerate Electrons. *Naoki Itoh, Haruhiko Mutoh, Atsushi Hikita, & Yasuharu Kohyama.* 395, 622, 150-G5 (1992)
Adiabatic Properties of Pulsating DA White Dwarfs. IV. An Extensive Survey of the Period Structure of Evolutionary Models. *P. Brassard, G. Fontaine, F. Wesemael, & M. Tassoul.* 81, 747, 45-D3 (1992)
Solar Spin-down with Internal Magnetic Fields. *P. Charbonneau & K. B. MacGregor.* 397, L63, 174-A3 (1992)
A Formulation of Convection for Stellar Structure and Evolution Calculations without the Mixing-Length Theory Approximations. I. Application to the Sun. *Thomas Joseph Lydon, Peter A. Fox, & Sabatino Sofia.* 397, 701, 179-G3 (1992)
Spin-Orbit Interaction Effects on the Rosseland Mean Opacity. *Carlos A. Iglesias, Forrest J. Rogers, & Brian G. Wilson.* 397, 717, 180-A7 (1992)
Relativistic Two-Moment Neutrino Transport. *J. Cernohorsky & Ch. G. van Weert.* 398, 190, 184-C1 (1992)
Coalescing Binary Neutron Stars. *Christopher S. Kochanek.* 398, 234, 184-F7 (1992)
The Quasi-static Evolution of ONeMg Cores: Explosive Ignition Densities and the Collapse/Explosion Alternative. *Ramon Canal, Jordi Isern, & Javier Labay.* 398, L49, 187-G7 (1992)
Determining the Nuclear Equation of State from Neutron-Star Masses and Radii. *Lee Lindblom.* 398, 569, 191-C1 (1992)
Excitation of Gravity Waves in Common Envelopes. *Noam Soker.* 399, 185, 197-E3 (1992)
Implications of $^3P_2$ Superfluidity in the Interior of Neutron Stars. *H. F. Chau, K. S. Cheng, & K. Y. Ding.* 399, 213, 197-G9 (1992)
Nucleosynthesis and Mixing on the Asymptotic Giant Branch. I. MS and S Stars with and without Tc. *M. Busso, R. Gallino, D. L. Lambert, C. M. Raiteri, & V. V. Smith.* 399, 218, 198-A1 (1992)
On Nonlinear Radial Oscillations in Convective RR Lyrae Stars. I. The Mathematical Description. *Michael Gehmeyr.* 399, 265, 198-E1 (1992)

On Nonlinear Radial Oscillations in Convective RR Lyrae Stars. II. Comparison of a Radiative and a Convective Model. *Michael Gehmeyr.* 399, 272, 198-E11 (1992)

The Case of G226-29: Evidence for a Pulsating DA White Dwarf with a Thick Hydrogen Layer? *G. Fontaine, P. Brassard, P. Bergeron, & F. Wesemael.* 399, L91, 201-C13 (1992)

Constraints on Element Mixing in Classical Novae. *Masayuki Y. Fujimoto & Icko Iben, Jr.* 399, 646, 206-A1 (1992)

Why Stars Inflate to and Deflate from Red Giant Dimensions. *Alvio Renzini, Laura Greggio, Claudio Ritossa, & Lilia Ferrario.* 400, 280, 212-D8 (1992)

Nuclear Solid Crust on Rotating Strange Quark Stars. *N. K. Glendenning & F. Weber.* 400, 647, 218-D11 (1992)

Rosseland Mean Opacities for Variable Compositions. *Forrest J. Rogers & Carlos A. Iglesias.* 401, 361, 225-E1 (1992)

Superfluid Vortex Creep and Rotational Dynamics of Neutron Stars. *Bennett Link, Richard I. Epstein, & Gordon Baym.* 403, 285, 17-D7 (1993)

Luminosity Functions for Very Low Mass Stars and Brown Dwarfs. *Gregory Laughlin & Peter Bodenheimer.* 403, 303, 17-E13 (1993)

A Study of Metal Abundance Patterns in Cool White Dwarfs. II. Simulations of Accretion Episodes. *J. Dupuis, G. Fontaine, C. Pelletier, & F. Wesemael.* 84, 73, 2-B5 (1993)

Decrease of Gravitational Mass Due to Neutrino Emission and Shock Revival in Supernovae. *Itzhak Goldman & Shmuel Nussinov.* 403, 706, 24-D13 (1993)

Improved Solar Models Constructed with a Formulation of Convection for Stellar Structure and Evolution Calculations without the Mixing-Length Theory Approximations. *Thomas Joseph Lydon, Peter A. Fox, & Sabatino Sofia.* 403, L79, 27-E8 (1993)

Stellar Models and the Brightening of P Cygni. *Mounib F. El Eid & Dieter H. Hartmann.* 404, 271, 31-C5 (1993)

Evidence for Processed Material in the Atmospheres of Large Magellanic Cloud B Supergiants. *Edward L. Fitzpatrick & Bruce Bohannan.* 404, 734, 38-B1 (1993)

Evolution and Seismology of Procyon. *D. B. Guenther & P. Demarque.* 405, 298, 44-G6 (1993)

Type II Supernovae and Boltzmann Neutrino Transport: The Infall Phase. *Anthony Mezzacappa & Stephen W. Bruenn.* 405, 637, 51-B1 (1993)

A Numerical Method for Solving the Neutrino Boltzmann Equation Coupled to Spherically Symmetric Stellar Core Collapse. *Anthony Mezzacappa & Stephen W. Bruenn.* 405, 669, 51-D7 (1993)

Particle Transport and the λ Bootis Phenomenon. I. The Diffusion/Mass-Loss Model Revisited. *P. Charbonneau.* 405, 720, 52-A9 (1993)

Large-Eddy Simulations of Compressible Convection on Massively Parallel Computers. *Xin Xie & Juri Toomre.* 405, 747, 52-D1 (1993)

An Expanded Set of Brown Dwarf and Very Low Mass Star Models. *A. Burrows, W. B. Hubbard, D. Saumon, & J. I. Lunine.* 406, 158, 57-B1 (1993)

A Model for the Dramatic Decline of FG Sagittae. *Icko Iben, Jr., & Mario Livio.* 406, L15, 60-F8 (1993)

Hydrodynamical Simulations of Rotating Stars. I. A Model for Subgrid-Scale Flow. *Maurice J. Clement.* 406, 651, 66-A3 (1993)

The Potential for Asteroseismology of DB White Dwarf Stars. *P. A. Bradley, D. E. Winget, & M. A. Wood.* 406, 661, 66-B1 (1993)

A Theory of Nonlocal Mixing-Length Convection. I. The Moment Formalism. *Scott A. Grossman, Ramesh Narayan, & David Arnett.* 407, 284, 72-F1 (1993)

On the Generation of Sound by Turbulent Convection. I. A Numerical Experiment. *Thomas J. Bogdan, Fausto Cattaneo, & Andrea Malagoli.* 407, 316, 73-A7 (1993)

Mass Loss in Globular Cluster Red Giants: An Evolutionary Investigation. *M. Castellani & V. Castellani.* 407, 649, 78-F1 (1993)

Thermal Evolution of Neutron Stars with Internal Frictional Heating. *Hideyuki Umeda, Noriaki Shibazaki, Ken'ichi Nomoto, & Sachiko Tsuruta.* 408, 186, 85-D7 (1993)

Neutron Star Dynamos and the Origins of Pulsar Magnetism. *Christopher Thompson & Robert C. Duncan.* 408, 194, 85-E4 (1993)

Unstable Degenerates Revisited. *John Faulkner.* 408, 600, 92-F5 (1993)

On Partial Mixing Zones in Horizontal-Branch Stellar Cores. *Ben Dorman & Robert T. Rood.* 409, 387, 101-G3 (1993)

Energy Generation in Convective Shells of Low-Mass, Low-Metallicity Asymptotic Giant Branch Stars. *Grant Bazan & John C. Lattanzio.* 409, 762, 108-E6 (1993)

Theoretical Models for Massive Stars in Young Magellanic Cloud Stellar Clusters. *Enzo Brocato & Vittorio Castellani.* 410, 99, 113-D1 (1993)

Search for Ionized Cores in Proto–Planetary Nebulae, and the Asymptotic Giant Branch to Planetary Nebula Transition. *Hans Ulrich Käufl, Alvio Renzini, & Letizia Stanghellini.* 410, 251, 115-C1 (1993)

Stellar Core Collapse: A Boltzmann Treatment of Neutrino-Electron Scattering. *Anthony Mezzacappa & Stephen W. Bruenn.* 410, 740, 123-A7 (1993)

Theoretical Models of Cepheid Variables and Their BVI_C Colors and Magnitudes. *C. Chiosi, P. R. Wood, & N. Capitanio.* 86, 541, 21-E11 (1993)

Sub–Giant Branch Evolution and Efficient Central Energy Transport. *John Faulkner & Fritz J. Swenson.* 411, 200, 129-F3 (1993)

Spectra of Low-Mass Helium Star Models and the Type Ic Supernova SN 1987M. *Douglas A. Swartz, Alexei V. Filippenko, Ken'ichi Nomoto, & J. Craig Wheeler.* 411, 313, 131-B8 (1993)

Convection and Neutrino Emission in the Late Stages of Massive Star Evolution. *Maurice B. Aufderheide.* 411, 813, 140-A1 (1993)

The Evolution of Massive Stars Including Mass Loss: Presupernova Models and Explosion. *S. E. Woosley, Norbert Langer, & Thomas A. Weaver.* 411, 823, 140-A14 (1993)

Radiative Accelerations on Iron Using Opacity Project Data. *G. Alecian, G. Michaud, & J. Tully.* 411, 882, 140-G1 (1993)

SN 1987A: An Empirical and Analytic Approach. *Hans A. Bethe.* 412, 192, 144-D11 (1993)

Iron and Molecular Opacities and the Evolution of Population I Stars. *Richard B. Stothers & Chao-wen Chin.* 412, 294, 145-F13 (1993)

Collisions and Close Encounters between Massive Main-Sequence Stars. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 412, 593, 151-B7 (1993)

Radiative Opacities for Carbon- and Oxygen-rich Mixtures. *Carlos A. Iglesias & Forrest J. Rogers.* 412, 752, 153-B8 (1993)

On the Li and Be Tests for Brown Dwarfs. *L. A. Nelson, S. Rappaport, & E. Chiang.* 413, 364, 160-G1 (1993)

Particle Transport and the λ Bootis Phenomenon. II. An Accretion/Diffusion Model. *S. Turcotte & P. Charbonneau.* 413, 376, 161-A3 (1993)

A Formulation of Convection for Stellar Structure and Evolution Calculations without the Mixing-Length Theory Approximations. II. Application to α Centauri A and B. *Thomas Joseph Lydon, Peter A. Fox, & Sabatino Sofia.* 413, 390, 161-B6 (1993)

Evolution of Low- and Intermediate-Mass Stars to the End of the Asymptotic Giant Branch with Mass Loss. *E. Vassiliadis & P. R. Wood.* 413, 641, 164-D11 (1993)

Thermal Evolution of Neutron Stars with Internal Heating in the Superfluid Core. *Armen D. Sedrakian & David M. Sedrakian.* 413, 658, 164-F1 (1993)

CNO Abundances and the Evolutionary Status of Three A-Type Supergiants. *Kim A. Venn.* 414, 316, 174-A1 (1993)

The α-enhanced Isochrones and Their Impact on the Fits to the Galactic Globular Cluster System. *Maurizio Salaris, Alessandro Chieffi, & Oscar Straniero.* 414, 580, 178-D10 (1993)

The QCD Phase Transition and Supernova Core Collapse. *N. A. Gentile, M. B. Aufderheide, G. J. Mathews, F. D. Swesty, & G. M. Fuller.* 414, 701, 180-A3 (1993)

An Analytical Model for the Plateau Stage of Type II Supernovae. *D. V. Popov.* 414, 712, 180-B3 (1993)

A Hydrodynamical Model for the Explosion of a Neutron Star Just below the Minimum Mass. *Monica Colpi, Stuart L. Shapiro, & Saul A. Teukolsky.* 414, 717, 180-B10 (1993)

Reaction Rates of the *s*-Process Neutron Sources ^{22}Ne(α, n)^{25}Mg and ^{13}C(α, n)^{16}O. *H. W. Drotleff, A. Denker, H. Knee, M. Soiné, G. Wolf, J. W. Hammer, U. Greife, C. Rolfs, & H. P. Trautvetter.* 414, 735, 180-D3 (1993)

Type II Supernovae from 8–10 $M_\odot$ Asymptotic Giant Branch Stars. *Masaaki Hashimoto, Kohichi Iwamoto, & Ken'ichi Nomoto.* 414, L105, 186-A1 (1993)

Vortex Pinning by Quenched Randomness in Neutron Stars. *Eric Chevalier.* 414, L113, 186-A13 (1993)

Neutrino Energy Loss in Stellar Interiors. V. Recombination Neutrino Process. *Yasuharu Kohyama, Naoki Itoh, Akihiko Obama, & Haruhiko Mutoh.* 415, 267, 188-C9 (1993)

Convection above the Neutrinosphere in Type II Supernovae. *D. S. Miller, J. R. Wilson, & R. W. Mayle.* 415, 278, 188-D12 (1993)

Neutrino Emission from the Bubble Phase of Stellar Nuclear Matter. *L. B. Leinson.* 415, 759, 197-C8 (1993)

On Why Intermediate-Mass Stars Become Giants after the Exhaustion of Hydrogen in Their Cores. *Icko Iben, Jr.* 415, 767, 197-D5 (1993)

Diffusion of Lithium and Beryllium in Evolving, Nonrotating Main-Sequence A and F Stars. *Jacques Richer & Georges Michaud.* 416, 312, 205-A5 (1993)

Turbulent Convection with Overshooting: Reynolds Stress Approach. II. *V. M. Canuto.* 416, 331, 205-B12 (1993)

Simulation of Compressible Convection: A Comparative Study of Boundary Conditions. *Murshed Hossain & D. J. Mullan.* 416, 733, 212-E1 (1993)

Prevention of High-Luminosity Carbon Stars by Hot Bottom Burning. *Arnold I. Boothroyd, I.-Juliana Sackmann, & Sean C. Ahern.* 416, 762, 212-G6 (1993)

An Evolutionary Scenario for Primeval Stellar Populations. *Santi Cassisi & Vittorio Castellani.* 88, 509, 47-B1 (1993)

Cooling and Spin-down of Pulsars with Evolving Rotating Equilibrium Configuration. II. Effects of Equations of State. *N. Chong & K. S. Cheng.* 417, 279, 221-A3 (1993)

Angular Momentum Transfer by Tidally Forced Oscillations in Massive Main-Sequence Stars. *Umin Lee.* 417, 697, 228-A13 (1993)

Angular Momentum Transport in Magnetized Stellar Radiative Zones. II. The Solar Spin-down. *P. Charbonneau & K. B. MacGregor.* 417, 762, 228-G13 (1993)

Formation and Evolution of Binary Planetary Nebula Nuclei and Related Objects. *Icko Iben, Jr., & Alexander V. Tutukov.* 418, 343, 235-C12 (1993)

The Pre–Main-Sequence Evolution of Intermediate-Mass Stars. *Francesco Palla & Steven W. Stahler.* 418, 414, 236-B10 (1993)

An Improved Numerical Method for Nonadiabatic Nonradial Oscillations: An Application to White Dwarf Stars. *Umin Lee & P. A. Bradley.* 418, 855, 243-C1 (1993)

Preservation of the Supernova Shock. *Hans A. Bethe.* 419, 197, 248-E14 (1993)

The Weak *s*-Component and Nucleosynthesis in Massive Stars. *C. M. Raiteri, R. Gallino, M. Busso, D. Neuberger, & F. Käppeler.* 419, 207, 248-G1 (1993)

Compressible Convection with Ionization. I. Stability, Flow Asymmetries, and Energy Transport. *Mark P. Rast & Juri Toomre.* 419, 224, 249-A6 (1993)

Compressible Convection with Ionization. II. Thermal Boundary-Layer Instability. *Mark P. Rast & Juri Toomre.* 419, 240, 249-B10 (1993)

On the Formation of O-Ne White Dwarfs in Metal-rich Close Binary Systems. *Inma Dominguez, Amedeo Tornambè, & Jordi Isern.* 419, 268, 249-E1 (1993)

The Evolution of Accreting Stars with Turbulent Mixing. *M. Y. Fujimoto.* 419, 768, 257-B13 (1993)

A Theory of Nonlocal Mixing-Length Convection. II. Generalized Smoothed Particle Hydrodynamics Simulations. *Scott A. Grossman & Ramesh Narayan.* 89, 361, 54-E1 (1993)

Theoretical Light Curves of Type IIb Supernova 1993J. *Toshikazu Shigeyama, Tomoharu Suzuki, Shiomi Kumagai, Ken'ichi Nomoto, Hideyuki Saio, & Hitoshi Yamaoka.* 420, 341, 5-B5 (1994)

The Conductive Propagation of Nuclear Flames. II. Convectively Bounded Flames in C+O and O+Ne+Mg Cores. *F. X. Timmes, S. E. Woosley, & Ronald E. Taam.* 420, 348, 5-B13 (1994)

Observational Prospects for Massive Stars with Degenerate Neutron Cores. *Garrett T. Biehle.* 420, 364, 5-D6 (1994)

Differential Rotation and the Convective Core Mass of Upper Main-Sequence Stars. *Maurice J. Clement.* 420, 797, 12-G3 (1994)

Comparative Pulsation Calculations with OP and Opal Opacities. *Shashi M. Kanbur & Norman R. Simon.* 420, 880, 13-G5 (1994)

Hot or Not? Theoretical Blue Edges for DA and DB White Dwarf Models. *P. A. Bradley & D. E. Winget.* 421, 236, 19-A1 (1994)

Penetration below a Convection Zone. *Neal E. Hurlburt, Juri Toomre, Josep M. Massaguer, & Jean-Paul Zahn.* 421, 245, 19-A12 (1994)

New Pre–Main-Sequence Tracks for $M \leq 2.5 M\odot$ as Tests of Opacities and Convection Model. *Francesca D'Antona & Italo Mazzitelli.* 90, 467, 8-D14 (1994)

An Iterative Technique for Computing Rotating White Dwarf Models. *V. S. Geroyannis & P. J. Papasotiriou.* 90, 501, 9-A9 (1994)

Element Diffusion in the Solar Interior. *Anne A. Thoul, John N. Bahcall, & Abraham Loeb.* 421, 828, 28-E3 (1994)

More Missing Stellar Opacity? *Richard B. Stothers & Chao-wen Chin.* 421, L91, 29-F9 (1994)

Relativistic Equation of State of Nuclear Matter for the Supernova Explosion and the Birth of Neutron Stars. *K. Sumiyoshi & H. Toki.* 422, 700, 40-E7 (1994)

The Classical Hyades Lithium Problem Resolved? *Fritz J. Swenson, John Faulkner, Carlos A. Iglesias, Forrest J. Rogers, & David R. Alexander.* 422, L79, 45-B6 (1994)

Cooling White Dwarfs in Galactic Globulars. *V. Castellani, S. Degl'Innocenti, & M. Romaniello.* 423, 266, 49-D1 (1994)

Sub–Chandrasekhar Mass Models for Type Ia Supernovae. *S. E. Woosley & Thomas A. Weaver.* 423, 371, 50-F10 (1994)

Mass Loss during the RR Lyrae Phase of the Horizontal Branch: Mass Dispersion on the Horizontal Branch and RR Lyrae Period Changes. *Rebecca A. Koopmann, Young-Wook Lee, Pierre Demarque, & Jamie M. Howard.* 423, 380, 50-G7 (1994)

A New Urca Process. *Maurice B. Aufderheide, Ikko Fushiki, George M. Fuller, & Thomas A. Weaver.* 424, 257, 65-B1 (1994)

Accretion onto a 1.4 $M_\odot$ White Dwarf: Classical Nova, Recurrent Nova, or Supernova? *Attay Kovetz & Dina Prialnik.* 424, 319, 65-G1 (1994)

Search for Important Weak Interaction Nuclei in Presupernova Evolution. *Maurice B. Aufderheide, Ikko Fushiki, Stanford E. Woosley, & Dieter H. Hartmann.* 91, 389, 23-F3 (1994)

Neutron Star Moments of Inertia. *D. G. Ravenhall & C. J. Pethick.* 424, 846, 75-C8 (1994)

Standard and Nonstandard Plasma Neutrino Emission Revisited. *Martin Haft, Georg Raffelt, & Achim Weiss.* 425, 222, 83-A8 (1994)

Nickel Bubble Instability and Mixing in SN 1987A. *Mikhail Basko.* 425, 264, 83-E5 (1994)

The Hyades Lithium Problem Revisited. *Fritz J. Swenson, John Faulkner, Forrest J. Rogers, & Carlos A. Iglesias.* 425, 286, 83-G3 (1994)

Detection of Lithium in the Cool Halo Dwarfs Groombridge 1830 and HD 134439: Implications for Internal Stellar Mixing and Cosmology. *Constantine P. Deliyannis, Sean G. Ryan, Timothy C. Beers, & Julie A. Thorburn.* 425, L21, 85-D3 (1994)

Rapid Cooling and the Structure of Neutron Stars. *James M. Lattimer, Kenneth A. Van Riper, Madappa Prakash, & Manju Prakash.* 425, 802, 91-F12 (1994)

Postexplosion Hydrodynamics of Supernovae in Red Supergiants. *Marc Herant & S. E. Woosley.* 425, 814, 91-G12 (1994)

The Gap in the Color-Magnitude Diagram of NGC 2420: A Test of Convective Overshoot and Cluster Age. *Pierre Demarque, Ata Sarajedini, & X.-J. Guo.* 426, 165, 98-B12 (1994)

The Determination of the Core Mass at the Helium Flash in Globular Cluster Stars. *Allen V. Sweigart.* 426, 612, 106-A11 (1994)

On the Existence of a Surface Boundary Layer in a Slowly Rotating, Early-Type Star. *Monique Tassoul.* 427, 388, 114-F3 (1994)

Precision Asteroseismology of Pulsating PG 1159 Stars. *Steven D. Kawaler & Paul A. Bradley.* 427, 415, 115-A11 (1994)

Post–Asymptotic Giant Branch Evolution of Low- to Intermediate-Mass Stars. *E. Vassiliadis & P. R. Wood.* 92, 125, 33-A4 (1994)

The Effectiveness of Oscillation Frequencies in Constraining Stellar Model Parameters. *Timothy M. Brown, J. Christensen-Dalsgaard, Barbara Weibel-Mihalas, & Ronald L. Gilliland.* 427, 1013, 125-C3 (1994)

Geminga: A Cooling Superfluid Neutron Star. *Dany Page.* 428, 250, 131-C6 (1994)

Red Giant Stragglers and He White Dwarfs in Galactic Globulars. *V. Castellani, V. Luridiana, & M. Romaniello.* 428, 633, 138-B7 (1994)

A Search for Lithium in Pleiades Brown Dwarf Candidates Using the Keck Hires Echelle. *Geoffrey W. Marcy, Gibor Basri, & James R. Graham.* 428, L57, 142-E7 (1994)

On the Hydrogen Layer Thickness in Pulsating DA White Dwarfs. *G. Fontaine, P. Brassard, F. Wesemael, & M. Tassoul.* 428, L61, 142-F1 (1994)

The Orbital Evolution of Highly Eccentric Binaries. *Itzhak Goldman & Tsevi Mazeh.* 429, 362, 148-E7 (1994)

Opacity, Metallicity, and Cepheid Period Ratios in the Galaxy and Magellanic Clouds. *Norman R. Simon & Shashi M. Kanbur.* 429, 772, 155-C8 (1994)

Theoretical Light Curve of a Type IIp Supernova. *Ronald G. Eastman, S. E. Woosley, Thomas A. Weaver, & Philip A. Pinto.* 430, 300, 162-G8 (1994)

Pulsation and Stability of RR Lyrae Stars. I. Instability Strip. *G. Bono & R. F. Stellingwerf.* 93, 233, 45-A5 (1994)

Double Core Evolution. VI. Effects of Gravitational Torques. *Ronald E. Taam, Peter Bodenheimer, & Michał Różyczka.* 431, 247, 179-B13 (1994)

Gravitational Radiation from Pairs of Realistic, Nonaccreting Compact Stars. *N. K. Spyrou & K. D. Kokkotas.* 431, 254, 179-C8 (1994)

Helium-accreting Degenerate Dwarfs as Presupernovae and Scenarios for the Ultrasoft X-Ray Sources. *Icko Iben, Jr., & A. V. Tutukov.* 431, 264, 179-D6 (1994)

Neutron Star Cooling and Pion Condensation. *Hideyuki Umeda, Ken'ichi Nomoto, Sachiko Tsuruta, Takumi Muto, & Toshitaka Tatsumi.* 431, 309, 180-A3 (1994)

Neutrino Energy Loss in Stellar Interiors. VI. Axial Vector Contribution to the Plasma Neutrino Energy-Loss Rate for Strongly Degenerate Electrons. *Yasuharu Kohyama, Naoki Itoh, Akihiko Obama, & Hiroshi Hayashi.* 431, 761, 188-A11 (1994)

Galactic Stars Applied to Tests of the Criterion for Convection and Semiconvection in an Inhomgeneous Star. *Richard B. Stothers & Chao-wen Chin.* 431, 797, 188-E6 (1994)

Energy Deposition and K-Shell Ionization of Supernovae. *Lih-Sin The, William T. Bridgman, & Donald D. Clayton.* 93, 531, 50-C3 (1994)

Hydrodynamics of Binary Coalescence. I. Polytropes with Stiff Equations of State. *Frederic A. Rasio & Stuart L. Shapiro.* 432, 242, 196-C2 (1994)

The Primordial Abundance of ^{6}Li and ^{9}Be. *Brian Chaboyer.* 432, L47, 199-G1 (1994)

Widespread Water Vapor Emission in Orion. *J. Cernicharo, E. González-Alfonso, J. Alcolea, R. Bachiller, & D. John.* 432, L59, 200-A5 (1994)

Thermonuclear Runaways in Nova Outbursts. II. Effect of Strong, Instantaneous, Local Fluctuations. *Anurag Shankar & David Arnett.* 433, 216, 211-A8 (1994)

Four Experiments on Thermal Instabilities in Stellar Envelopes. *Alvio Renzini & Claudio Ritossa.* 433, 293, 212-A5 (1994)

On Nonlinear Radial Adiabatic Oscillations in Magnetic Polytropes. *M. K. Das, O. J. Mollikutty, & R. K. Tavakol.* 433, 786, 220-G13 (1994)

On the Formation and Evolution of Super–Asymptotic Giant Branch Stars with Cores Processed by Carbon Burning. I. Spica to Antares. *Enrique García-Berro & Icko Iben, Jr.* 434, 306, 229-F4 (1994)

Cooling Theory of Crystallized White Dwarfs. *L. Segretain, G. Chabrier, M. Hernanz, E. García-Berro, J. Isern, & R. Mochkovitch.* 434, 641, 236-F2 (1994)

The Influence of Crystallization on the Luminosity Function of White Dwarfs. *M. Hernanz, E. García-Berro, J. Isern, R. Mochkovitch, L. Segretain, & G. Chabrier.* 434, 652, 236-G2 (1994)

Lithium in a Short-Period Tidally Locked Binary of M67: Implications for Stellar Evolution, Galactic Lithium Evolution, and Cosmology. *Constantine P. Deliyannis, Jeremy R. King, Ann M. Boesgaard, & Sean G. Ryan.* 434, L71, 241-G1 (1994)

Inside the Supernova: A Powerful Convective Engine. *Marc Herant, Willy Benz, W. Raphael Hix, Chris L. Fryer, & Stirling A. Colgate.* 435, 339, 248-B3 (1994)

Upper Limit of the Angular Velocity of Neutron Stars. *Masa-aki Hashimoto, Kazuhiro Oyamatsu, & Yoshiharu Eriguchi.* 436, 257, 264-G1 (1994)

Radiating Scalar Soliton-like Stars in a Pressurized Environment. *M. Esculpi & L. Herrera.* 437, 317, 287-E7 (1994)

Ensemble-averaged Thermonuclear Reaction Rates for Turbulent Convection in Stellar Interiors. *Lawrence D. Cloutman.* 437, 384, 288-D9 (1994)

Reaction Rates for $^{18}O(\alpha,\gamma)^{22}Ne$, $^{22}Ne(\alpha,\gamma)^{26}Mg$, and $^{22}Ne(\alpha,n)^{25}Mg$ in Stellar Helium Burning and *s*-Process Nucleosynthesis in Massive Stars. *F. Käppeler, M. Wiescher, U. Giesen, J. Görres, I. Baraffe, M. El Eid, C. M. Raiteri, M. Busso, R. Gallino, M. Limongi, & A. Chieffi.* 437, 396, 288-E10 (1994)

Optically Thick Winds in Nova Outbursts. *Mariko Kato & Izumi Hachisu.* 437, 802, 296-F1 (1994)

Formation and Evolution of Massive Stars. *Martin Beech & R. Mitalas.* 95, 517, 71-D9 (1994)

Frictional Instabilities in Neutron Star Interiors. *Noriaki Shibazaki & Yuko Mochizuki.* 438, 288, 5-D7 (1995)

Pycnonuclear Reaction Rates in Stellar Interiors: Thermal Enhancement. *Hikaru Kitamura & Setsuo Ichimaru.* 438, 300, 5-E9 (1995)

Gravitational Radiation–driven Secular Instability of Rotating Polytropes. *Shin'ichirou Yoshida & Yoshiharu Eriguchi.* 438, 830, 15-F1 (1995)

Hydrodynamics of Binary Coalescence. II. Polytropes with $\Gamma = 5/3$. *Frederic A. Rasio & Stuart L. Shapiro.* 438, 887, 16-D1 (1995)

Stellar Evolution with Arbitrary Rotation Laws. II. Massive Star Evolution to Core Hydrogen Exhaustion. *Robert G. Deupree.* 439, 357, 26-B1 (1995)

Tests of Two Convection Theories for Red Giant and Red Supergiant Envelopes. *Richard B. Stothers & Chao-wen Chin.* 440, 297, 45-C3 (1995)

Meridional Circulation in Rotating Stars. XI. Single-Cell Pattern versus Double-Cell Pattern. *Monique Tassoul & Jean-Louis Tassoul.* 440, 789, 54-A4 (1995)

A Survey of Lithium in the Red Giants of the Magellanic Clouds. *Verne V. Smith, Bertrand Plez, David L. Lambert, & D. A. Lubowich.* 441, 735, 72-A13 (1995)

Stellar Models with Microscopic Diffusion and Rotational Mixing. II. Application to Open Clusters. *Brian Chaboyer, P. Demarque, & M. H. Pinsonneault.* 441, 876, 74-A13 (1995)

Magnetic Field Evolution in White Dwarfs: The Hall Effect and Complexity of the Field. *A. G. Muslimov, H. M. Van Horn, & M. A. Wood.* 442, 758, 90-F2 (1995)

Analysis of the Type Ia Supernova SN 1994D. *P. Höflich.* 443, 89, 96-D9 (1995)

Discrepancies between OPAL and OP Opacities at High Densities and Temperatures. *Carlos A. Iglesias & Forrest J. Rogers.* 443, 460, 101-D6 (1995)

Modeling Solar-like Oscillations in η Bootis. *Jørgen Christensen-Dalsgaard, Timothy R. Bedding, & Hans Kjeldsen.* 443, L29, 102-F1 (1995)

Hydrodynamics of Semiconvection. *William J. Merryfield.* 444, 318, 117-G7 (1995)

On Orbital Circularization in Late-Type Close Binaries. *Jean-Louis Tassoul.* 444, 338, 118-B8 (1995)

Absolute Ages of Globular Clusters and the Age of the Universe. *Brian Chaboyer.* 444, L9, 121-C1 (1995)

Delayed Detonation Models for Normal and Subluminous Type Ia Supernovae: Absolute Brightness, Light Curves, and Molecule Formation. *P. Höflich, A. M. Khokhlov, & J. C. Wheeler.* 444, 831, 128-A1 (1995)

Double Core Evolution. VII. The Infall of a Neutron Star through the Envelope of Its Massive Star Companion. *James L. Terman, Ronald E. Taam, & Lars Hernquist.* 445, 367, 137-E9 (1995)

An Extended Grid of Multicycle Nova Evolution Models. *Dina Prialnik & Attay Kovetz.* 445, 789, 146-B3 (1995)

Implicit General Relativistic Hydrodynamic Methods for Modeling the Late-Time Explosion Mechanism in Core Collapse Supernovae. *F. Douglas Swesty.* 445, 811, 146-D4 (1995)

Effects of Heavy Metals on Astrophysical Opacities. *C. A. Iglesias, B. G. Wilson, F. J. Rogers, W. H. Goldstein, A. Bar-Shalom, & J. Oreg.* 445, 855, 147-A3 (1995)

On Blue Straggler Formation by Direct Collisions of Main-Sequence Stars. *James C. Lombardi, Jr., Frederic A. Rasio, & Stuart L. Shapiro.* 445, L117, 151-C1 (1995)

The Lithium Dip in M67: Comparison with the Hyades, Praesepe, and NGC 752 Clusters. *Suchitra Balachandran.* 446, 203, 156-A6 (1995)

The Hot End of Evolutionary Horizontal Branches. *V. Castellani, S. Degl'Innocenti, & L. Pulone.* 446, 228, 156-C8 (1995)

Nucleosynthesis and Mixing on the Asymptotic Giant Branch. II. Carbon and Barium Stars in the Galactic Disk. *M. Busso, D. L. Lambert, L. Beglio, R. Gallino, C. M. Raiteri, & V. V. Smith.* 446, 775, 166-F13 (1995)

Superfluid Core Rotation in Pulsars. I. Vortex Cluster Dynamics. *Armen D. Sedrakian & David M. Sedrakian.* 447, 305, 176-F1 (1995)

Superfluid Core Rotation in Pulsars. II. Postjump Relaxations. *A. D. Sedrakian, D. M. Sedrakian, J. M. Cordes, & Yervant Terzian.* 447, 324, 176-G10 (1995)

Destabilization of Compressible Convection by Radiation: Quantitative Evaluation. *Q. Q. Cheng, Murshed Hossain, & D. J. Mullan.* 447, 789, 186-G6 (1995)

The Rotational Rates of Blue Stragglers Produced by Physical Stellar Collisions. *Peter J. T. Leonard & Mario Livio.* 447, L121, 191-B11 (1995)

Frictional Heating and Neutron Star Thermal Evolution. *Kenneth A. Van Riper, Bennett Link, & Richard I. Epstein.* 448, 294, 196-C6 (1995)

The Presupernova Evolution and Explosion of Helium Stars That Experience Mass Loss. *S. E. Woosley, Norbert Langer, & Thomas A. Weaver.* 448, 315, 196-E7 (1995)

Radiative Levitation in Hot White Dwarfs: Equilibrium Theory. *P. Chayer, G. Fontaine, & F. Wesemael.* 99, 189, 36-G5 (1995)

On the Generation of Flux-Tube Waves in Stellar Convection Zones. II. Improved Treatment of Longitudinal Tube Wave Generation. *Z. E.*

Musielak, R. Rosner, H. P. Gail, & P. Ulmschneider. 448, 865, 206-G7 (1995)

Propagation of Turbulent Flames in Supernovae. *Alexei M. Khokhlov.* 449, 695, 222-D7 (1995)

An Equation of State for Low-Mass Stars and Giant Planets. *D. Saumon, G. Chabrier, & H. M. Van Horn.* 99, 713, 44-E12 (1995)

Gravitational Radiation from Rotational Collapse of a Supernova Core. *Shoichi Yamada & Katsuhiko Sato.* 450, 245, 231-D4 (1995)

From Strange Stars to Strange Dwarfs. *N. K. Glendenning, Ch. Kettner, & F. Weber.* 450, 253, 231-E1 (1995)

More on the Properties of Star Models Evolving off the Hayashi Track: The Metallicity and Evolutionary Phase Dependence. *Marco Castellani, Marco Limongi, & Amedeo Tornambè.* 450, 275, 231-G1 (1995)

On the Nature of Core-Collapse Supernova Explosions. *Adam Burrows, John Hayes, & Bruce A. Fryxell.* 450, 830, 242-B9 (1995)

Sodium Enrichment in A–F Type Supergiants. *Mounib F. El Eid & Arthur E. Champagne.* 451, 298, 250-A9 (1995)

Double Core Evolution. VIII. The Spiral-in of a Main-Sequence Star through the Envelope of an Asymptotic Giant Branch Companion. *Harold W. Yorke, Peter Bodenheimer, & Ronald E. Taam.* 451, 308, 250-B8 (1995)

A Model of the Galactic X-Ray Binary Population. I. High-Mass X-Ray Binaries. *Icko Iben, Jr., Alexander V. Tutukov, & Lev R. Yungelson.* 100, 217, 49-B1 (1995)

Thermal Instability and Pulsations of the Flame Front in White Dwarfs. *Vitaliy V. Bychkov & Michael A. Liberman.* 451, 711, 257-A7 (1995)

Turbulent Nuclear Flames in Type Ia Supernovae. *J. C. Niemeyer & W. Hillebrandt.* 452, 769, 275-B13 (1995)

Microscopic Instabilities of Nuclear Flames in Type Ia Supernovae. *J. C. Niemeyer & W. Hillebrandt.* 452, 779, 275-C12 (1995)

A Consistent Explanation for $^{12}C/^{13}C$, ^{7}Li, and ^{3}He Anomalies in Red Giant Stars. *C. Charbonnel.* 453, L41, 289-G10 (1995)

Neutrino Capture and Supernova Nucleosynthesis. *George M. Fuller & Bradley S. Meyer.* 453, 792, 294-G7 (1995)

The Evolution and Explosion of Massive Stars. II. Explosive Hydrodynamics and Nucleosynthesis. *S. E. Woosley & Thomas A. Weaver.* 101, 181, 55-B1 (1995)

The OPAL Equation of State and Low-Metallicity Isochrones. *Brian Chaboyer & Yong-Cheol Kim.* 454, 767, 312-C9 (1995)

Type Ia Supernovae: The Flame Is Born. *D. Garcia-Senz & S. E. Woosley.* 454, 895, 314-B7 (1995)

Stellar Activity at the End of the Main Sequence: GHRS Observations of the M8 Ve Star VB 10. *Jeffrey L. Linsky, Brian E. Wood, Alexander Brown, Mark S. Giampapa, & Carol Ambruster.* 455, 670, 331-B10 (1995)

STARS: KINEMATICS

A Complete, Multicolor Survey of Absolute Proper Motions to $B \sim 22.5$: Galactic Structure and Kinematics at the North Galactic Pole. *Steven Raymond Majewski.* 78, 87, 2-F11 (1992)

Velocity Streaming of *IRAS* Main-Sequence Disk Stars and the Episodic Enhancement of Particulate Disks by Interstellar Clouds. *Daniel P. Whitmire, John J. Matese, & Patrick G. Whitman.* 388, 190, 51-D1 (1992)

Short- and Intermediate-Period Oxygen-rich Miras. *M. Jura & S. G. Kleinmann.* 79, 105, 14-D3 (1992)

Evolving, Dynamical Models for Collapsed-Core Globular Clusters: M15 and NGC 6624. *Robert P. Grabhorn, Haldan N. Cohn, Phyllis M. Lugger, & Brian W. Murphy.* 392, 86, 102-B1 (1992)

The Origin of Distant B-Type Stars in the Galactic Halo. *E. S. Conlon, P. L. Dufton, F. P. Keenan, R. J. H. McCausland, & D. Holmgren.* 400, 273, 212-C13 (1992)

Carbon Star Luminosity Indicators. *Paul J. Green, Bruce Margon, Scott F. Anderson, & D. Jack MacConnell.* 400, 659, 218-E12 (1992)

Rotation and Activity among Solar-Type Stars of the Ursa Major Group. *David R. Soderblom & Michel Mayor.* 402, L5, 6-B9 (1993)

Relativistic Matter Distribution around a Black Hole: Astrophysical Consequences. *Ran Zamir.* 403, 278, 17-C12 (1993)

Astrophysical Gasdynamics Confronts Reality: The Shaping of Planetary Nebuale. *Adam Frank, Bruce Balick, Vincent Icke, & Garrelt Mellema.* 404, L25, 33-F7 (1993)

The Detection of an Extended Moving Group near the Galactic Disk. *Patrick Côté, Douglas L. Welch, Philippe Fischer, & M. J. Irwin.* 406, L59, 68-C11 (1993)

G-Star Astropauses: A Test for Interstellar Pressure. *P. C. Frisch.* 407, 198, 71-E1 (1993)

Canada-France-Hawaii Telescope Observations of Globular Cluster Cores: Blue Straggler Stars in M3 (NGC 5272, GC 1339+286). *Michael Bolte, James E. Hesser, & Peter B. Stetson.* 408, L89, 95-C11 (1993)

A Study of Circumstellar Envelopes around Bright Carbon Stars. I. Structure, Kinematics, and Mass-Loss Rate. *H. Olofsson, K. Eriksson, B. Gustafsson, & U. Carlström.* 87, 267, 30-E1 (1993)

Whither the LSR: Anticenter Carbon Star Velocities. *Mark R. Metzger & Paul L. Schechter.* 420, 177, 3-B8 (1994)

Extinction, Ejecta Masses, and Radial Velocities of Novae. *Robert E. Williams.* 426, 279, 99-E8 (1994)

Absolute Proper Motions to $B \sim 22.5$: Evidence for Kinematical Substructure in Halo Field Stars. *Steven R. Majewski, Jeffrey A. Munn, & Suzanne L. Hawley.* 427, L37, 117-E12 (1994)

Modeling the Radial Distribution of Blue Stragglers in M3. *Steinn Sigurdsson, Melvyn B. Davies, & Michael Bolte.* 431, L115, 192-A9 (1994)

WFPC2 Observations of the Globular Cluster M30. *Brian Yanny, Puragra Guhathakurta, Donald P. Schneider, & John N. Bahcall.* 435, L59, 252-D13 (1994)

Kinematics of Metal-poor Stars in the Galaxy. *Timothy C. Beers & Jesper Sommer-Larsen.* 96, 175, 3-G8 (1995)

PSR J2019+2425 and PSR J2322+2057 and the Proper Motions of Millisecond Pulsars. *D. J. Nice & J. H. Taylor.* 441, 429, 65-C7 (1995)

Radial Velocities of Stars in the Globular Cluster M4 and the Cluster Distance. *Ruth C. Peterson, Richard F. Rees, & Kyle M. Cudworth.* 443, 124, 96-G11 (1995)

M Giant Kinematics in Off-Axis Fields between 150 and 300 Parsecs from the Galactic Center. *R. D. Blum, J. S. Carr, K. Sellgren, & D. M. Terndrup.* 449, 623, 221-C11 (1995)

On the Correlation between Proper Motion Velocities and Scintillation Velocities of Radio Pulsars. *Yashwant Gupta.* 451, 717, 257-B2 (1995)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. III. Kinematics of the Bulge Stars. *H. Izumiura, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, N. Ukita, & I. Yamamura.* 453, 837, 295-D7 (1995)

Dynamics of the Galactic Globular Cluster NGC 3201. *Patrick Côté, Douglas L. Welch, Philippe Fischer, & K. Gebhardt.* 454, 788, 312-F3 (1995)

The Nonexponential Evolution of Pulsar Magnetic Fields. III. Comparison with the New Velocity Measurement. *Naoki Itoh, Takemi Kotouda, & Kentaro Hiraki.* 455, 244, 321-D13 (1995)

STARS: LATE-TYPE

CO Fundamental Bands in Late-Type Stars. II. Spectrum Simulations for F–K Stars. *Gunter Wiedemann & Thomas R. Ayres.* 366, 277, 4-D9 (1991)

Mixing Length and Opacity Effects: Deep Convective Envelopes on the Asymptotic Giant Branch. *I.-Juliana Sackmann & Arnold I. Boothroyd.* 366, 529, 9-E7 (1991)

Spectroscopy of Taurus Cloud Brown Dwarf Candidates. *John Stauffer, Terry Herter, Donald Hamilton, George H. Rieke, Marcia J. Rieke, Ron Probst, & William Forrest.* 367, L23, 17-D7 (1991)

Detection of ^{13}C Isotopomers of HC_5N ($J = 9$–8) in the Circumstellar Envelope of IRC +10216. *M. B. Bell & P. A. Feldman.* 367, L33, 17-E8 (1991)

Excitation of Millimeter and Submillimeter Water Masers. *David A. Neufeld & Gary J. Melnick.* 368, 215, 25-F11 (1991)

Nonthermal Radio Emission from the X-Ray–Bright K5 IV Star 1E 1751+7046. *Stephen L. Skinner.* 368, 272, 26-D11 (1991)

Chemical Abundances for Cyanogen-weak Giants. *R. Earle Luck.* 75, 579, 8-F11 (1991)

Circular Polarization in 1612 MHz OH Maser Emission from OH/IR Stars. *Philip J. Zell & John D. Fix.* 369, 506, 44-A9 (1991)

Evolution of the Chromospheres and Winds of Low- and Intermediate-Mass Giant Stars. *P. G. Judge & R. E. Stencel.* 371, 357, 64-E3 (1991)

Carbon Isotope Ratios along the Giant Branch of M67. *Kalpana Krishnaswamy Gilroy & Jeffery A. Brown.* 371, 578, 68-F7 (1991)

Further Limits on Disklike Dark Matter from K Dwarf Kinematics. *Konrad Kuijken.* 372, 125, 75-E7 (1991)

Qualitative Explanations of Red Giant Formation. *R. Bhaskar & Anil Nigam.* 372, 592, 83-A10 (1991)

Rotational Modulation in *IUE* Spectra of Cool Dwarf Chromospheres. I. Data Analysis and Period Search Techniques. *K. L. Hallam, B. Altner, & A. S. Endal.* 372, 610, 83-C1 (1991)

The Halo of the Large Magellanic Cloud: Kinematics of the CH Stars. *A. P. Cowley & F. D. A. Hartwick.* 373, 80, 87-A8 (1991)

X-Ray Emission from Hybrid-Chromosphere Stars. *Alexander Brown, Stephen A. Drake, Michael E. Van Steenberg, & Jeffrey L. Linsky.* 373, 614, 95-E9 (1991)

The Chromospheric Activity of Low-Mass Stars in the Hyades. *John R. Stauffer, Mark S. Giampapa, William Herbst, James M. Vincent, Lee W. Hartmann, & Robert A. Stern.* 374, 142, 99-G1 (1991)

Broad-Band Linear Polarization in Cool Stars. I. Models and Spatial Effects for Magnetic and Scattering Regions. *Juhani Huovelin & Steven H. Saar.* 374, 319, 102-B1 (1991)

Shell Helium Burning in Low-Mass Stars. I. Models in Thermal Equilibrium. *Masayuki Y. Fujimoto & Icko Iben, Jr.* 374, 631, 107-A1 (1991)

Hydrodynamic Pulsation Models of Yellow Supergiant Stars in the Post-Asymptotic Giant Branch. *Toshiki Aikawa.* 374, 700, 107-F13 (1991)

A Critical Appraisal of Published Values of [Fe/H] for K II–IV Stars. *Benjamin J. Taylor.* 76, 715, 34-E12 (1991)

Brown Dwarfs in Young Stellar Clusters. *Guy S. Stringfellow.* 375, L21, 117-C7 (1991)

The Chromospheric Emission–Age Relation for Stars of the Lower Main Sequence and Its Implications for the Star Formation Rate. *David R. Soderblom, Douglas K. Duncan, & Dean R. H. Johnson.* 375, 722, 121-F5 (1991)

First Results from the Goddard High-Resolution Spectrograph: The Chromosphere of α Tauri. *Kenneth G. Carpenter, Richard D. Robinson, Glenn M. Wahlgren, Thomas B. Ake, Dennis C. Ebbets, Jeffrey L. Linsky, Alexander Brown, & Frederick M. Walter.* 377, L45, 143-E11 (1991)

Metallicity and Velocity Distribution of Giants toward the Galactic Poles. *Kavan U. Ratnatunga & Kenneth M. Yoss.* 377, 442, 145-C3 (1991)

321 GHz Submillimeter Water Masers around Evolved Stars. *Karl M. Menten & Gary J. Melnick.* 377, 647, 147-F8 (1991)

Multichannel Astrometric Photometer–based Parallaxes of Evolved Stars: χ Cygni, 51 Andromedae, and OP Andromedae. *John W. Stein.* 377, 669, 148-A5 (1991)

Heating Mechanism(s) for Transition Layers in Giants. *Erika Böhm-Vitense & José Mena-Werth.* 378, 718, 161-C8 (1991)

Galactic Bulge M Giants. IV. 0.5–2.5 Micron Spectrophotometry and Abundances for Stars in Baade's Window. *D. M. Terndrup, Jay A. Frogel, & A. E. Whitford.* 378, 742, 161-E5 (1991)

Excitation of the Hydroxyl Maser in OH/IR Stars. *Dale F. Dickinson.* 379, L29, 169-C11 (1991)

Fe II Emission Lines. I. Chromospheric Spectra of Red Giants. *P. G. Judge & C. Jordan.* 77, 75, 44-E1 (1991)

Abundances in Red Giant Stars: Nitrogen Isotopes in Carbon-rich Molecular Envelopes. *P. G. Wannier, B-G Andersson, H. Olofsson, N. Ukita, & K. Young.* 380, 593, 185-E8 (1991)

Carbon Isotopic Abundances in Giant Stars in the CN-bimodal Globular Clusters NGC 6752 and M4. *Nicholas B. Suntzeff & Verne V. Smith.* 381, 160, 191-A8 (1991)

Numerical Simulations of Flares on M Dwarf Stars. I. Hydrodynamics and Coronal X-Ray Emission. *Chung-Chieh Cheng & Roberto Pallavicini.* 381, 234, 191-G12 (1991)

Abundances of Tc and Related Elements in Stars of Type M, MS, and S. *Andrew D. Vanture, George Wallerstein, Jeffery A. Brown, & Grant Bazan.* 381, 278, 192-D7 (1991)

Stellar Encounters Involving Red Giants in Globular Cluster Cores. *M. B. Davies, W. Benz, & J. G. Hills.* 381, 449, 196-C7 (1991)

Cocoon Stars in the Large Magellanic Cloud. *Neill Reid.* 382, 143, 202-A4 (1991)

Fe II Emission Lines. II. Excitation Mechanisms in Cool Stars. *P. G. Judge, C. Jordan, & U. Feldman.* 384, 613, 9-F10 (1992)

CN and CH Variations on the M5 Subgiant Branch. *Michael M. Briley, Graeme H. Smith, R. A. Bell, J. B. Oke, & James H. Hesser.* 387, 612, 46-C5 (1992)

X-Ray Activity as Statistical Age Indicator: The Disk G–K Giants. *G. Micela, A. Maggio, & G. S. Vaiana.* 388, 171, 51-B5 (1992)

First Conclusive Evidence for Rotational Modulation of Stellar Radio Emission. *Jeremy Lim, Graham J. Nelson, Catarina Castro, David Kilkenny, & François van Wyk.* 388, L27, 52-C7 (1992)

Ionization and Excitation in Cool Giant Stars. I. Hydrogen and Helium. *Donald G. Luttermoser & Hollis R. Johnson.* 388, 579, 57-D7 (1992)

Local Dark Matter from a Carefully Selected Sample. *John N. Bahcall, Chris Flynn, & Andrew Gould.* 389, 234, 62-G9 (1992)

Carbon and Nitrogen Abundances Determined from Transition Layer Lines. *Erika Böhm-Vitense & José Mena-Werth.* 390, 253, 77-B4 (1992)

The Rotation of M Dwarfs. *Geoffrey W. Marcy & Grace H. Chen.* 390, 550, 82-B11 (1992)

Breakdown of the Core Mass–Luminosity Relation at High Luminosities on the Asymptotic Giant Branch. *Arnold I. Boothroyd & I.-Juliana Sackmann.* 393, L21, 120-D1 (1992)

Multiplicity among M Dwarfs. *Debra A. Fischer & Geoffrey W. Marcy.* 396, 178, 157-C13 (1992)

Limits on Detectability of Mass Loss from Cool Dwarfs. *D. J. Mullan, J. G. Doyle, R. O. Redman, & M. Mathioudakis.* 397, 225, 170-F12 (1992)

On the Interaction between Dust and Gas in Late-Type Stellar Atmospheres and Winds. *K. B. MacGregor & R. E. Stencel.* 397, 644, 179-A13 (1992)

Infrared Emission and Mass Loss from Evolved Stars in Elliptical Galaxies. *G. R. Knapp, J. E. Gunn, & C. G. Wynn-Williams.* 399, 76, 196-B3 (1992)

Excitation of Gravity Waves in Common Envelopes. *Noam Soker.* 399, 185, 197-E3 (1992)

Nucleosynthesis and Mixing on the Asymptotic Giant Branch. I. MS and S Stars with and without Tc. *M. Busso, R. Gallino, D. L. Lambert, C. M. Raiteri, & V. V. Smith.* 399, 218, 198-A1 (1992)

Modeling SiO Maser Emission from Late-Type Stars. *Philip Lockett & Moshe Elitzur.* 399, 704, 206-F9 (1992)

Why Stars Inflate to and Deflate from Red Giant Dimensions. *Alvio Renzini, Laura Greggio, Claudio Ritossa, & Lilia Ferrario.* 400, 280, 212-D8 (1992)

High-Excitation ^{29}SiO and ^{30}SiO Maser Emission. *J. Cernicharo & V. Bujarrabal.* 401, L109, 233-E5 (1992)

Oxygen-rich Semiregular and Irregular Variables. *M. Jura & S. G. Kleinmann.* 83, 329, 62-D5 (1992)

CCD Observations of the Hα Line in Late G and K Supergiants and Their Interpretation. *Sushma V. Mallik.* 402, 303, 4-G10 (1993)

Rotation and Activity among Solar-Type Stars of the Ursa Major Group. *David R. Soderblom & Michel Mayor.* 402, L5, 6-B9 (1993)

M Dwarf Spectra from 0.6 to 1.5 Microns: A Spectral Sequence, Model Atmosphere Fitting, and the Temperature Scale. *J. Davy Kirkpatrick, Douglas M. Kelly, George H. Rieke, James Liebert, France Allard, & Rainer Wehrse.* 402, 643, 10-E11 (1993)

The Nonsolar Abundance Ratios of Arcturus Deduced from Spectrum Synthesis. *Ruth C. Peterson, Cristina M. Dalle Ore, & Robert L. Kurucz.* 404, 333, 32-A8 (1993)

Broad-band Linear Polarization in Cool Stars. II. Amplitude and Wavelength Dependence for Magnetic and Scattering Regions. *Steven H. Saar & Juhani Huovelin.* 404, 739, 38-B7 (1993)

Evidence for the Cospatial Origin of SiO Masers in Different Rotational Transitions. *G. C. McIntosh & C. Read Predmore.* 404, L71, 40-E11 (1993)

Discovery of Remarkably Intense Radio Emission from a Young and Rapidly Rotating dMe Star. *Jeremy Lim.* 405, L33, 47-F1 (1993)

X-Ray/Microwave Relation of Different Types of Active Stars. *Manuel Güdel & Arnold O. Benz.* 405, L63, 54-C13 (1993)

The Low-Mass Stellar Content of Galaxies: Constraints through Hybrid Population Synthesis near 1 Micron. *Jean Couture & Eduardo Hardy.* 406, 142, 56-G11 (1993)

Infrared Observations of the Remarkable Main-Sequence Star HD 98800. *B. Zuckerman & E. E. Becklin.* 406, L25, 60-G10 (1993)

High-Excitation SiO Maser Emission in VY Canis Majoris: Detection of the $v = 4$ $J = 5$–4 Transition. *J. Cernicharo, V. Bujarrabal, & J. L. Santarén.* 407, L33, 75-D6 (1993)

Rotation and Chromospheric Emission among F, G, and K Dwarfs of the Pleiades. *David R. Soderblom, John R. Stauffer, J. Dan Hudon, & Burton F. Jones.* 85, 315, 11-D13 (1993)

An Infrared Study of the Remarkable Dusty M Star HR 3126. *J. E. Chiar, D. C. B. Whittet, D. K. Aitken, P. F. Roche, C. H. Smith, H. J. Walker, P. A. Whitelock, & C. Wright.* 409, 404, 102-A8 (1993)

Observations of the Ca II Infrared Triplet in Chromospherically Active Single and Binary Stars. *Robert C. Dempsey, Bernard W. Bopp, Gregory W. Henry, & Douglas S. Hall.* 86, 293, 17-G7 (1993)

Circumstellar Shells Resolved in *IRAS* Survey Data. II. Analysis. *K. Young, T. G. Phillips, & G. R. Knapp.* 409, 725, 108-B3 (1993)

A Highly Sensitive Radio Survey of Symbiotic Stars at 3.6 Centimeters. *E. R. Seaquist, M. Krogulec, & A. R. Taylor.* 410, 260, 115-C12 (1993)

Stellar Coronae at the End of the Main Sequence: A *ROSAT* Survey of the Late M Dwarfs. *Thomas A. Fleming, Mark S. Giampapa, J. H. M. M. Schmitt, & Jay A. Bookbinder.* 410, 387, 116-G8 (1993)

Circumstellar Shells Resolved in the *IRAS* Survey Data. I. Data Processing Procedure, Results, and Confidence Tests. *K. Young, T. G. Phillips, & G. R. Knapp.* 86, 517, 21-B11 (1993)

The *ROSAT* All-Sky Survey of Active Binary Coronae. I. Quiescent Fluxes for the RS Canum Venaticorum Systems. *Robert C. Dempsey, Jeffrey L. Linsky, Thomas A. Fleming, & J. H. M. M. Schmitt.* 86, 599, 22-C3 (1993)

Mg II and Lyα Fluxes in M Dwarfs: Evaluation of an Acoustic Model. *D. J. Mullan & Q. Q. Cheng.* 412, 312, 146-A9 (1993)

The Fundamental Parameters of the Chromospherically Active K2 Dwarf ϵ Eridani. *Jeremy J. Drake & Geoffrey Smith.* 412, 797, 153-F9 (1993)

The *ROSAT* All-Sky Survey of Active Binary Coronae. II. Coronal Temperatures of the RS Canum Venaticorum Systems. *Robert C. Dempsey, Jeffrey L. Linsky, J. H. M. M. Schmitt, & T. A. Fleming.* 413, 333, 160-D5 (1993)

An Interpretation of Cycle Periods of Stellar Chromospheric Activity. *W. H. Soon, S. L. Baliunas, & Q. Zhang.* 414, L33, 175-F6 (1993)

X-Ray Emission at the Low-Mass End: Results from an Extensive *Einstein Observatory* Survey. *M. Barbera, G. Micela, S. Sciortino, F. R. Harnden, Jr., & R. Rosner.* 414, 846, 181-F10 (1993)

Extreme Ultraviolet Explorer Deep Survey Observations of a Large Flare on AU Microscopii. *Scott L. Cully, Oswald H. W. Siegmund, Peter W. Vedder, & John V. Vallerga.* 414, L49, 185-B1 (1993)

Extreme Ultraviolet Explorer Observations of the RS Canum Venaticorum Systems AR Lacertae and II Pegasi. *R. J. Patterer, P. W. Vedder, P. Jelinsky, A. Brown, & S. Bowyer.* 414, L57, 185-B13 (1993)

Extreme Ultraviolet Emission from Late-Type Stars: Initial Results from *Extreme Ultraviolet Explorer*. *Peter W. Vedder, Robert J. Patterer, Patrick Jelinsky, Alex Brown, & Stuart Bowyer.* 414, L61, 185-C5 (1993)

A Tight Correlation between Radio and X-Ray Luminosities of M Dwarfs. *Manuel Güdel, Jürgen H. M. M. Schmitt, Jay A. Bookbinder, & Thomas A. Fleming.* 415, 236, 188-A1 (1993)

The Evolution of Stellar Coronae: Initial Results from a *ROSAT* PSPC Observation of IC 2391. *Brian M. Patten & Theodore Simon.* 415, L123, 200-D1 (1993)

Discovery of Interstellar Water Lines at 437, 439, and 471 GHz: Strong Case for Water Maser Formation behind C-Type Shocks. *Gary J. Melnick, Karl M. Menten, Thomas G. Phillips, & Todd Hunter.* 416, L37, 207-E13 (1993)

The Mount Wilson Observatory Metallicity Index, C_{RV}: Comparison with Other Photometric Systems. *W. H. Soon, Q. Zhang, S. L. Baliunas, & R. L. Kurucz.* 416, 787, 213-C1 (1993)

Chromospheric Activity in Galactic Open Clusters. *A. J. Beasley & L. E. Cram.* 417, 157, 219-D1 (1993)

Optical Spectroscopy of the Dusty K5 V Star HD 98800. *Francis C. Fekel & Bernard W. Bopp.* 419, L89, 259-F3 (1993)

Acoustic Waves in M Dwarfs: Maintaining a Corona. *D. J. Mullan & Q. Q. Cheng.* 420, 392, 5-F8 (1994)

Detection of Rotational Modulation in the Coronal Extreme-Ultraviolet Emission from V711 Tauri? *Jeremy J. Drake, Alex Brown, Robert J. Patterer, Peter W. Vedder, Stuart Bowyer, & Edward F. Guinan.* 421, L43, 22-A10 (1994)

The Discrimination between O- and C-rich Circumstellar Envelopes from Molecular Observations. *V. Bujarrabal, A. Fuente, & A. Omont.* 421, L47, 22-B1 (1994)

Ca II H and K and Hα Emissions in Chromospherically Active Binary Systems (RS Canum Venaticorum and BY Draconis). *M. J. Fernández-Figueroa, D. Montes, E. De Castro, & M. Cornide.* 90, 433, 8-B6 (1994)

Observing Stellar Coronae with the Goddard High Resolution Spectrograph. I. The dMe Star AU Microscopii. *S. P. Maran, R. D. Robinson, S. N. Shore, J. W. Brosius, K. G. Carpenter, B. E. Woodgate, J. L. Linsky, A. Brown, P. B. Byrne, M. R. Kundu, S. White, J. C. Brandt, R. A. Shine, & F. M. Walter.* 421, 800, 28-B10 (1994)

Pumping of Main Line OH Masers in the Circumstellar Envelopes of OH/Infrared Stars. *Alan J. Collison & Gerald E. Nedoluha.* 422, 193, 32-E1 (1994)

Radio Constraints on Coronal Models for dMe Stars. *S. M. White, J. Lim, & M. R. Kundu.* 422, 293, 33-F11 (1994)

The Chromospheric Structure of the Cool Giant Star g Herculis. *Donald G. Luttermoser, Hollis R. Johnson, & Joel A. Eaton.* 422, 351, 34-D7 (1994)

Double-Core Evolution. V. Three-dimensional Effects in the Merger of a Red Giant with a Dwarf Companion. *James L. Terman, Ronald E. Taam, & Lars Hernquist.* 422, 729, 40-G13 (1994)

A Millimeter-Wavelength Survey of S Stars for Mass Loss and Chemistry. *John H. Bieging & William B. Latter.* 422, 765, 41-D1 (1994)

ROSAT Observations of Stellar Flares. *J. H. M. M. Schmitt.* 90, 735, 12-G12 (1994)

Quiescent Microwave Emission from Late-Type Stars. *Manuel Güdel.* 90, 743, 13-A8 (1994)

Radio Evidence for Nonthermal Particle Acceleration on Stars of Late Spectral Type. *Kenneth R. Lang.* 90, 753, 13-B5 (1994)

Carbon Monoxide Fundamental Bands in Late-Type Stars. III. Chromosphere or CO-mosphere? *G. Wiedemann, T. R. Ayres, D. E. Jennings, & S. H. Saar.* 423, 806, 58-F6 (1994)

Reflection of Alfvén Waves in Stellar Atmospheres: The Case of Open Magnetic Fields. *Yu-Qing Lou & Robert Rosner.* 424, 429, 67-B11 (1994)

Open Cluster Chemical Composition. I. Later Type Stars in Eight Clusters. *R. Earle Luck.* 91, 309, 22-F4 (1994)

Neutral Carbon in the Circumstellar Envelope of α Orionis. *P. J. Huggins, R. Bachiller, P. Cox, & T. Forveille.* 424, L127, 79-E5 (1994)

The K-Band Surface Brightness of Late-Type Stars and the Distance to Cataclysmic Variables. *Tod F. Ramseyer.* 425, 243, 83-C5 (1994)

Asymptotic Giant Branch Stars in NGC 6822: Probes of Star Formation History. *C. Gallart, A. Aparicio, C. Chiosi, G. Bertelli, & J. M. Vílchez.* 425, L9, 85-B13 (1994)

Fluorescent K I 7699 Å Emission from Circumstellar Shells of Red Giants: Evidence for Highly Asymmetric Winds. *Bertrand Plez & David L. Lambert.* 425, L101, 94-F13 (1994)

A Deep Imaging Survey of the Pleiades with *ROSAT*. *J. R. Stauffer, J.-P. Caillault, M. Gagné, C. F. Prosser, & L. W. Hartmann.* 91, 625, 28-A6 (1994)

A Method of Determining Possible Brightness Variations of the Sun in Past Centuries from Observations of Solar-Type Stars. *Q. Zhang, W. H. Soon, S. L. Baliunas, G. W. Lockwood, B. A. Skiff, & R. R. Radick.* 427, L111, 127-D3 (1994)

GHRS Observations of Cool, Low-Gravity Stars. I. The Far-Ultraviolet Spectrum of α Orionis (M2 Iab). *Kenneth G. Carpenter, Richard D. Robinson, Glenn M. Wahlgren, Jeffrey L. Linsky, & Alexander Brown.* 428, 329, 132-C6 (1994)

Directivity of the Radio Emission from the K1 Dwarf Star AB Doradus. *Jeremy Lim, Stephen M. White, Graham J. Nelson, & Arnold O. Benz.* 430, 332, 163-C9 (1994)

A Volume-limited *ROSAT* Survey of Extreme Ultraviolet Emission from All Nondegenerate Stars within 10 Parsecs. *Brian E. Wood, Alexander Brown, Jeffrey L. Linsky, Barry J. Kellett, Gordon E. Bromage, Simon T. Hodgkin, & John P. Pye.* 93, 287, 45-E5 (1994)

Analytic Lyman-Alpha Wing Diagnostics and the Chromospheric Excitation Balance in Cool Dwarfs. *K. G. Gayley.* 431, 806, 188-F4 (1994)

Zeeman Enhancement of Lines in Extremely Active K Dwarfs. *Gibor Basri & Geoffrey W. Marcy.* 431, 844, 189-B11 (1994)

ROSAT X-Ray Observations of Late-Type Evolved Stars: On the Relationship between Coronal Temperatures and Luminosities. *A. Maggio, S. Sciortino, & F. R. Harnden, Jr.* 432, 701, 204-F11 (1994)

The CO/SiO Radiative Instability in Cool Star Atmospheres Revisited. *M. Cuntz & D. O. Muchmore.* 433, 303, 212-B3 (1994)

Discovery of a New White Dwarf in a Binary System (EUVE 0720−317) in the *Extreme Ultraviolet Explorer* Survey and Implications for the Late Stages of Stellar Evolution. *Stéphane Vennes & John R. Thorstensen.* 433, L29, 214-G13 (1994)

FY Aquilae and the Gamma-Ray Burst GB 790331. *Mike Irwin & Anna N. Żytkow.* 433, L81, 224-A1 (1994)

A Coronal Mass Ejection Model for the 1992 July 15 Flare on AU Microscopii Observed by the *Extreme Ultraviolet Explorer*. *Scott L. Cully, George H. Fisher, Mark J. Abbott, & Oswald H. W. Siegmund.* 435, 449, 249-E11 (1994)

Possible Detection of ^{14}CO in the Carbon Star IRC +10216. *Gregory A. Wright.* 436, L157, 281-F1 (1994)

Missing Opacity in the Atmospheric Models of Red Giants. *C. Ian Short & John B. Lester.* 436, L165, 281-G1 (1994)

Observations of Molecular Envelopes of Late-Type Stars: CRL 618, CRL 2688, CRL 3068, and CIT 6. *Sadafumi Fukasaku, Yasuhiro Hirahara, Akimasa Masuda, Kentarou Kawaguchi, Shin-ichi Ishikawa, Norio Kaifu, & William M. Irvine.* 437, 410, 288-F13 (1994)

Chromospheric Variations in Main-Sequence Stars. II. *S. L. Baliunas, R. A. Donahue, W. H. Soon, J. H. Horne, J. Frazer, L. Woodard-Eklund, M. Bradford, L. M. Rao, O. C. Wilson, Q. Zhang, W. Bennett, J. Briggs, S. M. Carroll, D. K. Duncan, D. Figueroa, H. H. Lanning, T. Misch, J. Mueller, R. W. Noyes, D. Poppe, A. C. Porter, C. R. Robinson, J. Russell, J. C. Shelton, T. Soyumer, A. H. Vaughan, & J. H. Whitney.* 438, 269, 5-B12 (1995)

Determination of Plasma Temperatures and Luminosities Using Multiple Extreme-Ultraviolet and X-Ray Filters. *Brian E. Wood, Alexander Brown, & Jeffrey L. Linsky.* 438, 350, 6-C9 (1995)

RE 0044+09: A New K Dwarf Rapid Rotator with a White Dwarf Companion? *Barry J. Kellett, Gordon E. Bromage, Alexander Brown, Robin D. Jeffries, David J. James, David Kilkenny, Russell M. Robb, David Wonnacott, Christopher Lloyd, & C. Clayton.* 438, 364, 6-D13 (1995)

The Faint X-Ray Sources In and Out of ω Centauri: X-Ray Observations and Optical Identifications. *Adrienne M. Cool, Jonathan E. Grindlay, Charles D. Bailyn, Paul J. Callanan, & Paul Hertz.* 438, 719, 14-B2 (1995)

The RIASS Coronathon: Joint X-Ray and Ultraviolet Observations of Normal F–K Stars. *Thomas R. Ayres, T. A. Fleming, T. Simon, B. M. Haisch, A. Brown, D. Lenz, W. Wamsteker, D. de Martino, C. Gonzalez, J. Bonnell, J. M. Mas-Hesse, C. Rosso, J. H. M. M. Schmitt, J. Trümper, W. Voges, J. Pye, R. C. Dempsey, J. L. Linsky, E. F. Guinan, G. M. Harper, C. Jordan, B. M. Montesinos, I. Pagano, & M. Rodonò.* 96, 223, 4-E7 (1995)

Tests of Two Convection Theories for Red Giant and Red Supergiant Envelopes. *Richard B. Stothers & Chao-wen Chin.* 440, 297, 45-C3 (1995)

Direct Measurement of the Inner Radius of the Dust Shell around the Cool Supergiant Star α Scorpii. *E. E. Bloemhof & R. M. Danen.* 440, L93, 58-C2 (1995)

A Survey of Lithium in the Red Giants of the Magellanic Clouds. *Verne V. Smith, Bertrand Plez, David L. Lambert, & D. A. Lubowich.* 441, 735, 72-A13 (1995)

A Nonlocal Calculation of Circumstellar OH Maser Emission. *Alan J. Collison & Gerald E. Nedoluha.* 442, 311, 81-D6 (1995)

Mg II *h* and *k* Profiles in High-Luminosity, Late-Type Stars. *R. D. Robinson & K. G. Carpenter.* 442, 328, 81-E12 (1995)

Activity Cycles in Cool Stars. I. Observation and Analysis Methods and Case Studies of Four Well-observed Examples. *Jeffrey C. Hall, G. W. Lockwood, & Erika L. Gibb.* 442, 778, 91-A1 (1995)

A Reanalysis of the SWP-HI *IUE* Observations of Capella. *Brian E. Wood & Thomas R. Ayres.* 443, 329, 99-F7 (1995)

On Orbital Circularization in Late-Type Close Binaries. *Jean-Louis Tassoul.* 444, 338, 118-B8 (1995)

GHRS Observations of Cool, Low-Gravity Stars. II. Flow and Turbulent Velocities in the Outer Atmosphere of γ Crucis (M3.4 III). *Kenneth G. Carpenter, Richard D. Robinson, & Philip G. Judge.* 444, 424, 119-D7 (1995)

Infrared Emission and Dynamics of Outflows in Late-Type Stars. *Željko Ivezić & Moshe Elitzur.* 445, 415, 138-C6 (1995)

Model Atmospheres for M (Sub)Dwarf Stars. I. The Base Model Grid. *France Allard & Peter H. Hauschildt.* 445, 433, 138-E2 (1995)

New Evolutionary Tracks for Very Low Mass Stars. *I. Baraffe, G. Chabrier, F. Allard, & P. H. Hauschildt.* 446, L35, 160-F6 (1995)

The Disruption of the Dense Disk in CRL 618. *Jesús Martín-Pintado, Ralph A. Gaume, Kenneth J. Johnston, & Rafael Bachiller.* 446, 687, 165-E4 (1995)

Luminosity Attenuation and Distances of Red Giant Stars. *L. Celis S.* 98, 701, 33-A1 (1995)

Deep Circulation in Red Giant Stars: A Solution to the Carbon and Oxygen Isotope Puzzles? *G. J. Wasserburg, Arnold I. Boothroyd, & I.-Juliana Sackmann.* 447, L37, 181-A11 (1995)

The Giant Branch of ω Centauri. IV. Abundance Patterns Based on Echelle Spectra of 40 Red Giants. *John E. Norris & G. S. Da Costa.* 447, 680, 185-D9 (1995)

Detection of Ammonia Emission toward Oxygen-rich Evolved Stars. *Karl M. Menten & Javier Alcolea.* 448, 416, 197-G10 (1995)

Carbon Isotope Ratios in Very Lithium-rich K Giants. *L. da Silva, R. de la Reza, & B. Barbuy.* 448, L41, 200-A1 (1995)

The B_jRI Photometric System. *Craig A. Gullixson, Patricia C. Boeshaar, J. Anthony Tyson, & Patrick Seitzer.* 99, 281, 38-A1 (1995)

On the Generation of Flux-Tube Waves in Stellar Convection Zones. II. Improved Treatment of Longitudinal Tube Wave Generation. *Z. E. Musielak, R. Rosner, H. P. Gail, & P. Ulmschneider.* 448, 865, 206-G7 (1995)

M Giant Kinematics in Off-Axis Fields between 150 and 300 Parsecs from the Galactic Center. *R. D. Blum, J. S. Carr, K. Sellgren, & D. M. Terndrup.* 449, 623, 221-C11 (1995)

Spectroscopic *EUVE* Observations of the Active Star AB Doradus. *Slavek M. Rucinski, Rolf Mewe, Jelle S. Kaastra, Osmi Vilhu, & Stephen M. White.* 449, 900, 225-B11 (1995)

Equivalent Widths for 54 Red Giants in 47 Tucanae, ω Centauri, NGC 6397, M22, and NGC 6752. *John E. Norris, G. S. Da Costa, & S. J. Tingay.* 99, 637, 43-F9 (1995)

Spectral and Temporal Characteristics of X-Ray–bright Stars in the Pleiades. *Marc Gagné, Jean-Pierre Caillault, & John R. Stauffer.* 450, 217, 231-A11 (1995)

The Chemical Composition of Red Giants. IV. The Neutron Density at the *s*-Process Site. *David L. Lambert, Verne V. Smith, Maurizio Busso, Roberto Gallino, & Oscar Straniero.* 450, 302, 232-B9 (1995)

The X-Ray View of the Low-Mass Stars in the Solar Neighborhood. *Jürgen H. M. M. Schmitt, Thomas A. Fleming, & Mark S. Giampapa.* 450, 392, 233-C13 (1995)

Correlations of Coronal X-Ray Emission with Activity, Mass, and Age of the Nearby K and M Dwarfs. *Thomas A. Fleming, Jürgen H. M. M. Schmitt, & Mark S. Giampapa.* 450, 401, 233-D12 (1995)

Are Variations in the Length of the Activity Cycle Related to Changes in Brightness in Solar-Type Stars? *Sallie Baliunas & Willie Soon.* 450, 896, 243-C8 (1995)

Maps of the Molecular Emission around 18 Evolved Stars. *K. Z. Stanek, G. R. Knapp, K. Young, & T. G. Phillips.* 100, 169, 48-C8 (1995)

A 12 Year Photometric Study of Lower Main-Sequence Hyades Stars. *Richard R. Radick, G. W. Lockwood, B. A. Skiff, & D. T. Thompson.* 452, 332, 266-F6 (1995)

A Semiempirical Determination of the Wind Velocity Structure for the Hybrid-Chromosphere Star α Trianguli Australis. *Graham M. Harper, Brian E. Wood, Jeffrey L. Linsky, Philip D. Bennett, Thomas R. Ayres, & Alexander Brown.* 452, 407, 267-F6 (1995)

Absolute Measurements of Starspot Area and Temperature: II Pegasi in 1989 October. *James E. Neff, Douglas O'Neal, & Steven H. Saar.* 452, 879, 276-G6 (1995)

Can Dust Formation in Evolved Stars Be Suppressed near Active Galactic Nuclei? *T. W. Hartquist, R. H. Durisen, J. E. Dyson, J. M. C. Rawlings, D. A. Williams, & R. J. R. Williams.* 453, 77, 282-C3 (1995)

Radio Detection of Late-Type (G–K) Dwarf Stars in the Pleiades. *Jeremy Lim & Stephen M. White.* 453, 207, 284-A5 (1995)

Far-Infrared Water Line Emissions from Circumstellar Outflows. *Wesley Chen & David A. Neufeld.* 453, L99, 298-F11 (1995)

Asymmetrical Mass Loss from Rotating Red Giant Variables. *S. M. Asida & Y. Tuchman.* 455, 286, 322-B2 (1995)

On the Failure of Standard Emission Measure Analysis for Solar Extreme-Ultraviolet and Ultraviolet Irradiance Spectra. *P. G. Judge, T. N. Woods, P. Brekke, & G. J. Rottman.* 455, L85, 326-A2 (1995)

Stellar Activity at the End of the Main Sequence: GHRS Observations of the M8 Ve Star VB 10. *Jeffrey L. Linsky, Brian E. Wood, Alexander Brown, Mark S. Giampapa, & Carol Ambruster.* 455, 670, 331-B10 (1995)

STARS: LONG-PERIOD VARIABLES

Flares on Mira Stars? *Bradley E. Schaefer.* 366, L39, 6-E1 (1991)

From Wind to Superwind: The Evolution of Mass-Loss Rates for Mira Models. *G. H. Bowen & L. A. Willson.* 375, L53, 124-C1 (1991)

321 GHz Submillimeter Water Masers around Evolved Stars. *Karl M. Menten & Gary J. Melnick.* 377, 647, 147-F8 (1991)

Kinematical Models of Maser Shells Formed by Aspherical Stellar Outflows (U Orionis; OH 231.8+4.2; Orion-IRc2). *P. F. Bowers.* 76, 1099, 40-G9 (1991)

Abundances of Tc and Related Elements in Stars of Type M, MS, and S. *Andrew D. Vanture, George Wallerstein, Jeffery A. Brown, & Grant Bazan.* 381, 278, 192-D7 (1991)

The Mode of Pulsation in Mira Variables Determined by the Observed Acceleration Data. *Y. Tuchman.* 383, 779, 223-G11 (1991)

STARS: LOW-MASS

Spectroscopy of Taurus Cloud Brown Dwarf Candidates. *John Stauffer, Terry Herter, Donald Hamilton, George H. Rieke, Marcia J. Rieke, Ron Probst, & William Forrest.* 367, L23, 17-D7 (1991)

Cooling Flows and the Formation of Massive Halos in cD Galaxies. *Andrea H. Prestwich & Marshall Joy.* 369, L1, 40-A7 (1991)

Lithium in the Most Extreme Halo Stars; Trends with Metallicity. *Constantine P. Deliyannis & Pierre Demarque.* 370, L89, 59-E5 (1991)

Gravitational Microlensing as a Method of Detecting Disk Dark Matter and Faint Disk Stars. *Kim Griest, Charles Alcock, Timothy S. Axelrod, David P. Bennett, Kem H. Cook, Kenneth C. Freeman, Hye-Sook Park, Saul Perlmutter, Bruce A. Peterson, Peter J. Quinn, Alexander W. Rodgers, & Christopher W. Stubbs (The MACHO Collaboration).* 372, L79, 85-D5 (1991)

Globular Cluster Mass Functions. *Harvey B. Richer, Gregory G. Fahlman, Roberto Buonanno, Flavio Fusi Pecci, Leonard Searle, & Ian B. Thompson.* 381, 147, 190-G7 (1991)

The Spectroscopic Properties of Extreme M Dwarfs in the 2 Micron Region. *T. J. Davidge & P. C. Boeshaar.* 403, L47, 20-E10 (1993)

Calibration of Stellar Models. *Alessandro Chieffi, Oscar Straniero, & Maurizio Salaris.* 445, L39, 140-G4 (1995)

STARS: LOW-MASS, BROWN DWARFS

Companions to White Dwarfs: Very Low Mass Stars and the Brown Dwarf Candidate GD 165B. *B. Zuckerman & E. E. Becklin.* 386, 260, 27-D7 (1992)

Candidate Brown Dwarfs in the Hyades. *Claia Bryja, Terry J. Jones, Roberta M. Humphreys, Geoffrey Lawrence, Robert L. Pennington, & William Zumach.* 388, L23, 52-C1 (1992)

Spectroscopy of a Brown Dwarf Candidate in the α Persei Open Cluster. *Rafael Rebolo, Eduardo L. Martín, & Antonio Magazzù.* 389, L83, 73-E11 (1992)

Dark Matter and Brown Dwarfs: Prospects for the Direct Detection of a Brown Dwarf Halo. *Ruth A. Daly & Gail C. McLaughlin.* 390, 423, 80-F1 (1992)

A Near-Infrared Search for Brown Dwarfs in the Pleiades. *D. A. Simons & E. E. Becklin.* 390, 431, 80-F10 (1992)

The Role of the Molecular-metallic Transition of Hydrogen in the Evolution of Jupiter, Saturn, and Brown Dwarfs. *Didier Saumon, William B. Hubbard, Gilles Chabrier, & Hugh M. Van Horn.* 391, 827, 98-B13 (1992)

Effective Temperatures of M Dwarfs. *Graham Berriman, Neill Reid, & S. K. Leggett.* 392, L31, 106-D11 (1992)

Minimum Mass for D and H Burning during Slow Accretion. *E. E. Salpeter.* 393, 258, 117-C12 (1992)

The Faintest Stars. *C. G. Tinney, J. R. Mould, & I. N. Reid.* 396, 173, 157-C6 (1992)

The Radial Velocity of the White Dwarf Giclas 29-38. *C. Barnbaum & B. Zuckerman.* 396, L31, 160-F1 (1992)

Infrared Colors of Low-Mass Stars. *S. K. Leggett.* 82, 351, 54-C1 (1992)

Excitation of Gravity Waves in Common Envelopes. *Noam Soker.* 399, 185, 197-E3 (1992)

Luminosity Functions for Very Low Mass Stars and Brown Dwarfs. *Gregory Laughlin & Peter Bodenheimer.* 403, 303, 17-E13 (1993)

A Spectroscopic Test for Substellar Objects. *Antonio Magazzù, Eduardo L. Martín, & Rafael Rebolo.* 404, L17, 33-E7 (1993)

The Detectability of Brown Dwarfs: Predictions and Uncertainties. *L. Nelson, S. Rappaport, & P. C. Joss.* 404, 723, 38-A1 (1993)

An Expanded Set of Brown Dwarf and Very Low Mass Star Models. *A. Burrows, W. B. Hubbard, D. Saumon, & J. I. Lunine.* 406, 158, 57-B1 (1993)

The Unique Spectrum of the Brown Dwarf Candidate GD 165B and Comparison to the Spectra of Other Low-Luminosity Objects. *J. Davy Kirkpatrick, Todd J. Henry, & James Liebert.* 406, 701, 66-E10 (1993)

A Search for Substellar Companions to Southern Solar-Type Stars. *Kaylene A. Murdoch, J. B. Hearnshaw, & M. Clark.* 413, 349, 160-E11 (1993)

On the Li and Be Tests for Brown Dwarfs. *L. A. Nelson, S. Rappaport, & E. Chiang.* 413, 364, 160-G1 (1993)

The Faintest Stars: From Schmidt Plates to Luminosity Functions. *C. G. Tinney, I. N. Reid, & J. R. Mould.* 414, 254, 173-B12 (1993)

The Faintest Stars: The Luminosity and Mass Functions at the Bottom of the Main Sequence. *Christopher G. Tinney.* 414, 279, 173-D12 (1993)

The Contribution of Disks and Envelopes to the Millimeter Continuum Emission from Very Young Low-Mass Stars. *S. Terebey, C. J. Chandler, & P. André.* 414, 759, 180-F6 (1993)

The Stellar Population in the ρ Ophiuchi Cluster. *F. Comeron, G. H. Rieke, A. Burrows, & M. J. Rieke.* 416, 185, 203-D1 (1993)

Proto–Brown Dwarfs. I. Methods and Results for High-Latitude Clouds. *Marc W. Pound & Leo Blitz.* 418, 328, 235-B9 (1993)

Deep Infrared Array Photometry of Globular Clusters. I. M4. *T. J. Davidge & D. A. Simons.* 423, 640, 56-D13 (1994)

Cool Zero-Metallicity Stellar Atmospheres. *D. Saumon, P. Bergeron, J. I. Lunine, W. B. Hubbard, & A. Burrows.* 424, 333, 66-A8 (1994)

Finite Source Sizes and the Information Content of Macho-Type Lens Search Light Curves. *Robert J. Nemiroff & W. A. D. T. Wickramasinghe.* 424, L21, 69-G8 (1994)

Observational Limits on Ω in Stars, Brown Dwarfs, and Stellar Remnants from Gravitational Microlensing. *Julianne J. Dalcanton, Claude R. Canizares, Arno Granados, Charles C. Steidel, & John T. Stocke.* 424, 550, 71-E5 (1994)

An Optical Study of the Faint End of the Stellar Luminosity Function. *T. H. Jarrett, R. L. Dickman, & W. Herbst.* 424, 852, 75-D2 (1994)

The Influence of H_2O Line Blanketing on the Spectra of Cool Dwarf Stars. *F. Allard, P. H. Hauschildt, S. Miller, & J. Tennyson.* 426, L39, 103-E7 (1994)

The Optical Gravitational Lensing Experiment: The Discovery of Three Further Microlensing Events in the Direction of the Galactic Bulge. *A. Udalski, M. Szymański, J. Kałużny, M. Kubiak, M. Mateo, & W. Krzemiński.* 426, L69, 109-C5 (1994)

A Coronagraphic Search for Brown Dwarfs around Nearby Stars. *T. Nakajima, S. T. Durrance, D. A. Golimowski, & S. R. Kulkarni.* 428, 797, 140-B11 (1994)

A Search for Lithium in Pleiades Brown Dwarf Candidates Using the Keck Hires Echelle. *Geoffrey W. Marcy, Gibor Basri, & James R. Graham.* 428, L57, 142-E7 (1994)

Gravitational Microlensing of the Galactic Bulge Stars. *Marcin Kiraga & Bohdan Paczyński.* 430, L101, 174-E11 (1994)

Oscillations of Red Dwarfs in Evolved Low-Mass Binaries with Neutron Stars. *Marek J. Sarna, Umin Lee, & Alexander G. Muslimov.* 431, 302, 179-G8 (1994)

MACHOs and the Diffuse X-Ray Background. *V. Kashyap, R. Rosner, D. Schramm, & J. Truran.* 431, L87, 191-E2 (1994)

On the Mass of the Dark Compact Objects in the Galactic Disk. *Ph. Jetzer.* 432, L43, 199-F10 (1994)

Baryonic Dark Clusters in Galactic Halos and Their Observable Consequences. *Ira Wasserman & Edwin E. Salpeter.* 433, 670, 219-D5 (1994)

Protostellar Accretion Disks Resolved with the JCMT-CSO Interferometer. *O. P. Lay, J. E. Carlstrom, R. E. Hills, & T. G. Phillips.* 434, L75, 241-G9 (1994)

The Luminosity Function at the End of the Main Sequence: Results of a Deep, Large-Area, CCD Survey for Cool Dwarfs. *J. Davy Kirkpatrick, John T. McGraw, Thomas R. Hess, James Liebert, & Donald W. McCarthy, Jr.* 94, 749, 62-C4 (1994)

M Dwarfs, Microlensing, and the Mass Budget of the Galaxy. *John N. Bahcall, Chris Flynn, Andrew Gould, & Sofia Kirhakos.* 435, L51, 252-C11 (1994)

Magnification Bias in Galactic Microlensing Searches. *Robert J. Nemiroff.* 435, 682, 255-D9 (1994)

Are the OGLE Microlenses in the Galactic Bar? *B. Paczyński, K. Z. Stanek, A. Udalski, M. Szymański, J. Kałużny, M. Kubiak, M. Mateo, & W. Krzemiński.* 435, L113, 259-G3 (1994)

The Detectability of Planetary Companions of Compact Galactic Objects from Their Effects on Microlensed Light Curves of Distant Stars. *Alberto D. Bolatto & Emilio E. Falco.* 436, 112, 262-G1 (1994)

Constraints to the Masses of Brown Dwarf Candidates from the Lithium Test. *Eduardo L. Martín, Rafael Rebolo, & Antonio Magazzù.* 436, 262, 264-G9 (1994)

Observational Limits on Companions to G29-38. *S. J. Kleinman, R. E. Nather, D. E. Winget, J. C. Clemens, P. A. Bradley, A. Kanaan, J. L. Provencal, C. F. Claver, T. K. Watson, K. Yanagida, J. S. Dixson, M. A. Wood, D. J. Sullivan, E. Meištas, E. M. Leibowitz, P. Moskalik, S. Zola, G. Pajdosz, J. Krzesinski, J.-E. Solheim, A. Bruvold, D. O'Donoghue, M. Katz, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, S. O. Kepler, O. Giovannini, C. J. Hansen, & S. D. Kawaler.* 436, 875, 277-G1 (1994)

The Optical Gravitational Lensing Experiment: OGLE No. 7: Binary Microlens or a New Unusual Variable? *A. Udalski, M. Szymański, S. Mao, R. Di Stefano, J. Kałużny, M. Kubiak, M. Mateo, & W. Krzemiński.* 436, L103, 280-D9 (1994)

Jeans Mass for Anisotropic Matter. *L. Herrera & N. O. Santos.* 438, 308, 5-F7 (1995)

On the Mass of the Dark Compact Objects in the Galactic Disk: Erratum. *Ph. Jetzer.* 438, L49, 10-E1 (1995) (Orig. paper in 432, L43, 199-F10 (1994))

Very Low Mass Stars and White Dwarfs in NGC 6397. *Francesco Paresce, Guido De Marchi, & Martino Romaniello.* 440, 216, 44-B13 (1995)

Microlensing by the Galactic Bar. *HongSheng Zhao, David N. Spergel, & R. Michael Rich.* 440, L13, 48-C8 (1995)

Self-Lensing by a Stellar Disk. *Andrew Gould.* 441, 77, 60-D5 (1995)

The Brown Dwarf Candidate ESO 207−61: Its Distance and Very Low Luminosity. *P. A. Ianna & L. W. Fredrick.* 441, L47, 67-C5 (1995)

Dynamical and Observable Constraints on RAMBOs: Robust Associations of Massive Baryonic Objects. *Ben Moore & Joseph Silk.* 442, L5, 84-D10 (1995)

HST Images of the Eclipsing Pulsar B1957+20. *Andrew S. Fruchter, Jay Bookbinder, & Charles D. Bailyn.* 443, L21, 102-D13 (1995)

On Population III Stars as Gravitational Microlensing Objects in the Galactic Halo. *Masayuki Y. Fujimoto, Kiyoshi Sugiyama, Icko Iben, Jr., & David Hollowell.* 444, 175, 115-F13 (1995)

Proto–Brown Dwarfs. II. Results in the Ophiuchus and Taurus Molecular Clouds. *Marc W. Pound & Leo Blitz.* 444, 270, 117-B10 (1995)

Detection of a Very Low Mass Companion to the Astrometric Binary Gliese 105A. *D. A. Golimowski, T. Nakajima, S. R. Kulkarni, & B. R. Oppenheimer.* 444, L101, 131-A1 (1995)

Probable Gravitational Microlensing toward the Galactic Bulge. *C. Alcock, R. A. Allsman, T. S. Axelrod, D. P. Bennett, K. H. Cook, K. C. Freeman, K. Griest, S. L. Marshall, S. Perlmutter, B. A. Peterson, M. R. Pratt, P. J. Quinn, A. W. Rodgers, C. W. Stubbs, & W. Sutherland (The MACHO Collaboration).* 445, 133, 134-B10 (1995)

The Stellar Mass Function of Praesepe. *D. M. Williams, G. H. Rieke, & J. R. Stauffer.* 445, 359, 137-D12 (1995)

New Evolutionary Tracks for Very Low Mass Stars. *I. Baraffe, G. Chabrier, F. Allard, & P. H. Hauschildt.* 446, L35, 160-F6 (1995)

K-Band Microlensing of the Inner Galaxy. *Andrew Gould.* 446, L71, 170-F11 (1995)

On the Minimum Magnification between Caustic Crossings for Microlensing by Binary and Multiple Stars. *Hans J. Witt & Shude Mao.* 447, L105, 191-A1 (1995)

Blending of Light in Gravitational Microlensing Events. *R. Di Stefano & A. A. Esin.* 448, L1, 199-B1 (1995)

The Brown Dwarf Candidate 0918−0023B Is a Distant Compact Galaxy. *E. E. Becklin, B. Macintosh, & B. Zuckerman.* 449, L117, 227-A2 (1995)

An Equation of State for Low-Mass Stars and Giant Planets. *D. Saumon, G. Chabrier, & H. M. Van Horn.* 99, 713, 44-E12 (1995)

MAP-based Trigonometric Parallaxes of Altair and Vega. *George Gatewood & Joost Kiewiet de Jonge.* 450, 364, 233-A4 (1995)

CM Draconis and YY Geminorum: Agreement between Theory and Observation. *Gilles Chabrier & Isabelle Baraffe.* 451, L29, 252-E6 (1995)

Assessing the Environmental Impact on PSR B1620−26 in M4. *Steinn Sigurdsson.* 452, 323, 266-E8 (1995)

NGC 1333 IRAS 4: Further Multiplicity Revealed with the CSO-JCMT Interferometer. *O. P. Lay, J. E. Carlstrom, & R. E. Hills.* 452, L73, 270-F7 (1995)

Hubble Space Telescope Observations of the Very Low Mass Companion to Gliese 105A. *David A. Golimowski, William G. Fastie, Daniel J. Schroeder, & Alan Uomoto.* 452, L125, 280-C1 (1995)

Unification of the Nearby and Photometric Stellar Luminosity Functions. *Pavel Kroupa.* 453, 358, 286-A13 (1995)

The Low-Mass IMF in the ρ Ophiuchi Cluster. *D. M. Williams, F. Comerón, G. H. Rieke, & M. J. Rieke.* 454, 144, 301-C2 (1995)

STARS: LUMINOSITIES

Classical Cepheid Luminosities from Binary Companions. *Nancy Remage Evans.* 372, 597, 83-B1 (1991)

The Globular Cluster ω Centauri: The Origin of the Mysterious Correlation between the RR Lyrae Luminosity and [Fe/H]. *Young-Wook Lee.* 373, L43, 97-B7 (1991)

Brown Dwarfs in Young Stellar Clusters. *Guy S. Stringfellow.* 375, L21, 117-C7 (1991)

Absolute Magnitudes and Kinematic Properties of Cepheids. *Teresa D. Wilson, Thomas G. Barnes III, Suzanne L. Hawley, & William H. Jefferys.* 378, 708, 161-B11 (1991)

STARS: LUMINOSITY FUNCTION, MASS FUNCTION

Constraints on the Age and Evolution of the Galaxy from the White Dwarf Luminosity Function. *M. A. Wood.* 386, 539, 32-B3 (1992)

Evolving, Dynamical Models for Collapsed-Core Globular Clusters: M15 and NGC 6624. *Robert P. Grabhorn, Haldan N. Cohn, Phyllis M. Lugger, & Brian W. Murphy.* 392, 86, 102-B1 (1992)

Multiplicity-corrected Mass Function of Main-Sequence Stars in the Solar Neighborhood. *Sarbani Basu & N. C. Rana.* 393, 373, 118-F10 (1992)

A Spectroscopic Determination of the Mass Distribution of DA White Dwarfs. *P. Bergeron, Rex A. Saffer, & James Liebert.* 394, 228, 130-G5 (1992)

Oxygen-enhanced Models for Globular Cluster Stars. II. Isochrones and Luminosity Functions. *Peter A. Bergbusch & Don A. VandenBerg.* 81, 163, 37-C11 (1992)

The Faintest Stars. *C. G. Tinney, J. R. Mould, & I. N. Reid.* 396, 173, 157-C6 (1992)

Gravitational Formation Times and Stellar Mass Distributions for Stars of Mass 0.3–30 $M_\odot$. *P. C. Myers & G. A. Fuller.* 402, 635, 10-E1 (1993)

Luminosity Functions for Very Low Mass Stars and Brown Dwarfs. *Gregory Laughlin & Peter Bodenheimer.* 403, 303, 17-E13 (1993)

The Detectability of Brown Dwarfs: Predictions and Uncertainties. *L. Nelson, S. Rappaport, & P. C. Joss.* 404, 723, 38-A1 (1993)

The Low-Mass Stellar Content of Galaxies: Constraints through Hybrid Population Synthesis near 1 Micron. *Jean Couture & Eduardo Hardy.* 406, 142, 56-G11 (1993)

Heavy-Element Abundances and Massive Star Formation. *Boqi Wang & Joseph Silk.* 406, 580, 65-B1 (1993)

The Structure of the Core of 47 Tucanae from *Hubble Space Telescope* Observations. *Guido De Marchi, Francesco Paresce, & Francesco R. Ferraro.* 85, 293, 11-B3 (1993)

Massive Star Formation near the Galactic Center and the Fate of the Stellar Remnants. *Mark Morris.* 408, 496, 91-D1 (1993)

Sub–Giant Branch Evolution and Efficient Central Energy Transport. *John Faulkner & Fritz J. Swenson.* 411, 200, 129-F3 (1993)

Infrared Luminosity Functions for the Young Stellar Population Associated with the L1641 Molecular Cloud. *Karen M. Strom, Stephen E. Strom, & K. M. Merrill.* 412, 233, 145-A8 (1993)

A Search for Substellar Companions to Southern Solar-Type Stars. *Kaylene A. Murdoch, J. B. Hearnshaw, & M. Clark.* 413, 349, 160-E11 (1993)

The Faintest Stars: From Schmidt Plates to Luminosity Functions. *C. G. Tinney, I. N. Reid, & J. R. Mould.* 414, 254, 173-B12 (1993)

The Faintest Stars: The Luminosity and Mass Functions at the Bottom of the Main Sequence. *Christopher G. Tinney.* 414, 279, 173-D12 (1993)

The Stellar Population in the ρ Ophiuchi Cluster. *F. Comeron, G. H. Rieke, A. Burrows, & M. J. Rieke.* 416, 185, 203-D1 (1993)

Truncated Initial Mass Function in Starburst Galaxies. *Stéphane Charlot, Frank Ferrari, G. J. Mathews, & Joseph Silk.* 419, L57, 259-C1 (1993)

On the Determination of the Number of O Stars in H II Regions and Starburst Galaxies. *William D. Vacca.* 421, 140, 17-F13 (1994)

Deep Infrared Array Photometry of Globular Clusters. I. M4. *T. J. Davidge & D. A. Simons.* 423, 640, 56-D13 (1994)

An Optical Study of the Faint End of the Stellar Luminosity Function. *T. H. Jarrett, R. L. Dickman, & W. Herbst.* 424, 852, 75-D2 (1994)

Initial Mass Functions from Ultraviolet Stellar Photometry: A Comparison of Lucke and Hodge OB Associations near 30 Doradus with the Nearby Field. *Jesse K. Hill, Joan E. Isensee, Robert H. Cornett, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 425, 122, 81-F5 (1994)

The Initial Mass Function for Massive Stars in the Magellanic Clouds. I. *UBV* Photometry and Color-Magnitude Diagrams for 14 OB Associations. *Robert J. Hill, Barry F. Madore, & Wendy L. Freedman.* 91, 583, 27-C8 (1994)

Hubble Space Telescope Fine Guidance Sensor Interferometric Observations of the Core of 30 Doradus. *M. G. Lattanzi, J. L. Hershey, R. Burg, L. G. Taff, S. T. Holfeltz, B. Bucciarelli, I. N. Evans, R. Gilmozzi, J. Pringle, & N. R. Walborn.* 427, L21, 117-D1 (1994)

The *Hubble Space Telescope* Extragalactic Distance Scale Key Project. II. Photometry of WFC Images of M81. *Shaun M. G. Hughes, Peter B. Stetson, Anne Turner, Robert C. Kennicutt, Jr., Robert Hill, Myung Gyoon Lee, Wendy L. Freedman, Jeremy R. Mould, Barry F. Madore, Laura Ferrarese, Holland C. Ford, John A. Graham, John G. Hoessel, & Garth D. Illingworth.* 428, 143, 130-A5 (1994)

The Initial Mass Function for Massive Stars in the Magellanic Clouds. III. Luminosity and Mass Functions for 14 OB Associations. *Robert J. Hill, Barry F. Madore, & Wendy L. Freedman.* 429, 204, 146-E12 (1994)

The Luminosity Function for Stars with $-0.6 \leq M_V \leq 6.5$ in the Globular Cluster M30: Is There a Problem with Stellar Evolution Models? *Michael Bolte.* 431, 223, 178-G10 (1994)

MACHOs and the Diffuse X-Ray Background. *V. Kashyap, R. Rosner, D. Schramm, & J. Truran.* 431, L87, 191-E2 (1994)

Cooling Theory of Crystallized White Dwarfs. *L. Segretain, G. Chabrier, M. Hernanz, E. García-Berro, J. Isern, & R. Mochkovitch.* 434, 641, 236-F2 (1994)

The Luminosity Function at the End of the Main Sequence: Results of a Deep, Large-Area, CCD Survey for Cool Dwarfs. *J. Davy Kirkpatrick, John T. McGraw, Thomas R. Hess, James Liebert, & Donald W. McCarthy, Jr.* 94, 749, 62-C4 (1994)

The Luminosity Functions of Embedded Stellar Clusters. I. Method of Solution and Analytic Results. *André B. Fletcher & Steven W. Stahler.* 435, 313, 247-F11 (1994)

The Luminosity Functions of Embedded Stellar Clusters. II. Numerical Results. *André B. Fletcher & Steven W. Stahler.* 435, 329, 248-A3 (1994)

WFPC2 Observations of the Double Cluster NGC 1850 in the Large Magellanic Cloud. *R. Gilmozzi, E. K. Kinney, S. P. Ewald, N. Panagia, & M. Romaniello.* 435, L43, 252-B7 (1994)

M Dwarfs, Microlensing, and the Mass Budget of the Galaxy. *John N. Bahcall, Chris Flynn, Andrew Gould, & Sofia Kirhakos.* 435, L51, 252-C11 (1994)

Massive Stars in the Field and Associations of the Magellanic Clouds: The Upper Mass Limit, the Initial Mass Function, and a Critical Test of Main-Sequence Stellar Evolutionary Theory. *Philip Massey, Cornelia C. Lang, Kathleen DeGioia-Eastwood, & Catharine D. Garmany.* 438, 188, 4-A2 (1995)

A Gauss-Hermite Expansion of the Galactic Globular Cluster Luminosity Function. *Roberto G. Abraham & Sidney van den Bergh.* 438, 218, 4-D1 (1995)

The Evolutionary Status of the Stellar Population in the ρ Ophiuchi Cloud Core. *Karen M. Strom, Jeremy Kepner, & Stephen E. Strom.* 438, 813, 15-D7 (1995)

On the Luminosity Function, Lifetimes, and Origin of Blue Stragglers in Globular Clusters. *Charles D. Bailyn & Marc H. Pinsonneault.* 439, 705, 34-C13 (1995)

Measurements of Globular Cluster Specific Frequencies and Luminosity Function Widths in Coma. *John P. Blakeslee & John L. Tonry.* 442, 579, 87-G8 (1995)

White Dwarfs and Mass Segregation in the Core of 47 Tucanae. *Francesco Paresce, Guido De Marchi, & Robert Jedrzejewski.* 442, L57, 94-D12 (1995)

Temperatures, Gravities, and Masses for a Sample of Bright DA White Dwarfs and the Initial-to-Final Mass Relation. *Angela Bragaglia, Alvio Renzini, & P. Bergeron.* 443, 735, 108-A7 (1995)

Proto–Brown Dwarfs. II. Results in the Ophiuchus and Taurus Molecular Clouds. *Marc W. Pound & Leo Blitz.* 444, 270, 117-B10 (1995)

The Stellar Content of 30 Doradus Derived from Spatially Integrated Ultraviolet Spectra: A Test of Spectral Synthesis Models. *William D. Vacca, Carmelle Robert, Claus Leitherer, & Peter S. Conti.* 444, 647, 125-C3 (1995)

Chemical Evolution of Irregular and Blue Compact Galaxies. *Leticia Carigi, Pedro Colín, Manuel Peimbert, & Antonio Sarmiento.* 445, 98, 133-F5 (1995)

Deep Infrared Array Photometry of Globular Clusters. III. M13. *T. J. Davidge & W. E. Harris.* 445, 211, 135-D7 (1995)

The Stellar Mass Function of Praesepe. *D. M. Williams, G. H. Rieke, & J. R. Stauffer.* 445, 359, 137-D12 (1995)

UIT and Optical Imagery of Large Magellanic Cloud Associations LH 52 and LH 53: Ages and Initial Mass Function Slopes. *Robert S. Hill, K.-P. Cheng, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 446, 622, 164-F10 (1995)

The Intermediate Stellar Mass Population in R136 Determined from *Hubble Space Telescope* Planetary Camera 2 Images. *Deidre A. Hunter, Edward J. Shaya, Jon A. Holtzman, Robert M. Light, Earl J. O'Neil, Jr., & Roger Lynds.* 448, 179, 194-E7 (1995)

The Mass of a Star Formed in a Cloud Core: Theory and Its Application to the Orion A Cloud. *Takenori Nakano, Tetsuo Hasegawa, & Colin Norman.* 450, 183, 230-E7 (1995)

On Coagulation and the Stellar Mass Spectrum. *Eric J. Allen & Pierre Bastien.* 452, 652, 273-F5 (1995)

Are the Nearby and Photometric Stellar Luminosity Functions Different? *Pavel Kroupa.* 453, 350, 286-A2 (1995)

Unification of the Nearby and Photometric Stellar Luminosity Functions. *Pavel Kroupa.* 453, 358, 286-A13 (1995)

The Low-Mass IMF in the ρ Ophiuchi Cluster. *D. M. Williams, F. Comerón, G. H. Rieke, & M. J. Rieke.* 454, 144, 301-C2 (1995)

The Initial Mass Function and Massive Star Evolution in the OB Associations of the Northern Milky Way. *Philip Massey, Kelsey E. Johnson, & Kathleen DeGioia-Eastwood.* 454, 151, 301-C12 (1995)

Pre–Main-Sequence Evolution in the Taurus-Auriga Molecular Cloud. *Scott J. Kenyon & Lee Hartmann.* 101, 117, 54-D3 (1995)

STARS: RR LYRAE

Application of Oxygen-enhanced Evolutionary Sequences to the Horizontal Branch of M15. *Ben Dorman, Young-Wook Lee, & Don A. VandenBerg.* 366, 115, 2-D11 (1991)

Stellar Evolution and Period Changes in RR Lyrae Stars. *Young-Wook Lee.* 367, 524, 19-G7 (1991)

Metal Abundances of RR Lyrae Variables in Selected Galactic Star Fields. V. The Lick Astrographic Fields at Intermediate Galactic Latitudes. *Nicholas B. Suntzeff, T. D. Kinman, & Robert P. Kraft.* 367, 528, 19-G13 (1991)

Two Double-Mode RR Lyrae Stars in the Field. *Christine M. Clement, T. D. Kinman, & Nicholas B. Suntzeff.* 372, 273, 77-C13 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

The Globular Cluster ω Centauri: The Origin of the Mysterious Correlation between the RR Lyrae Luminosity and [Fe/H]. *Young-Wook Lee.* 373, L43, 97-B7 (1991)

Detection of a Galactic Color Gradient for Blue Horizontal-Branch Stars of the Halo Field and Implications for the Halo Age and Density Distributions. *George W. Preston, Stephen A. Shectman, & Timothy C. Beers.* 375, 121, 112-E1 (1991)

The Evolution of He-burning Stars: Horizontal and Asymptotic Branches in Galactic Globulars. *V. Castellani, A. Chieffi, & L. Pulone.* 76, 911, 37-C5 (1991)

The RRd Masses Revisited. *Norman R. Simon & Arthur N. Cox.* 376, 717, 135-C1 (1991)

The Metallicity of RR Lyrae Stars in Baade's Window. *Alistair R. Walker & Donald M. Terndrup.* 378, 119, 152-D13 (1991)

Masses of RR*d* Variables Using Livermore OPAL Opacities. *Arthur N. Cox.* 381, L71, 199-F1 (1991)

STARS: MAGNETIC

Rotation and Magnetism in White Dwarfs. *Gary D. Schmidt & Jane E. Norsworthy.* 366, 270, 4-D1 (1991)

Spectroscopy of FO Aquarii: Evidence for Reprocessing in a Hot Wind. *Phillip J. Martell & Ronald H. Kaitchuck.* 366, 286, 4-E5 (1991)

Nonthermal X-Ray Emission from Winds of OB Supergiants. *Wan Chen & Richard L. White.* 366, 512, 9-D1 (1991)

A Crucial Test of the Diffusion Model: 53 Camelopardalis. *J. Babel & G. Michaud.* 366, 560, 10-A5 (1991)

Thomson Scattering in a Magnetic Field. II. Arbitrary Field Orientation. *Barbara A. Whitney.* 369, 451, 43-C10 (1991)

Be Stars: Chromospheres and Cool Envelopes and Their Relation to Magnetic Fields. *A. E. Ringuelet & M. E. Iglesias.* 369, 463, 43-D10 (1991)

Possible Detection of TeV Gamma Rays from AM Herculis. *C. L. Bhat, R. K. Kaul, H. S. Rawat, V. K. Senecha, R. C. Rannot, M. L. Sapru, A. K. Tickoo, & H. Razdan.* 369, 475, 43-E12 (1991)

Three-dimensional Structures of Magnetostatic Atmospheres. III. A General Formulation. *B. C. Low.* 370, 427, 52-E8 (1991)

Disk Accretion onto Magnetic T Tauri Stars. *Arieh Königl.* 370, L39, 53-E13 (1991)

Dynamic Magnetic Reconnection at an X-Type Neutral Point. *I. J. D. Craig & A. N. McClymont.* 371, L41, 66-F1 (1991)

Synchronization of the Magnetic Nova V1500 Cygni. *Gary D. Schmidt & H. S. Stockman.* 371, 749, 70-G7 (1991)

Thomson Scattering in a Magnetic Field. I. Field along z. *Barbara A. Whitney.* 75, 1293, 22-F1 (1991)

Magnetic Two-Photon Scattering and Two-Photon Emission: Cross Sections and Redistribution Functions. *S. G. Alexander & P. Mészáros.* 372, 554, 82-E11 (1991)

Cyclotron Harmonics in Accreting Pulsars and Gamma-Ray Bursters: Effect of Two-Photon Processes. *S. G. Alexander & P. Mészáros.* 372, 565, 82-F9 (1991)

Broad-Band Linear Polarization in Cool Stars. I. Models and Spatial Effects for Magnetic and Scattering Regions. *Juhani Huovelin & Steven H. Saar.* 374, 319, 102-B1 (1991)

Equation of State in a Strong Magnetic Field: Finite Temperature and Gradient Corrections. *Andrew M. Abrahams & Stuart L. Shapiro.* 374, 652, 107-B12 (1991)

A Theory of Gamma-Ray Bursts Based on Resonant Compton Scattering. *Peter Vitello & Charles D. Dermer.* 374, 668, 107-D1 (1991)

V1500 Cygni: A Prediction. *J. I. Katz.* 374, L59, 110-D11 (1991)

The Formation and Detection of Strongly Magnetic White Dwarf Binaries in Globular Clusters. *G. Chanmugam, A. Ray, & K. P. Singh.* 375, 600, 120-B9 (1991)

Cyclotron Line Features in the Spectrum of the Transient X-Ray Pulsar X0115+634. *F. Nagase, T. Dotani, Y. Tanaka, K. Makishima, T. Mihara, T. Sakao, H. Tsunemi, S. Kitamoto, K. Tamura, A. Yoshida, & H. Nakamura.* 375, L49, 124-B11 (1991)

On Turbulent Diffusion of Magnetic Fields and the Loss of Magnetic Flux from Stars. *Samuel I. Vainshtein & Robert Rosner.* 376, 199, 127-D7 (1991)

Rotational Evolution of Solar-Type Stars. I. Main-Sequence Evolution. *K. B. MacGregor & M. Brenner.* 376, 204, 127-D13 (1991)

Spin Evolution and Magnetic Fields in Cataclysmic Variables. *Andrew R. King & Jean-Pierre Lasota.* 378, 674, 160-G1 (1991)

Discovery of a Cyclotron Resonance Feature at 30 keV from the Transient X-Ray Pulsar Cepheus X-4. *T. Mihara, K. Makishima, S. Kamijo, T. Ohashi, F. Nagase, Y. Tanaka, & K. Koyama.* 379, L61, 175-C6 (1991)

Superfluid Hydrodynamics in Rotating Neutron Stars. I. Nondissipative Equations. *Gregory Mendell.* 380, 515, 184-F1 (1991)

Superfluid Hydrodynamics in Rotating Neutron Stars. II. Dissipative Effects. *Gregory Mendell.* 380, 530, 184-G3 (1991)

A Connection between Long-Term Luminosity Variations and Orbital Period Changes in Chromospherically Active Binaries. *Douglas S. Hall.* 380, L85, 188-F1 (1991)

Molecules and Chains in a Strong Magnetic Field: Statistical Treatment. *Andrew M. Abrahams & Stuart L. Shapiro.* 382, 233, 203-B5 (1991)

Neutron Star Crustal Plate Tectonics. II. Evolution of Radio Pulsar Magnetic Fields. *M. Ruderman.* 382, 576, 208-F4 (1991)

Cold Equation of State in a Strong Magnetic Field: Effects of Inverse β-Decay. *Dong Lai & Stuart L. Shapiro.* 383, 745, 223-D11 (1991)

STARS: MAGNETIC FIELDS

Multiple Resonant Scattering in the Compton Upscatter Model of Gamma-Ray Bursts. *J. J. Brainerd.* 384, 545, 9-A1 (1992)

Radio Emission Altitudes in the Pulsar Magnetosphere. *J. A. Phillips.* 385, 282, 15-D5 (1992)

A Mechanism for Orbital Period Modulation in Close Binaries. *James H. Applegate.* 385, 621, 20-G4 (1992)

Constraints on the Surface Magnetic Fields of Hot Stars with Winds. *Murugesapillai Maheswaran & Joseph P. Cassinelli.* 386, 695, 33-G13 (1992)

Angular Momentum Transport in Magnetized Stellar Radiative Zones. I. Numerical Solutions to the Core Spin-up Model Problem. *P. Charbonneau & K. B. MacGregor.* 387, 639, 46-E11 (1992)

Magnetic Fields in Damped Lyα Systems. *A. M. Wolfe, K. M. Lanzetta, & A. L. Oren.* 388, 17, 49-C5 (1992)

First Conclusive Evidence for Rotational Modulation of Stellar Radio Emission. *Jeremy Lim, Graham J. Nelson, Catarina Castro, David Kilkenny, & François van Wyk.* 388, L27, 52-C7 (1992)

Limits on the Magnetic Flux of Pre–Main-Sequence Stars. *Gibor Basri, Geoffrey W. Marcy, & Jeff A. Valenti.* 390, 622, 83-A9 (1992)

The Nonexponential Evolution of Pulsar Magnetic Fields. *Shigeto Wakatsuki, Atsushi Hikita, Naohiro Sato, & Naoki Itoh.* 392, 628, 110-A10 (1992)

Models of White Dwarfs Distorted by Differential Rotation and Magnetic Fields. *V. S. Geroyannis & A. A. Hadjopoulos.* 81, 377, 40-B13 (1992)

Two Ultramassive White Dwarfs Found among Candidates for Magnetic Fields. *Gary D. Schmidt, P. Bergeron, James Liebert, & Rex A. Saffer.* 394, 603, 136-G11 (1992)

Magnetic Field Decay in Isolated Neutron Stars. *Peter Goldreich & Andreas Reisenegger.* 395, 250, 143-C5 (1992)

X-Ray Emission from Single Magnetic Early-Type Stars. *V. V. Usov & D. B. Melrose.* 395, 575, 150-B1 (1992)

The White Dwarf Companion to PSR 0820+02. *D. Koester, G. Chanmugam, & D. Reimers.* 395, L107, 154-C7 (1992)

Exploring the Peculiar Magnetic Field of Feige 7. *N. Achilleos, D. T. Wickramasinghe, James Liebert, Rex A. Saffer, & A. D. Grauer.* 396, 273, 158-D13 (1992)

Properties of Quasi-periodic Oscillations in Accreting Magnetic White Dwarfs. *Kinwah Wu, G. Chanmugam, & G. Shaviv.* 397, 232, 170-G6 (1992)

Dynamics of the Envelopes of Be Stars in the Equatorial Plane. II. The Influence of a Weak Magnetic Field on the Azimuthal Motion of a Slowly Expanding Wind. *Haiqi Chen & J. M. Marlborough.* 397, 242, 171-A3 (1992)

Solar Spin-down with Internal Magnetic Fields. *P. Charbonneau & K. B. MacGregor.* 397, L63, 174-A3 (1992)

Discovery of a Sub-Megagauss Magnetic White Dwarf through Spectropolarimetry. *Gary D. Schmidt, H. S. Stockman, & Paul S. Smith.* 398, L57, 188-A7 (1992)

Implications of $^3P_2$ Superfluidity in the Interior of Neutron Stars. *H. F. Chau, K. S. Cheng, & K. Y. Ding.* 399, 213, 197-G9 (1992)

Discovery of Two Cool Magnetic White Dwarfs. *P. Bergeron, María-Teresa Ruiz, & S. K. Leggett.* 400, 315, 212-G5 (1992)

Possible First Detection of Ultraviolet Pulses from an Intermediate Polar: V603 Aquila. *A. Schwarzenberg-Czerny, A. Udalski, & R. Monier.* 401, L19, 227-C7 (1992)

A Search for Circular Polarization in Cataclysmic Variables. *H. S. Stockman, Gary D. Schmidt, G. Berriman, James Liebert, R. L. Moore, & D. T. Wickramasinghe.* 401, 628, 230-C13 (1992)

Pulsar Death Lines and Death Valley. *Kaiyou Chen & Malvin Ruderman.* 402, 264, 4-D1 (1993)

Magnetic Nonthermal Activity in the T Tauri System. *Robert B. Phillips, Colin J. Lonsdale, & Eric D. Feigelson.* 403, L43, 20-E5 (1993)

Broad-band Linear Polarization in Cool Stars. II. Amplitude and Wavelength Dependence for Magnetic and Scattering Regions. *Steven H. Saar & Juhani Huovelin.* 404, 739, 38-B7 (1993)

Discovery of Remarkably Intense Radio Emission from a Young and Rapidly Rotating dMe Star. *Jeremy Lim.* 405, L33, 47-F1 (1993)

The Strong Magnetic Field in G227-35. *Marshall H. Cohen, Angela Putney, & Robert W. Goodrich.* 405, L67, 54-D5 (1993)

Nova V2214 Ophiuchi 1988: A Magnetic Nova inside the Period Gap. *R. Baptista, F. J. Jablonski, D. Cieslinski, & J. E. Steiner.* 406, L67, 68-D9 (1993)

Resistive Dissipation and Magnetic Field Topology in the Stellar Corona. *E. N. Parker.* 407, 342, 73-C11 (1993)

G62-46: An Unresolved Double Degenerate Binary Containing a Magnetic DA Component. *P. Bergeron, María-Teresa Ruiz, & S. K. Leggett.* 407, 733, 79-E13 (1993)

Magnetic Field Topology in Pulsars. *Jonathan Arons.* 408, 160, 85-B1 (1993)

Origin and Radio Pulse Properties of Millisecond Pulsars. *Kaiyou Chen & Malvin Ruderman.* 408, 179, 85-C12 (1993)

Neutron Star Dynamos and the Origins of Pulsar Magnetism. *Christopher Thompson & Robert C. Duncan.* 408, 194, 85-E4 (1993)

Relativistic Electron-Positron Beams in Gamma-Ray Bursters. *I. A. Smith & Richard I. Epstein.* 410, 315, 116-A6 (1993)

Crustal Magnetic Field Decay in Neutron Stars and the Nature of Superdense Matter. *Vadim A. Urpin & Kenneth A. Van Riper.* 411, L87, 142-E6 (1993)

An Interpretation of Cycle Periods of Stellar Chromospheric Activity. *W. H. Soon, S. L. Baliunas, & Q. Zhang.* 414, L33, 175-F6 (1993)

Extreme Ultraviolet Explorer Observations of the Magnetic Cataclysmic Variable RE 1938−461. *John K. Warren, John V. Vallerga, Christopher W. Mauche, Koji Mukai, & Oswald H. W. Siegmund.* 414, L69, 185-D2 (1993)

Evidence of Magnetic Activity in Short-Period Algol Binaries. *Mercedes T. Richards & Geary E. Albright.* 88, 199, 42-G7 (1993)

Thomas-Fermi Calculations of Atoms and Matter in Magnetic Neutron Stars: Effects of Higher Landau Bands. *Ö. E. Rögnvaldsson, I. Fushiki, E. H. Gudmundsson, C. J. Pethick, & J. Yngvason.* 416, 276, 204-E3 (1993)

HR 1362: The Evolved 53 Camelopardalis. *K. Stępień.* 416, 368, 205-E11 (1993)

Angular Momentum Transport in Magnetized Stellar Radiative Zones. II. The Solar Spin-down. *P. Charbonneau & K. B. MacGregor.* 417, 762, 228-G13 (1993)

Discovery of a Magnetic/Nonmagnetic Double-degenerate Binary System. *James Liebert, P. Bergeron, Gary D. Schmidt, & Rex A. Saffer.* 418, 426, 236-C10 (1993)

Nonthermal Cyclotron Emission from Low-Luminosity Accretion onto Magnetic Neutron Stars. *Robert W. Nelson, E. E. Salpeter, & Ira Wasserman.* 418, 874, 243-D12 (1993)

The Faraday Rotation and Linear Polarization of Light in Stellar Atmospheres. *N. A. Silant'ev.* 419, 294, 249-G6 (1993)

Magnetic Shaping of Planetary Nebulae and Other Stellar Wind Bubbles. *Roger A. Chevalier & Ding Luo.* 421, 225, 18-G1 (1994)

Rotation and Magnetic Fields during the Evolution of Massive Stars through B[e] and Wolf-Rayet Phases. *Murugesapillai Maheswaran & Joseph Cassinelli.* 421, 718, 27-B9 (1994)

Discovery of a Dwarf Carbon Star with a White Dwarf Companion and of a Highly Magnetic Degenerate Star. *James Liebert, Gary D. Schmidt, M. Lesser, J. A. Stepanian, V. A. Lipovetsky, Frederic H. Chaffee, Craig B. Foltz, & P. Bergeron.* 421, 733, 27-C12 (1994)

Radio Constraints on Coronal Models for dMe Stars. *S. M. White, J. Lim, & M. R. Kundu.* 422, 293, 33-F11 (1994)

Quiescent Microwave Emission from Late-Type Stars. *Manuel Güdel.* 90, 743, 13-A8 (1994)

Radiation-driven Acceleration in Photospheres of Nonaccreting Magnetic White Dwarfs. *Vladimir V. Zheleznyakov & A. V. Serber.* 90, 783, 13-D13 (1994)

The Incidence of Magnetism among White Dwarfs: The First Stars below 100 Kilogauss. *Gary D. Schmidt & Paul S. Smith.* 423, L63, 54-B3 (1994)

Reflection of Alfvén Waves in Stellar Atmospheres: The Case of Open Magnetic Fields. *Yu-Qing Lou & Robert Rosner.* 424, 429, 67-B11 (1994)

A Broad Observational Study of the Eclipsing Magnetic Cataclysmic Variable RE 2107−05. *Jason Glenn, Steve B. Howell, Gary D. Schmidt, James Liebert, Albert D. Grauer, & R. Mark Wagner.* 424, 967, 76-G3 (1994)

On the Magnetic Nature of GQ Muscae. *M. P. Diaz & J. E. Steiner.* 425, 252, 83-D5 (1994)

Are Cosmic Rays Effective for Ionization of Protoplanetary Disks? *Arkady Z. Dolginov & Tomasz F. Stepinski.* 427, 377, 114-E3 (1994)

Magnetic Braking in Spin Evolution of Magnetized T Tauri Stars. *Insu Yi.* 428, 760, 139-F6 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. I. A Generalized Model. *Frank Shu, Joan Najita, Eve Ostriker, Frank Wilkin, Steven Ruden, & Susana Lizano.* 429, 781, 155-D5 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. II. Formulation of the Dynamical Problem. *Frank H. Shu, Joan Najita, Steven P. Ruden, & Susana Lizano.* 429, 797, 155-E9 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. III. Numerical Solution of the Sub-Alfvénic Region. *Joan R. Najita & Frank H. Shu.* 429, 808, 155-F9 (1994)

Eclipse Mapping of the Accreting Magnetic White Dwarf in DP Leonis with *HST*. *H. S. Stockman, Gary D. Schmidt, James Liebert, & J. B. Holberg.* 430, 323, 163-B11 (1994)

Dynamo Generation of a Magnetic Field in the White Dwarf GD 358. *J. Andrew Markiel, John H. Thomas, & H. M. Van Horn.* 430, 834, 172-C7 (1994)

Self-similar, Spherical Collapse of a Nonrotating Magnetized Cloud. *Tzihong Chiueh & Jien-Kuo Chou.* 431, 380, 180-F13 (1994)

The Effect of Constant Horizontal Magnetic Fields on Model Atmospheres of Ap Stars. *F. LeBlanc, G. Michaud, & J. Babel.* 431, 388, 180-G9 (1994)

Zeeman Enhancement of Lines in Extremely Active K Dwarfs. *Gibor Basri & Geoffrey W. Marcy.* 431, 844, 189-B11 (1994)

Long-Term Evolution of Crustal Neutron Star Magnetic Fields. *V. A. Urpin, G. Chanmugam, & Yeming Sang.* 433, 780, 220-G5 (1994)

On Nonlinear Radial Adiabatic Oscillations in Magnetic Polytropes. *M. K. Das, O. J. Mollikutty, & R. K. Tavakol.* 433, 786, 220-G13 (1994)

The Unusual Ω of the Millisecond Pulsar 1620−26: The Consequence of a Giant Glitch? *K. S. Cheng, N. Chong, & T. M. Lee.* 434, 733, 237-G10 (1994)

The Nonexponential Evolution of Pulsar Magnetic Fields. II. Velocity–Magnetic Field Correlation. *Naoki Itoh & Kentaro Hiraki.* 435, 784, 256-G8 (1994)

RJ 051542+0104.7: A New Magnetic, Eclipsing, Cataclysmic Variable. *Peter M. Garnavich, Paula Szkody, Russell M. Robb, David R. Zurek, & D. W. Hoard.* 435, L141, 260-C11 (1994)

Orbital Period Variability in the Eclipsing Pulsar Binary PSR B1957+20: Evidence for a Tidally Powered Star. *James H. Applegate & Jacob Shaham.* 436, 312, 265-E8 (1994)

The Soft Gamma-Ray Spectrum of A0535+26: Detection of an Absorption Feature at 110 keV by OSSE. *J. E. Grove, M. S. Strickman, W. N. Johnson, J. D. Kurfess, R. L. Kinzer, C. H. Starr, G. V. Jung, E. Kendziorra, P. Kretschmar, M. Maisack, & R. Staubert.* 438, L25, 10-A9 (1995)

A Method for Estimating the Fractional Area Coverage of Active Regions on Dwarf F and G Stars. *Vincenzo Andretta & Mark S. Giampapa.* 439, 405, 26-F10 (1995)

Infrared Zeeman Analysis of ϵ Eridani. *Jeff A. Valenti, Geoffrey W. Marcy, & Gibor Basri.* 439, 939, 37-E9 (1995)

ORFEUS Observations of AM Herculis. *John C. Raymond, Christopher W. Mauche, Stuart Bowyer, & Mark Hurwitz.* 440, 331, 45-F7 (1995)

Delayed Switch-on of Pulsars. *Alexander Muslimov & Dany Page.* 440, L77, 58-A3 (1995)

Detection of the Hot White Dwarf in the Magnetic Nova V1500 Cygni with the *Hubble Space Telescope*. *Gary D. Schmidt, James Liebert, & H. S. Stockman.* 441, 414, 65-A11 (1995)

Magnetic Activity Variations of ϵ Eridani. *David F. Gray & Sallie L. Baliunas.* 441, 436, 65-D4 (1995)

Surface Temperature of a Magnetized Neutron Star and Interpretation of the *ROSAT* Data. I. Dipolar Fields. *Dany Page.* 442, 273, 81-A1 (1995)

On the Origin of "Dividing Lines" for Late-Type Giants and Supergiants. *R. Rosner, Z. E. Musielak, F. Cattaneo, R. L. Moore, & S. T. Suess.* 442, L25, 84-G11 (1995)

Magnetic Field Evolution in White Dwarfs: The Hall Effect and Complexity of the Field. *A. G. Muslimov, H. M. Van Horn, & M. A. Wood.* 442, 758, 90-F2 (1995)

Magnetized Accretion and Spin Evolution in Classical T Tauri Stars. *Insu Yi.* 442, 768, 90-G2 (1995)

Postaccretion Magnetic Field Evolution of Neutron Stars. *E. J. Young & G. Chanmugam.* 442, L53, 94-D3 (1995)

Generation of Mass Loss in K Giants: The Failure of Global Oscillation Modes and Possible Implications. *G. Sutmann & M. Cuntz.* 442, L61, 94-E7 (1995)

On the Nature of the Spectral Features in Peculiar "DQ" White Dwarfs. *Gary D. Schmidt, P. Bergeron, & Bruce Fegley, Jr.* 443, 274, 99-A10 (1995)

Magnetic Moments and Angular Momenta of Stars and Planets. *C. N. Arge, D. J. Mullan, & A. Z. Dolginov.* 443, 795, 108-G1 (1995)

Starspot Evolution, Differential Rotation, and Magnetic Cycles in the Chromospherically Active Binaries λ Andromedae, σ Geminorum, II Pegasi, and V711 Tauri. *Gregory W. Henry, Joel A. Eaton, Jamesia Hamer, & Douglas S. Hall.* 97, 513, 19-C6 (1995)

Circular Polarization in the Radio Emission of RS Canum Venaticorum Binaries. *Stephen M. White & Elena Franciosini.* 444, 342, 118-C1 (1995)

Geometry and Pulse Profiles of X-Ray Pulsars: Asymmetric Relativistic Fits to 4U 1538−52 and Vela X-1. *T. Bulik, H. Riffert, P. Mészáros, K. Makishima, T. Mihara, & B. Thomas.* 444, 405, 119-B3 (1995)

Extreme Ultraviolet Light Curves of UZ Fornacis: Evidence for Accretion Stream Absorption and Vertical Extent of the Accretion Spot. *John K. Warren, Martin M. Sirk, & John V. Vallerga.* 445, 909, 147-F13 (1995)

New Insights into Nonradiative Heating in Late A Star Chromospheres. *Frederick M. Walter, Lynn D. Matthews, & Jeffrey L. Linsky.* 447, 353, 177-C6 (1995)

A Search for Magnetic Fields among DA White Dwarfs. *Gary D. Schmidt & Paul S. Smith.* 448, 305, 196-D7 (1995)

Off-centered Dipole Models for Three Isolated Magnetic White Dwarfs. *Angela Putney & Stefan Jordan.* 449, 863, 224-E10 (1995)

On the Torque Exerted by a Magnetically Threaded Accretion Disk. *Y.-M. Wang.* 449, L153, 227-F1 (1995)

Are Variations in the Length of the Activity Cycle Related to Changes in Brightness in Solar-Type Stars? *Sallie Baliunas & Willie Soon.* 450, 896, 243-C8 (1995)

The Dynamics of Flux Tubes in a High-β Plasma. II. Buoyancy in Stars and Accretion Disks. *Ethan T. Vishniac.* 451, 816, 258-D12 (1995)

Three New Magnetic White Dwarf Stars. *Angela Putney.* 451, L67, 260-F7 (1995)

Dynamo Generation of Magnetic Fields in White Dwarfs. *John H. Thomas, J. Andrew Markiel, & H. M. Van Horn.* 453, 403, 286-F3 (1995)

The Nonexponential Evolution of Pulsar Magnetic Fields. III. Comparison with the New Velocity Measurement. *Naoki Itoh, Takemi Kotouda, & Kentaro Hiraki.* 455, 244, 321-D13 (1995)

X-Ray Emission from Magnetic Cataclysmic Variables and White Dwarf Mass Estimates. *Kinwah Wu, G. Chanmugam, & G. Shaviv.* 455, 260, 321-F8 (1995)

Magnetocentrifugally Driven Flows from Young Stars and Disks. V. Asymptotic Collimation into Jets. *Frank H. Shu, Joan Najita, Eve C. Ostriker, & Hsien Shang.* 455, L155, 334-C6 (1995)

STARS: MASS LOSS

Circumstellar Material around the Massive Close Binary DH Cephei. *M. F. Corcoran.* 366, 308, 4-G8 (1991)

Using SN 1987A Light Echoes to Determine Mass Loss from the Progenitor. *Arlin P. S. Crotts & William E. Kunkel.* 366, L73, 11-D1 (1991)

Distribution of Dust about o Ceti and α Orionis Based on 11 Micron Spatial Interferometry. *M. Bester, W. C. Danchi, C. G. Degiacomi, C. H. Townes, & T. R. Geballe.* 367, L27, 17-E1 (1991)

On Winds and X-Rays of O-Type Stars. *Tomasz Chlebowski & Catharine D. Garmany.* 368, 241, 26-B1 (1991)

On the Possible Bipolar Nature of 21 Micron *IRAS* Sources. *Bruce J. Hrivnak & S. Kwok.* 368, 564, 32-B1 (1991)

Theoretical Light Curve for the Recurrent Nova RS Ophiuchi—Determination of the White Dwarf Mass, Composition, and Distance. *Mariko Kato.* 369, 471, 43-E6 (1991)

Star Formation and the Nature of Bipolar Outflows. *Frank H. Shu, Steven P. Ruden, Charles J. Lada, & Susana Lizano.* 370, L31, 53-E1 (1991)

Mass Outflow in the Nearby Proto–Planetary System β Pictoris. *Frederick C. Bruhweiler, Yoji Kondo, & C. A. Grady.* 371, L27, 66-D7 (1991)

Mixing Layers in Stellar Outflows. *J. Cantó & A. C. Raga.* 372, 646, 83-F7 (1991)

Magnetic Confinement, Alfvén Wave Reflection, and the Origins of X-Ray and Mass-Loss "Dividing Lines" for Late-Type Giants and Supergiants. *R. Rosner, C.-H. An, Z. E. Musielak, R. L. Moore, & S. T. Suess.* 372, L91, 85-E5 (1991)

Double Core Evolution. IV. The Late Stages of Evolution of a 2 $M_\odot$ Red Giant with a 1 $M_\odot$ Companion. *Ronald E. Taam & Peter Bodenheimer.* 373, 246, 89-A10 (1991)

The Common Envelope Phase in Classical Novae: One-dimensional Models. *Anurag Shankar, Mario Livio, & James W. Truran.* 374, 623, 106-G6 (1991)

From Wind to Superwind: The Evolution of Mass-Loss Rates for Mira Models. *G. H. Bowen & L. A. Willson.* 375, L53, 124-C1 (1991)

Mass Loss in the 96 Day Binary UU Cancri. *Joel A. Eaton, Douglas S. Hall, & R. Kent Honeycutt.* 376, 289, 128-E1 (1991)

Molecular Outflows Associated with Young Stellar Objects in the L1641 Region of Orion. *James A. Morgan, F. Peter Schloerb, Ronald L. Snell, & John Bally.* 376, 618, 134-A12 (1991)

Observations of Stellar Winds from Hot Stars at 1.3 Millimeters. *Claus Leitherer & Carmelle Robert.* 377, 629, 147-E1 (1991)

Constraints on the Physical Properties of Optical Bullets in SS 433. *John C. Brown, Joseph P. Cassinelli, & George W. Collins II.* 378, 307, 154-G1 (1991)

Can Neutron Stars Ablate Their Companions? *Amir Levinson & David Eichler.* 379, 359, 167-E1 (1991)

An Observational Connection between Circumstellar Disk Mass and Molecular Outflows. *Sylvie Cabrit & Philippe André.* 379, L25, 169-C6 (1991)

Interaction of Mass Lost in Globular Clusters with the Halo Medium. *D. J. Faulkner & Graeme H. Smith.* 380, 441, 183-F7 (1991)

Particle Emissivity in Circumstellar Disks. *Steven V. W. Beckwith & Anneila I. Sargent.* 381, 250, 192-B1 (1991)

On the Nature of the Excess 100 Micron Flux Associated with Carbon Stars. *Michael P. Egan & Chun Ming Leung.* 383, 314, 216-B1 (1991)

Time Variations in the X-Rays from Cygnus X-3 Observed with *Ginga*. *Shunji Kitamoto, Seiko Mizobuchi, Koujun Yamashita, & Hiroshi Nakamura.* 384, 263, 4-B13 (1992)

On Mass-Transfer Rates in Classical Nova Precursors. *Icko Iben, Jr., Masayuki Y. Fujimoto, & Jim MacDonald.* 384, 580, 9-D1 (1992)

Spherically Symmetric, Polytropic Flow. *T. Theuns & M. David.* 384, 587, 9-D9 (1992)

The Multiple Molecular Winds of CRL 2688. *K. Young, G. Serabyn, T. G. Phillips, G. R. Knapp, R. Güsten, & A. Schulz.* 385, 265, 15-B13 (1992)

Classical Nova Models with Accretion Heating at Accretion Rates of 10^{-9} and 10^{-10} $M_\odot$ per Year. *Dina Prialnik & Attay Kovetz.* 385, 665, 21-D1 (1992)

Radial Velocities of Carbon Stars: CO versus Optical Measurements. *Cecilia Barnbaum.* 385, 694, 21-F10 (1992)

The Bow Shock Structure of IRS 7: Wind-Wind Collision near the Galactic Center. *Farhad Yusef-Zadeh & Fulvio Melia.* 385, L41, 23-B13 (1992)

Excitation of Pressure Modes in Common Envelopes. *Noam Soker.* 386, 190, 26-E1 (1992)

Winds from T Tauri Stars. II. Balmer Line Profiles for Inner Disk Winds. *Nuria Calvet, Lee Hartmann, & Robert Hewett.* 386, 229, 27-A9 (1992)

Colliding Winds from Early-Type Stars in Binary Systems. *Ian R. Stevens, John M. Blondin, & A. M. T. Pollock.* 386, 265, 27-E1 (1992)

Polarization Variability among Wolf-Rayet Stars. VII. The Single Stars WR 14, WR 25, and WR 69. *Laurent Drissen, Carmelle Robert, & Anthony F. J. Moffat.* 386, 288, 27-F11 (1992)

Positions of the Radio Recombination Line Masers in MWC 349. *P. Planesas, J. Martín-Pintado, & E. Serabyn.* 386, L23, 29-D1 (1992)

Constraints on the Surface Magnetic Fields of Hot Stars with Winds. *Murugesapillai Maheswaran & Joseph P. Cassinelli.* 386, 695, 33-G13 (1992)

The Wind Geometry of the Wolf-Rayet Star HD 191765. *R. E. Schulte-Ladbeck, K. H. Nordsieck, M. Taylor, K. S. Bjorkman, A. M. Magalhães, & M. J. Wolff.* 387, 347, 41-C6 (1992)

An Accreting Black Hole Model for Sagittarius A*. *Fulvio Melia.* 387, L25, 43-C10 (1992)

Properties of Swept-up Molecular Outflows. *Colin R. Masson & Lawrence M. Chernin.* 387, L47, 43-F1 (1992)

Discovery of a Fast Wind from a Field Population II Giant Star. *A. K. Dupree, Dimitar D. Sasselov, & John B. Lester.* 387, L85, 48-D11 (1992)

Dynamics of Wind Bubbles and Superbubbles. I. Slow Winds and Fast Winds. *Bon-Chul Koo & Christopher F. McKee.* 388, 93, 50-C1 (1992)

Dynamics of Wind Bubbles and Superbubbles. II. Analytic Theory. *Bon-Chul Koo & Christopher F. McKee.* 388, 103, 50-C12 (1992)

Mass Loss from OH/IR Stars: Models for the Infrared Emission of Circumstellar Dust Shells. *K. Justtanont & A. G. G. M. Tielens.* 389, 400, 64-G10 (1992)

Stellar Wind Collision and X-Ray Generation in Massive Binaries. *V. V. Usov.* 389, 635, 69-C10 (1992)

Probing the Circumstellar Environments of Very Young Low-Mass Stars Using Water Masers. *S. Terebey, S. N. Vogel, & P. C. Myers.* 390, 181, 76-C1 (1992)

1612 MHz OH Maser Emission from Axisymmetric Circumstellar Envelopes: Miras. *Alan J. Collison & John D. Fix.* 390, 191, 76-C13 (1992)

Time Series Observations of O Stars. I. *IUE* Observations of Variability in the Stellar Wind of ζ Puppis. *R. K. Prinja, L. A. Balona, C. T. Bolton, R. A. Crowe, M. S. Fieldus, A. W. Fullerton, D. R. Gies, I. D. Howarth, D. McDavid, & A. H. N. Reid.* 390, 266, 77-C6 (1992)

What Drives the Mass Transfer in Cygnus X-3? *Abhas Mitra.* 390, 645, 83-C8 (1992)

Propagating Absorption Enhancements in the Wind of the Extreme Of Supergiant HD 151804. *A. W. Fullerton, D. R. Gies, & C. T. Bolton.* 390, 650, 83-D1 (1992)

The Collapse of White Dwarfs to Neutron Stars. *S. E. Woosley & E. Baron.* 391, 228, 88-G1 (1992)

The First Linear Polarization Spectra of Wolf-Rayet Stars in the Ultraviolet: EZ Canis Majoris and θ Muscae. *R. E. Schulte-Ladbeck, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, D. Shepherd, M. Taylor, & B. A. Whitney.* 391, L37, 92-C6 (1992)

Models of Planetary Nebula Spectral Evolution. *Kevin Volk.* 80, 347, 27-B11 (1992)

Hα Observations of Early-Type Stars. *S. Scuderi, G. Bonanno, R. Di Benedetto, D. Spadaro, & N. Panagia.* 392, 201, 103-D7 (1992)

Stellar Wind Paleontology. II. Faint Halos and Historical Mass Ejection in Planetary Nebulae. *Bruce Balick, Guillermo Gonzalez, Adam Frank, & George Jacoby.* 392, 582, 109-D11 (1992)

Ultraviolet and Optical Spectral Morphology of Melnick 42 and Radcliffe 136a in 30 Doradus. *Nolan R. Walborn, Dennis C. Ebbets, Joel Wm. Parker, Joy Nichols-Bohlin, & Richard L. White.* 393, L13, 120-C1 (1992)

Hydromagnetic Disk Winds in Young Stellar Objects and Active Galactic Nuclei. *Guy Pelletier & Ralph E. Pudritz.* 394, 117, 129-D13 (1992)

Self-consistent Models of Wolf-Rayet Stars as Helium Stars with Optically Thick Winds. *Mariko Kato & Icko Iben, Jr.* 394, 305, 131-F13 (1992)

SO and SO_2 in Mass-Loss Envelopes of Red Giants: Probes of Nonequilibrium Circumstellar Chemistry and Mass-Loss Rates. *Raghvendra Sahai & Peter G. Wannier.* 394, 320, 132-A3 (1992)

Prevention of Accretion onto White Dwarfs by Stellar Winds. *James MacDonald.* 394, 619, 137-B8 (1992)

Light-Curve Analysis of Classical Novae. *Mariko Kato & Icko Iben, Jr.* 394, L47, 139-C7 (1992)

Possible Detection of a High-Velocity Neutral Wind in T Tauri. *Abraham Ruiz, José L. Alonso, & I. F. Mirabel.* 394, L57, 139-D7 (1992)

Mass Loss and a Possible Population II Lithium Dip. *David S. P. Dearborn, David N. Schramm, & L. M. Hobbs.* 394, L61, 139-E1 (1992)

Lithium Dilution through Main-Sequence Mass Loss. *Fritz J. Swenson & John Faulkner.* 395, 654, 151-D3 (1992)

A Determination of the Mass of Sagittarius A* from Its Radio Spectral and Source Size Measurements. *Fulvio Melia, J. R. Jokipii, & Ajay Narayanan.* 395, L87, 154-A1 (1992)

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. II. Plaskett's Star (HD 47129). *Michael S. Wiggs & Douglas R. Gies.* 396, 238, 158-A12 (1992)

Extremely High Velocity CO Emission from NGC 2071. *Lawrence M. Chernin & Colin R. Masson.* 396, L35, 160-F8 (1992)

Hubble Space Telescope FOS Observations of KPD 0005+5106: A Subluminous WN-WC Descendant with Ongoing Mass Outflow? *Edward M. Sion & Ronald A. Downes.* 396, L79, 167-B7 (1992)

Neutral Winds from Protostars. *Carlo Giovanardi, Susana Lizano, Antonella Natta, Neal J. Evans II, & Carl Heiles.* 397, 214, 170-E13 (1992)

Limits on Detectability of Mass Loss from Cool Dwarfs. *D. J. Mullan, J. G. Doyle, R. O. Redman, & M. Mathioudakis.* 397, 225, 170-F12 (1992)

OH/IR Stars in the Magellanic Clouds. *P. R. Wood, J. B. Whiteoak, S. M. G. Hughes, M. S. Bessell, F. F. Gardner, & A. R. Hyland.* 397, 552, 177-G5 (1992)

Tidal Heating and Mass Loss in Neutron Star Binaries: Implications for Gamma-Ray Burst Models. *P. Mészáros & M. J. Rees.* 397, 570, 178-A12 (1992)

Polarization and the Envelopes of B[e] Supergiants in the Magellanic Clouds. *A. M. Magalhães.* 398, 286, 185-C11 (1992)

Why All Stars Should Possess Circumstellar Temperature Inversions. *Jack D. Scudder.* 398, 319, 185-F11 (1992)

Mapping AG Carinae: Long-Slit Spectroscopy and Coronographic Imaging of the Nebula and Jet. *Antonella Nota, Claus Leitherer, Mark Clampin, Perry Greenfield, & David A. Golimowski.* 398, 621, 191-G6 (1992)

The Nucleus of M31. *Fulvio Melia.* 398, L95, 194-C8 (1992)

Infrared Emission and Mass Loss from Evolved Stars in Elliptical Galaxies. *G. R. Knapp, J. E. Gunn, & C. G. Wynn-Williams.* 399, 76, 196-B3 (1992)

Evidence for Periodic Modulation of Presupernova Mass Loss from the Progenitor of SN 1979C. *Kurt W. Weiler, Schuyler D. Van Dyk, James E. Pringle, & Nino Panagia.* 399, 672, 206-C5 (1992)

Hubble Space Telescope Spectroscopy of OB Stars in M31. *J. B. Hutchings, L. Bianchi, H. J. G. L. M. Lamers, P. Massey, & S. C. Morris.* 400, L35, 214-E1 (1992)

Polycyclic Aromatic Hydrocarbon Formation in Carbon-rich Stellar Envelopes. *Isabelle Cherchneff, John R. Barker, & Alexander G. G. M. Tielens.* 401, 269, 224-D1 (1992)

Polarization Cancellation in the Two-Component Winds from Wolf-Rayet Stars. *M. Taylor & J. P. Cassinelli.* 401, 311, 224-G5 (1992)

Mass-Loss Rates for *IRAS*-bright Red Giants: A Revised Model of Circumstellar CO Emission. *Joel H. Kastner.* 401, 337, 225-B11 (1992)

CO in the Cometary Globules of the Helix Nebula. *P. J. Huggins, R. Bachiller, P. Cox, & T. Forveille.* 401, L43, 227-F7 (1992)

Deposition of Mass, Momentum, and Energy by Massive Stars into the Interstellar Medium. *Claus Leitherer, Carmelle Robert, & Laurent Drissen.* 401, 596, 230-A6 (1992)

Absorption-Line Profiles in a Companion Spectrum of a Mass-losing Cool Supergiant. *Liliya L. Rodrigues & Erika Böhm-Vitense.* 401, 695, 231-B10 (1992)

Evidence for a Bipolar Nebula around the Peculiar B[e] Star HD 45677 from Ultraviolet Spectropolarimetry. *R. E. Schulte-Ladbeck, D. S. Shepherd, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, M. Taylor, & B. A. Whitney.* 401, L105, 233-D12 (1992)

Oxygen-rich Semiregular and Irregular Variables. *M. Jura & S. G. Kleinmann.* 83, 329, 62-D5 (1992)

Particle Acceleration and Nonthermal Radio Emission in Binaries of Early-Type Stars. *D. Eichler & V. Usov.* 402, 271, 4-D11 (1993)

CCD Observations of the Hα Line in Late G and K Supergiants and Their Interpretation. *Sushma V. Mallik.* 402, 303, 4-G10 (1993)

Mass Loss from Pre–Main-Sequence Accretion Disks. I. The Accelerating Wind of FU Orionis. *Nuria Calvet, Lee Hartmann, & Scott J. Kenyon.* 402, 623, 10-D1 (1993)

An X-Ray Excited Wind in Centaurus X-3. *C. S. R. Day & Ian R. Stevens.* 403, 322, 17-G9 (1993)

The Distant Future of Solar Activity: A Case Study of β Hydri. III. Transition Region, Corona, and Stellar Wind. *D. Dravins, P. Linde, T. R. Ayres, J. L. Linsky, B. Monsignori-Fossi, T. Simon, & F. Wallinder.* 403, 412, 18-G13 (1993)

Model Atmospheres: Tool for Identifying Interstellar Features. *P. C. Frisch, S. E. Slojkowski, T. Rodriguez-Bell, & D. York.* 84, 55, 1-G3 (1993)

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. IV. ι Orionis. *Douglas R. Gies, Michael S. Wiggs, & William G. Bagnuolo, Jr.* 403, 752, 25-B4 (1993)

Colliding Wind Binary Systems: Monte Carlo Simulations of Line-Profile Variability. *Ian R. Stevens.* 404, 281, 31-D3 (1993)

Astrophysical Gasdynamics Confronts Reality: The Shaping of Planetary Nebuale. *Adam Frank, Bruce Balick, Vincent Icke, & Garrelt Mellema.* 404, L25, 33-F7 (1993)

Formation of Double-peaked Lines in Stochastic Winds of T Tauri Stars. *A. S. Mitskevich, A. Natta, & V. P. Grinin.* 404, 751, 38-C7 (1993)

Particle Transport and the λ Bootis Phenomenon. I. The Diffusion/Mass-Loss Model Revisited. *P. Charbonneau.* 405, 720, 52-A9 (1993)

Multiline Transfer and the Dynamics of Wolf-Rayet Winds. *L. B. Lucy & D. C. Abbott.* 405, 738, 52-C5 (1993)

The IRC +10216 Circumstellar Envelope. III. Infrared Molecular Line Profiles. *J. J. Keady & S. T. Ridgway.* 406, 199, 57-E5 (1993)

Some Implications of PSR 1259−63. *Christopher S. Kochanek.* 406, 638, 65-G1 (1993)

G-Star Astropauses: A Test for Interstellar Pressure. *P. C. Frisch.* 407, 198, 71-E1 (1993)

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. III. 29 UW Canis Majoris. *Michael S. Wiggs & Douglas R. Gies.* 407, 252, 72-B11 (1993)

The Abundance Distribution of C_4H in IRC +10216. *Aditya Dayal & John H. Bieging.* 407, L37, 75-E1 (1993)

Mass Loss in Globular Cluster Red Giants: An Evolutionary Investigation. *M. Castellani & V. Castellani.* 407, 649, 78-F1 (1993)

Nova Dust Nucleation: Kinetics and Photodissociation. *D. J. Johnson, M. W. Friedlander, & J. I. Katz.* 407, 714, 79-D4 (1993)

The Asymmetric Wind of R127. *R. E. Schulte-Ladbeck, C. Leitherer, G. C. Clayton, C. Robert, M. R. Meade, L. Drissen, A. Nota, & W. Schmutz.* 407, 723, 79-E1 (1993)

Winds from Accretion Disks: Ultraviolet Line Formation in Cataclysmic Variables. *Isaac Shlosman & Peter Vitello.* 409, 372, 101-F1 (1993)

Equatorial Disk Formation around Rotating Stars Due to Ram Pressure Confinement by the Stellar Wind. *J. E. Bjorkman & J. P. Cassinelli.* 409, 429, 102-C10 (1993)

The Formation and Evolution of Shocks in Stellar Jets from a Variable Wind. *Patrick Hartigan & John Raymond.* 409, 705, 107-G5 (1993)

Radio and X-Ray Observations of OH 231.8+4.2. *Gregory B. Taylor & Mark Morris.* 409, 720, 108-A9 (1993)

Circumstellar Shells Resolved in *IRAS* Survey Data. II. Analysis. *K. Young, T. G. Phillips, & G. R. Knapp.* 409, 725, 108-B3 (1993)

The Origin of Forbidden Line Emission from Young Stellar Objects. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 409, 748, 108-D3 (1993)

The Structure of Protostellar Accretion Disks and the Origin of Bipolar Flows. *Mark Wardle & Arieh Königl.* 410, 218, 114-G6 (1993)

Hydrodynamics of Winds from Irradiated Companion Stars in Low-Mass X-Ray Binaries. *Marco Tavani & Richard London.* 410, 281, 115-E8 (1993)

Coronographic Imaging of the Bipolar Nebula around the Luminous Blue Variable R127. *Mark Clampin, Antonella Nota, David A. Golimowski, Claus Leitherer, & Samuel T. Durrance.* 410, L35, 118-C5 (1993)

Three-dimensional Simulations of Protostellar Jets. *Elisabete M. de Gouveia Dal Pino & Willy Benz.* 410, 686, 122-B13 (1993)

The Dynamics of Stellar Outflows Dominated by Interaction of Dust and Radiation. *Nathan Netzer & Moshe Elitzur.* 410, 701, 122-D11 (1993)

Wind-driven Angular Momentum Loss in Binary Systems. I. Ballistic Case. *Leigh Brookshaw & Marco Tavani.* 410, 719, 122-F6 (1993)

Mass Loss from Wolf-Rayet Stars Due to Radiation Pressure and Alfvén Waves. *L. C. dos Santos, V. Jatenco-Pereira, & R. Opher.* 410, 732, 122-G11 (1993)

Hubble Space Telescope Spectra of the Phase-modulated Wind in the SMC O+WR Binary R31. *J. B. Hutchings, L. Bianchi, & S. C. Morris.* 410, 803, 123-F10 (1993)

Detection of O I and Si II Far-Infrared Fine-Structure Emission from α Orionis. *Michael R. Haas & Alfred E. Glassgold.* 410, L111, 126-C9 (1993)

Circumstellar Shells Resolved in the *IRAS* Survey Data. I. Data Processing Procedure, Results, and Confidence Tests. *K. Young, T. G. Phillips, & G. R. Knapp.* 86, 517, 21-B11 (1993)

Magnetohydrodynamic Flows in Be Stars: Variable Energy Flux and Heat Input Distribution. *María Elena Iglesias & Adela E. Ringuelet.* 411, 342, 131-E3 (1993)

The Evolution of Massive Stars Including Mass Loss: Presupernova Models and Explosion. *S. E. Woosley, Norbert Langer, & Thomas A. Weaver.* 411, 823, 140-A14 (1993)

Goddard High-Resolution Spectrograph Observations of Narrow Discrete Stellar Wind Absorption Features in the Ultraviolet Spectrum of the O7.5 III Star ξ Persei. *Steven N. Shore, Bruce Altner, C. T. Bolton, Jason A. Cardelli, & Dennis C. Ebbets.* 411, 864, 140-E5 (1993)

Rigorous Treatment of the Radiative Transfer Problem in Stellar Winds: Significance of the Velocity Law and the Chromosphere in the Hα Profile. *Lydia S. Cidale & Adela E. Ringuelet.* 411, 874, 140-F5 (1993)

The Ultraviolet Radiation in Metal-rich Elliptical Galaxies. *Uffe Gråe Jørgensen & Peter Thejll.* 411, L67, 142-C5 (1993)

A Study of Circumstellar Envelopes around Bright Carbon Stars. I. Structure, Kinematics, and Mass-Loss Rate. *H. Olofsson, K. Eriksson, B. Gustafsson, & U. Carlström.* 87, 267, 30-E1 (1993)

Collisions and Close Encounters between Massive Main-Sequence Stars. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 412, 593, 151-B7 (1993)

The Temperature Profile of T Tauri Disks. *Antonella Natta.* 412, 761, 153-C6 (1993)

What are the Mass-Loss Rates of O Stars? *Henny J. G. L. M. Lamers & Claus Leitherer.* 412, 771, 153-D5 (1993)

Broad-Band X-Ray Telescope Spectroscopy of ζ Puppis. *M. F. Corcoran, J. H. Swank, P. J. Serlemitsos, E. Boldt, R. Petre, F. E. Marshall, K. Jahoda, R. Mushotzky, A. Szymkowiak, K. Arnaud, A. P. Smale, K. Weaver, & S. S. Holt.* 412, 792, 153-F1 (1993)

Submillimeter CO Observations of Warm Gas around T Tauri Stars. *K. F. Schuster, A. I. Harris, Nels Anderson, & A. P. G. Russell.* 412, L67, 155-D7 (1993)

Long-Period Oxygen-rich Optical Miras in the Solar Neighborhood. *M. Jura, A. Yamamoto, & S. G. Kleinmann.* 413, 298, 160-A2 (1993)

Evolution of Low- and Intermediate-Mass Stars to the End of the Asymptotic Giant Branch with Mass Loss. *E. Vassiliadis & P. R. Wood.* 413, 641, 164-D11 (1993)

Properties of Jet-driven Molecular Outflows. *Colin R. Masson & Lawrence M. Chernin.* 414, 230, 172-G10 (1993)

LS II +34°26 is a Low-Mass Post–Asymptotic Giant Branch B Supergiant and Not a Massive Population I B Star Located near the Outer Edge of the Galaxy. *M. Parthasarathy.* 414, L109, 186-A7 (1993)

Winds in Central Stars of Planetary Nebulae. *A. Modigliani, P. Patriarchi, & M. Perinotto.* 415, 258, 188-B12 (1993)

Ultraviolet Observations of Selective Wind Eclipses in γ Velorum and Evidence for Colliding Winds. *N. St-Louis, A. J. Willis, & I. R. Stevens.* 415, 298, 188-F8 (1993)

The "Type IIb" Supernova 1993J in M81: A Close Relative of Type Ib Supernovae. *Alexei V. Filippenko, Thomas Matheson, & Luis C. Ho.* 415, L103, 200-A8 (1993)

On the Origin of the Eclipsing Pulsar PSR B1718−19 and Its Wind. *R. A. M. J. Wijers & B. Paczyński.* 415, L115, 200-C1 (1993)

Atomic Carbon in the Envelope of IRC +10216. *Jocelyn Keene, K. Young, T. G. Phillips, Thomas H. Büttgenbach, & John E. Carlstrom.* 415, L131, 200-E1 (1993)

Stellar Mass Loss in Elliptical Galaxies and the Fueling of Active Galactic Nuclei. *Paolo Padovani & Francesca Matteucci.* 416, 26, 201-D2 (1993)

The Asymmetric Envelope of γ Cassiopeiae Observed with the Mk III Optical Interferometer. *A. Quirrenbach, C. A. Hummel, D. F. Buscher, J. T. Armstrong, D. Mozurkewich, & N. M. Elias II.* 416, L25, 207-D7 (1993)

Time-Series Observations of O Stars. III. *IUE* and *HST* Spectroscopy of ζ Ophiuchi and Implications for the "Photospheric Connection." *Ian D. Howarth, C. T. Bolton, R. A. Crowe, D. C. Ebbets, M. S. Fieldus, A. W. Fullerton, D. R. Gies, D. McDavid, R. K. Prinja, A. H. N. Reid, S. N. Shore, & K. C. Smith.* 417, 338, 221-F10 (1993)

Effects of Convection on Pressure Wave Excitation in Common Envelopes. *Noam Soker.* 417, 347, 221-G8 (1993)

Baryon Purity in Cosmological Gamma-Ray Bursts as a Manifestation of Event Horizons. *Amir Levinson & David Eichler.* 418, 386, 235-G1 (1993)

The Extreme Ultraviolet Spectrum of Alpha Aurigae (Capella). *A. K. Dupree, N. S. Brickhouse, G. A. Doschek, J. C. Green, & J. C. Raymond.* 418, L41, 238-E10 (1993)

Three-dimensional Propagation of Transverse Magnetohydrodynamic Perturbations in Relativistic Winds. *Yu-Qing Lou.* 418, 709, 241-C12 (1993)

Synthetic UV Lines of Si IV, C IV, and He II from a Population of Massive Stars in Starburst Galaxies. *Carmelle Robert, Claus Leitherer, & Timothy M. Heckman.* 418, 749, 241-G7 (1993)

Forbidden Line Formation in Hydromagnetic Disk Winds. I. Oblique Shocks. *Rachid Ouyed & Ralph E. Pudritz.* 419, 255, 249-C13 (1993)

On the Formation of O-Ne White Dwarfs in Metal-rich Close Binary Systems. *Inma Dominguez, Amedeo Tornambè, & Jordi Isern.* 419, 268, 249-E1 (1993)

A Well-shaped Bipolar Outflow Shell in Monoceros R2. *Taoling Xie, Paul F. Goldsmith, & Nimesh Patel.* 419, L33, 252-E7 (1993)

Circumstellar CO Emission of Evolved Stars and Mass Loss. *John Kwan & Zoe Webster.* 419, 674, 256-B3 (1993)

Effects of Coronal and Shock-produced X-Rays on the Ionization Distribution in Hot Star Winds. *J. J. MacFarlane, W. L. Waldron, M. F. Corcoran, M. J. Wolff, P. Wang, & J. P. Cassinelli.* 419, 813, 257-F11 (1993)

A Far-Ultraviolet Flare on a Pleiades G Dwarf. *T. R. Ayres, J. R. Stauffer, Theodore Simon, R. A. Stern, S. K. Antiochos, G. S. Basri, J. A. Bookbinder, A. Brown, G. A. Doschek, J. L. Linsky, L. W. Ramsey, & F. M. Walter.* 420, L33, 7-E4 (1994)

Magnetic Shaping of Planetary Nebulae and Other Stellar Wind Bubbles. *Roger A. Chevalier & Ding Luo.* 421, 225, 18-G1 (1994)

Clumping and Mass Loss in Hot Star Winds. *Anthony F. J. Moffat & Carmelle Robert.* 421, 310, 19-G1 (1994)

Mapping the Radio Emission from Massive Young Stellar Objects. *Melvin G. Hoare, Janet E. Drew, Tom B. Muxlow, & Richard J. Davis.* 421, L51, 22-B7 (1994)

Spectroscopy of Chromospheric Lines of Giants in the Globular Cluster NGC 6752. *A. K. Dupree, Lee Hartmann, Graeme H. Smith, A. W. Rodgers, W. H. Roberts, & D. B. Zucker.* 421, 542, 24-G9 (1994)

An Observational Estimate of the Probability of Encounters between Mass-losing Evolved Stars and Molecular Clouds. *Joel H. Kastner & P. C. Myers.* 421, 605, 25-G3 (1994)

X-Ray Emission from Near–Main-Sequence B Stars. *J. P. Cassinelli, D. H. Cohen, J. J. MacFarlane, W. T. Sanders, & B. Y. Welsh.* 421, 705, 27-A8 (1994)

Properties of a B0 I Stellar Wind and Interstellar Grains Derived from *Ginga* Observations of the Binary X-Ray Pulsar 4U 1538−52. *George W. Clark, Jonathan W. Woo, & Fumiaki Nagase.* 422, 336, 34-C3 (1994)

Double-Core Evolution. V. Three-dimensional Effects in the Merger of a Red Giant with a Dwarf Companion. *James L. Terman, Ronald E. Taam, & Lars Hernquist.* 422, 729, 40-G13 (1994)

A Millimeter-Wavelength Survey of S Stars for Mass Loss and Chemistry. *John H. Bieging & William B. Latter.* 422, 765, 41-D1 (1994)

Near-Infrared Observations of the HH 46/47 System. *Jochen Eislöffel, Chris J. Davis, Thomas P. Ray, & Reinhard Mundt.* 422, L91, 45-C9 (1994)

Mass Loss during the RR Lyrae Phase of the Horizontal Branch: Mass Dispersion on the Horizontal Branch and RR Lyrae Period Changes. *Rebecca A. Koopmann, Young-Wook Lee, Pierre Demarque, & Jamie M. Howard.* 423, 380, 50-G7 (1994)

Evidence Signaling the Start of Enhanced Counterjet Flow in the Symbiotic System R Aquarii. *A. G. Michalitsianos, M. Perez, & M. Kafatos.* 423, 441, 51-E13 (1994)

A Molecular Jet from LkHα 234. *George F. Mitchell & Henry E. Matthews.* 423, L55, 53-G8 (1994)

Velocity, Obscuration, and Age of Ionized Winds: Can They Be Correlated? *S. C. Beck.* 423, 733, 57-F5 (1994)

Forbidden-Line Formation in Hydromagnetic Disk Winds. II. Line Profiles. *Rachid Ouyed & Ralph E. Pudritz.* 423, 753, 58-A3 (1994)

Mid-Infrared Images of the Post–Asymptotic Giant Branch Star HD 161796. *C. J. Skinner, M. M. Meixner, G. W. Hawkins, E. Keto, J. G. Jernigan, & J. F. Arens.* 423, L135, 61-B11 (1994)

Two-dimensional Hydrodynamical Simulations of Wind-compressed Disks around Rapidly Rotating B Stars. *Stanley P. Owocki, Steven R. Cranmer, & John M. Blondin.* 424, 887, 75-G2 (1994)

Neutral Carbon in the Circumstellar Envelope of α Orionis. *P. J. Huggins, R. Bachiller, P. Cox, & T. Forveille.* 424, L127, 79-E5 (1994)

A Large, Periodic Variation in the Stellar Wind of θ^1 Orionis C. *Nolan R. Walborn & Joy S. Nichols.* 425, L29, 85-E1 (1994)

O Star Giant Bubbles in M33. *M. S. Oey & Philip Massey.* 425, 635, 89-E1 (1994)

Momentum Transfer by Astrophysical Jets. *Lawrence Chernin, Colin Masson, Elisabete M. de Gouveia Dal Pino, & Willy Benz.* 426, 204, 98-F2 (1994)

Asymptotic Domination of Cold Relativistic MHD Winds by Kinetic Energy Flux. *Mitchell C. Begelman & Zhi-Yun Li.* 426, 269, 99-D9 (1994)

Low-Velocity Variability in the Stellar Wind of HD 152408 (O8: Iafpe). *Raman K. Prinja & A. W. Fullerton.* 426, 345, 100-D12 (1994)

Narrowband *HST* Imagery of the Young Planetary Nebula Henize 1357. *M. Bobrowsky.* 426, L47, 103-F5 (1994)

Evolution of Solitary Density Waves in Stellar Winds of Early-Type Stars: A Simple Explanation of Discrete Absorption Component Behavior. *Wayne L. Waldron, Larry Klein, & Bruce Altner.* 426, 725, 107-D10 (1994)

Near-Infrared Imaging of HH 1/2 in Shocked Molecular Hydrogen and [Fe II]. *Chris J. Davis, Jochen Eislöffel, & Thomas P. Ray.* 426, L93, 109-F5 (1994)

Detection of Sodium Cyanide (NaCN) in IRC 10216. *B. E. Turner, T. C. Steimle, & Leo Meerts.* 426, L97, 109-F13 (1994)

Three-dimensional Structure of the Circumstellar Envelope of CRL 618 based on the ^{13}CO J = 1–0 Mapping Observations. *Issei Yamamura, Katsunori M. Shibata, Takashi Kasuga, & Shuji Deguchi.* 427, 406, 114-G13 (1994)

The Role of Radiative Acceleration in Outflows from Broad Absorption Line QSOs. I. Comparison with O Star Winds. *Nahum Arav & Zhi-Yun Li.* 427, 700, 121-D7 (1994)

Detection of X-Ray Emission from the PSR 1259−63/SS 2883 Binary System. *Lynn Cominsky, Mallory Roberts, & Simon Johnston.* 427, 978, 124-G2 (1994)

Multiple Outflows in the Bipolar Planetary Nebula M1-16: A Molecular Line Study. *Raghvendra Sahai, Alwyn Wootten, Hugo E. Schwarz, & W. Wild.* 428, 237, 131-B5 (1994)

Geometry and Physical Conditions in the Stellar Wind of AG Carinae. *Claus Leitherer, Richard Allen, Bruce Altner, Augusto Damineli, Laurent Drissen, Thais Idiart, Olivia Lupie, Antonella Nota, Carmelle Robert, Werner Schmutz, & Steven N. Shore.* 428, 292, 131-G4 (1994)

Rotation in the Ionized Envelope of MWC 349A. *Luis F. Rodríguez & Timothy S. Bastian.* 428, 324, 132-B12 (1994)

A Thermal Pulse in Progress in the Nucleus of the Large Magellanic Cloud Planetary Nebula N66. *M. Peña, S. Torres-Peimbert, M. Peimbert, M. T. Ruiz, & J. Maza.* 428, L9, 134-B13 (1994)

Photoevaporation of Disks around Massive Stars and Application to Ultracompact H II Regions. *David Hollenbach, Doug Johnstone, Susana Lizano, & Frank Shu.* 428, 654, 138-D10 (1994)

Magnetically Driven Jets and Winds: Exact Solutions. *J. Contopoulos & R. V. E. Lovelace.* 429, 139, 145-G7 (1994)

Detection of Radio Continuum Emission from Circumstellar Dust around CRL 2688 and IRC +10216. *G. R. Knapp, P. F. Bowers, K. Young, & T. G. Phillips.* 429, L33, 150-E1 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. I. A Generalized Model. *Frank Shu, Joan Najita, Eve Ostriker, Frank Wilkin, Steven Ruden, & Susana Lizano.* 429, 781, 155-D5 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. II. Formulation of the Dynamical Problem. *Frank H. Shu, Joan Najita, Steven P. Ruden, & Susana Lizano.* 429, 797, 155-E9 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. III. Numerical Solution of the Sub-Alfvénic Region. *Joan R. Najita & Frank H. Shu.* 429, 808, 155-F9 (1994)

The Axisymmetric Stellar Wind of AG Carinae. *Regina E. Schulte-Ladbeck, Geoffrey C. Clayton, D. John Hillier, Tim J. Harries, & Ian D. Howarth.* 429, 846, 156-B13 (1994)

Stellar Winds with Non-WKB Alfvén Waves. I. Wind Models for Solar Coronal Conditions. *K. B. MacGregor & P. Charbonneau.* 430, 387, 164-A9 (1994)

The Radiation Gasdynamics of Planetary Nebulae. IV. From the Owl to the Eskimo. *Adam Frank & Garrelt Mellema.* 430, 800, 171-G5 (1994)

Gravitational Damping of Alfvén Waves in Stellar Atmospheres and Winds. *I. K. Khabibrakhmanov & D. J. Mullan.* 430, 814, 172-A7 (1994)

Observations of the Acceleration Regions of OH/IR Stars. *John D. Fix & Mark G. Mulhern.* 430, 824, 172-B5 (1994)

Magnetic Structure of Pulsar Winds. *F. Curtis Michel.* 431, 397, 181-A6 (1994)

From Supersonic Winds to Accretion: Comments on the Stability of Stellar Winds and Related Flows. *M. Velli.* 432, L55, 199-G13 (1994)

Magnetically Driven Relativistic Jets and Winds: Exact Solutions. *J. Contopoulos.* 432, 508, 202-C7 (1994)

SN 1993J: The Early Radio Emission and Evidence for a Changing Presupernova Mass-Loss Rate. *Schuyler D. Van Dyk, Kurt W. Weiler, Richard A. Sramek, Michael P. Rupen, & Nino Panagia.* 432, L115, 207-A9 (1994)

Winds from Neutron Stars and Strong Type I X-Ray Bursts. *Luciano Nobili, Roberto Turolla, & Iosif Lapidus.* 433, 276, 211-F11 (1994)

Ultraviolet Spectral Classification and Stellar Winds in a Sample of Be and Standard Stars. *Arne Slettebak.* 94, 163, 54-A5 (1994)

FY Aquilae and the Gamma-Ray Burst GB 790331. *Mike Irwin & Anna N. Żytkow.* 433, L81, 224-A1 (1994)

Acceleration Efficiency in Line-driven Flows. *Kenneth G. Gayley & Stanley P. Owocki.* 434, 684, 237-B12 (1994)

The Particle-Size Distribution in the Dust Ejected from IRC +10216. *M. Jura.* 434, 713, 237-E12 (1994)

Evidence for a Disk in the Wind of HD 93521: UV Line Profiles from an Axisymmetric Model. *J. E. Bjorkman, R. Ignace, T. M. Tripp, & J. P. Cassinelli.* 435, 416, 249-B12 (1994)

GHRS Spectroscopy of Individual Stars in R136a. *Sara R. Heap, Dennis Ebbets, Eliot M. Malumuth, Stephen P. Maran, Alex de Koter, & Ivan Hubeny.* 435, L39, 252-A11 (1994)

Theoretical Modeling of GHRS Observations of the Of/WN-Type Star R136a5. *Alex de Koter, Ivan Hubeny, Sara R. Heap, & Thierry Lanz.* 435, L71, 252-F9 (1994)

The Dust in the Hydrogen-poor Ejecta of Abell 30. *Kazimierz J. Borkowski, J. Patrick Harrington, William P. Blair, & Jesse D. Bregman.* 435, 722, 256-A6 (1994)

The Shadow Wind in High-Mass X-Ray Binaries. *John M. Blondin.* 435, 756, 256-D13 (1994)

Molecular Rotational Line Profiles from Oxygen-rich Red Giant Winds. *K. Justtanont, C. J. Skinner, & A. G. G. M. Tielens.* 435, 852, 257-G6 (1994)

Mass-Loss Rates, Ionization Fractions, Shock Velocities, and Magnetic Fields of Stellar Jets. *Patrick Hartigan, Jon A. Morse, & John Raymond.* 436, 125, 263-A6 (1994)

[Fe II] 1.53 and 1.64 Micron Emission from Pre–Main-Sequence Stars. *Fred Hamann, Michal Simon, John S. Carr, & Lisa Prato.* 436, 292, 265-C10 (1994)

Line Profile Variations from Atmospheric Eclipses: Constraints on the Wind Structure in Wolf-Rayet Stars. *L. H. Auer & G. Koenigsberger.* 436, 859, 277-E5 (1994)

A Molecular Outflow Driven by an Optical Jet. *George F. Mitchell, Tatsuhiko I. Hasegawa, William R. F. Dent, & Henry E. Matthews.* 436, L177, 282-A11 (1994)

X-Ray–induced Ionization in the Winds of Near–Main-Sequence O and B Stars. *J. J. MacFarlane, D. H. Cohen, & P. Wang.* 437, 351, 288-A11 (1994)

Properties and Variability of the Stellar Wind from P Cygni. *S. Scuderi, G. Bonanno, D. Spadaro, N. Panagia, H. J. G. L. M. Lamers, & A. de Koter.* 437, 465, 289-E1 (1994)

Near-Infrared Imaging of the Jets and Flows Associated with Herbig-Haro Objects HH 91, HH 110, and HH 111. *Christopher J. Davis, Reinhard Mundt, & Jochen Eislöffel.* 437, L55, 292-B1 (1994)

Optically Thick Winds in Nova Outbursts. *Mariko Kato & Izumi Hachisu.* 437, 802, 296-F1 (1994)

HD 93521, ζ Ophiuchi, and the Effects of Rapid Rotation on the Atmospheres and Winds of O9.5 V Stars. *Derck Massa.* 438, 376, 6-F1 (1995)

The Circumstellar Envelope of SN 1987A. I. The Shape of the Double-lobed Nebula and Its Rings and the Distance to the Large Magellanic Cloud. *Arlin P. S. Crotts, William E. Kunkel, & Stephen R. Heathcote.* 438, 724, 14-B11 (1995)

EUVE Spectroscopy of ϵ Canis Majoris (B2 II) from 70 to 730 Å. *J. P. Cassinelli, D. H. Cohen, J. J. MacFarlane, J. E. Drew, A. E. Lynas-Gray, M. G. Hoare, J. V. Vallerga, B. Y. Welsh, P. W. Vedder, I. Hubeny, & T. Lanz.* 438, 932, 17-A8 (1995)

On the Wind-powered Nebula NGC 2359 and the WN Star HD 56925. *Yang Chen, Zhen-ru Wang, & Qin-yue Qu.* 438, 950, 17-C1 (1995)

Lithium in Halo Dwarfs: The Undoing of Diffusion by Mass Loss. *Fritz J. Swenson.* 438, L87, 19-G8 (1995)

Near-Infrared Spectra of Compact Stellar Wind Sources at the Galactic Center. *S. Libonate, J. L. Pipher, W. J. Forrest, & M. L. N. Ashby.* 439, 202, 24-A10 (1995)

Consequential Angular Momentum Loss and the Period Gap of Cataclysmic Variables. *A. R. King & U. Kolb.* 439, 330, 25-F7 (1995)

RY Scuti: Infrared and Radio Observations of the Mass-Loss Wind of a Massive Binary Star System. *R. D. Gehrz, T. L. Hayward, J. R. Houck, J. W. Miles, R. M. Hjellming, T. J. Jones, Charles E. Woodward, Ricarda Prentice, W. J. Forrest, S. Libonate, & S. Solomon.* 439, 417, 26-G11 (1995)

Stellar-Wind Variability in *IUE* Spectra of 68 Cygni. *Ian D. Howarth & Keith C. Smith.* 439, 431, 27-B3 (1995)

^{13}CO Interferometric Observations of the Central Core of CRL 2688. *Issei Yamamura, Takashi Onaka, Fumio Kamijo, Shuji Deguchi, & Nobuharu Ukita.* 439, L13, 29-G4 (1995)

Relativistic, Hot Stellar Winds with Anisotropic Pressure. *Elgouja G. Tsikarishvili, Andria D. Rogava, & David G. Tsiklauri.* 439, 822, 36-A1 (1995)

High-Mass X-Ray Binary Populations. I. Galactic Modeling. *William W. Dalton & Craig L. Sarazin.* 440, 280, 45-A11 (1995)

The Effect of Oblateness and Gravity Darkening on the Radiation Driving in Winds from Rapidly Rotating B Stars. *Steven R. Cranmer & Stanley P. Owocki.* 440, 308, 45-D6 (1995)

Hot Spots in the NGC 2071 Molecular Outflow. *Lawrence M. Chernin & W. J. Welch.* 440, L21, 48-D8 (1995)

Water Masers in the L1448C Outflow. *Lawrence M. Chernin.* 440, L97, 58-C9 (1995)

Time-dependent Behavior and Physical Conditions of the LMC Planetary Nebula N66. *M. Peña, M. Peimbert, S. Torres-Peimbert, M. T. Ruiz, & J. Maza.* 441, 343, 64-B1 (1995)

X-Ray Emission from the PSR B1259−63 System near Apastron. *J. Greiner, M. Tavani, & T. Belloni.* 441, L43, 67-B9 (1995)

A Comparison of Near-Infrared Spectra of the Galactic Center Compact He I Emission-Line Sources and Early-Type Mass-losing Stars. *R. D. Blum, D. L. DePoy, & K. Sellgren.* 441, 603, 70-D7 (1995)

The Homunculus of η Carinae: An Interacting Stellar Winds Paradigm. *Adam Frank, Bruce Balick, & Kris Davidson.* 441, L77, 76-B2 (1995)

Momentum Deposition in Wolf-Rayet Winds: Nonisotropic Diffusion with Effectively Gray Opacity. *Kenneth G. Gayley, Stanley P. Owocki, & Steven R. Cranmer.* 442, 296, 81-C2 (1995)

On the Origin of "Dividing Lines" for Late-Type Giants and Supergiants. *R. Rosner, Z. E. Musielak, F. Cattaneo, R. L. Moore, & S. T. Suess.* 442, L25, 84-G11 (1995)

The Threshold for Stellar Winds in Hot Main-Sequence Stars. *James A. Grigsby & Nancy D. Morrison.* 442, 794, 91-B7 (1995)

Generation of Mass Loss in K Giants: The Failure of Global Oscillation Modes and Possible Implications. *G. Sutmann & M. Cuntz.* 442, L61, 94-E7 (1995)

Powerful Jets and Weak Outflows: HH 1–2 and HH 34. *Lawrence M. Chernin & Colin R. Masson.* 443, 181, 97-E11 (1995)

Outer Layers of a Carbon Star: The View from the *Hubble Space Telescope*. *Hollis R. Johnson, Lisa M. Ensman, David R. Alexander, Eugene H. Avrett, Alexander Brown, Kenneth G. Carpenter, Kjell Eriksson, Bengt Gustafsson, Uffe G. Jørgensen, Philip D. Judge, Jeffrey L. Linsky, Donald G. Luttermoser, Francois Querci, Monique Querci, Richard D. Robinson, & Robert F. Wing.* 443, 281, 99-B6 (1995)

Distinction of Parallel Outflows in L1448 through H_2 Excitation. *Christopher J. Davis & Michael D. Smith.* 443, L41, 102-G14 (1995)

Magnetohydrodynamic Disk-Wind Connection: Self-similar Solutions. *Zhi-Yun Li.* 444, 848, 128-B11 (1995)

Optically Thick Winds: How Is the Mass Flux Determined? *S. Ami Glasner & F. X. Timmes.* 445, 411, 138-B13 (1995)

Infrared Emission and Dynamics of Outflows in Late-Type Stars. *Željko Ivezić & Moshe Elitzur.* 445, 415, 138-C6 (1995)

A CO(3–2) Survey of Nearby Mira Variables. *K. Young.* 445, 872, 147-C1 (1995)

Wind Dynamics in SMC X-1. I. Hydrodynamic Simulation. *John M. Blondin & Jonathan W. Woo.* 445, 889, 147-D13 (1995)

Wind Dynamics in SMC X-1. II. *Ginga* and *ROSAT* Observations. *Jonathan W. Woo, George W. Clark, John M. Blondin, Timothy R. Kallman, & Fumiaki Nagase.* 445, 896, 147-E10 (1995)

Force-free Self-similar Magnetically Driven Relativistic Jets. *J. Contopoulos.* 446, 67, 154-B9 (1995)

The Uncertainties in the Age of Globular Clusters from Their Helium Abundance and Mass Loss. *Xiangdong Shi.* 446, 637, 165-A1 (1995)

The Disruption of the Dense Disk in CRL 618. *Jesús Martín-Pintado, Ralph A. Gaume, Kenneth J. Johnston, & Rafael Bachiller.* 446, 687, 165-E4 (1995)

Similarity Solution for a Supernova Remnant Evolving in an Inhomogeneous Stellar Wind. *Yang Chen, Ning Liu, & Zhen-ru Wang.* 446, 755, 166-D11 (1995)

Infrared CO Emission from Young Stars: Accretion Disks and Neutral Winds. *C. J. Chandler, J. E. Carlstrom, & N. Z. Scoville.* 446, 793, 167-A7 (1995)

Line-driven Instability Growth Rates in Wolf-Rayet Winds. *Kenneth G. Gayley & Stanely P. Owocki.* 446, 801, 167-B4 (1995)

He 3-1475 and Its Jets. *M. Bobrowsky, A. A. Zijlstra, E. K. Grebel, C. G. Tinney, P. te Lintel Hekkert, G. C. Van de Steene, L. Likkel, & T. R. Bedding.* 446, L89, 171-B3 (1995)

The Origin of the Rings around SN 1987A: An Evaluation of the Interacting-Winds Model. *Crystal L. Martin & David Arnett.* 447, 378, 177-E11 (1995)

Thermal Structure of Mixing Layers in Bipolar Outflows. *Susana Lizano & Carlo Giovanardi.* 447, 742, 186-C1 (1995)

Infrared Emission from Globular Clusters: Limits on Stellar Mass Loss and Interstellar Dust. *G. R. Knapp, J. E. Gunn, & A. J. Connolly.* 448, 195, 194-G4 (1995)

Discrete Mass Loss in a Low-Mass Binary with a Rapidly Spinning Neutron Star. *Alexander Muslimov & Marek J. Sarna.* 448, 289, 196-B12 (1995)

The Presupernova Evolution and Explosion of Helium Stars That Experience Mass Loss. *S. E. Woosley, Norbert Langer, & Thomas A. Weaver.* 448, 315, 196-E7 (1995)

High-Velocity Gas Associated with the Massive, Evolved Star G25.5+0.2. *D. S. Shepherd, E. Churchwell, & W. M. Goss.* 448, 426, 198-A9 (1995)

Atlas of Synthetic Ultraviolet Spectra of Massive Star Populations. *Claus Leitherer, Carmelle Robert, & Timothy M. Heckman.* 99, 173, 36-F1 (1995)

The *IUE* Spectrum of the Planetary Nebula NGC 6751. *Walter A. Feibelman.* 448, 766, 205-C11 (1995)

Nebulae around Luminous Blue Variables: A Unified Picture. *Antonella Nota, Mario Livio, Mark Clampin, & Regina Schulte-Ladbeck.* 448, 788, 205-E11 (1995)

IRAS 08159−3543: Optical Detection of the Dusty, Neutral Bipolar Wind of a Luminous Young Stellar Object. *Th. Neckel & H. J. Staude.* 448, 832, 206-D1 (1995)

A Theory of Winds from Wolf-Rayet Stars. *D. Eichler, A. Bar Shalom, & J. Oreg.* 448, 858, 206-F6 (1995)

Magnetohydrodynamic Stellar Winds: A New Class of Solutions. *Néstor O. Rotstein & Constantino Ferro Fontán.* 449, 745, 223-B1 (1995)

Magnetohydrodynamic Stellar Wind Solutions in Curved Magnetic Fields. *Néstor O. Rotstein & Constantino Ferro Fontán.* 449, 764, 223-C9 (1995)

The First 8–13 Micron Spectra of Asymptotic Giant Branch Stars in the Magellanic Clouds. *M. A. T. Groenewegen et al., C. H. Smith, P. R. Wood, A. Omont, & T. Fujiyoshi.* 449, L119, 227-A8 (1995)

Hubble Space Telescope Imaging of the Wind-blown Lobe NGC 6165. *Paul Scowen, Jeff Hester, Arthur Code, Glen Mackie, C. Roger Lynds, & Earl J. O'Neil, Jr.* 450, 196, 230-F9 (1995)

The Structure and Evolution of an Accretion Flow Interacting with the Central Star. *Masayuki Y. Fujimoto.* 450, 262, 231-E13 (1995)

Radio Continuum Measurements of Southern Early-Type Stars. *Claus Leitherer, Jessica M. Chapman, & Bärbel Koribalski.* 450, 289, 232-A7 (1995)

The Type Ic Supernova 1994I in M51: Detection of Helium and Spectral Evolution. *Alexei V. Filippenko, Aaron J. Barth, Thomas Matheson, Lee Armus, Michael Brown, Brian R. Espey, Xiao-Ming Fan, Robert W. Goodrich, Luis C. Ho, Vesa T. Junkkarinen, David C. Koo, Matthew D. Lehnert, André R. Martel, Joseph M. Mazzarella, Joseph S. Miller, Graeme H. Smith, David Tytler, & Gregory D. Wirth.* 450, L11, 235-E3 (1995)

Discovery of Strong Vibrationally Excited Water Masers at 658 GHz toward Evolved Stars. *Karl M. Menten & Ken Young.* 450, L67, 244-G8 (1995)

Maps of the Molecular Emission around 18 Evolved Stars. *K. Z. Stanek, G. R. Knapp, K. Young, & T. G. Phillips.* 100, 169, 48-C8 (1995)

Stellar Contrails in Quasi-stellar Objects: The Origin of Broad Absorption Lines. *Nick Scoville & Colin Norman.* 451, 510, 254-C10 (1995)

Lithium Abundances in δ Scuti Stars and Their Relationship with the Lithium Dip. *Stephen C. Russell.* 451, 747, 257-D13 (1995)

Discovery of an Extended Nebula around AFGL 2343 (HD 179821) at 10 Microns. *G. W. Hawkins, C. J. Skinner, M. M. Meixner, J. G. Jernigan, J. F. Arens, E. Keto, & J. R. Graham.* 452, 314, 266-D10 (1995)

A Semiempirical Determination of the Wind Velocity Structure for the Hybrid-Chromosphere Star α Trianguli Australis. *Graham M. Harper, Brian E. Wood, Jeffrey L. Linsky, Philip D. Bennett, Thomas R. Ayres, & Alexander Brown.* 452, 407, 267-F6 (1995)

The Presupernova H II Region around SN 1987A. *Roger A. Chevalier & Vikram V. Dwarkadas.* 452, L45, 270-B8 (1995)

The *IUE* MEGA Campaign: Wind Variability and Rotation in Early-Type Stars. *D. Massa, A. W. Fullerton, J. S. Nichols, S. P. Owocki, R. K. Prinja, N. St-Louis, A. J. Willis, B. Altner, C. T. Bolton, J. P. Cassinelli, D. Cohen, R. G. Cooper, A. Feldmeier, K. G. Gayley, T. Harries, S. R. Heap, R. N. Henriksen, I. D. Howarth, I. Hubeny, E. Kambe, L. Kaper, G. Koenigsberger, S. Marchenko, S. R. McCandliss, A. F. J. Moffat, T. Nugis, J. Puls, C. Robert, R. E. Schulte-Ladbeck, L. J. Smith, M. A. Smith, W. L. Waldron, & R. L. White.* 452, L53, 270-C8 (1995)

The *IUE* MEGA Campaign: Wind Structure and Variability of HD 50896 (WN5). *Nicole St-Louis, M. J. Dalton, S. V. Marchenko, A. F. J. Moffat, & A. J. Willis.* 452, L57, 270-D3 (1995)

The *IUE* MEGA Campaign: Modulated Structure in the Wind of HD 64760 (B0.5 Ib). *Raman K. Prinja, Derck Massa, & Alexander W. Fullerton.* 452, L61, 270-D13 (1995)

The *IUE* MEGA Campaign: The Rotationally Modulated Wind of ζ Puppis. *Ian D. Howarth, Raman K. Prinja, & Derck Massa.* 452, L65, 270-E6 (1995)

Hubble Space Telescope Observations of the SN 1987A Triple Ring Nebula. *Christopher J. Burrows, John Krist, J. Jeff Hester, Raghvendra Sahai, John T. Trauger, Karl R. Stapelfeldt, John S. Gallagher III, Gilda E. Ballester, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, Richard E. Griffiths, John G. Hoessel, Jon A. Holtzman, Jeremy R. Mould, Paul A. Scowen, Alan M. Watson, & James A. Westphal.* 452, 680, 274-A11 (1995)

Disk Accretion and Mass Loss from Young Stars. *Patrick Hartigan, Suzan Edwards, & Louma Ghandour.* 452, 736, 274-G4 (1995)

Wind Variability of B Supergiants. I. The Rapid Rotator HD 64760 (B0.5 Ib). *Derck Massa, Raman K. Prinja, & Alexander W. Fullerton.* 452, 842, 276-C7 (1995)

A Study of the Spectra of Seven Of Stars. I. Radial Velocities. *Anne B. Underhill.* 100, 433, 52-A10 (1995)

Can Dust Formation in Evolved Stars Be Suppressed near Active Galactic Nuclei? *T. W. Hartquist, R. H. Durisen, J. E. Dyson, J. M. C. Rawlings, D. A. Williams, & R. J. R. Williams.* 453, 77, 282-C3 (1995)

The Solution Topology of Radiation-driven Winds. I. The X-Type Nature of the CAK Critical Point. *J. E. Bjorkman.* 453, 369, 286-B13 (1995)

Periodic Variations in Ultraviolet Spectral Lines of the B0.5 Ib Star HD 64760: Evidence for Corotating Wind Streams Rooted in Surface Variations. *Stanley P. Owocki, Steven R. Cranmer, & Alexander W. Fullerton.* 453, L37, 289-G1 (1995)

Bipolar Jets from Extremely Young Stars Observed in Molecular Hydrogen Emission. *Klaus-Werner Hodapp & E. F. Ladd.* 453, 715, 293-E13 (1995)

Far-Infrared Water Line Emissions from Circumstellar Outflows. *Wesley Chen & David A. Neufeld.* 453, L99, 298-F11 (1995)

Disk Winds from T Tauri Stars. *John Kwan & Eugene Tademaru.* 454, 382, 304-E5 (1995)

Are Wolf-Rayet Stellar Winds Driven by Radiation Forces? *Shlomi Pistinner & David Eichler.* 454, 404, 304-F8 (1995)

An Improved Line-Strength Parameterization in Hot-Star Winds. *Kenneth G. Gayley.* 454, 410, 305-A4 (1995)

A Reconnaissance of the 900–1200 Å Spectra of Early O Stars in the Magellanic Clouds. *Nolan R. Walborn, Knox S. Long, Daniel J. Lennon, & Rolf-Peter Kudritzki.* 454, L27, 307-F9 (1995)

Stellar Winds with Non-WKB Alfvén Waves. II. Wind Models for Cool, Evolved Stars. *P. Charbonneau & K. B. MacGregor.* 454, 901, 314-C3 (1995)

The Structure of Wolf-Rayet Winds. I. Observation of Ionization Stratification in WR 6 and WR 111. *Regina E. Schulte-Ladbeck, Philippe R. J. Eenens, & Kevin Davis.* 454, 917, 314-D11 (1995)

Wolf-Rayet Bubbles. I. Analytic Solutions. *Guillermo García-Segura & Mordecai-Mark Mac Low.* 455, 145, 320-B13 (1995)

Wolf-Rayet Bubbles. II. Gasdynamical Situations. *Guillermo García-Segura & Mordecai-Mark Mac Low.* 455, 160, 320-D3 (1995)

Momentum Distribution in Molecular Outflows. *Lawrence M. Chernin & Colin R. Masson.* 455, 182, 320-F3 (1995)

Terminal Velocities and the Bistability of Stellar Winds. *Henny J. G. L. M. Lamers, Theodore P. Snow, & Douglas M. Lindholm.* 455, 269, 321-G7 (1995)

Asymmetrical Mass Loss from Rotating Red Giant Variables. *S. M. Asida & Y. Tuchman.* 455, 286, 322-B2 (1995)

Radio-Frequency Continuum Emission from Evolved Stars. *G. R. Knapp, P. F. Bowers, K. Young, & T. G. Phillips.* 455, 293, 322-B12 (1995)

Stellar Abundances and Winds of A-Type Supergiant Stars in M33: First Results from the Keck HIRES Spectrograph. *James K. McCarthy, Daniel J. Lennon, Kim A. Venn, Rolf-Peter Kudritzki, Joachim Puls, & Francisco Najarro.* 455, L135, 333-G11 (1995)

Magnetocentrifugally Driven Flows from Young Stars and Disks. V. Asymptotic Collimation into Jets. *Frank H. Shu, Joan Najita, Eve C. Ostriker, & Hsien Shang.* 455, L155, 334-C6 (1995)

Genetic Algorithms in Astronomy and Astrophysics. *P. Charbonneau.* 101, 309, 58-B5 (1995)

STARS: MASSIVE

s-Process Nucleosynthesis in Massive Stars and the Weak Component. I. Evolution and Neutron Captures in a 25 $M_\odot$ Star. *C. M. Raiteri, M. Busso, R. Gallino, G. Picchio, & L. Pulone.* 367, 228, 14-G13 (1991)

Wolf-Rayet Stars as Starting Points or as Endpoints of the Evolution of Massive Stars? *H. J. G. L. M. Lamers, A. Maeder, W. Schmutz, & J. P. Cassinelli.* 368, 538, 31-F12 (1991)

s-Process Nucleosynthesis in Massive Stars and the Weak Component. II. Carbon Burning and Galactic Enrichment. *C. M. Raiteri, M. Busso, R. Gallino, & G. Picchio.* 371, 665, 69-G6 (1991)

Si IV and C IV Resonance Lines as Indicators of Massive Stars in Starburst Galaxies. *Claus Leitherer & Henny J. G. L. M. Lamers.* 373, 89, 87-B6 (1991)

First Results from the Goddard High-Resolution Spectrograph: Spectroscopic Determination of Stellar Parameters of Melnick 42, an O3f Star in the Large Magellanic Cloud. *S. R. Heap, B. Altner, D. Ebbets, I. Hubeny, J. B. Hutchings, R. P. Kudritzki, S. A. Voels, S. Haser, A. Pauldrach, J. Puls, & K. Butler.* 377, L29, 143-D6 (1991)

First Results from the Goddard High-Resolution Spectrograph: Evidence for Photospheric Microturbulence in Early O Stars: Are Surface Gravities Systematically Underestimated? *I. Hubeny, S. R. Heap, & B. Altner.* 377, L33, 143-D11 (1991)

First Results from the Faint Object Camera: High-Resolution Observations of the Central Object R136 in the 30 Doradus Nebula. *G. Weigelt, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 378, L21, 157-C7 (1991)

High-Mass Stars with Degenerate Neutron Cores. *Garrett T. Biehle.* 380, 167, 178-B9 (1991)

Evolutionary Sequences of Stellar Models of Intermediate and High Mass Including Convective Core Overshooting. *Chao-wen Chin & Richard B. Stothers.* 77, 299, 48-C1 (1991)

Massive Star Evolution and SN 1987A. *David Arnett.* 383, 295, 215-G8 (1991)

STARS: METALLIC-LINE

Meridional Circulation and Diffusion in A and Early F Stars. *Paul Charbonneau & Georges Michaud.* 370, 693, 57-A10 (1991)

STARS: NEUTRON

On the Nature of Soft Gamma Repeaters. *J. P. Norris, P. Hertz, K. S. Wood, & C. Kouveliotou.* 366, 240, 4-A8 (1991)

The Orbital Ephemeris and Eclipse Transitions of the Low-Mass X-Ray Binary EXO 0748−676. *A. N. Parmar, A. P. Smale, F. Verbunt, & R. H. D. Corbet.* 366, 253, 4-B9 (1991)

Neutron Star Crustal Plate Tectonics. I. Magnetic Dipole Evolution in Millisecond Pulsars and Low-Mass X-Ray Binaries. *M. Ruderman.* 366, 261, 4-C5 (1991)

Sigma Observation of the Pulsar OAO 1657−415: Precise Localization at Hard X-Ray Energy and Discovery of Spin-down. *S. Mereghetti, J. Ballet, A. Lambert, P. Mandrou, L. Natalucci, J. Paul, J. P. Roques, L. Salotti, M. Gilfanov, R. Sunyaev, G. Babalyan, E. Churazov, N. Khavenson, A. Kuznetsov, D. Stepanov, & S. Yunin.* 366, L23, 6-C11 (1991)

Birthrates of Galactic Millisecond Pulsars and Their Low-Mass X-Ray Binary Precursors. *Marco Tavani.* 366, L27, 6-D1 (1991)

Monte Carlo Simulation of Comptonization in Plasma Accreting onto Neutron Stars. *Tomoyuki Hanawa.* 366, 495, 9-B9 (1991)

The Proper Motion of the Soft X-Ray–emitting Radio Pulsar PSR 0656+14. *R. J. Thompson, Jr., F. A. Córdova, R. M. Hjellming, & E. B. Fomalont.* 366, L83, 11-E1 (1991)

Application of a General Relativistic Accretion Disk Model to LMC X-1, LMC X-3, X1608−522, and X1636−536. *Ken Ebisawa, Kazuhisa Mitsuda, & Tomoyuki Hanawa.* 367, 213, 14-F8 (1991)

Optical and Radio Observations of the Binary Pulsar 1855+09: Evolution of Pulsar Magnetic Fields and Low-Mass White Dwarf Cooling. *S. R. Kulkarni, S. Djorgovski, & A. R. Klemola.* 367, 221, 14-G4 (1991)

Conditions for Accretion-induced Collapse of White Dwarfs. *Ken'ichi Nomoto & Yoji Kondo.* 367, L19, 17-D1 (1991)

Accretion Powered Pulsars: Continuum Spectra and Light Curves of Settling Accretion Mounds. *David J. Burnard, Jonathan Arons, & Richard I. Klein.* 367, 575, 20-D10 (1991)

Formulae for the Cyclotron Luminosity of Magnetized Plasma Slabs. *G. Chanmugam & Steven H. Langer.* 368, 580, 32-C11 (1991)

Neutron Star Thermal Evolution. *Kenneth A. Van Riper.* 75, 449, 6-G7 (1991)

The Appearance of Highly Relativistic, Spherically Symmetric Stellar Winds. *Marek A. Abramowicz, Igor D. Novikov, & Bohdan Paczyński.* 369, 175, 38-B5 (1991)

Explosion of a Rotating Neutron Star near the Minimum Mass. *Monica Colpi, Stuart L. Shapiro, & Saul A. Teukolsky.* 369, 422, 43-A5 (1991)

Near-critical Spherical Accretion by Neutron Stars: General Relativistic Treatment. *Myeong-Gu Park & Guy S. Miller.* 371, 708, 70-D1 (1991)

High-Precision Timing of Millisecond Pulsars. I. Astrometry and Masses of the PSR 1855+09 System. *M. F. Ryba & J. H. Taylor.* 371, 739, 70-F9 (1991)

Numerical Solution of the General Relativistic Boltzmann Equation for Massive and Massless Particles. *Hugh Harleston & Katherine A. Holcomb.* 372, 225, 76-F13 (1991)

White Dwarf and Neutron Star Interior Solutions in the Nonsymmetric Gravitational Theory. *L. M. Campbell, J. W. Moffat, & P. Savaria.* 372, 241, 77-A1 (1991)

Steady State Energy Sources in Neutron Stars. *Kenneth A. Van Riper.* 372, 251, 77-A13 (1991)

Oscillations of Rotating Neutron Stars. *Tod E. Strohmayer.* 372, 573, 82-G5 (1991)

The Outcome of Explosive Ignition of ONeMg Cores: Supernovae, Neutron Stars, or "Iron" White Dwarfs? *Jordi Isern, Ramon Canal, & Javier Labay.* 372, L83, 85-D9 (1991)

Hard X-Ray Spectra from Gap Accretion onto Neutron Stars. *Włodzimierz Kluźniak & James R. Wilson.* 372, L87, 85-E1 (1991)

Transverse Conductivity of a Relativistic Plasma in Oblique Electric and Magnetic Fields. *Fulvio Melia & Marco Fatuzzo.* 373, 198, 88-D8 (1991)

Rotation of the Neutron-Drip Superfluid in Pulsars: The Interaction and Pinning of Vortices. *P. B. Jones.* 373, 208, 88-E6 (1991)

The Oscillations of Rapidly Rotating Newtonian Stellar Models. II. Dissipative Effects. *James R. Ipser & Lee Lindblom.* 373, 213, 88-E12 (1991)

High-Energy X-Ray Production in a Boundary Layer of an Accreting Neutron Star. *Tomoyuki Hanawa.* 373, 222, 88-F9 (1991)

The Near-Infrared Spectra of Low-Mass X-Ray Binaries and Related Objects. *A. P. Cowley, P. C. Schmidtke, D. Crampton, J. B. Hutchings, & M. Bolte.* 373, 228, 88-G1 (1991)

Structure and Stability of Rotating Relativistic Neutron Stars. *F. Weber, N. K. Glendenning, & M. K. Weigel.* 373, 579, 95-B10 (1991)

Mechanics and Energetics of Vortex Unpinning in Neutron Stars. *Bennett K. Link & Richard I. Epstein.* 373, 592, 95-C11 (1991)

Multipolar Magnetic Fields in Neutron Stars. *Julian H. Krolik.* 373, L69, 97-E4 (1991)

Equation of State in a Strong Magnetic Field: Finite Temperature and Gradient Corrections. *Andrew M. Abrahams & Stuart L. Shapiro.* 374, 652, 107-B12 (1991)

A Theory of Gamma-Ray Bursts Based on Resonant Compton Scattering. *Peter Vitello & Charles D. Dermer.* 374, 668, 107-D1 (1991)

Gamma-Ray Bursts from Colliding Strange Stars. *P. Haensel, B. Paczyński, & P. Amsterdamski.* 375, 209, 113-E10 (1991)

The Shear Modulus of the Neutron Star Crust and Nonradial Oscillations of Neutron Stars. *T. Strohmayer, S. Ogata, H. Iyetomi, S. Ichimaru, & H. M. Van Horn.* 375, 679, 121-B7 (1991)

Model Atmospheres and X-Ray Spectra of Bursting Neutron Stars. *Jerzy Madej.* 376, 161, 127-A4 (1991)

Steady Spherical Hypercritical Accretion onto Neutron Stars. *John C. Houck & Roger A. Chevalier.* 376, 234, 127-G6 (1991)

The X-Ray Properties of GX 301−2 (4U 1223−62). *F. Haberl.* 376, 245, 128-A5 (1991)

Detection of a Feature at 0.44 MeV in the Crab Pulsar Spectrum with FIGARO II: A Redshifted Positron Annihilation Line? *E. Massaro, G. Matt, M. Salvati, E. Costa, P. Mandrou, M. Niel, J. F. Olive, T. Mineo, B. Sacco, L. Scarsi, G. Gerardi, B. Agrinier, E. Barouch, R. Comte, B. Parlier, & J. L. Masnou.* 376, L11, 130-B7 (1991)

Transient Particle Acceleration in Strongly Magnetized Neutron Stars. *Fulvio Melia & Marco Fatuzzo.* 376, 673, 134-F7 (1991)

PSR 0540+23 Revisited: Three Components, Drifting Subpulses, and Mode Switching. *Leszek A. Nowakowski.* 377, 581, 147-A1 (1991)

Equation of State in Metals and Cold Stars: Evaluation of Statistical Models. *Dong Lai, Andrew M. Abrahams, & Stuart L. Shapiro.* 377, 612, 147-C10 (1991)

On Spectra of X-Ray Bursters in the Expansion Phase. *I. I. Lapidus.* 377, L93, 150-E1 (1991)

Radiative-hydrodynamical Simulations of Accretion Disk Coronae. *Fulvio Melia, Gregory J. Zylstra, & Bruce Fryxell.* 377, L101, 150-E11 (1991)

The Contribution of Light Bending and Redshift to the Pulse Characteristics of a Pulsar in the Case of Smaller Neutron Stars. *R. C. Kapoor.* 378, 227, 153-G1 (1991)

Astrophysical Limits for Binding Energy of Strange Matter. *M. I. Krivoruchenko & B. V. Martemyanov.* 378, 628, 160-C1 (1991)

A Mechanism for Gamma-Ray Bursts by Alfvén-Wave Acceleration in a Nonuniform Atmosphere. *K. A. Holcomb & T. Tajima.* 378, 682, 160-G10 (1991)

SN 1988A in M58: Departure from ^{56}Co Decay 700 Days after Explosion. *P. Ruiz-Lapuente, M. Kidger, G. Gómez, R. Canal, & R. López.* 378, L41, 162-E1 (1991)

Searches for Millisecond Pulsations in Low-Mass X-Ray Binaries. *K. S. Wood, J. P. Norris, P. Hertz, B. A. Vaughan, P. F. Michelson, K. Mitsuda, W. H. G. Lewin, J. van Paradijs, W. Penninx, & M. van der Klis.* 379, 295, 166-F9 (1991)

X-Ray–illuminated Stellar Winds: Optically Thick Wind Models for Massive X-Ray Binaries. *Ian R. Stevens.* 379, 310, 167-A1 (1991)

The Inability of the Resonant Compton Upscattering Model of Gamma-Ray Bursts to Produce a Third Cyclotron Harmonic. *J. J. Brainerd.* 379, L57, 175-C1 (1991)

Discovery of a Cyclotron Resonance Feature at 30 keV from the Transient X-Ray Pulsar Cepheus X-4. *T. Mihara, K. Makishima, S. Kamijo, T. Ohashi, F. Nagase, Y. Tanaka, & K. Koyama.* 379, L61, 175-C6 (1991)

The Rate of Neutron Star Binary Mergers in the Universe: Minimal Predictions for Gravity Wave Detectors. *E. S. Phinney.* 380, L17, 181-C6 (1991)

Superfluid Hydrodynamics in Rotating Neutron Stars. I. Nondissipative Equations. *Gregory Mendell.* 380, 515, 184-F1 (1991)

Superfluid Hydrodynamics in Rotating Neutron Stars. II. Dissipative Effects. *Gregory Mendell.* 380, 530, 184-G3 (1991)

Radiative Widths and Splitting of Cyclotron Lines in Superstrong Magnetic Fields. *G. G. Pavlov, V. G. Bezchastnov, P. Mészáros, & S. G. Alexander.* 380, 541, 185-A1 (1991)

High-Precision Timing of Millisecond Pulsars. II. Astrometry, Orbital Evolution, and Eclipses of PSR 1957+20. *M. F. Ryba & J. H. Taylor.* 380, 557, 185-B7 (1991)

X-Ray Detectability of Gamma-Ray Bursts from M31. *Edison P. Liang.* 380, L55, 188-B11 (1991)

The Statistics of Slow Interstellar Accretion onto Neutron Stars. *O. Blaes & M. Rajagopal.* 381, 210, 191-E10 (1991)

Gravitational Radiation from Dual Neutron Star Elliptical Binaries. *Dieter Hils.* 381, 484, 196-F5 (1991)

Soft X-Ray Pulses from Neutron Star Glitches. *Kenneth A. Van Riper, Richard I. Epstein, & Guy S. Miller.* 381, L47, 199-C1 (1991)

Molecules and Chains in a Strong Magnetic Field: Statistical Treatment. *Andrew M. Abrahams & Stuart L. Shapiro.* 382, 233, 203-B5 (1991)

Existence of Scattering Atmospheres near Luminous, Magnetized Compact Objects. *Charles D. Dermer & Steven J. Sturner.* 382, L23, 205-C11 (1991)

Transient Particle Acceleration in Strongly Magnetized Neutron Stars. II. Effects Due to a Dipole Field Geometry. *Marco Fatuzzo & Fulvio Melia.* 382, 570, 208-E10 (1991)

Neutron Star Crustal Plate Tectonics. II. Evolution of Radio Pulsar Magnetic Fields. *M. Ruderman.* 382, 576, 208-F4 (1991)

Neutron Star Crustal Plate Tectonics. III. Cracking, Glitches, and Gamma-Ray Bursts. *M. Ruderman.* 382, 587, 208-G3 (1991)

The Origin of the Planet around PSR 1829−10. *Takashi Nakamura & Tsvi Piran.* 382, L81, 211-C13 (1991)

Deep VLA Images of Globular Clusters. *Helen M. Johnston, Shrinivas R. Kulkarni, & W. M. Goss.* 382, L89, 211-D11 (1991)

Spectral Signatures of the MeV–PeV Radiation from Accreting Neutron Stars. *B. Rudak & P. Mészáros.* 383, 269, 215-E3 (1991)

Decrease in the Orbital Period of Hercules X-1. *John E. Deeter, Paul E. Boynton, Sigenori Miyamoto, Shunji Kitamoto, Fumiaki Nagase, & Nobuyuki Kawai.* 383, 324, 216-C1 (1991)

Cold Equation of State in a Strong Magnetic Field: Effects of Inverse β-Decay. *Dong Lai & Stuart L. Shapiro.* 383, 745, 223-D11 (1991)

Formation of Dense Charged Bunches in Vacuum Gaps. *F. Curtis Michel.* 383, 808, 224-C6 (1991)

V/V_{max} Test Applied to *Ginga* Gamma-Ray Bursts. *Y. Ogasaka, T. Murakami, J. Nishimura, A. Yoshida, & E. E. Fenimore.* 383, L61, 226-D6 (1991)

Local Distribution of Old Neutron Stars. *Zsolt Frei, Xiaolan Huang, & Bohdan Paczyński.* 384, 105, 2-C10 (1992)

Thermal Structure of Neutron Stars with Very Low Accretion Rates. *J. L. Zdunik, P. Haensel, B. Paczyński, & J. Miralda-Escudé.* 384, 129, 2-E12 (1992)

Compton Scattering in a Converging Fluid Flow: Spherical Near-critical Accretion onto Neutron Stars. *Apostolos Mastichiadis & Nikolaos D. Kylafis.* 384, 136, 2-F7 (1992)

The Fate of Accreted CNO Elements in Neutron Star Atmospheres: X-Ray Bursts and Gamma-Ray Lines. *Lars Bildsten, Edwin E. Salpeter, & Ira Wasserman.* 384, 143, 2-G1 (1992)

Multiple Resonant Scattering in the Compton Upscatter Model of Gamma-Ray Bursts. *J. J. Brainerd.* 384, 545, 9-A1 (1992)

The Continuum Eclipse of PSR 1957+20. *A. S. Fruchter & W. M. Goss.* 384, L47, 11-C9 (1992)

Radio Emission Altitudes in the Pulsar Magnetosphere. *J. A. Phillips.* 385, 282, 15-D5 (1992)

Post-Newtonian Frequencies for the Pulsations of Rapidly Rotating Neutron Stars. *Curt Cutler & Lee Lindblom.* 385, 630, 21-A1 (1992)

Radiation Dynamics in X-Ray Binaries. I. Type 1 Bursts. *Mark A. Walker.* 385, 642, 21-B1 (1992)

Radiation Dynamics in X-Ray Binaries. II. Type 2 Bursts. *Mark A. Walker.* 385, 651, 21-B12 (1992)

Radiation Dynamics in X-Ray Binaries. III. Extremely Compact Objects. *Mark A. Walker.* 385, 661, 21-C10 (1992)

The Structure and Evolution of Thorne-Żytkow Objects. *R. C. Cannon, P. P. Eggleton, A. N. Żytkow, & P. Podsiadlowski.* 386, 206, 26-F5 (1992)

Dynamical Model of the Magnetic Field of Neutron Stars. *F. W. Cummings, D. D. Dixon, & P. E. Kaus.* 386, 215, 26-G3 (1992)

On the Power Spectra of the Wind-fed X-Ray Binary Pulsar GX 301−2. *Mauro Orlandini & G. E. Morfill.* 386, 703, 34-A9 (1992)

Vortex Drag and the Spin-up Time Scale for Pulsar Glitches. *Richard I. Epstein & Gordon Baym.* 387, 276, 40-D1 (1992)

Properties of the Massive X-Ray Binary 4U 1700−37 = HD 153919. *S. R. Heap & M. F. Corcoran.* 387, 340, 41-B11 (1992)

Light Curves of Rotating, Oscillating Neutron Stars. *T. E. Strohmayer.* 388, 138, 50-F9 (1992)

Proton Acceleration in Neutron Star Magnetospheres. *I. A. Smith, J. I. Katz, & P. H. Diamond.* 388, 148, 50-G7 (1992)

Gamma-Ray Bursts and Cosmic Rays from Accretion-induced Collapse. *Arnon Dar, Ben Zion Kozlowski, Shmuel Nussinov, & Reuven Ramaty.* 388, 164, 51-A11 (1992)

Energy Dependence of Normal Branch Quasi-periodic Intensity Oscillations in Low-Mass X-Ray Binaries. *Guy S. Miller & Frederick K. Lamb.* 388, 541, 57-A5 (1992)

CNO Destruction by Spallation and Type I X-Ray Bursts. *Jason C. Tillett & James MacDonald.* 388, 555, 57-B7 (1992)

Photon Bubbles: Overstability in a Magnetized Atmosphere. *Jonathan Arons.* 388, 561, 57-C1 (1992)

Rotating Stars: The Angular Momentum Constraints. *Fernando de Felice & Leonardo Di G. Sigalotti.* 389, 386, 64-F7 (1992)

Determining the Coherence of Micropulses. *T. E. Strohmayer, J. M. Cordes, & H. M. Van Horn.* 389, 685, 69-G12 (1992)

On the Optical Counterpart of 1E 1207.4−5209, the Central X-Ray Source of a Ring-shaped Supernova Remnant. *Giovanni F. Bignami, Patrizia A. Caraveo, & Sandro Mereghetti.* 389, L67, 73-D5 (1992)

Gamma-Ray Bursts from Planet-Magnetosphere Systems around Neutron Stars. *Hitoshi Hanami.* 389, L71, 73-D11 (1992)

Postglitch Behavior of the Crab Pulsar: Evidence for External Torque Variations. *Bennett Link, Richard I. Epstein, & Gordon Baym.* 390, L21, 78-D5 (1992)

Remarks on Triaxiality, Spin-up, and Magnetic Field Obliquity of Some Millisecond Pulsars. *W. Y. Chau, K. S. Cheng, & J. L. Zhang.* 390, 486, 81-D1 (1992)

PSR 0655+64: An Astrophysical Laboratory for Testing Relativistic Gravity Theories. *Itzhak Goldman.* 390, 494, 81-D11 (1992)

Application of the Improved Hartle Method for the Construction of General Relativistic Rotating Neutron Star Models. *F. Weber & N. K. Glendenning.* 390, 541, 82-B1 (1992)

Thermonuclear Flash Model for Long X-Ray Tails from Aquila X-1. *Ikko Fushiki, Ronald E. Taam, S. E. Woosley, & D. Q. Lamb.* 390, 634, 83-B9 (1992)

Rapid Cooling of Neutron Stars by Hyperons and Δ Isobars. *Madappa Prakash, Manju Prakash, James M. Lattimer, & C. J. Pethick.* 390, L77, 85-A1 (1992)

On the Thermal Conductivity due to Collisions between Relativistic Degenerate Electrons. *F. X. Timmes.* 390, L107, 85-D9 (1992)

X-Ray Spectrum and Time Variation of X1850−087 in the Globular Cluster NGC 6712. *Shunji Kitamoto, Hiroshi Tsunemi, & Diane Roussel-Dupre.* 391, 220, 88-F7 (1992)

The Collapse of White Dwarfs to Neutron Stars. *S. E. Woosley & E. Baron.* 391, 228, 88-G1 (1992)

Evidence for Neutral Emission above 10^{17} eV from LMC X-4. *R. Meyhandan, B. R. Dawson, R. W. Clay, L. Horton, J. Ulrichs, & M. M. Winn.* 391, 236, 88-G11 (1992)

Formation of Very Strongly Magnetized Neutron Stars: Implications for Gamma-Ray Bursts. *Robert C. Duncan & Christopher Thompson.* 392, L9, 106-B7 (1992)

Shot Noise in Gamma-Ray Bursts. *B. M. Belli.* 393, 266, 117-D9 (1992)

Deep VLA Images of Globular Clusters: NGC 6624. *Helen M. Johnston & Shrinivas R. Kulkarni.* 393, L17, 120-C8 (1992)

Neutron Stars and Gravitational Scalars. *Helmut W. Zaglauer.* 393, 685, 124-D1 (1992)

Column Accretion with Radiation Drag and the Two-Branch Spectrum of the Low-Mass X-Ray Binary GX 5−1. *J. H. You, T. Lu, C. Y. Wei, & T. G. Wang.* 394, 283, 131-E1 (1992)

The Cooling of Neutron Stars by the Direct Urca Process. *Dany Page & James H. Applegate.* 394, L17, 133-C7 (1992)

Detectability of the Gravitational Wave Signal from a Close Neutron Star Binary with Mass Transfer. *Piotr Jaranowski & Andrzej Krolak.* 394, 586, 136-F1 (1992)

A New Class of *g*-Modes in Neutron Stars. *Andreas Reisenegger & Peter Goldreich.* 395, 240, 143-B7 (1992)

Magnetic Field Decay in Isolated Neutron Stars. *Peter Goldreich & Andreas Reisenegger.* 395, 250, 143-C5 (1992)

Field Theoretical Model for Nuclear and Neutron Matter. V. Slowly Rotating Warm Cores in Neutron Stars. *José V. Romero, J. Díaz Alonso, José M^a. Ibáñez, Juan A. Miralles, & Armando Pérez.* 395, 612, 150-F5 (1992)

Postcollapse Hydrodynamics of SN 1987A: Two-dimensional Simulations of the Early Evolution. *Marc Herant, Willy Benz, & Stirling Colgate.* 395, 642, 151-B13 (1992)

Gamma-Ray Bursts as the Death Throes of Massive Binary Stars. *Ramesh Narayan, Bohdan Paczyński, & Tsvi Piran.* 395, L83, 153-G10 (1992)

Ginga Observations of Centaurus X-3. *F. Nagase, R. H. D. Corbet, C. S. R. Day, H. Inoue, T. Takeshima, K. Yoshida, & T. Mihara.* 396, 147, 157-A3 (1992)

Radiative-hydrodynamical Simulations of X-Ray Burst–induced Accretion Disk Coronae. *Fulvio Melia, Gregory J. Zylstra, & Bruce Fryxell.* 396, L27, 160-E8 (1992)

Production of Recycled Pulsars in Globular Clusters via Two-Body Tidal Capture. *R. Di Stefano & S. Rappaport.* 396, 587, 164-F9 (1992)

The Conductive Propagation of Nuclear Flames. I. Degenerate C + O and O + Ne + Mg White Dwarfs. *F. X. Timmes & S. E. Woosley.* 396, 649, 165-D9 (1992)

Pulsar PSR 1744−24A: Timing, Eclipses, and the Evolution of Neutron Star Binaries. *D. J. Nice & S. E. Thorsett.* 397, 249, 171-A12 (1992)

Tidal Heating and Mass Loss in Neutron Star Binaries: Implications for Gamma-Ray Burst Models. *P. Mészáros & M. J. Rees.* 397, 570, 178-A12 (1992)

Are Repeaters Responsible for Gamma-Ray Burst $\langle V/V_{\max} \rangle < 0.5$? *R. E. Lingenfelter & J. C. Higdon.* 397, 576, 178-B7 (1992)

Spin-up of a Rapidly Rotating Star by Angular Momentum Loss: Effects of General Relativity. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 398, 203, 184-D1 (1992)

Coalescing Binary Neutron Stars. *Christopher S. Kochanek.* 398, 234, 184-F7 (1992)

The Quasi-static Evolution of ONeMg Cores: Explosive Ignition Densities and the Collapse/Explosion Alternative. *Ramon Canal, Jordi Isern, & Javier Labay.* 398, L49, 187-G7 (1992)

An Interpretation of the Multipeaked Structure in X-Ray Bursts. *Fulvio Melia & Gregory J. Zylstra.* 398, L53, 188-A1 (1992)

Determining the Nuclear Equation of State from Neutron-Star Masses and Radii. *Lee Lindblom.* 398, 569, 191-C1 (1992)

Implications of $^3P_2$ Superfluidity in the Interior of Neutron Stars. *H. F. Chau, K. S. Cheng, & K. Y. Ding.* 399, 213, 197-G9 (1992)

On the Evolution of Slowly Accreting Neutron Stars. *O. M. Blaes, R. D. Blandford, P. Madau, & L. Yan.* 399, 634, 205-G3 (1992)

Tidal Interactions of Inspiraling Compact Binaries. *Lars Bildsten & Curt Cutler.* 400, 175, 211-B1 (1992)

X-Ray Flashes from M31 Based on Extended Halo Models of Gamma-Ray Bursts. *Hui Li & Edison P. Liang.* 400, L59, 220-D3 (1992)

Hydrodynamical Evolution of Coalescing Binary Neutron Stars. *Frederic A. Rasio & Stuart L. Shapiro.* 401, 226, 223-G9 (1992)

Stellar Encounters Involving Neutron Stars in Globular Cluster Cores. *M. B. Davies, W. Benz, & J. G. Hills.* 401, 246, 224-B1 (1992)

Pulsar Death Lines and Death Valley. *Kaiyou Chen & Malvin Ruderman.* 402, 264, 4-D1 (1993)

Superfluid Vortex Creep and Rotational Dynamics of Neutron Stars. *Bennett Link, Richard I. Epstein, & Gordon Baym.* 403, 285, 17-D7 (1993)

The Unstable Long-Term Periodicity of Aquila X-1. *Shunji Kitamoto, Hiroshi Tsunemi, Sigenori Miyamoto, & Diane Roussel-Dupre.* 403, 315, 17-F13 (1993)

Discovery of the Orbit of the X-Ray Pulsar OAO 1657−415. *Deepto Chakrabarty, John M. Grunsfeld, Thomas A. Prince, Lars Bildsten, Mark H. Finger, Robert B. Wilson, Gerald J. Fishman, Charles A. Meegan, & William S. Paciesas.* 403, L33, 20-D6 (1993)

Can We Observe Accreting, Isolated Neutron Stars? *Omer Blaes & Piero Madau.* 403, 690, 24-C8 (1993)

Decrease of Gravitational Mass Due to Neutrino Emission and Shock Revival in Supernovae. *Itzhak Goldman & Shmuel Nussinov.* 403, 706, 24-D13 (1993)

Electrical and Thermal Conductivities of Dense Matter in the Crystalline Lattice Phase. II. Impurity Scattering. *Naoki Itoh & Yasuharu Kohyama.* 404, 268, 31-C1 (1993)

Numerical Simulations of Two-dimensional and Three-dimensional Wind Accretion Flows of an Isothermal Gas. *Takanori Ishii, Takuya Matsuda, Eiji Shima, Mario Livio, Ulrich Anzer, & Gerhard Börner.* 404, 706, 37-F9 (1993)

Relativistic Fireballs and Their Impact on External Matter: Models for Cosmological Gamma-Ray Bursts. *P. Mészáros & M. J. Rees.* 405, 278, 44-E9 (1993)

The Masses of Two Binary Neutron Star Systems. *S. E. Thorsett, Z. Arzoumanian, M. M. McKinnon, & J. H. Taylor.* 405, L29, 47-E8 (1993)

The Evolutionary Status of the Pulsar–Be Star Binary PSR 1259−63. *A. R. King.* 405, 727, 52-B5 (1993)

Fitting Pulse Profiles of X-Ray Pulsars: The Effects of Relativistic Light Deflection. *H. Riffert, H.-P. Nollert, U. Kraus, & H. Ruder.* 406, 185, 57-D1 (1993)

Properties of Ultracompact Neutron Stars. *Robert J. Nemiroff, Peter A. Becker, & Kent S. Wood.* 406, 590, 65-B13 (1993)

Hydrodynamic Instability and Coalescence of Close Binary Systems. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 406, L63, 68-D3 (1993)

Photoionization of the Hydrogen Atom in Strong Magnetic Fields. *Alexander Yu. Potekhin & George G. Pavlov.* 407, 330, 73-B11 (1993)

A Detailed Study of Sheared Alfvén Waves and Their Possible Application to Gamma-Ray Bursts. *Marco Fatuzzo & Fulvio Melia.* 407, 680, 79-A8 (1993)

The Boltzmann Equation in General Relativistic Rotating Systems: Cooling of Rotating Neutron Stars. *Juan A. Miralles, Kenneth A. Van Riper, & James M. Lattimer.* 407, 687, 79-B1 (1993)

A Broad-Band X-Ray Telescope Spectrum of the Massive X-Ray Binary X Persei. *Eric M. Schlegel, Peter J. Serlemitsos, Keith Jahoda, Frank Marshall, Robert Petre, Elihu Boldt, Richard Mushotzky, Jean Swank, Andrew Szymkowiak, Alan Smale, & Kim Weaver.* 407, 744, 79-F13 (1993)

Magnetic Field Topology in Pulsars. *Jonathan Arons.* 408, 160, 85-B1 (1993)

Magnetic Field Decay from the Core of Neutron Stars: Effects of Interpinning of $^3P_2$ Neutron Superfluid and $^1S_0$ Proton Superconducting Fluid. *K. Y. Ding, K. S. Cheng, & H. F. Chau.* 408, 167, 85-B11 (1993)

Origin and Radio Pulse Properties of Millisecond Pulsars. *Kaiyou Chen & Malvin Ruderman.* 408, 179, 85-C12 (1993)

Thermal Evolution of Neutron Stars with Internal Frictional Heating. *Hideyuki Umeda, Noriaki Shibazaki, Ken'ichi Nomoto, & Sachiko Tsuruta.* 408, 186, 85-D7 (1993)

Neutron Star Dynamos and the Origins of Pulsar Magnetism. *Christopher Thompson & Robert C. Duncan.* 408, 194, 85-E4 (1993)

TeV Gamma Rays from Millisecond Pulsars and the Detectability of Globular Clusters. *I. A. Smith.* 408, 468, 91-A7 (1993)

Helium Destruction and Gamma-Ray Line Emission in Accreting Neutron Stars. *Lars Bildsten, Edwin E. Salpeter, & Ira Wasserman.* 408, 615, 92-G9 (1993)

Postglitch Relaxation of the Vela Pulsar after Its First Eight Large Glitches: A Reevaluation with the Vortex Creep Model. *M. Ali Alpar, H. F. Chau, K. S. Cheng, & David Pines.* 409, 345, 101-D1 (1993)

A Model of Nonthermal Radiation from Accreting X-Ray Pulsars. *P. P. Leung, K. S. Cheng, & P. C. W. Fung.* 410, 309, 115-G12 (1993)

Relativistic Electron-Positron Beams in Gamma-Ray Bursters. *I. A. Smith & Richard I. Epstein.* 410, 315, 116-A6 (1993)

Disk Plus Halo Models of Gamma-Ray Burst Sources. *I. A. Smith & D. Q. Lamb.* 410, L23, 118-A9 (1993)

The Binary Pulsar PSR 1908+00 in NGC 6760. *W. T. S. Deich, J. Middleditch, S. B. Anderson, S. R. Kulkarni, T. A. Prince, & A. Wolszczan.* 410, L95, 126-A13 (1993)

Encounters between Binaries and Neutron Stars. *M. B. Davies, W. Benz, & J. G. Hills.* 411, 285, 130-F13 (1993)

Reliability of Magnetic Inclination Angle Determinations for Pulsars. *M. Coleman Miller & Russell J. Hamilton.* 411, 298, 131-A1 (1993)

Neutron Star Accretion in a Stellar Envelope. *Roger A. Chevalier.* 411, L33, 134-A7 (1993)

Does the Coalescence of White Dwarfs Produce Millisecond Pulsars in Globular Clusters? *Kaiyou Chen & Peter J. T. Leonard.* 411, L75, 142-D3 (1993)

A Turbulent Model of Time Variability in X-Ray Binary Pulsars. *Masahiro Hoshino & Toshiaki Takeshima.* 411, L79, 142-D9 (1993)

The Optical Counterpart of the Bright Nearby Millisecond Pulsar PSR J0437−4715. *Charles D. Bailyn.* 411, L83, 142-E1 (1993)

Crustal Magnetic Field Decay in Neutron Stars and the Nature of Superdense Matter. *Vadim A. Urpin & Kenneth A. Van Riper.* 411, L87, 142-E6 (1993)

The Quasi-periodic Oscillations and Very Low Frequency Noise of Scorpius X-1 as Transient Chaos: A Dripping Handrail? *Jeffrey D. Scargle, Thomas Steiman-Cameron, Karl Young, David L. Donoho, James P. Crutchfield, & James Imamura.* 411, L91, 142-E13 (1993)

Successive X-Ray Bursts from Accreting Neutron Stars. *Ronald E. Taam, S. E. Woosley, T. A. Weaver, & D. Q. Lamb.* 413, 324, 160-C8 (1993)

ROSAT Observations of Pulsed Soft X-Ray Emission from PSR 1055−52. *Hakkı Ögelman & John P. Finley.* 413, L31, 162-E5 (1993)
Hidden Slow Pulsars in Binaries. *Marco Tavani & Leigh Brookshaw.* 413, L39, 162-F3 (1993)
Effect of Radiation Forces on Disk Accretion by Weakly Magnetic Neutron Stars. *M. Coleman Miller & Frederick K. Lamb.* 413, L43, 162-F9 (1993)
Thermal Evolution of Neutron Stars with Internal Heating in the Superfluid Core. *Armen D. Sedrakian & David M. Sedrakian.* 413, 658, 164-F1 (1993)
Interaction of a Jet with a Radiation Pressure–dominated Atmosphere: The Case of SS 433. *Nahum Arav & Mitchell C. Begelman.* 413, 700, 165-B8 (1993)
Postglitch Relaxation following the Ninth Glitch of the Vela Pulsar. *H. F. Chau, P. M. McCulloch, R. Nandkumar, & D. Pines.* 413, L113, 169-A6 (1993)
Detection of an Ultraviolet and Visible Counterpart of the NGC 6624 X-Ray Burster. *I. R. King, S. A. Stanford, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, M. J. Disney, J. M. Deharveng, P. Jakobsen, T. M. Kamperman, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, & C. Sosin.* 413, L117, 169-A12 (1993)
A Reprocessing Model for the Ultraviolet and Optical Light from 4U 1820−30. *Jonathan Arons & Ivan R. King.* 413, L121, 169-B4 (1993)
Normal Modes of Relativistic Stars in Slow Rotation Limit. *Yasufumi Kojima.* 414, 247, 173-B3 (1993)
The Luminosity Dependence of the X-Ray Spectrum of the Transient 42 Second Pulsar EXO 2030+375. *A. P. Reynolds, A. N. Parmar, & N. E. White.* 414, 302, 173-F9 (1993)
The QCD Phase Transition and Supernova Core Collapse. *N. A. Gentile, M. B. Aufderheide, G. J. Mathews, F. D. Swesty, & G. M. Fuller.* 414, 701, 180-A3 (1993)
A Hydrodynamical Model for the Explosion of a Neutron Star Just below the Minimum Mass. *Monica Colpi, Stuart L. Shapiro, & Saul A. Teukolsky.* 414, 717, 180-B10 (1993)
ROSAT High Resolution Imager Observations of PSR 0656+14. *S. B. Anderson, F. A. Córdova, G. G. Pavlov, C. R. Robinson, & R. J. Thompson, Jr.* 414, 867, 182-A12 (1993)
Vortex Pinning by Quenched Randomness in Neutron Stars. *Eric Chevalier.* 414, L113, 186-A13 (1993)
Soft X-Ray Properties of the Geminga Pulsar. *J. P. Halpern & M. Ruderman.* 415, 286, 188-E8 (1993)
Neutrino Emission from the Bubble Phase of Stellar Nuclear Matter. *L. B. Leinson.* 415, 759, 197-C8 (1993)
High-Density Matter in the Chiral Sigma Model. *Pradip K. Sahu, Rahul Basu, & Bhaskar Datta.* 416, 267, 204-D6 (1993)
Thomas-Fermi Calculations of Atoms and Matter in Magnetic Neutron Stars: Effects of Higher Landau Bands. *Ö. E. Rögnvaldsson, I. Fushiki, E. H. Gudmundsson, C. J. Pethick, & J. Yngvason.* 416, 276, 204-E3 (1993)
Gravitational Radiation from Nonaxisymmetric Collisions of Neutron Stars. *Joan M. Centrella & Stephen L. W. McMillan.* 416, 719, 212-C10 (1993)
Finite-Velocity Effects on Atoms in Strong Magnetic Fields and Implications for Neutron Star Atmospheres. *G. G. Pavlov & P. Mészáros.* 416, 752, 212-F8 (1993)
Density Discontinuities and the g-Mode Oscillation Spectra of Neutron Stars. *T. E. Strohmayer.* 417, 273, 220-G9 (1993)
Gravitational Waves and γ-Ray Bursts. *Christopher S. Kochanek & Tsvi Piran.* 417, L17, 222-G11 (1993)
Baryon Purity in Cosmological Gamma-Ray Bursts as a Manifestation of Event Horizons. *Amir Levinson & David Eichler.* 418, 386, 235-G1 (1993)
Electrical and Thermal Conductivities of Dense Matter in the Crystalline Lattice Phase. III. Inclusion of Lower Densities. *Naoki Itoh, Hiroshi Hayashi, & Yasuharu Kohyama.* 418, 405, 236-A13 (1993)
Rings of Fire: Nuclear Burning as the Origin of Sub-Hertz Noise and Weak X-Ray Bursts in Accreting Neutron Stars. *Lars Bildsten.* 418, L21, 238-C8 (1993)
Nonthermal Cyclotron Emission from Low-Luminosity Accretion onto Magnetic Neutron Stars. *Robert W. Nelson, E. E. Salpeter, & Ira Wasserman.* 418, 874, 243-D12 (1993)
Dynamically Comptonized Spectra from Near-critical Accretion onto Neutron Stars. *Luca Zampieri, Roberto Turolla, & Aldo Treves.* 419, 311, 250-B1 (1993)
Maximum Quark Core in a Neutron Star for Realistic Equations of State. *Marek Kutschera & Andrzej Kotlorz.* 419, 752, 257-A9 (1993)
On the Observability of Microsecond Temporal Structure in the Emission from X-Ray Binary Pulsars. *Mauro Orlandini & Elihu Boldt.* 419, 776, 257-C9 (1993)
Hydrodynamic Instability and Coalescence of Binary Neutron Stars. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 420, 811, 13-A10 (1994)
On the Energetics and Number of Gamma-Ray Pulsars. *Charles D. Dermer & Steven J. Sturner.* 420, L75, 15-D11 (1994)
On the Spectra and Pulse Profiles of Gamma-Ray Pulsars. *Steven J. Sturner & Charles D. Dermer.* 420, L79, 15-E3 (1994)
A Search for Circumstellar Material around Pulsars. *J. A. Phillips & C. J. Chandler.* 420, L83, 15-E9 (1994)
Revised Proper-Motion Results for the Soft X-Ray–emitting Radio Pulsar PSR 0656+14. *R. J. Thompson, Jr., & F. A. Córdova.* 421, L13, 21-D11 (1994)
The Vertical Structure and Stability of Accretion Disks Surrounding Black Holes and Neutron Stars. *J. A. Milsom, Xingming Chen, & Ronald E. Taam.* 421, 668, 26-E6 (1994)
Radiating, Slowly Rotating Bodies in General Relativity. *L. Herrera, A. Melfo, L. A. Núñez, & A. Patiño.* 421, 677, 26-F3 (1994)
The Oscillations of Superfluid Neutron Stars. *Lee Lindblom & Gregory Mendell.* 421, 689, 26-G3 (1994)
Neutron Tori around Kerr Black Holes. *H. J. Witt, M. Jaroszyński, P. Haensel, B. Paczyński, & J. Wambsganss.* 422, 219, 32-G5 (1994)
Rapidly Rotating Polytropes in General Relativity. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 422, 227, 33-A1 (1994)
Two Populations and Models of Gamma-Ray Bursts. *J. I. Katz.* 422, 248, 33-B12 (1994)
Relativistic Equation of State of Nuclear Matter for the Supernova Explosion and the Birth of Neutron Stars. *K. Sumiyoshi & H. Toki.* 422, 700, 40-E7 (1994)
Electrodynamics of Disk-accreting Magnetic Neutron Stars. *M. Coleman Miller, Frederick K. Lamb, & Russell J. Hamilton.* 90, 833, 14-B4 (1994)
Disk-Accreting Magnetic Neutron Stars as High-Energy Particle Accelerators. *Russell J. Hamilton, Frederick K. Lamb, & M. Coleman Miller.* 90, 837, 14-B9 (1994)
Do Gamma-Ray Bursts Originate from an Extended Galactic Halo of High-Velocity Neutron Stars? *Dieter H. Hartmann, Lawrence E. Brown, Lih-Sin The, Eric V. Linder, Vahe Petrosian, George R. Blumenthal, & Kevin C. Hurley.* 90, 893, 14-G10 (1994)
Polarized One-Quantum Annihilation in Strong Magnetic Fields as a Process for Particle Deceleration in Neutron Star Atmospheres. *D. Berg, M. Mentzel, & G. Wunner.* 90, 905, 15-A10 (1994)
A New Way to Make Thorne-Żytkow Objects. *Peter J. T. Leonard, Jack G. Hills, & Rachel J. Dewey.* 423, L19, 53-C13 (1994)
Constraints on Accreting, Isolated Neutron Stars from the *ROSAT* and *EUVE* Surveys. *Piero Madau & Omer Blaes.* 423, 748, 57-G10 (1994)
Recycling Pulsars to Millisecond Periods in General Relativity. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 423, L117, 60-G3 (1994)
Rapidly Rotating Neutron Stars in General Relativity: Realistic Equations of State. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 424, 823, 75-A11 (1994)
Neutron Star Moments of Inertia. *D. G. Ravenhall & C. J. Pethick.* 424, 846, 75-C8 (1994)
The Role of the Equation of State in the "Prompt" Phase of Type II Supernovae. *F. Douglas Swesty, James M. Lattimer, & Eric S. Myra.* 425, 195, 82-F3 (1994)
A Tool for Probing the Structure of Neutron Stars: Transient X-Ray Emission. *N. Chong & K. S. Cheng.* 425, 210, 82-G8 (1994)
General Relativistic Corrections in the Gamma-Ray Emission from Pulsars. *P. L. Gonthier & A. K. Harding.* 425, 767, 91-C10 (1994)
Rapid Cooling and the Structure of Neutron Stars. *James M. Lattimer, Kenneth A. Van Riper, Madappa Prakash, & Manju Prakash.* 425, 802, 91-F12 (1994)
Spherical Accretion onto Neutron Stars Revisited: Are Hot Solutions Possible? *R. Turolla, L. Zampieri, M. Colpi, & A. Treves.* 426, L35, 103-E1 (1994)
Excitation of Neutron Star Normal Modes during Binary Inspiral. *Andreas Reisenegger & Peter Goldreich.* 426, 688, 107-A6 (1994)
Are Gamma-Ray Bursters in Our Galaxy? *David Eichler.* 426, L73, 109-C13 (1994)
Radiation from Vela-like Pulsars near the Death Line. *V. V. Usov.* 427, 394, 114-F11 (1994)

Evidence of Circumstellar Matter Surrounding the Hercules X-1 System. *C. S. Choi, T. Dotani, F. Nagase, F. Makino, J. E. Deeter, & K. W. Min.* 427, 400, 114-G5 (1994)

A New Transient Pulsar in the Small Magellanic Cloud with an Unusual X-Ray Spectrum. *John P. Hughes.* 427, L25, 117-D8 (1994)

Postglitch Relaxation of the Crab Pulsar: Evidence for Crust Cracking. *M. A. Alpar, H. F. Chau, K. S. Cheng, & D. Pines.* 427, L29, 117-E1 (1994)

Neutrino Bursts from Gamma-Ray Bursts. *Bohdan Paczyński & Guohong Xu.* 427, 708, 121-E3 (1994)

Geminga: A Cooling Superfluid Neutron Star. *Dany Page.* 428, 250, 131-C6 (1994)

Hard X-Ray Emission from Weakly Magnetized Neutron Stars. *Didier Barret & Gilbert Vedrenne.* 92, 505, 38-E7 (1994)

Similarities in Neutron Star and Black Hole Accretion. *M. van der Klis.* 92, 511, 38-F1 (1994)

Multiwavelength Observations of Isolated Neutron Stars. *S. Mereghetti, P. A. Caraveo, & G. F. Bignami.* 92, 521, 38-F12 (1994)

The Gamma-Ray Signature of the Disruption of a Neutron Star by a Black Hole. *M. Hernanz, J. Isern, X. Martin, & R. Mochkovitch.* 92, 627, 40-C1 (1994)

On the Spectra of X-Ray Bursters: Expansion and Contraction Stages. *Lev Titarchuk.* 429, 340, 148-C6 (1994)

ROSAT/Optical Observations of 2S 0114+65: A Study of the 2.8 Hour Periodic Outbursts. *John P. Finley, MaryJane Taylor, & Tomaso Belloni.* 429, 356, 148-D13 (1994)

The Detection of Pulsed X-Ray Emission from a Nearby Radio Pulsar. *S. Yancopoulos, T. T. Hamilton, & D. J. Helfand.* 429, 832, 156-A9 (1994)

Oscillations of Red Dwarfs in Evolved Low-Mass Binaries with Neutron Stars. *Marek J. Sarna, Umin Lee, & Alexander G. Muslimov.* 431, 302, 179-G8 (1994)

Neutron Star Cooling and Pion Condensation. *Hideyuki Umeda, Ken'ichi Nomoto, Sachiko Tsuruta, Takumi Muto, & Toshitaka Tatsumi.* 431, 309, 180-A3 (1994)

Network Synthesis Localization of Two Soft Gamma Repeaters. *Kevin Hurley, M. Sommer, C. Kouveliotou, G. Fishman, C. Meegan, T. Cline, M. Boer, & M. Niel.* 431, L31, 182-F5 (1994)

High Time Resolution Infrared Observations of the Crab Nebula Pulsar. *S. M. Ransom, G. G. Fazio, S. S. Eikenberry, J. Middleditch, J. Kristian, K. Hays, & C. R. Pennypacker.* 431, L43, 182-G11 (1994)

Low-Frequency Quasi-periodic Oscillations in Low-Mass X-Ray Binaries and Galactic Black Hole Candidates. *Xingming Chen & Ronald E. Taam.* 431, 732, 187-F3 (1994)

Merging Neutron Stars. I. Initial Results for Coalescence of Noncorotating Systems. *M. B. Davies, W. Benz, T. Piran, & F. K. Thielemann.* 431, 742, 187-G1 (1994)

On the Nature of Photospheric Oscillations in Strong X-Ray Bursts. *Iosif Lapidus, Luciano Nobili, & Roberto Turolla.* 431, L103, 191-F13 (1994)

Hydrodynamics of Binary Coalescence. I. Polytropes with Stiff Equations of State. *Frederic A. Rasio & Stuart L. Shapiro.* 432, 242, 196-C2 (1994)

Multipole Moments of Stellar Oscillation Modes. *Andreas Reisenegger.* 432, 296, 196-G6 (1994)

Delayed Hard Photons from Gamma-Ray Bursts. *J. I. Katz.* 432, L27, 199-D11 (1994)

Axisymmetric Neutrino Radiation and the Mechanism of Supernova Explosions. *Tetsuya Shimizu, Shoichi Yamada, & Katsuhiko Sato.* 432, L119, 207-B1 (1994)

Maximum Entropy Distribution and Closure for Bose-Einstein and Fermi-Dirac Radiation Transport. *J. Cernohorsky & S. A. Bludman.* 433, 250, 211-D6 (1994)

Nonstandard Thermal Evolution of Neutron Stars. *Hideyuki Umeda, Sachiko Tsuruta, & Ken'ichi Nomoto.* 433, 256, 211-E1 (1994)

Soft X-Ray Spectral Fits of Geminga with Model Neutron Star Atmospheres. *R. D. Meyer, G. G. Pavlov, & P. Mészáros.* 433, 265, 211-E12 (1994)

Winds from Neutron Stars and Strong Type I X-Ray Bursts. *Luciano Nobili, Roberto Turolla, & Iosif Lapidus.* 433, 276, 211-F11 (1994)

Accretion Rates in X-Ray Bursting Sources. *Iosif Lapidus, Luciano Nobili, & Roberto Turolla.* 433, 287, 211-G11 (1994)

The Discovery of 8.7 Second Pulsations from the Ultrasoft X-Ray Source 4U 0142+61. *G. L. Israel, S. Mereghetti, & L. Stella.* 433, L25, 214-G5 (1994)

Prompt Convection in Core Collapse Supernovae. *Stephen W. Bruenn & Anthony Mezzacappa.* 433, L45, 215-C1 (1994)

Baryonic Dark Clusters in Galactic Halos and Their Observable Consequences. *Ira Wasserman & Edwin E. Salpeter.* 433, 670, 219-D5 (1994)

Long-Term Evolution of Crustal Neutron Star Magnetic Fields. *V. A. Urpin, G. Chanmugam, & Yeming Sang.* 433, 780, 220-G5 (1994)

The PSR 1800−21/G8.7−0.1 Association: A View from *ROSAT*. *John P. Finley & Hakki Ögelman.* 434, L25, 232-D11 (1994)

Galactic Dual Population Models of Gamma-Ray Bursts. *J. C. Higdon & R. E. Lingenfelter.* 434, 552, 235-D8 (1994)

Supplementary Parameters in the Parameterized Post-Keplerian Formalism. *S. M. Kopeikin.* 434, L67, 241-F9 (1994)

Inside the Supernova: A Powerful Convective Engine. *Marc Herant, Willy Benz, W. Raphael Hix, Chris L. Fryer, & Stirling A. Colgate.* 435, 339, 248-B3 (1994)

Searches for Millisecond Pulsations in Low-Mass X-Ray Binaries. II. *B. A. Vaughan, M. van der Klis, K. S. Wood, J. P. Norris, P. Hertz, P. F. Michelson, J. van Paradijs, W. H. G. Lewin, K. Mitsuda, & W. Penninx.* 435, 362, 248-D1 (1994)

Li Abundances in Late-Type Companions to Neutron Stars and Black Hole Candidates. *Eduardo L. Martín, Rafael Rebolo, Jorge Casares, & Philip A. Charles.* 435, 791, 257-A4 (1994)

Upper Limit of the Angular Velocity of Neutron Stars. *Masa-aki Hashimoto, Kazuhiro Oyamatsu, & Yoshiharu Eriguchi.* 436, 257, 264-G1 (1994)

Line-dominated Eclipse Spectrum of Vela X-1. *Fumiaki Nagase, Gregory Zylstra, Takashi Sonobe, Taro Kotani, Hajime Inoue, & Jonathan Woo.* 436, L1, 268-C1 (1994)

Is the Changing Orbital Period of EXO 0748−676 Evidence for a Triple System? *R. H. D. Corbet, K. Asai, T. Dotani, & F. Nagase.* 436, L15, 268-D13 (1994)

Characteristics of the Persistent Emission of SGR 1806−20. *T. Sonobe, T. Murakami, S. R. Kulkarni, T. Aoki, & A. Yoshida.* 436, L23, 268-F1 (1994)

Accretion onto and Radiation from the Compact Object Formed in SN 1987A. *G. E. Brown & J. C. Weingartner.* 436, 843, 277-C9 (1994)

Yet Another Model of Soft Gamma Repeaters. *J. I. Katz, H. A. Toole, & S. H. Unruh.* 437, 727, 295-F6 (1994)

Super-Eddington Radiation Transfer in Soft Gamma Repeaters. *Andrew Ulmer.* 437, L111, 299-C1 (1994)

Critical Angular Velocities of Rotating Neutron Stars. *Lee Lindblom.* 438, 265, 5-B4 (1995)

Frictional Instabilities in Neutron Star Interiors. *Noriaki Shibazaki & Yuko Mochizuki.* 438, 288, 5-D7 (1995)

The Soft Gamma-Ray Spectrum of A0535+26: Detection of an Absorption Feature at 110 keV by OSSE. *J. E. Grove, M. S. Strickman, W. N. Johnson, J. D. Kurfess, R. L. Kinzer, C. H. Starr, G. V. Jung, E. Kendziorra, P. Kretschmar, M. Maisack, & R. Staubert.* 438, L25, 10-A9 (1995)

Gravitational Radiation–driven Secular Instability of Rotating Polytropes. *Shin'ichirou Yoshida & Yoshiharu Eriguchi.* 438, 830, 15-F1 (1995)

Propagation of Nuclear Burning Fronts on Accreting Neutron Stars: X-Ray Bursts and Sub-Hertz Noise. *Lars Bildsten.* 438, 852, 16-A2 (1995)

Physics of Magnetospheric Emission in Soft Gamma-Ray Repeaters. *Fulvio Melia & Marco Fatuzzo.* 438, 904, 16-E7 (1995)

A Potential Cyclotron Line Signature in Low-Luminosity X-Ray Sources. *Robert W. Nelson, John C. L. Wang, E. E. Salpeter, & Ira Wasserman.* 438, L99, 20-B1 (1995)

Critical Radiation Fluxes and Luminosities of Black Holes and Relativistic Stars. *Frederick K. Lamb & M. Coleman Miller.* 439, 828, 36-A11 (1995)

Simple Analysis of Slowly Rotating Semidegenerate Spheroids of Fermions. *M. A. Sabadell, J. Sañudo, & A. F. Pacheco.* 439, 846, 36-C5 (1995)

X-Ray Spectra from Neutron Stars Accreting at Low Rates. *Luca Zampieri, Roberto Turolla, Silvia Zane, & Aldo Treves.* 439, 849, 36-C12 (1995)

The Orbital Light Curve of PSR 1957+20. *Paul J. Callanan, Jan van Paradijs, & Roeland Rengelink.* 439, 928, 37-D4 (1995)

Self-trapping of Superfluid Vortices and the Origin of Pulsar Glitches. *Yuko Mochizuki & Takeo Izuyama.* 440, 263, 44-G2 (1995)

Neutron Star Accretion and Binary Pulsar Formation. *G. E. Brown.* 440, 270, 44-G12 (1995)

High-Mass X-Ray Binary Populations. I. Galactic Modeling. *William W. Dalton & Craig L. Sarazin.* 440, 280, 45-A11 (1995)

Oscillatory Modes in Near-critical Accretion Flows. *Guy S. Miller & Myeong-Gu Park.* 440, 771, 53-F11 (1995)

The Conversion of Two-Flavor to Three-Flavor Quark Matter in a Supernova Core. *Zigao Dai, Qiuhe Peng, & Tan Lu.* 440, 815, 54-C9 (1995)

Optical and Infrared Observations of SGR 1806−20. *S. R. Kulkarni, K. Matthews, G. Neugebauer, I. N. Reid, M. H. van Kerkwijk, & G. Vasisht.* 440, L61, 57-E12 (1995)

Radio Monitoring and High-Resolution Imaging of the Soft Gamma-Ray Repeater 1806−20. *G. Vasisht, D. A. Frail, & S. R. Kulkarni.* 440, L65, 57-F6 (1995)

Photon-Splitting Limits to the Hardness of Emission in Strongly Magnetized Soft Gamma Repeaters. *Matthew G. Baring.* 440, L69, 57-G1 (1995)

Delayed Switch-on of Pulsars. *Alexander Muslimov & Dany Page.* 440, L77, 58-A3 (1995)

Phase Lags in Cygnus X-1. *M. Coleman Miller.* 441, 770, 72-E6 (1995)

Gravitational Radiation from Rapidly Rotating Nascent Neutron Stars. *Dong Lai & Stuart L. Shapiro.* 442, 259, 80-F11 (1995)

Surface Temperature of a Magnetized Neutron Star and Interpretation of the *ROSAT* Data. I. Dipolar Fields. *Dany Page.* 442, 273, 81-A1 (1995)

The Very Low Mass X-Ray Binary Pulsars: A New Class of Sources? *S. Mereghetti & L. Stella.* 442, L17, 84-F9 (1995)

Close Galactic Origin of Gamma-Ray Bursts. *G. S. Bisnovatyi-Kogan.* 97, 185, 13-D1 (1995)

Deviations from Chemical Equilibrium Due to Spin-down as an Internal Heat Source in Neutron Stars. *Andreas Reisenegger.* 442, 749, 90-E3 (1995)

Postaccretion Magnetic Field Evolution of Neutron Stars. *E. J. Young & G. Chanmugam.* 442, L53, 94-D3 (1995)

Hydrodynamics of Coalescing Binary Neutron Stars: Ellipsoidal Treatment. *Dong Lai & Stuart L. Shapiro.* 443, 705, 107-E12 (1995)

Computing Supernova Collapse to Neutron Stars and Black Holes. *Thomas W. Baumgarte, Stuart L. Shapiro, & Saul A. Teukolsky.* 443, 717, 107-F13 (1995)

The Spectrum and Pulses of 1E 2259+586 from *ASCA* and BBXRT Observations. *R. H. D. Corbet, A. P. Smale, M. Ozaki, K. Koyama, & K. Iwasawa.* 443, 786, 108-F3 (1995)

Comparing Models of Rapidly Rotating Relativistic Stars Constructed by Two Numerical Methods. *Nikolaos Stergioulas & John L. Friedman.* 444, 306, 117-F1 (1995)

Geometry and Pulse Profiles of X-Ray Pulsars: Asymmetric Relativistic Fits to 4U 1538−52 and Vela X-1. *T. Bulik, H. Riffert, P. Mészáros, K. Makishima, T. Mihara, & B. Thomas.* 444, 405, 119-B3 (1995)

A Luminous Companion to SGR 1806−20. *M. H. van Kerkwijk, S. R. Kulkarni, K. Matthews, & G. Neugebauer.* 444, L33, 121-F1 (1995)

Tests and Consequences of Disk Plus Halo Models of Gamma-Ray Burst Sources. *I. A. Smith.* 444, 686, 125-G1 (1995)

Does Gravitational Radiation Limit the Angular Velocities of Superfluid Neutron Stars? *Lee Lindblom & Gregory Mendell.* 444, 804, 127-E6 (1995)

The First Search for a Gamma-Ray Burst Quiescent Counterpart in the Extreme Ultraviolet with *EUVE*. *K. Hurley, P. Li, J. Laros, G. Fishman, C. Kouveliotou, & C. Meegan.* 445, 348, 137-C9 (1995)

Double Core Evolution. VII. The Infall of a Neutron Star through the Envelope of Its Massive Star Companion. *James L. Terman, Ronald E. Taam, & Lars Hernquist.* 445, 367, 137-E9 (1995)

Thermal Cyclotron Absorption Coefficients. II. Opacities in the Stokes Formalism. *H. M. Väth & G. Chanmugam.* 98, 295, 26-A9 (1995)

Magnetic Compton-induced Pair Cascade Model for Gamma-Ray Pulsars. *Steven J. Sturner, Charles D. Dermer, & F. Curtis Michel.* 445, 736, 145-D1 (1995)

Observational Constraints on the Maximum Neutron Star Mass. *H. A. Bethe & G. E. Brown.* 445, L129, 151-E1 (1995)

Superfluid Core Rotation in Pulsars. I. Vortex Cluster Dynamics. *Armen D. Sedrakian & David M. Sedrakian.* 447, 305, 176-F1 (1995)

Superfluid Core Rotation in Pulsars. II. Postjump Relaxations. *A. D. Sedrakian, D. M. Sedrakian, J. M. Cordes, & Yervant Terzian.* 447, 324, 176-G10 (1995)

The Galactic Distribution of Low-Mass X-Ray Binaries. *J. van Paradijs & N. White.* 447, L33, 181-A3 (1995)

Gamma-Ray Bursts from Minijets. *Nir J. Shaviv & Arnon Dar.* 447, 863, 187-G1 (1995)

The Synchrotron Self-Compton Model for X-Ray and γ-Ray Emission from Pulsars. *K. S. Cheng & D. M. Wei.* 448, 281, 196-B1 (1995)

Discrete Mass Loss in a Low-Mass Binary with a Rapidly Spinning Neutron Star. *Alexander Muslimov & Marek J. Sarna.* 448, 289, 196-B12 (1995)

Frictional Heating and Neutron Star Thermal Evolution. *Kenneth A. Van Riper, Bennett Link, & Richard I. Epstein.* 448, 294, 196-C6 (1995)

Constraints on Hydrostatic Models of Soft Gamma-Ray Repeaters. *M. Coleman Miller.* 448, L29, 199-F5 (1995)

Prompt Subsidence of a Proto–Neutron Star into a Black Hole. *N. K. Glendenning.* 448, 797, 205-G9 (1995)

Nonradial Oscillations in Neutron Star Oceans: A Source of Quasi-periodic X-Ray Oscillations? *Lars Bildsten & Curt Cutler.* 449, 800, 223-F12 (1995)

Dynamics and Interactions of Binaries and Neutron Stars in Globular Clusters. *Steinn Sigurdsson & E. S. Phinney.* 99, 609, 43-D7 (1995)

From Strange Stars to Strange Dwarfs. *N. K. Glendenning, Ch. Kettner, & F. Weber.* 450, 253, 231-E1 (1995)

Millisecond Pulsars: Detectable Sources of Continuous Gravitational Waves? *Kimberly C. B. New, G. Chanmugam, Warren W. Johnson, & Joel E. Tohline.* 450, 757, 241-B9 (1995)

Bound-Bound Transitions in Strongly Magnetized Hydrogen Plasma. *George G. Pavlov & Alexander Y. Potekhin.* 450, 883, 243-B6 (1995)

Geminga's Soft X-Ray Emission and the Structure of Its Surface. *Dany Page, Yu. A. Shibanov, & V. E. Zavlin.* 451, L21, 252-D4 (1995)

A Model of the Galactic X-Ray Binary Population. II. Low-Mass X-Ray Binaries in the Galactic Disk. *Icko Iben, Jr., Alexander V. Tutukov, & Lev R. Yungelson.* 100, 233, 49-C5 (1995)

Parity Nonconservation and Neutrino Transport in Magnetic Fields. *Alexander Vilenkin.* 451, 700, 256-G4 (1995)

Old Isolated Accreting Neutron Stars: Contribution to the Soft X-Ray Background in the 0.5–2 keV Band. *Silvia Zane, Roberto Turolla, Luca Zampieri, Monica Colpi, & Aldo Treves.* 451, 739, 257-D2 (1995)

Synchrotron Self-Absorption Model of the Soft Gamma-Ray Repeater 1806−20. *Edison P. Liang & Edward Fenimore.* 451, L57, 260-D13 (1995)

Nucleation of a Dense Plasma and Crystallization of Neutron Star Crusts. *F. V. De Blasio.* 452, 359, 267-A13 (1995)

Advection-dominated Accretion: Underfed Black Holes and Neutron Stars. *Ramesh Narayan & Insu Yi.* 452, 710, 274-D13 (1995)

Spin-Orbit Interactions in Neutron Star/Main-Sequence Binaries and Implications for Pulsar Timing. *Dong Lai, Lars Bildsten, & Victoria M. Kaspi.* 452, 819, 276-A1 (1995)

Spin-down of Neutron Stars in Massive Radio Pulsar Binaries: The Periastron Passage of PSR B1259−63. *Pranab Ghosh.* 453, 411, 286-F13 (1995)

X-Ray Detection of PSR B1259−63 at Periastron. *V. M. Kaspi, M. Tavani, F. Nagase, M. Hirayama, M. Hoshino, T. Aoki, N. Kawai, & J. Arons.* 453, 424, 287-A1 (1995)

Ohmic Decay of Magnetic Fields Generated by Currents in the Crusts of Neutron Stars. *C. J. Pethick & M. Sahrling.* 453, L29, 289-F2 (1995)

Accreting, Isolated Neutron Stars. III. Preheating of Infalling Gas and Cometary H II Regions. *Omer Blaes, Orlando Warren, & Piero Madau.* 454, 370, 304-D3 (1995)

Evolution of the Double Neutron Star Merging Rate and the Cosmological Origin of Gamma-Ray Burst Sources. *V. M. Lipunov, K. A. Postnov, M. E. Prokhorov, I. E. Panchenko, & H. E. Jørgensen.* 454, 593, 309-F3 (1995)

X-Ray Spectra of Z Sources. *Dimitrios Psaltis, Frederick K. Lamb, & Guy S. Miller.* 454, L137, 316-D9 (1995)

Spectroscopy of the White Dwarf Companions of PSR 0655+64 and PSR 0820+02. *M. H. van Kerkwijk & S. R. Kulkarni.* 454, L141, 316-E3 (1995)

Photon Splitting in Strongly Magnetized Cosmic Objects—Revisited. *Günter Wunner, Robert Sang, & Dagmar Berg.* 455, L51, 325-B8 (1995)

Spectral Properties of Accretion Disks around Galactic and Extragalactic Black Holes. *Sandip Chakrabarti & Lev G. Titarchuk.* 455, 623, 330-E1 (1995)

Discovery of a Candidate Isolated Neutron Star in a New Supernova Remnant near CTB 1. *Charles J. Hailey & William W. Craig.* 455, L151, 334-B12 (1995)

STARS: NOVAE

PW Vulpeculae: A Nova with Nearly Solar Abundances. *Pedro Saizar, Sumner Starrfield, Gary J. Ferland, R. Mark Wagner, James W. Truran, Scott J. Kenyon, Warren M. Sparks, Robert E. Williams, & L. L. Stryker.* 367, 310, 15-G11 (1991)

Nitrogen Recombination Lines and Abundance in Nova Shells. *Vladimir Escalante & Alexander Dalgarno.* 369, 213, 38-E7 (1991)

On the Expected Orbital Period Change in the Next Outburst of the Recurrent Nova T Pyxidis. *Mario Livio.* 369, L5, 40-A13 (1991)

The Formation of ^{26}Al Nova Explosions. *Irit Nofar, Giora Shaviv, & Sumner Starrfield.* 369, 440, 43-B11 (1991)

Theoretical Light Curve for the Recurrent Nova RS Ophiuchi—Determination of the White Dwarf Mass, Composition, and Distance. *Mariko Kato.* 369, 471, 43-E6 (1991)

Faint Object Camera Observations of a Globular Cluster Nova Field. *Bruce Margon, Scott F. Anderson, Ronald A. Downes, Ralph C. Bohlin, & Peter Jakobsen.* 369, L71, 46-C1 (1991)

Multiwavelength Observations of Nova LMC 1990 Number 2: The First Extragalactic Recurrent Nova. *Steven N. Shore, George Sonneborn, Sumner G. Starrfield, M. Hamuy, R. E. Williams, A. Cassatella, & H. Drechsel.* 370, 193, 49-E8 (1991)

A Search for Periodicities in the X-Ray Emission from Cataclysmic Variables. *Michael Eracleous, Joseph Patterson, & Jules Halpern.* 370, 330, 51-D1 (1991)

Helium Star Cataclysmics. *Icko Iben, Jr., & Alexander V. Tutukov.* 370, 615, 56-B5 (1991)

Synchronization of the Magnetic Nova V1500 Cygni. *Gary D. Schmidt & H. S. Stockman.* 371, 749, 70-G7 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

Is Drag Luminosity Effective in Recurrent Novae? *Mariko Kato & Izumi Hachisu.* 373, 620, 95-F1 (1991)

Thermal X-Ray Emission from Classical Novae in Optical Decline. *James MacDonald & Stéphane Vennes.* 373, L51, 97-C4 (1991)

High-Speed Photometry of V404 Cygni in Outburst. *Eric Gotthelf, Joseph Patterson, & Richard J. Stover.* 374, 340, 102-C11 (1991)

The Common Envelope Phase in Classical Novae: One-dimensional Models. *Anurag Shankar, Mario Livio, & James W. Truran.* 374, 623, 106-G6 (1991)

V1500 Cygni: A Prediction. *J. I. Katz.* 374, L59, 110-D11 (1991)

A Search for the 478 keV Line from the Decay of Nucleosynthetic ^{7}Be. *Michael J. Harris, Mark D. Leising, & Gerald H. Share.* 375, 216, 113-F5 (1991)

Diffusion and Mixing in Classical Nova Precursors. *Icko Iben, Jr., Masayuki Y. Fujimoto, & Jim MacDonald.* 375, L27, 117-D1 (1991)

Are Hypernovae Detectable? *Seok Jae Park & Ethan T. Vishniac.* 375, 565, 119-F9 (1991)

The White Dwarf Mass Distribution in Classical Nova Systems. *Hans Ritter, Michael Politano, Mario Livio, & Ronald F. Webbink.* 376, 177, 127-B10 (1991)

The Evolution and Classification of Postoutburst Novae Spectra. *R. E. Williams, M. Hamuy, M. M. Phillips, S. R. Heathcote, Lisa Wells, & M. Navarrete.* 376, 721, 135-C7 (1991)

Optical Identification of the X-Ray Source GS 2023+338 as V404 Cygni. *R. Mark Wagner, Sumner G. Starrfield, Steve B. Howell, Tobias J. Kreidl, S. J. Bus, A. Cassatella, R. Bertram, & R. Fried.* 378, 293, 154-E10 (1991)

Effects of Drag Luminosity in the Common Envelope Phase of Slow Novae. *Mariko Kato & Izumi Hachisu.* 383, 761, 223-F3 (1991)

Hopkins Ultraviolet Telescope Observations of Nova Circini 1995 and Nova Aquilae 1995. *Bradford W. Greeley, William P. Blair, & Knox S. Long.* 454, L43, 308-B1 (1995)

STARS: NOVAE, CATACLYSMIC VARIABLES

The Formation of Coronal Regions in Accretion Disks. *Stephen D. Murray & Douglas N. C. Lin.* 384, 177, 3-B9 (1992)

On the Certification of AM Canum Venaticorum as a Cataclysmic Variable. *Joseph Patterson, Emily Sterner, Jules P. Halpern, & John C. Raymond.* 384, 234, 3-G6 (1992)

Disk Instability and Outburst Properties of the Intermediate Polar GK Persei. *Soon-Wook Kim, J. Craig Wheeler, & Shin Mineshige.* 384, 269, 4-C7 (1992)

On Mass-Transfer Rates in Classical Nova Precursors. *Icko Iben, Jr., Masayuki Y. Fujimoto, & Jim MacDonald.* 384, 580, 9-D1 (1992)

The Peculiar, Fast Nova Herculis 1991. *Charles E. Woodward, R. D. Gehrz, Terry J. Jones, & G. F. Lawrence.* 384, L41, 11-C1 (1992)

Eclipse Studies of the Dwarf Nova HT Cassiopeiae. II. White Dwarf and Accretion Disk. *Janet H. Wood, Keith Horne, & Stephane Vennes.* 385, 294, 15-E6 (1992)

Classical Nova Models with Accretion Heating at Accretion Rates of 10^{-9} and 10^{-10} $M\odot$ per Year. *Dina Prialnik & Attay Kovetz.* 385, 665, 21-D1 (1992)

The Presence of an Accretion Disk in the Eclipsing Binary System Nova Herculis 1991 Three Weeks after Outburst. *Elia M. Leibowitz, Haim Mendelson, Ezra Mashal, Dina Prialnik, & Waltraut C. Seitter.* 385, L49, 23-D1 (1992)

Spectroscopic Confirmation of High Galactic Latitude Cataclysmic Variables. *Paula Szkody & Steve B. Howell.* 78, 537, 10-C3 (1992)

TT Crateris: A Long-Period, Double-lined Dwarf Nova. *Paula Szkody, Robert E. Williams, Bruce Margon, Steve B. Howell, & Mario Mateo.* 387, 357, 41-D4 (1992)

Diffusion and Mixing in Accreting White Dwarfs. *Icko Iben, Jr., Masayuki Y. Fujimoto, & Jim MacDonald.* 388, 521, 56-F11 (1992)

Spectroscopic Observations of the Cataclysmic Variable PG 0917+342: An Ultra–Short-Period Nova-like System. *Danuta Dobrzycka & Steve B. Howell.* 388, 614, 57-G6 (1992)

Rare Thermonuclear Explosions in Short-Period Cataclysmic Variables, with Possible Application to the Nova-like Red Variable in the Galaxy M31. *Icko Iben, Jr., & Alexander V. Tutukov.* 389, 369, 64-E1 (1992)

Fe II Fluorescence and Anomalous C IV Doublet Intensities in Symbiotic Novae. *A. G. Michalitsianos, M. Kafatos, & S. R. Meier.* 389, 649, 69-D12 (1992)

Type I Supernovae and Accretion-induced Collapses from Cataclysmic Variables? *Mario Livio & James W. Truran.* 389, 695, 70-A10 (1992)

Spectral Evolution of Accretion Disks of Dwarf Novae. III. Outburst Cycle of SS Cygni. *F. H. Cheng & D. N. C. Lin.* 389, 714, 70-C5 (1992)

Possible Observational Consequences of Primordial Binaries in Globular Clusters. *Ronald E. Taam & D. N. C. Lin.* 390, 440, 80-G6 (1992)

Periodic Variability in the Optical Counterpart of X-Ray Nova Muscae 1991. *Charles D. Bailyn.* 391, 298, 89-F1 (1992)

Disk Instability and the Time-dependent X-Ray Emission from the Intermediate Polar GK Persei. *Insu Yi, Soon-Wook Kim, Ethan T. Vishniac, & J. Craig Wheeler.* 391, L25, 92-B6 (1992)

X-Ray to Infrared Observations of the Cataclysmic Variable KO Velorum (E1013−477). *R. M. Sambruna, L. Chiappetti, A. Treves, J. M. Bonnet-Bidaud, P. Bouchet, L. Maraschi, C. Motch, M. Mouchet, & S. Van Amerongen.* 391, 750, 97-C9 (1992)

A Prediction of the γ-Ray Flux from Nova Herculis 1991. *Sumner Starrfield, Steven N. Shore, Warren M. Sparks, George Sonneborn, James W. Truran, & Michael Politano.* 391, L71, 99-E5 (1992)

Incorporation of Density Fluctuations into Photoionization Calculations. *Robert E. Williams.* 392, 99, 102-C1 (1992)

Rapid Oscillations in Cataclysmic Variables. VIII. YY Draconis (=3A 1148+719. *J. Patterson, D. A. Schwartz, J. P. Pye, W. P. Blair, G. A. Williams, & J.-P. Caillault.* 392, 233, 103-G3 (1992)

Superhump Timing in SU Ursae Majoris Systems: Implications of the Data for the Precessing Disk Model. *Lawrence A. Molnar & Henry A. Kobulnicky.* 392, 678, 110-F3 (1992)

Upper Limits for CO in the Old Galactic Novae NQ Vulpeculae, QU Vulpeculae, and Nova Vulpeculae 1987 from IRAM Observations. *Steven N. Shore & Jonathan Braine.* 392, L59, 113-C1 (1992)

The 0623+71 Bow Shock Nebula. *J. M. Hollis, R. J. Oliversen, R. M. Wagner, & W. A. Feibelman.* 393, 217, 116-G3 (1992)

The Nature of the Recurrent Nova T Coronae Borealis: Ultraviolet Evidence for a White Dwarf Accretor. *Pier Luigi Selvelli, Angelo Cassatella, & Roberto Gilmozzi.* 393, 289, 117-F12 (1992)

Spherically Symmetric, Expanding, Non–LTE Model Atmospheres for Novae during Their Early Stages. *P. H. Hauschildt, R. Wehrse, S. Starrfield, & G. Shaviv.* 393, 307, 118-A4 (1992)

Classical Novae and the Extragalactic Distance Scale. *Mario Livio.* 393, 516, 122-C1 (1992)

Eclipse Maps of the Accretion Disk in the Classical Nova V Persei. *Janet H. Wood, Timothy M. C. Abbott, & Allen W. Shafter.* 393, 729, 124-G10 (1992)

On the Role of Radioactive Decays in Powering Gamma Rays and X-Rays from Novae. *Mario Livio, Apostolos Mastichiadis, Hakki Ögelman, & James W. Truran.* 394, 217, 130-F5 (1992)

The Role of the Dwarf Nova Period Distribution in Understanding the Evolution of Cataclysmic Variables. *Allen W. Schafter.* 394, 268, 131-C12 (1992)

Thermonuclear Runaways in Nova Outbursts. *Anurag Shankar, David Arnett, & Bruce A. Fryxell.* 394, L13, 133-C1 (1992)

The Photometric Period of the Recurrent Nova T Pyxidis. *Bradley E. Schaefer, Arlo U. Landolt, Nikolaus Vogt, David Buckley, Brian Warner, Alistair R. Walker, & Howard E. Bond.* 81, 321, 39-C9 (1992)

Discovery and X-Ray Properties of GS 1124−683 (=Nova Muscae). *Shunji Kitamoto, Hiroshi Tsunemi, Sigenori Miyamoto, & Kiyoshi Hayashida.* 394, 609, 137-A6 (1992)

Light-Curve Analysis of Classical Novae. *Mariko Kato & Icko Iben, Jr.* 394, L47, 139-C7 (1992)

The Spectroscopic and Photometric Evolution of Novae in the Bulge of M31. *Austin B. Tomaney & Allen W. Shafter.* 81, 683, 45-C11 (1992)

Spectroscopy of the Recurrent Nova U Scorpii. *Helen M. Johnston & Shrinivas R. Kulkarni.* 396, 267, 158-D4 (1992)

The *Hubble Space Telescope* Observations of X-Ray Nova Muscae 1991 and Its Spectral Evolution. *F. H. Cheng, Keith Horne, N. Panagia, C. R. Shrader, R. Gilmozzi, F. Paresce, & N. Lund.* 397, 664, 179-C11 (1992)

Radiative Equilibrium in Rapidly Expanding Shells. *P. H. Hauschildt.* 398, 224, 184-E9 (1992)

8–13 Micron Spectroscopy of Nova Herculis 1991. *David K. Lynch, John A. Hackwell, & Ray W. Russell.* 398, 632, 192-A5 (1992)

A Multiwavelength Study of Nova QU Vulpeculae 1984. *Pedro Saizar, Sumner Starrfield, Gary J. Ferland, R. Mark Wagner, James W. Truran, Scott J. Kenyon, Warren M. Sparks, Robert E. Williams, & L. L. Stryker.* 398, 651, 192-B13 (1992)

Constraints on Element Mixing in Classical Novae. *Masayuki Y. Fujimoto & Icko Iben, Jr.* 399, 646, 206-A1 (1992)

Two Unusual Cataclysmic Variables at High Galactic Latitude: CP Eridani and AL Comae. *Timothy M. C. Abbott, Edward L. Robinson, Gary J. Hill, & Carole A. Haswell.* 399, 680, 206-D1 (1992)

Radio Observations of the 1989 Transient Event in V404 Cygni (= GS 2023+338). *Xiaohong Han & R. M. Hjellming.* 400, 304, 212-F6 (1992)

The Infrared Counterpart of the Eclipsing X-Ray Binary H0253+193. *B. Zuckerman, E. E. Becklin, I. S. McLean, & Joseph Patterson.* 400, 665, 218-F7 (1992)

The Peculiar Infrared Temporal Development of Nova Vulpeculae 1987 (QV Vulpeculae). *R. D. Gehrz, T. J. Jones, C. E. Woodward, M. A. Greenhouse, R. M. Wagner, T. E. Harrison, T. L. Hayward, & J. Benson.* 400, 671, 218-G1 (1992)

Dynamics of Eccentric Disks with Application to Superhump Binaries. *Stephen H. Lubow.* 401, 317, 225-A1 (1992)

AE Aquarii: An Emitter of Pulsed TeV Gamma Rays Resembling Optical Emission during Flares. *P. J. Meintjes, B. C. Raubenheimer, O. C. de Jager, C. Brink, H. I. Nel, A. R. North, G. van Urk, & B. Visser.* 401, 325, 225-A11 (1992)

Possible First Detection of Ultraviolet Pulses from an Intermediate Polar: V603 Aquila. *A. Schwarzenberg-Czerny, A. Udalski, & R. Monier.* 401, L19, 227-C7 (1992)

A Search for Circular Polarization in Cataclysmic Variables. *H. S. Stockman, Gary D. Schmidt, G. Berriman, James Liebert, R. L. Moore, & D. T. Wickramasinghe.* 401, 628, 230-C13 (1992)

On the Long-Term Behavior of SS Cygni. *John K. Cannizzo & Janet A. Mattei.* 401, 642, 230-E1 (1992)

Another Neon Nova: Early Infrared Photometry and Spectroscopy of Nova Cygni 1992. *T. L. Hayward, R. D. Gehrz, J. W. Miles, & J. R. Houck.* 401, L101, 233-D5 (1992)

A Spectroscopic Study of DV Ursae Majoris (US 943), AY Piscium (PG 0134+070), and V503 Cygni. *Paula Szkody & Steve B. Howell.* 403, 743, 25-A6 (1993)

Observations of the White Dwarf in the U Geminorum System with the Hopkins Ultraviolet Telescope. *Knox S. Long, William P. Blair, Charles W. Bowers, Arthur F. Davidsen, Gerard A. Kriss, Edward M. Sion, & Ivan Hubeny.* 405, 327, 45-C1 (1993)

Multiple Hydrogen Flashes on Accreting Low-Mass White Dwarfs: Novae and DAO Stars. *Michael M. Shara, Dina Prialnik, & Attay Kovetz.* 406, 220, 57-G1 (1993)

Optical Spectrophotometry of Oscillations and Flickering in AE Aquarii. *William F. Welsh, Keith Horne, & J. B. Oke.* 406, 229, 57-G12 (1993)

A Model for the Dramatic Decline of FG Sagittae. *Icko Iben, Jr., & Mario Livio.* 406, L15, 60-F8 (1993)

The Spectrum and Variability of Radio Emission from AE Aquarii. *Meil Abada-Simon, Alain Lecacheux, Tim S. Bastian, Jay A. Bookbinder, & George A. Dulk.* 406, 692, 66-D12 (1993)

Nova V2214 Ophiuchi 1988: A Magnetic Nova inside the Period Gap. *R. Baptista, F. J. Jablonski, D. Cieslinski, & J. E. Steiner.* 406, L67, 68-D9 (1993)

Winds from Accretion Disks: Ultraviolet Line Formation in Cataclysmic Variables. *Isaac Shlosman & Peter Vitello.* 409, 372, 101-F1 (1993)

The 1991 V603 Aquilae Campaign: Superhumps and *P*-Dots. *Joseph Patterson, Gino Thomas, David R. Skillman, & Marcos Diaz.* 86, 235, 17-B7 (1993)

On the Mass of Nova DQ Herculis (1934). *Keith Horne, William F. Welsh, & Richard A. Wade.* 410, 357, 116-E1 (1993)

On the Location of the Oscillations in AE Aquarii. *William F. Welsh, Keith Horne, & Richard Gomer.* 410, L39, 118-D1 (1993)

Ultraviolet Line Diagnostics of Accretion Disk Winds in Cataclysmic Variables. *Peter Vitello & Isaac Shlosman.* 410, 815, 123-G11 (1993)

A Supersoft Variable Low-Luminosity X-Ray Source in the Globular Cluster M3. *P. Hertz, J. E. Grindlay, & C. D. Bailyn.* 410, L87, 126-A1 (1993)

The Optical Light Curve of Nova Herculis 1991 and of Other Classical Novae. *Elia M. Leibowitz.* 411, L29, 134-A1 (1993)

The Physical Properties of a Slow Nova in the Bulge of M31. *Austin B. Tomaney & Allen W. Shafter.* 411, 640, 137-F3 (1993)

Broad-Band X-Ray Telescope Observations of the Magnetic Cataclysmic Variable H0538+608 = BY Camelopardalis. *T. R. Kallman, E. M. Schlegel, P. J. Serlemitsos, R. Petre, F. Marshall, K. Jahoda, E. A. Boldt, S. S. Holt, R. F. Mushotzky, J. Swank, A. E. Szymkowiak, R. L. Kelley, A. Smale, K. Arnaud, K. Weaver, & F. B. Paerels.* 411, 869, 140-E12 (1993)

CP Puppis: No Ordinary Old Nova. *James C. White II, R. Kent Honeycutt, & Keith Horne.* 412, 278, 145-E6 (1993)

Mass Transfer Rate and Outburst Cycle of SS Cygni. *Alexander Hempelmann & Jürgen Kurths.* 412, L41, 148-E1 (1993)

Extreme Ultraviolet Explorer Observations of the Magnetic Cataclysmic Variable RE 1938−461. *John K. Warren, John V. Vallerga, Christopher W. Mauche, Koji Mukai, & Oswald H. W. Siegmund.* 414, L69, 185-D2 (1993)

On the Interpretation of the Ultraviolet Spectra of Symbiotic Stars and Recurrent Novae. I. *Steven N. Shore & Jason P. Aufdenberg.* 416, 355, 205-D10 (1993)

Superhumps in Cataclysmic Binaries. II. PG 0917+342. *David R. Skillman & Joseph Patterson.* 417, 298, 221-B13 (1993)

Nova Herculis 1991: Thermonuclear Runaway on a Massive ONeMg White Dwarf. *Thomas Matheson, Alexei V. Filippenko, & Luis C. Ho.* 418, L29, 238-D6 (1993)

The *EXOSAT* Medium Energy (ME) Sample of Dwarf Novae. *K. Mukai & K. Shiokawa.* 418, 863, 243-C12 (1993)

The Accretion Disk Limit Cycle Model: Toward an Understanding of the Long-Term Behavior of SS Cygni. *John K. Cannizzo.* 419, 318, 250-B10 (1993)

Quasi-periodic Oscillations in the Cataclysmic Variable KR Aurigae. *Jyoti Singh, P. Vivekananda Rao, P. C. Agrawal, K. M. V. Apparao, R. K. Manchanda, B. B. Sanwal, & M. B. K. Sarma.* 419, 337, 250-D3 (1993)

The Evolution of Accreting Stars with Turbulent Mixing. *M. Y. Fujimoto.* 419, 768, 257-B13 (1993)

The Quasi-periodic Oscillations of VV Puppis. *James N. Imamura, John Middleditch, Jeffrey D. Scargle, Thomas Y. Steiman-Cameron, Laura A. Whitlock, Michael T. Wolff, & Kent S. Wood.* 419, 793, 257-E1 (1993)

Evidence for Accretion Disk Precession in the Cataclysmic Binary AM Canum Venaticorum. *Joseph Patterson, Jules Halpern, & Anouk Shambrook.* 419, 803, 257-E13 (1993)

A Hot Neon Nova: Optical Spectrophotometry and the Physics of Nova Cygni 1992. *A. J. Barger, J. S. Gallagher, K. S. Bjorkman, K. A. Johansen, & K. H. Nordsieck.* 419, L85, 259-E12 (1993)

The Masses of V838 Herculis (Nova Herculis 1991) and QZ Aurigae. *Paula Szkody & Doug Ingram.* 420, 830, 13-C3 (1994)

The Early Bolometric Evolution of Nova Cygni 1992. *Steven N. Shore, George Sonneborn, Sumner Starrfield, Rosario Gonzalez-Riestra, & Ronald S. Polidan.* 421, 344, 20-B13 (1994)

The Tololo Nova Survey: Spectra of Recent Novae. *R. E. Williams, M. M. Phillips, & M. Hamuy.* 90, 297, 5-F1 (1994)

The Temporal Evolution of the 4–14 Micron Spectrum of V1974 Cygni (Nova Cygni 1992). *R. D. Gehrz, Charles E. Woodward, M. A. Greenhouse, S. Starrfield, D. H. Wooden, F. C. Witteborn, S. A. Sandford, L. J. Allamandola, J. D. Bregman, & M. Klapisch.* 421, 762, 27-F6 (1994)

The 1992 Outburst of the SU Ursae Majoris–Type Dwarf Nova HV Virginis. *Elia M. Leibowitz, Haim Mendelson, Albert Bruch, Hilmar W. Duerbeck, Waltraut C. Seitter, & Gerold A. Richter.* 421, 771, 27-G3 (1994)

On High Mass Accretion Rates in Magnetized Column Accretion onto White Dwarfs. *Insu Yi.* 422, 289, 33-F5 (1994)

Non–LTE Model Atmosphere Analysis of Nova Cygni 1992. *P. H. Hauschildt, S. Starrfield, S. Austin, R. M. Wagner, S. N. Shore, & G. Sonneborn.* 422, 831, 42-C1 (1994)

Predictions of a Population of Cataclysmic Variables in Globular Clusters. *R. Di Stefano & S. Rappaport.* 423, 274, 49-D13 (1994)

On the Progenitors of Type Ia Supernovae in Early-Type and Late-Type Galaxies. *Massimo Della Valle & Mario Livio.* 423, L31, 53-E3 (1994)

Accretion onto a 1.4 $M_{\odot}$ White Dwarf: Classical Nova, Recurrent Nova, or Supernova? *Attay Kovetz & Dina Prialnik.* 424, 319, 65-G1 (1994)

Optical, *IUE*, and *ROSAT* Observations of the Eclipsing Nova-like Variable V347 Puppis (LB 1800). *Christopher W. Mauche, John C. Raymond, David A. H. Buckley, Martine Mouchet, Jerry Bonnell, Denis J. Sullivan, Jean-Marc Bonnet-Bidaud, & Wolfram H. Bunk.* 424, 347, 66-B12 (1994)

Ultraviolet Photometry of Nova Cygni 1992 Obtained with the High Speed Photometer. *M. Taylor, R. C. Bless, H. Ögelman, J. L. Elliot, J. S. Gallagher, M. J. Nelson, J. W. Percival, E. L. Robinson, & G. W. van Citters.* 424, L45, 69-F6 (1994)

Cooling of the White Dwarf in U Geminorum between Outbursts. *Knox S. Long, Edward M. Sion, Min Huang, & Paula Szkody.* 424, L49, 69-F13 (1994)

Disk-Overflow Accretion in GK Persei? *Coel Hellier & Mario Livio.* 424, L57, 69-G12 (1994)

Localization and Spectrum of the X-Ray Transient Source GRS 1915+105. *A. Finoguenov, E. Churazov, M. Gilfanov, R. Sunyaev, A. Vikhlinin, A. Dyachkov, N. Khavenson, I. Tserenin, M. C. Schmitz-Fraysse, M. Denis, J. P. Roques, P. Mandrou, A. Claret, J. Ballet, B. Cordier, & A. Goldwurm.* 424, 940, 76-D10 (1994)

1H 1752+081: An Eclipsing Cataclysmic Variable with a Small Accretion Disk. *Andrew D. Silber, Ronald A. Remillard, Keith Horne, & Hale V. Bradt.* 424, 955, 76-F3 (1994)

A Broad Observational Study of the Eclipsing Magnetic Cataclysmic Variable RE 2107−05. *Jason Glenn, Steve B. Howell, Gary D. Schmidt, James Liebert, Albert D. Grauer, & R. Mark Wagner.* 424, 967, 76-G3 (1994)

The *K*-Band Surface Brightness of Late-Type Stars and the Distance to Cataclysmic Variables. *Tod F. Ramseyer.* 425, 243, 83-C5 (1994)

Spectropolarimetry of Nova Cygni 1992: Evidence for an Asymmetric Geometry. *K. S. Bjorkman, K. A. Johansen, K. H. Nordsieck, J. S. Gallagher, & A. J. Barger.* 425, 247, 83-C12 (1994)

On the Magnetic Nature of GQ Muscae. *M. P. Diaz & J. E. Steiner.* 425, 252, 83-D5 (1994)

Hot Gas and the Origin of the Nebular Continuum in Novae. *Pedro Saizar & Gary J. Ferland.* 425, 755, 91-B10 (1994)

ROSAT Observations of Cataclysmic Variables: A Search for the Boundary Layer Emission. *S. D. Vrtilek, A. Silber, J. C. Raymond, & J. Patterson.* 425, 787, 91-E8 (1994)

On the Interpretation and Implications of Nova Abundances: An Abundance of Riches or an Overabundance of Enrichments. *Mario Livio & James W. Truran.* 425, 797, 91-F6 (1994)

Concurrent X-Ray and Optical Observations of Two Dwarf Novae during Eruption. *A. Silber, S. D. Vrtilek, & J. C. Raymond.* 425, 829, 92-B1 (1994)

The High-State/Low-State Transition in V794 Aquilae. *R. Kent Honeycutt, John K. Cannizzo, & Jeff W. Robertson.* 425, 835, 92-B9 (1994)

Extinction, Ejecta Masses, and Radial Velocities of Novae. *Robert E. Williams.* 426, 279, 99-E8 (1994)

1ES 1113+432: Luminous, Soft X-Ray Outburst from a Nearby Cataclysmic Variable (AR Ursae Majoris). *R. A. Remillard, J. F. Schachter, A. D. Silber, & P. Slane.* 426, 288, 99-F5 (1994)

HST Eclipse Mapping of Dwarf Nova OY Carinae in Quiescence: An "Fe II Curtain" with Mach $\simeq$ 6 Velocity Dispersion Veils the White Dwarf. *Keith Horne, T. R. Marsh, F. H. Cheng, Ivan Hubeny, & Thierry Lanz.* 426, 294, 99-G1 (1994)

Simultaneous Soft and Hard X-Ray Spectroscopy of AM Herculis with *EXOSAT*: Discovery of Photospheric Absorption Features. *Frits Paerels, John Heise, & André van Teeseling.* 426, 313, 100-A10 (1994)

Observations of the Bright Novalike Variable IX Velorum with the Hopkins Ultraviolet Telescope. *Knox S. Long, Richard A. Wade, William P. Blair, Arthur F. Davidsen, & Ivan Hubeny.* 426, 704, 107-B13 (1994)

Three-dimensional Hydrodynamic Bondi-Hoyle Accretion. I. Code Validation and Stationary Accretors. *Maximilian Ruffert.* 427, 342, 114-B7 (1994)

Three-dimensional Hydrodynamic Bondi-Hoyle Accretion. II. Homogeneous Medium at Mach 3 with $\gamma = 5/3$. *Maximilian Ruffert & David Arnett.* 427, 351, 114-C3 (1994)

A Dwarf Nova in the Core of 47 Tucanae. *Francesco Paresce & Guido De Marchi.* 427, L33, 117-E6 (1994)

Star Spots and the Period Gap in Cataclysmic Variables. *M. Livio & J. E. Pringle.* 427, 956, 124-E2 (1994)

Magnetic Fields in Young Supernova Remnants. *Yu-Qing Lou.* 428, L21, 134-D2 (1994)

The X-Ray Selected Cataclysmic Variables H0459+246 and H0857−242. *R. A. Remillard, H. V. Bradt, R. J. V. Brissenden, D. A. H. Buckley, D. A. Schwartz, A. Silber, B. A. Stroozas, & I. R. Tuohy.* 428, 785, 140-A11 (1994)

A Wide-Field Monitor for *INTEGRAL*. *Niels Lund.* 92, 337, 36-C9 (1994)

Cataclysmic Binaries in Star Clusters. I. A Search for Erupting Dwarf Novae in the Globular Cluster M92. *Michael M. Shara, Louis E. Bergeron, & Anthony F. J. Moffat.* 429, 767, 155-C1 (1994)

ROSAT Observation of the Decline of V838 Herculis (Nova Herculis 1991). *Paula Szkody & D. W. Hoard.* 429, 857, 156-C12 (1994)

Hubble Space Telescope Goddard High-Resolution Spectrograph Observation of U Geminorum during Quiescence: Evidence for a Slowly Rotating White Dwarf. *Edward M. Sion, Knox S. Long, Paula Szkody, & Min Huang.* 430, L53, 165-G12 (1994)

Helium-accreting Degenerate Dwarfs as Presupernovae and Scenarios for the Ultrasoft X-Ray Sources. *Icko Iben, Jr., & A. V. Tutukov.* 431, 264, 179-D6 (1994)

The Photometric Period of V1974 Cygni (Nova Cygni 1992). *James A. DeYoung & Richard E. Schmidt.* 431, L47, 183-A3 (1994)

PX Andromedae and the SW Sexantis Phenomenon. *Coel Hellier & E. L. Robinson.* 431, L107, 191-G6 (1994)

An Atlas of Doppler Emission-Line Tomography of Cataclysmic Variable Stars. *Ronald H. Kaitchuck, Eric M. Schlegel, R. Kent Honeycutt, Keith Horne, T. R. Marsh, J. C. White II, & Cathy S. Mansperger.* 93, 519, 49-G3 (1994)

Reaction Rates and Reaction Sequences in the rp-Process. *L. Van Wormer, J. Görres, C. Iliadis, M. Wiescher, & F.-K. Thielemann.* 432, 326, 197-C1 (1994)

Laser Action in Far-Infrared Astrophysical Sources. *Jianfang Peng & Anil K. Pradhan.* 432, L123, 207-B7 (1994)

Thermonuclear Runaways in Nova Outbursts. II. Effect of Strong, Instantaneous, Local Fluctuations. *Anurag Shankar & David Arnett.* 433, 216, 211-A8 (1994)

The Ultraviolet Pulsations of the Cataclysmic Variable AE Aquarii as Observed with the *Hubble Space Telescope*. *Michael Eracleous, Keith Horne, Edward L. Robinson, Er-Ho Zhang, Thomas R. Marsh, & Janet H. Wood.* 433, 313, 212-C1 (1994)

Multicolor Eclipse Studies of UU Aquarii. I. Observations and System Parameters. *R. Baptista, J. E. Steiner, & D. Cieslinski.* 433, 332, 212-D8 (1994)

Simultaneous Optical and TeV Gamma-Ray Observations of the Cataclysmic Variable AE Aquarii. *P. J. Meintjes, O. C. de Jager, B. C. Raubenheimer, H. I. Nel, A. R. North, D. A. H. Buckley, & C. Koen.* 434, 292, 229-E1 (1994)

The Early Ultraviolet, Optical, and Radio Evolution of the Soft X-Ray Transient GRO J0422+32. *C. R. Shrader, R. Mark Wagner, R. M. Hjellming, X. H. Han, & S. G. Starrfield.* 434, 698, 237-D4 (1994)

On the Decay of Outbursts in Dwarf Novae and X-Ray Novae. *John K. Cannizzo.* 435, 389, 248-F11 (1994)

Dripping Handrails and the Quasi-periodic Oscillations of the AM Herculis Objects. *Thomas Y. Steiman-Cameron, Karl Young, Jeffrey D. Scargle, James P. Crutchfield, James N. Imamura, Michael T. Wolff, & Kent S. Wood.* 435, 775, 256-F10 (1994)

The Hard X-Ray Emission Spectra from Accretion Columns in Intermediate Polars. *Insu Yi & Ethan T. Vishniac.* 435, 829, 257-E1 (1994)

RJ 051542+0104.7: A New Magnetic, Eclipsing, Cataclysmic Variable. *Peter M. Garnavich, Paula Szkody, Russell M. Robb, David R. Zurek, & D. W. Hoard.* 435, L141, 260-C11 (1994)

ASCA Observations of SS Cygni during an Anomalous Outburst. *John A. Nousek, Christopher J. Baluta, Robin H. D. Corbet, Koji Makai, Julian P. Osborne, & Manabu Ishida.* 436, L19, 268-E7 (1994)

An Analytic Solution of the Radiative Transfer Equation for a Gray Scattering Atmosphere in Motion. *Shlomi Pistinner & Giora Shaviv.* 436, 837, 277-B13 (1994)

X-Ray Variability and Period Determinations in the Eclipsing Polar DP Leonis. *Craig R. Robinson & France A. Córdova.* 437, 436, 289-B4 (1994)

The Derived Population of Luminous Supersoft X-Ray Sources. *R. Di Stefano & S. Rappaport.* 437, 733, 295-G1 (1994)

The Heating of Nova Ejecta by Radioactive Decays of the β-unstable Nuclei. *Shlomi Pistinner, Giora Shaviv, & Sumner Starrfield.* 437, 794, 296-E4 (1994)

Optically Thick Winds in Nova Outbursts. *Mariko Kato & Izumi Hachisu.* 437, 802, 296-F1 (1994)

Infrared Photometry and Spectrophotometry of Nova Herculis 1991 (= V838 Herculis): Observations of the Formation of Dust in the Ejecta of a Very Fast Nova. *Thomas E. Harrison & Guy S. Stringfellow.* 437, 827, 297-A3 (1994)

The Evolutionary Thermal Response of a White Dwarf to Compressional Heating by Periodic Dwarf Nova Accretion Events. *Edward M. Sion.* 438, 876, 16-C1 (1995)

Nova Persei 1901: Detection of the Site of Its Brightest Light Echo. *R. W. Tweedy.* 438, 917, 16-F13 (1995)

The Temporal Evolution of the 1–5 Micron Spectrum of V1974 Cygni (Nova Cygni 1992). *Charles E. Woodward, Matthew A. Greenhouse, R. D. Gehrz, Y. J. Pendleton, R. R. Joyce, D. Van Buren, J. Fischer, N. J. Jennerjohn, & C. D. Kaminski.* 438, 921, 16-G7 (1995)

The Soft X-Ray Turnoff of Nova Muscae 1983. *L. Shanley, H. Ögelman, J. S. Gallagher, M. Orio, & J. Krautter.* 438, L95, 20-A8 (1995)

Gamma-Ray Emission from Cataclysmic Variables. I. The *Compton* EGRET Survey. *Eric M. Schlegel, Paul E. Barrett, O. C. De Jager, G. Chanmugam, S. Hunter, & J. Mattox.* 439, 322, 25-E10 (1995)

Consequential Angular Momentum Loss and the Period Gap of Cataclysmic Variables. *A. R. King & U. Kolb.* 439, 330, 25-F7 (1995)

Tremendous Outburst Amplitude Dwarf Novae. *Steve B. Howell, Paula Szkody, & John K. Cannizzo.* 439, 337, 25-G3 (1995)

The Neutral Oxygen Spectrum. II. Pumping by Hydrogen Lyman-β under the Optically Thin Condition: A First Application to the Classical Novae. *S. O. Kastner & A. K. Bhatia.* 439, 346, 26-A1 (1995)

Discovery of Candidate Cataclysmic Variables in the Post–Core-Collapse Globular Cluster NGC 6397. *Adrienne M. Cool, Jonathan E. Grindlay, Haldan N. Cohn, Phyllis M. Lugger, & Shawn D. Slavin.* 439, 695, 34-B10 (1995)

Hubble Space Telescope FOS Spectroscopy of the Ultrashort-Period Dwarf Nova WZ Sagittae: The Underlying Degenerate. *Edward M. Sion, F. H. Cheng, Knox S. Long, Paula Szkody, Ron L. Gilliland, Min Huang, & Ivan Hubeny.* 439, 957, 37-G3 (1995)

Asymmetric Mass Accretion in the Magnetic Cataclysmic Variable RE 1149+28. *Steve B. Howell, Martin M. Sirk, Roger F. Malina, J. P. D. Mittaz, & K. O. Mason.* 439, 991, 38-C11 (1995)

A Multicolor Eclipse Study of the Classical Nova QZ Aurigae (Nova Aurigae 1964). *R. D. Campbell & A. W. Shafter.* 440, 336, 45-G1 (1995)

The Long-Period AM Herculis–like Cataclysmic Variable RXJ 051541+0104.6. *Frederick M. Walter, Scott J. Wolk, & Nancy R. Adams.* 440, 834, 54-E10 (1995)

A Radial Velocity Study of the Dwarf Nova AR Andromedae: Comparison of the Quiescent and Outburst States. *A. W. Shafter, J. M. Veal, & E. L. Robinson.* 440, 853, 54-G10 (1995)

Detection of the Hot White Dwarf in the Magnetic Nova V1500 Cygni with the *Hubble Space Telescope*. *Gary D. Schmidt, James Liebert, & H. S. Stockman.* 441, 414, 65-A11 (1995)

BE Ursae Majoris: Precataclysmic Binary System and Planetary Nucleus. *James Liebert, R. W. Tweedy, R. Napiwotzki, & M. S. Fulbright.* 441, 424, 65-B11 (1995)

Cataclysmic and Close Binaries in Star Clusters. II. Probing the Core of NGC 6752 with *Hubble Space Telescope*. *Michael M. Shara, Laurent Drissen, Louis E. Bergeron, & Francesco Paresce.* 441, 617, 70-E10 (1995)

Hard X-Ray Variability of X-Ray Nova Persei 1992: *Granat*/SIGMA Results. *A. Vikhlinin, E. Churazov, M. Gilfanov, R. Sunyaev, A. Finoguenov, A. Dyachkov, R. Kremnev, K. Sukhanov, J. Ballet, A. Goldwurm, B. Cordier, A. Claret, M. Denis, J. F. Olive, J. P. Roques, & P. Mandrou.* 441, 779, 72-F7 (1995)

Observations of the X-Ray Nova GRO J0422+32. I. Outburst and the Decay to Quiescence. *Paul J. Callanan, Michael R. Garcia, Jeffrey E. McClintock, Ping Zhao, Ronald A. Remillard, Charles D. Bailyn, Jerome A. Orosz, B. Alan Harmon, & William S. Paciesas.* 441, 786, 72-G3 (1995)

Accretion Disk Boundary Layers in Cataclysmic Variables. I. Optically Thick Boundary Layers. *Robert Popham & Ramesh Narayan.* 442, 337, 81-F10 (1995)

Hubble Space Telescope Observations of the Dwarf Nova Z Chamaeleontis through Two Eruption Cycles. *E. L. Robinson, Janet H. Wood, R. C. Bless, J. C. Clemens, J. F. Dolan, J. L. Elliot, M. J. Nelson, J. W. Percival, M. J. Taylor, G. W. van Citters, & E. Zhang.* 443, 295, 99-C9 (1995)

An Extended Galactic Population of Low-Luminosity X-Ray Sources (CVs?) and the Diffuse X-Ray Background. *Eyal Maoz & Jonathan E. Grindlay.* 444, 183, 115-G11 (1995)

Mass Transfer Cycles in Cataclysmic Variables. *A. R. King, J. Frank, U. Kolb, & H. Ritter.* 444, L37, 121-F7 (1995)

A *Hubble Space Telescope* Study of the Underlying White Dwarf in the Dwarf Nova VW Hydri during Quiescence. *Edward M. Sion, Paula Szkody, Fu-Hua Cheng, & Min Huang.* 444, L97, 130-G8 (1995)

Optically Thick Winds: How Is the Mass Flux Determined? *S. Ami Glasner & F. X. Timmes.* 445, 411, 138-B13 (1995)

Hubble Space Telescope High-Resolution Spectroscopy of the Exposed White Dwarf in the Dwarf Nova VW Hydri in Quiescence: A Rapidly Rotating White Dwarf. *Edward M. Sion, Min Huang, Paula Szkody, & Fu-Hua Cheng.* 445, L31, 140-F3 (1995)

An Extended Grid of Multicycle Nova Evolution Models. *Dina Prialnik & Attay Kovetz.* 445, 789, 146-B3 (1995)

Extreme Ultraviolet Light Curves of UZ Fornacis: Evidence for Accretion Stream Absorption and Vertical Extent of the Accretion Spot. *John K. Warren, Martin M. Sirk, & John V. Vallerga.* 445, 909, 147-F13 (1995)

RX J0045.4+4154: A Recurrent Supersoft X-Ray Transient in M31. *N. E. White, P. Giommi, J. Heise, L. Angelini, & S. Fantasia.* 445, L125, 151-D5 (1995)

Convective Hydrogen Burning during a Nova Outburst. *S. Ami Glasner & E. Livne.* 445, L149, 151-G11 (1995)

Search for an Optical Counterpart of the Source of GRB 911001. *S. Klose.* 446, 357, 158-B6 (1995)

Periodic Outbursts in the Old Nova V446 Herculis. *R. K. Honeycutt, J. W. Robertson, & G. W. Turner.* 446, 838, 167-E13 (1995)

EUVE Observations of the Anomalous 1993 August Outburst of SS Cygni. *Christopher W. Mauche, John C. Raymond, & Janet A. Mattei.* 446, 842, 167-F7 (1995)

Stellar Variability in the Central Populations of 47 Tucanae from WF/PC Observations with the *Hubble Space Telescope*. I. Project Overview, Reduction Techniques, and First Results. *Ronald L. Gilliland, Peter D. Edmonds, Larry Petro, Abhijit Saha, & Michael M. Shara.* 447, 191, 174-G5 (1995)

An Improved Orbital Period for the Recurrent Nova U Scorpii. *Bradley E. Schaefer & F. A. Ringwald.* 447, L45, 181-C1 (1995)

A Model for the Galactic Population of Symbiotic Stars with White Dwarf Accretors. *L. Yungelson, M. Livio, A. Tutukov, & S. J. Kenyon.* 447, 656, 185-B10 (1995)

The Physics of Early Nova Spectra. *Peter H. Hauschildt, Sumner Starrfield, Steven N. Shore, France Allard, & E. Baron.* 447, 829, 187-D2 (1995)

Cataclysmic and Close Binaries in Star Clusters. III. Recovery of the Quiescent Nova 1860 A.D. (T Scorpii) in the Core of the Globular Cluster M80. *Michael M. Shara & Laurent Drissen.* 448, 203, 195-A1 (1995)

Taking the Pulse of DQ Herculis. *Phillip J. Martell, Keith Horne, Christopher M. Price, & Richard H. Gomer.* 448, 380, 197-D6 (1995)

Hubble Space Telescope and *R*-Band Eclipse Maps of the UX Ursae Majoris Accretion Disk. *R. Baptista, Keith Horne, R. W. Hilditch, K. O. Mason, & J. E. Drew.* 448, 395, 197-E13 (1995)

QU Vulpeculae: An Eclipsing Neon Nova in the Period Gap. *A. W. Shafter, K. A. Misselt, P. Szkody, & M. Politano.* 448, L33, 199-F13 (1995)

On the Origin of the Observed Knots in Novae. *Shlomi Pistinner & Giora Shaviv.* 448, L37, 199-G8 (1995)

Hydrodynamic Studies of Accretion onto Massive White Dwarfs: ONeMg-enriched Nova Outbursts. I. Dependence on White Dwarf Mass. *M. Politano, S. Starrfield, J. W. Truran, A. Weiss, & W. M. Sparks.* 448, 807, 206-A11 (1995)

Phase-resolved *IUE* and Optical Observations of the Polar BY Camelopardalis. *D. B. Zucker, J. C. Raymond, A. Silber, P. Mason, S. Curiel, S. Vrtilek, & E. Schlegel.* 449, 310, 214-D1 (1995)

The X-Ray Halo of Nova V1974 Cygni (Nova Cygni 1992) and the Nature of Interstellar Dust. *John S. Mathis, David Cohen, John P. Finley, & J. Krautter.* 449, 320, 214-E1 (1995)

A Study of the Long-Term Behavior of the SU Ursae Majoris Dwarf Novae VW Hydri and Z Chamaeleontis. *Pritiraj Mohanty & Eric M. Schlegel.* 449, 330, 214-F1 (1995)

ROSAT Observation of the Old Classical Nova CP Puppis. *Şölen Balman, Marina Orio, & Hakki Ögelman.* 449, L47, 216-F11 (1995)

High-Energy Gamma Rays from Polars. *P. Barrett, E. Schlegel, O. C. de Jager, & G. Chanmugam.* 450, 334, 232-E6 (1995)

Double Core Evolution. VIII. The Spiral-in of a Main-Sequence Star through the Envelope of an Asymptotic Giant Branch Companion. *Harold W. Yorke, Peter Bodenheimer, & Ronald E. Taam.* 451, 308, 250-B8 (1995)

Some Remarks about Nova Spectroscopy and Photometry. *Shlomi Pistinner, Giora Shaviv, Peter H. Hauschildt, & Sumner Starrfield.* 451, 724, 257-B12 (1995)

The Calibration of Novae as Distance Indicators. *Massimo Della Valle & Mario Livio.* 452, 704, 274-D4 (1995)

Properties of the Exceptionally Long-Period AM Herculis System RX J0515.41+0104.6. *J. Frank, J.-P. Lasota, & G. Chanmugam.* 453, 446, 287-C1 (1995)

Ultraviolet Observations of SW Ursae Majoris, BC Ursae Majoris, and TV Corvi (1217–18): *IUE* Spectroscopy and Outburst Light Curves. *Steve B. Howell, Paula Szkody, George Sonneborn, Robert Fried, Janet Mattei, Ronald J. Oliversen, Doug Ingram, & Guy M. Hurst.* 453, 454, 287-D1 (1995)

A New Magnetic Cataclysmic Variable: WGA J1047.1+6335. *K. P. Singh, P. Szkody, P. Barrett, N. E. White, E. Fierce, A. Silber, D. W. Hoard, P. J. Hakala, V. Piirola, & K. Sohl.* 453, L95, 298-F4 (1995)

The 71 Second Oscillation in the Light Curve of the Old Nova DQ Herculis. *E. Zhang, E. L. Robinson, R. F. Stiening, & Keith Horne.* 454, 447, 305-D12 (1995)

Hopkins Ultraviolet Telescope Observations of U Geminorum Far from Outburst. *Knox S. Long, William P. Blair, & John C. Raymond.* 454, L39, 308-A8 (1995)

Radio Monitoring of GRS 1915+105. *L. F. Rodríguez, E. Gerard, I. F. Mirabel, Y. Gómez, & A. Velázquez.* 101, 173, 55-A5 (1995)

Identification of the Soft X-Ray Source WGA J1802.1+1804 with a New Magnetic Cataclysmic Variable. *Paula Szkody, Andrew Silber, D. W. Hoard, E. Fierce, K. P. Singh, P. Barrett, E. Schlegel, & V. Piirola.* 455, L43, 325-A6 (1995)

Spectroscopic Identification of Probable Cataclysmic Variables in the Globular Cluster NGC 6397. *J. E. Grindlay, A. M. Cool, P. J. Callanan, C. D. Bailyn, H. N. Cohn, & P. M. Lugger.* 455, L47, 325-B1 (1995)

The Softest X-Ray Sources in the *ROSAT* Pointed Catalog: WGACAT. *K. P. Singh, P. Barrett, N. E. White, P. Giommi, & L. Angelini.* 455, 456, 328-C2 (1995)

The Mass of the Probable Black Hole in the X-Ray Nova GRO J0422+32. *Alexei V. Filippenko, Thomas Matheson, & Luis C. Ho.* 455, 614, 330-D1 (1995)

A Black Hole in the X-Ray Nova GS 2000+25. *Alexei V. Filippenko, Thomas Matheson, & Aaron J. Barth.* 455, L139, 334-A4 (1995)

Observations of Some Little-studied Cataclysmic Variables. *Chris Koen & Darragh O'Donoghue.* 101, 347, 58-E13 (1995)

STARS: OSCILLATIONS

On the Certification of AM Canum Venaticorum as a Cataclysmic Variable. *Joseph Patterson, Emily Sterner, Jules P. Halpern, & John C. Raymond.* 384, 234, 3-G6 (1992)

Post-Newtonian Frequencies for the Pulsations of Rapidly Rotating Neutron Stars. *Curt Cutler & Lee Lindblom.* 385, 630, 21-A1 (1992)

The Luminosity of the Double-Mode Cepheid Y Carinae. *Nancy Remage Evans.* 385, 680, 21-E6 (1992)

Toward a Resolution of the Bump and Beat Cepheid Mass Discrepancies. *Paweł Moskalik, J. Robert Buchler, & Ariel Marom.* 385, 685, 21-E13 (1992)

Excitation of Pressure Modes in Common Envelopes. *Noam Soker.* 386, 190, 26-E1 (1992)

The Baade-Wesselink Method and the Distances to RR Lyrae Stars. VII. The Field Stars SW Andromedae and DX Delphini and a Comparison of Recent Baade-Wesselink Analyses. *Rodney V. Jones, Bruce W. Carney, Jesper Storm, & David W. Latham.* 386, 646, 33-C14 (1992)

The Baade-Wesselink Method and the Distances to RR Lyrae Stars. VIII. Comparisons with Other Techniques and Implications for Globular Cluster Distances and Ages. *Bruce W. Carney, Jesper Storm, & Rodney V. Jones.* 386, 663, 33-E5 (1992)

Hard X-Ray Observation of Scorpius X-1. *P. Ubertini, A. Bazzano, M. Cocchi, C. La Padula, & R. K. Sood.* 386, 710, 34-B4 (1992)

Evolution versus Pulsation along the Horizontal Branch of M15. *Norman R. Simon.* 387, 162, 39-A3 (1992)

Light Curves of Rotating, Oscillating Neutron Stars. *T. E. Strohmayer.* 388, 138, 50-F9 (1992)

On the Pulsations of Relativistic Accretion Disks and Rotating Stars: The Cowling Approximation. *James R. Ipser & Lee Lindblom.* 389, 392, 64-G1 (1992)

New Calibrators for the Cepheid Period-Luminosity Relation. *Nancy Remage Evans.* 389, 657, 69-E8 (1992)

Determining the Coherence of Micropulses. *T. E. Strohmayer, J. M. Cordes, & H. M. Van Horn.* 389, 685, 69-G12 (1992)

The Discovery of a New DAV Star Using *IUE* Temperature Determination. *A. Kanaan, S. O. Kepler, O. Giovannini, & M. Diaz.* 390, L89, 85-B7 (1992)

Pulsational Study of BL Herculis Models. I. Radial Velocities. *J. Robert Buchler & Paweł Moskalik.* 391, 736, 97-B6 (1992)

Whole Earth Telescope Observations of V471 Tauri: The Nature of the White Dwarf Variations. *J. C. Clemens, R. E. Nather, D. E. Winget, E. L. Robinson, M. A. Wood, C. F. Claver, J. Provencal, S. J. Kleinman, P. A. Bradley, M. L. Frueh, A. D. Grauer, B. P. Hine, G. Fontaine, N. Achilleos, D. T. Wickramasinghe, T. M. K. Marar, S. Seetha, B. N. Ashoka, D. O'Donoghue, B. Warner, D. W. Kurtz, P. Martinez, G. Vauclair, M. Chevreton, M. A. Barstow, A. Kanaan, S. O. Kepler, T. Augusteijn, J. van Paradijs, & C. J. Hansen.* 391, 773, 97-E8 (1992)

Rapid Oscillations in Cataclysmic Variables. VIII. YY Draconis (=3A 1148+719. *J. Patterson, D. A. Schwartz, J. P. Pye, W. P. Blair, G. A. Williams, & J.-P. Caillault.* 392, 233, 103-G3 (1992)

Axion Cooling of White Dwarfs. *J. Isern, M. Hernanz, & E. Garcia-Berro.* 392, L23, 106-D1 (1992)

Upper Limit to the Mass of Pulsationally Stable Stars with Uniform Chemical Composition. *Richard B. Stothers.* 392, 706, 111-A7 (1992)

Adiabatic Properties of Pulsating DA White Dwarfs. III. A Finite-Element Code for Solving Nonradial Pulsation Equations. *P. Brassard, C. Pelletier, G. Fontaine, & F. Wesemael.* 80, 725, 33-D11 (1992)

An Opacity Mechanism for the Pulsations of OB Stars. *Arthur N. Cox, Siobahn M. Morgan, Forrest J. Rogers, & Carlos A. Iglesias.* 393, 272, 117-E3 (1992)

Diskoseismology: Probing Accretion Disks. II. *G*-Modes, Gravitational Radiation Reaction, and Viscosity. *Michael A. Nowak & Robert V. Wagoner.* 393, 697, 124-E1 (1992)

Evolutionary Models and the *p*-Mode Oscillation Spectrum of α Centauri A and B. *Peter Edmonds, Lawrence Cram, Pierre Demarque, D. B. Guenther, & Marc H. Pinsonneault.* 394, 313, 131-G9 (1992)

The Discovery of an Extremely Low Amplitude Cepheid? *R. Paul Butler.* 394, L25, 133-D5 (1992)

Effects of Differential Rotation on Stellar Oscillations: A Second-Order Theory. *W. A. Dziembowski & Philip R. Goode.* 394, 670, 137-G5 (1992)

A New Class of *g*-Modes in Neutron Stars. *Andreas Reisenegger & Peter Goldreich.* 395, 240, 143-B7 (1992)

Adiabatic Properties of Pulsating DA White Dwarfs. IV. An Extensive Survey of the Period Structure of Evolutionary Models. *P. Brassard, G. Fontaine, F. Wesemael, & M. Tassoul.* 81, 747, 45-D3 (1992)

On the Absolute Magnitude of RR Lyrae Stars: UU Ceti, RV Phoenicis, and W Tucanae. *C. Cacciari, G. Clementini, & J. A. Fernley.* 396, 219, 157-G5 (1992)

Properties of Quasi-periodic Oscillations in Accreting Magnetic White Dwarfs. *Kinwah Wu, G. Chanmugam, & G. Shaviv.* 397, 232, 170-G6 (1992)

Oscillations and Collapse of Compressible Homogeneous Rotating Spheroids with Electron Degeneracy. *T. T. Chia & S. Y. Pung.* 398, 574, 191-C7 (1992)

Noise-driven Radiative Shocks. II. Further Implications for the Quasi-periodic Oscillations of the AM Herculis Objects. *Kent S. Wood, James N. Imamura, & Michael T. Wolff.* 398, 593, 191-E1 (1992)

On Nonlinear Radial Oscillations in Convective RR Lyrae Stars. I. The Mathematical Description. *Michael Gehmeyr.* 399, 265, 198-E1 (1992)

On Nonlinear Radial Oscillations in Convective RR Lyrae Stars. II. Comparison of a Radiative and a Convective Model. *Michael Gehmeyr.* 399, 272, 198-E11 (1992)

The Case of G226-29: Evidence for a Pulsating DA White Dwarf with a Thick Hydrogen Layer? *G. Fontaine, P. Brassard, P. Bergeron, & F. Wesemael.* 399, L91, 201-C13 (1992)

On the Pulsational Stability of the Pre-White Dwarf Star PG 1707+427. *Albert D. Grauer, Richard F. Green, & James Liebert.* 399, 686, 206-D7 (1992)

τ Pegasi: A Fourier Representation of Line-Profile Variations. *E. J. Kennelly, G. A. H. Walker, & William J. Merryfield.* 400, L71, 220-E8 (1992)

Oxygen-rich Semiregular and Irregular Variables. *M. Jura & S. G. Kleinmann.* 83, 329, 62-D5 (1992)

Radial Pulsations in DB White Dwarfs? *Steven D. Kawaler.* 404, 294, 31-E3 (1993)

Double-Mode Pulsations in Radiative RR Lyrae Models. *Géza Kovács & J. Robert Buchler.* 404, 765, 38-D9 (1993)

Evolution and Seismology of Procyon. *D. B. Guenther & P. Demarque.* 405, 298, 44-G6 (1993)

Pulsational Study of BL Herculis Models. II. Light Curves. *Paweł Moskalik & J. Robert Buchler.* 406, 190, 57-D8 (1993)

Optical Spectrophotometry of Oscillations and Flickering in AE Aquarii. *William F. Welsh, Keith Horne, & J. B. Oke.* 406, 229, 57-G12 (1993)

The Potential for Asteroseismology of DB White Dwarf Stars. *P. A. Bradley, D. E. Winget, & M. A. Wood.* 406, 661, 66-B1 (1993)

On the Generation of Sound by Turbulent Convection. I. A Numerical Experiment. *Thomas J. Bogdan, Fausto Cattaneo, & Andrea Malagoli.* 407, 316, 73-A7 (1993)

Dynamical Instability as the Cause of the Massive Outbursts in η Carinae and Other Luminous Blue Variables. *Richard B. Stothers & Chao-wen Chin.* 408, L85, 95-C5 (1993)

On the Location of the Oscillations in AE Aquarii. *William F. Welsh, Keith Horne, & Richard Gomer.* 410, L39, 118-D1 (1993)

A Provisional RR Lyrae Distance Scale. *Norman R. Simon & Christine M. Clement.* 410, 526, 120-C1 (1993)

Theoretical Models of Cepheid Variables and Their BVI_C Colors and Magnitudes. *C. Chiosi, P. R. Wood, & N. Capitanio.* 86, 541, 21-E11 (1993)

The Distance to the Large Magellanic Cloud: Constraints from Cepheids in Large Magellanic Cloud Star Clusters. *Gianpaolo Bertelli, Alessandro Bressan, Cesare Chiosi, Mario Mateo, & Peter R. Wood.* 412, 160, 144-A13 (1993)

The RR Lyrae Variables in the Globular Cluster M68. *Christine M. Clement, Stephen Ferance, & Norman R. Simon.* 412, 183, 144-C13 (1993)

On Nonlinear Radial Oscillations in Convective RR Lyrae Stars. III. A Full-Amplitude Investigation of the Red Edge. *Michael Gehmeyr.* 412, 341, 146-D1 (1993)

Long-Period Radial Velocity Variations in Three K Giants. *Artie P. Hatzes & William D. Cochran.* 413, 339, 160-D13 (1993)

High-Speed Ultraviolet Photometry of HD 60435. *M. Taylor, M. J. Nelson, R. C. Bless, J. F. Dolan, J. L. Elliot, J. W. Percival, E. L. Robinson, & G. W. van Citters.* 413, L125, 169-B10 (1993)

Normal Modes of Relativistic Stars in Slow Rotation Limit. *Yasufumi Kojima.* 414, 247, 173-B3 (1993)

On Cepheids at Maximum and Minimum Light. *Norman R. Simon, Shashi M. Kanbur, & Dimitri Mihalas.* 414, 310, 173-G5 (1993)

Equidistribution of Energy and Other Quantities in Oscillating Systems. *Charles L. Wolff.* 414, 892, 182-D4 (1993)

Discrete High-Frequency p-Modes as Probes of Structures in the Chromosphere, Transition Region, and Lower Corona of the Sun. *Yu-Qing Lou.* 414, L141, 186-E1 (1993)

Cepheid Velocity Curves from Lines of Different Excitation and Ionization. I. Observations. *R. Paul Butler.* 415, 323, 189-A7 (1993)

Density Discontinuities and the g-Mode Oscillation Spectra of Neutron Stars. *T. E. Strohmayer.* 417, 273, 220-G9 (1993)

Time-Series Observations of O Stars. II. Optical Observations of ζ Ophiuchi. *A. H. N. Reid, C. T. Bolton, R. A. Crowe, M. S. Fieldus, A. W. Fullerton, D. R. Gies, I. D. Howarth, D. McDavid, R. K. Prinja, & K. C. Smith.* 417, 320, 221-E1 (1993)

Effects of Convection on Pressure Wave Excitation in Common Envelopes. *Noam Soker.* 417, 347, 221-G8 (1993)

Angular Momentum Transfer by Tidally Forced Oscillations in Massive Main-Sequence Stars. *Umin Lee.* 417, 697, 228-A13 (1993)

The Cepheid Period-Luminosity Relation from Independent Distances of 100 Galactic Variables. *Wolfgang P. Gieren, Thomas G. Barnes III, & Thomas J. Moffett.* 418, 135, 232-F10 (1993)

An Improved Numerical Method for Nonadiabatic Nonradial Oscillations: An Application to White Dwarf Stars. *Umin Lee & P. A. Bradley.* 418, 855, 243-C1 (1993)

Quasi-periodic Oscillations in the Cataclysmic Variable KR Aurigae. *Jyoti Singh, P. Vivekananda Rao, P. C. Agrawal, K. M. V. Apparao, R. K. Manchanda, B. B. Sanwal, & M. B. K. Sarma.* 419, 337, 250-D3 (1993)

The Quasi-periodic Oscillations of VV Puppis. *James N. Imamura, John Middleditch, Jeffrey D. Scargle, Thomas Y. Steiman-Cameron, Laura A. Whitlock, Michael T. Wolff, & Kent S. Wood.* 419, 793, 257-E1 (1993)

Comparative Pulsation Calculations with OP and Opal Opacities. *Shashi M. Kanbur & Norman R. Simon.* 420, 880, 13-G5 (1994)

Hot or Not? Theoretical Blue Edges for DA and DB White Dwarf Models. *P. A. Bradley & D. E. Winget.* 421, 236, 19-A1 (1994)

A New Method of Spectral Analysis of Unevenly Spaced Astrophysical Data. I. The Single-Period Case. *F. Barone, L. Milano, & G. Russo.* 421, 284, 19-E1 (1994)

The Oscillations of Superfluid Neutron Stars. *Lee Lindblom & Gregory Mendell.* 421, 689, 26-G3 (1994)

Short-Period Radial Velocity Variations of α Bootis: Evidence for Radial Pulsations. *Artie P. Hatzes & William D. Cochran.* 422, 366, 34-E11 (1994)

Oosterhoff Dichotomy in the Galaxy and Globular Clusters in the Large Magellanic Cloud. *Giuseppe Bono, Filippina Caputo, & Robert F. Stellingwerf.* 423, 294, 49-F8 (1994)

The He I λ10830 Line in Classical Cepheids. I. Observations. *Dimitar D. Sasselov & John B. Lester.* 423, 777, 58-C11 (1994)

Discovery of a Low-Frequency Broad Quasi-periodic Oscillation Peak in the Power Density Spectrum of Cygnus X-1 with *Granat*/SIGMA. *A. Vikhlinin, E. Churazov, M. Gilfanov, R. Sunyaev, A. Dyachkov, N. Khavenson, R. Kremnev, K. Sukhanov, J. Ballet, P. Laurent, L. Salotti, A. Claret, J. F. Olive, M. Denis, P. Mandrou, & J. P. Roques.* 424, 395, 66-F14 (1994)

Ultraviolet Photometry of Nova Cygni 1992 Obtained with the High Speed Photometer. *M. Taylor, R. C. Bless, H. Ögelman, J. L. Elliot, J. S. Gallagher, M. J. Nelson, J. W. Percival, E. L. Robinson, & G. W. van Citters.* 424, L45, 69-F6 (1994)

Luminous Blue Variables at Quiescence: The Zone of Avoidance in the Hertzsprung-Russell Diagram. *Richard B. Stothers & Chao-wen Chin.* 426, L43, 103-E13 (1994)

Excitation of Neutron Star Normal Modes during Binary Inspiral. *Andreas Reisenegger & Peter Goldreich.* 426, 688, 107-A6 (1994)

Precision Asteroseismology of Pulsating PG 1159 Stars. *Steven D. Kawaler & Paul A. Bradley.* 427, 415, 115-A11 (1994)

Star Spots and the Period Gap in Cataclysmic Variables. *M. Livio & J. E. Pringle.* 427, 956, 124-E2 (1994)

The Effectiveness of Oscillation Frequencies in Constraining Stellar Model Parameters. *Timothy M. Brown, J. Christensen-Dalsgaard, Barbara Weibel-Mihalas, & Ronald L. Gilliland.* 427, 1013, 125-C3 (1994)

On the Hydrogen Layer Thickness in Pulsating DA White Dwarfs. *G. Fontaine, P. Brassard, F. Wesemael, & M. Tassoul.* 428, L61, 142-F1 (1994)

SIGMA Observations of the Bright X-Ray Transient Nova Persei: A New Black Hole Candidate? *J. P. Roques, L. Bouchet, E. Jourdain, P. Mandrou, A. Goldwurm, J. Ballet, A. Claret, F. Lebrun, A. Finoguenov, E. Churazov, M. Gilfanov, R. Sunyaev, B. Novikov, I. Chulkov, N. Kuleshova, & I. Tserenin.* 92, 451, 37-G2 (1994)

Opacity, Metallicity, and Cepheid Period Ratios in the Galaxy and Magellanic Clouds. *Norman R. Simon & Shashi M. Kanbur.* 429, 772, 155-C8 (1994)

Pulsation and Stability of RR Lyrae Stars. I. Instability Strip. *G. Bono & R. F. Stellingwerf.* 93, 233, 45-A5 (1994)

A Pulsational Approach to the Luminosity of RR Lyrae Variables. *V. Castellani & R. De Santis.* 430, 624, 169-E11 (1994)

Whole Earth Telescope Observations of the DBV White Dwarf GD 358. *D. E. Winget, R. E. Nather, J. C. Clemens, J. L. Provencal, S. J. Kleinman, P. A. Bradley, C. F. Claver, J. S. Dixson, M. H. Montgomery, C. J. Hansen, B. P. Hine, P. Birch, M. Candy, T. M. K. Marar, S. Seetha, B. N. Ashoka, E. M. Leibowitz, D. O'Donoghue, B. Warner, D. A. H. Buckley, P. Tripe, G. Vauclair, N. Dolez, M. Chevreton, T. Serre, R. Garrido, S. O. Kepler, A. Kanaan, T. Augusteijn, M. A. Wood, P. Bergeron, & A. D. Grauer.* 430, 839, 172-D1 (1994)

An Asteroseismological Determination of the Structure of the DBV White Dwarf GD 358. *P. A. Bradley & D. E. Winget.* 430, 850, 172-E2 (1994)

Oscillations of Red Dwarfs in Evolved Low-Mass Binaries with Neutron Stars. *Marek J. Sarna, Umin Lee, & Alexander G. Muslimov.* 431, 302, 179-G8 (1994)

Low-Frequency Quasi-periodic Oscillations in Low-Mass X-Ray Binaries and Galactic Black Hole Candidates. *Xingming Chen & Ronald E. Taam.* 431, 732, 187-F3 (1994)

A Multisite *UBV* Photometric Campaign on 53 Persei in 1991 January. *L. Huang, Z. Guo, J. Hao, J. R. Percy, M. S. Fieldus, R. Fried, K Pavlovski, H. Božić, Ž. Ružić, M. Paparó, & B. Vető.* 431, 850, 189-C5 (1994)

On the Nature of Photospheric Oscillations in Strong X-Ray Bursts. *Iosif Lapidus, Luciano Nobili, & Roberto Turolla.* 431, L103, 191-F13 (1994)

Multipole Moments of Stellar Oscillation Modes. *Andreas Reisenegger.* 432, 296, 196-G6 (1994)

On the Application of the Baade-Wesselink Method to RR Lyrae Stars. *G. Bono, F. Caputo, & R. F. Stellingwerf.* 432, L51, 199-G7 (1994)

The Radial Velocity Variability of the K Giant β Ophiuchi. I. The Detection of Low-Amplitude, Short-Period Pulsations. *Artie P. Hatzes & William D. Cochran.* 432, 763, 205-E1 (1994)

An Ultraviolet and Visible Spectroscopic Study of a Pulsational Cycle of RY Sagittarii. *Geoffrey C. Clayton, W. A. Lawson, P. L. Cottrell, Barbara A. Whitney, S. Adam Stanford, & Frank de Ruyter.* 432, 785, 205-F13 (1994)

The Ultraviolet Pulsations of the Cataclysmic Variable AE Aquarii as Observed with the *Hubble Space Telescope*. *Michael Eracleous, Keith Horne, Edward L. Robinson, Er-Ho Zhang, Thomas R. Marsh, & Janet H. Wood.* 433, 313, 212-C1 (1994)

On Nonlinear Radial Adiabatic Oscillations in Magnetic Polytropes. *M. K. Das, O. J. Mollikutty, & R. K. Tavakol.* 433, 786, 220-G13 (1994)

The Thermal Relaxation Oscillation States of Contact Binaries. *Jian-Min Wang.* 434, 277, 229-C4 (1994)

Searches for Millisecond Pulsations in Low-Mass X-Ray Binaries. II. *B. A. Vaughan, M. van der Klis, K. S. Wood, J. P. Norris, P. Hertz, P. F. Michelson, J. van Paradijs, W. H. G. Lewin, K. Mitsuda, & W. Penninx.* 435, 362, 248-D1 (1994)

Low-Frequency Modes and Nonbarotropic Effects in Pseudo-Newtonian Accretion Disks. *James R. Ipser.* 435, 767, 256-E13 (1994)

Dripping Handrails and the Quasi-periodic Oscillations of the AM Herculis Objects. *Thomas Y. Steiman-Cameron, Karl Young, Jeffrey D. Scargle, James P. Crutchfield, James N. Imamura, Michael T. Wolff, & Kent S. Wood.* 435, 775, 256-F10 (1994)

The Shape of FK Comae Berenices: Evidence for a Recently Coalesced Binary. *Alan D. Welty & Lawrence W. Ramsey.* 435, 848, 257-F13 (1994)

Classical Cepheids with Terminal Age Main-Sequence Companions: Constraints on Evolution. *Nancy Remage Evans.* 436, 273, 265-A12 (1994)

Discovery of the Quasi-periodic Oscillations from V0332+53. *Toshiaki Takeshima, Tadayasu Dotani, Kazuhisa Mitsuda, & Fumiaki Nagase.* 436, 871, 277-F7 (1994)

Observational Limits on Companions to G29-38. *S. J. Kleinman, R. E. Nather, D. E. Winget, J. C. Clemens, P. A. Bradley, A. Kanaan, J. L. Provencal, C. F. Claver, T. K. Watson, K. Yanagida, J. S. Dixson, M. A. Wood, D. J. Sullivan, E. Meištas, E. M. Leibowitz, P. Moskalik, S. Zola, G. Pajdosz, J. Krzesinski, J.-E. Solheim, A. Bruvold, D. O'Donoghue, M. Katz, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, S. O. Kepler, O. Giovannini, C. J. Hansen, & S. D. Kawaler.* 436, 875, 277-G1 (1994)

Hydrodynamics of Rotating Stars and Close Binary Interactions: Compressible Ellipsoid Models. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 437, 742, 295-G13 (1994)

The Pulsation Index, Effective Temperature, and Thickness of the Hydrogen Layer in the Pulsating DA White Dwarf G117-B15A. *E. L. Robinson, T. M. Mailloux, E. Zhang, D. Koester, R. F. Stiening, R. C. Bless, J. W. Percival, M. J. Taylor, & G. W. van Citters.* 438, 908, 16-F1 (1995)

Oscillatory Modes in Near-critical Accretion Flows. *Guy S. Miller & Myeong-Gu Park.* 440, 771, 53-F11 (1995)

The Modeling of Energy Distributions and Light Curves of ZZ Ceti Stars. I. Basic Theory and Semianalytic Expressions for the Emergent Flux. *P. Brassard, G. Fontaine, & F. Wesemael.* 96, 545, 9-C12 (1995)

The RR Lyrae Fundamental Red Edge. *G. Bono, F. Caputo, V. Castellani, M. Marconi, L. Staiano, & R. F. Stellingwerf.* 442, 159, 79-D1 (1995)

Generation of Mass Loss in K Giants: The Failure of Global Oscillation Modes and Possible Implications. *G. Sutmann & M. Cuntz.* 442, L61, 94-E7 (1995)

Nightly Variations of Nonradial Oscillations in the Delta Scuti Star v Ursae Majoris. *S. G. Korzennik, R. W. Noyes, T. Brown, P. Nisenson, & S. Horner.* 443, L25, 102-E7 (1995)

Modeling Solar-like Oscillations in η Bootis. *Jørgen Christensen-Dalsgaard, Timothy R. Bedding, & Hans Kjeldsen.* 443, L29, 102-F1 (1995)

Evolution of Hα Emission Profiles in S-Type Mira Stars. *Andrew W. Woodsworth.* 444, 396, 119-A4 (1995)

Nonperiodic Variations in Astrophysical Systems: Investigating Frequency Evolution. *Patricia T. Boyd, Patricia H. Carter, Robert Gilmore, & Joseph F. Dolan.* 445, 861, 147-A12 (1995)

The Unusual Helium Variable AM Canum Venaticorum. *J. L. Provencal, D. E. Winget, R. E. Nather, E. L. Robinson, J.-E. Solheim, J. C. Clemens, P. A. Bradley, S. J. Kleinman, A. Kanaan, C. F. Claver, C. J. Hansen, T. M. K. Marar, S. Seetha, B. N. Ashoka, E. M. Leibowitz, E. G. Meištas, A. Bruvold, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, A. E. Sansom, R. W. Tweedy, G. Fontaine, P. Bergeron, S. O. Kepler, M. A. Wood, & A. D. Grauer.* 445, 927, 148-A11 (1995)

Transient Phenomena and Modal Stability in RR Lyrae and BL Herculis Variable Stars. *G. Bono, V. Castellani, & R. F. Stellingwerf.* 445, L145, 151-G3 (1995)

Whole Earth Telescope Observations of the DAV White Dwarf G226-29. *S. O. Kepler, O. Giovannini, M. A. Wood, R. E. Nather, D. E. Winget, A. Kanaan, S. J. Kleinman, P. A. Bradley, J. L. Provencal, J. C. Clemens, C. F. Claver, T. K. Watson, K. Yanagida, K. Krisciunas, T. M. K. Marar, S. Seetha, B. N. Ashoka, E. Leibowitz, H. Mendelson, T. Mazeh, P. Moskalik, J. Krzesiński, G. Pajdosz, S. Zola, J.-E. Solheim, P.-I. Emanuelsen, N. Dolez, G. Vauclair, M. Chevreton, J.-R. Fremy, M. A. Barstow, A. E. Sansom, R. W. Tweedy, D. T. Wickramasinghe, L. Ferrario, D. J. Sullivan, A. J. van der Peet, D. A. H. Buckley, & A.-L. Chen.* 447, 874, 188-A1 (1995)

Synthetic Mean Colors for RR Lyrae Variables. *Giuseppe Bono, Filippina Caputo, & Robert F. Stellingwerf.* 99, 263, 37-F8 (1995)

RR Lyrae Variable Stars: Pulsational Constraints Relevant to the Oosterhoff Controversy. *Giuseppe Bono, Filippina Caputo, Vittorio Castellani, & Marcella Marconi.* 448, L115, 209-E3 (1995)

Optical and Ultraviolet Analyses of ZZ Ceti Stars and Study of the Atmospheric Convective Efficiency in DA White Dwarfs. *P. Bergeron, F. Wesemael, R. Lamontagne, G. Fontaine, R. A. Saffer, & N. F. Allard.* 449, 258, 213-F10 (1995)

Tidal Excitation of Modes in Binary Systems with Applications to Binary Pulsars. *Pawan Kumar, Chi On Ao, & Eliot J. Quataert.* 449, 294, 214-B10 (1995)

Nonradial Oscillations in Neutron Star Oceans: A Source of Quasi-periodic X-Ray Oscillations? *Lars Bildsten & Curt Cutler.* 449, 800, 223-F12 (1995)

Whole Earth Telescope Observations and Seismological Analysis of the Pre–White Dwarf PG 2131+066. *S. D. Kawaler, M. S. O'Brien, J. C. Clemens, R. E. Nather, D. E. Winget, T. K. Watson, K. Yanagida, J. S. Dixson, P. A. Bradley, M. A. Wood, D. J. Sullivan, S. J. Kleinman, E. Meištas, E. M. Leibowitz, P. Moskalik, S. Zola, G. Pajdosz, J. Krzesiński, J.-E. Solheim, A. Bruvold, D. O'Donoghue, M. Katz, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, A. Kanaan, S. O. Kepler, O. Giovannini, J. L. Provencal, & C. J. Hansen.* 450, 350, 232-G1 (1995)

Long-Period Cepheids: Models and Observations. *Norman R. Simon & Shashi M. Kanbur.* 451, 703, 256-G10 (1995)

A Period-Luminosity Relation for the Slow Variations of Luminous Blue Variables. *Richard B. Stothers & Chao-wen Chin.* 451, L61, 260-E7 (1995)

Empirical Approach to Cepheid Period-Luminosity-Color and Period-Luminosity Relations by Surface Brightness. *G. P. Di Benedetto.* 452, 195, 264-F7 (1995)

The Radial Velocity Variability of α Persei: A Low-Amplitude Cepheid outside the Instability Strip? *Artie P. Hatzes & William D. Cochran.* 452, 401, 267-E11 (1995)

Spin-Orbit Interactions in Neutron Star/Main-Sequence Binaries and Implications for Pulsar Timing. *Dong Lai, Lars Bildsten, & Victoria M. Kaspi.* 452, 819, 276-A1 (1995)

The 71 Second Oscillation in the Light Curve of the Old Nova DQ Herculis. *E. Zhang, E. L. Robinson, R. F. Stiening, & Keith Horne.* 454, 447, 305-D12 (1995)

Genetic Algorithms in Astronomy and Astrophysics. *P. Charbonneau.* 101, 309, 58-B5 (1995)

STARS: OF-TYPE

First Results from the Goddard High-Resolution Spectrograph: Spectroscopic Determination of Stellar Parameters of Melnick 42, an O3f Star in the Large Magellanic Cloud. *S. R. Heap, B. Altner, D. Ebbets, I. Hubeny, J. B. Hutchings, R. P. Kudritzki, S. A. Voels, S. Haser, A. Pauldrach, J. Puls, & K. Butler.* 377, L29, 143-D6 (1991)

STARS: PECULIAR

Particle Transport and the λ Bootis Phenomenon. I. The Diffusion/Mass-Loss Model Revisited. *P. Charbonneau.* 405, 720, 52-A9 (1993)

Particle Transport and the λ Bootis Phenomenon. II. An Accretion/Diffusion Model. *S. Turcotte & P. Charbonneau.* 413, 376, 161-A3 (1993)

High-Speed Ultraviolet Photometry of HD 60435. *M. Taylor, M. J. Nelson, R. C. Bless, J. F. Dolan, J. L. Elliot, J. W. Percival, E. L. Robinson, & G. W. van Citters.* 413, L125, 169-B10 (1993)

Diffusion of Lithium and Beryllium in Evolving, Nonrotating Main-Sequence A and F Stars. *Jacques Richer & Georges Michaud.* 416, 312, 205-A5 (1993)

HR 1362: The Evolved 53 Camelopardalis. *K. Stępień.* 416, 368, 205-E11 (1993)

The Abundances of the Elements in Sharp-lined Early-Type Stars from *IUE* High-Dispersion Spectrograms. I. Cr, Mn, Fe, Ni, and Co. *Saul J. Adelman, Charles R. Cowley, David S. Leckrone, Scott W. Roby, & Glenn M. Wahlgren.* 419, 276, 249-E11 (1993)

X-Ray Emission from Chemically Peculiar Stars. *S. A. Drake, J. L. Linsky, J. H. M. M. Schmitt, & C. Rosso.* 420, 387, 5-F1 (1994)

The Effect of Constant Horizontal Magnetic Fields on Model Atmospheres of Ap Stars. *F. LeBlanc, G. Michaud, & J. Babel.* 431, 388, 180-G9 (1994)

An Optical Region Elemental Abundance Analysis of the Chemically Peculiar HgMn Star χ Lupi. *Glenn M. Wahlgren, Saul J. Adelman, & Richard D. Robinson.* 434, 349, 230-C3 (1994)

The Pursuit of Heavy Elements in the HgMn-Type Star χ Lupi: Observations with the GHRS in the COSTAR Era. *Glenn M. Wahlgren, Tomas Brage, Ronald L. Gilliland, Sveneric G. Johansson, David S. Leckrone, Don J. Lindler, & Ulf Litzén.* 435, L67, 252-F3 (1994)

Nonperiodic Variations in Astrophysical Systems: Investigating Frequency Evolution. *Patricia T. Boyd, Patricia H. Carter, Robert Gilmore, & Joseph F. Dolan.* 445, 861, 147-A12 (1995)

First Detection of X-Ray Variability of η Carinae. *M. F. Corcoran, G. L. Rawley, J. H. Swank, & R. Petre.* 445, L121, 151-C9 (1995)

Ultraviolet Temporal Variability of the Peculiar Star R Aquarii. *S. R. Meier & M. Kafatos.* 451, 359, 250-G5 (1995)

STARS: PECULIAR A

A Crucial Test of the Diffusion Model: 53 Camelopardalis. *J. Babel & G. Michaud.* 366, 560, 10-A5 (1991)

A Simple Accretion/Diffusion Model for λ Bootis Stars. *Paul Charbonneau.* 372, L33, 79-D13 (1991)

First Results from the Goddard High-Resolution Spectrograph: High-Resolution Observations of the 1942 Å Resonance Line of Hg II in the Chemically Peculiar B Star, χ Lupi. *David S. Leckrone, Glenn M. Wahlgren, & Sveneric G. Johansson.* 377, L37, 143-E1 (1991)

STARS: PLANETARY SYSTEMS

Constraints on the Companion Object to HD 114762. *William D. Cochran, Artie P. Hatzes, & Terry J. Hancock.* 380, L35, 181-E6 (1991)

The Dust Debris around HR 4796. *M. Jura.* 383, L79, 226-F1 (1991)

Rocks around the Clock: Limits on Pulsar Planetary Systems. *S. E. Thorsett & J. A. Phillips.* 387, L69, 48-C6 (1992)

Discovering Planetary Systems through Gravitational Microlenses. *Andrew Gould & Abraham Loeb.* 396, 104, 156-D6 (1992)

An Examination of the $m = 1$ Instability in a Low-Mass Protoplanetary Disk. *Hyerim Noh, Ethan T. Vishniac, & William D. Cochran.* 397, 347, 172-B11 (1992)

Planets in Globular Clusters? *Steinn Sigurdsson.* 399, L95, 201-D5 (1992)

Upper Limits to the CO $J = 1$–0 Emission around Vega-like Stars: Gas Depletion of the Circumstellar Ring around ε Eridani. *Takuya Yamashita, Toshihiro Handa, Toshihiro Omodaka, Yoshimi Kitamura, Eiko Kawazoe, Saeko S. Hayashi, & Norio Kaifu.* 402, L65, 12-G7 (1993)

Evolution of Planetesimals. I. Dynamics: Relaxation in a Thin Disk. *P. L. Palmer, D. N. C. Lin, & S. J. Aarseth.* 403, 336, 18-A12 (1993)

Evolution of Planetesimals. II. Numerical Simulations. *S. J. Aarseth, D. N. C. Lin, & P. L. Palmer.* 403, 351, 18-C1 (1993)

Radial Velocity Observations of the Sun at Night. *R. S. McMillan, T. L. Moore, M. L. Perry, & P. H. Smith.* 403, 801, 25-G8 (1993)

Discovery of a Rotating Protoplanetary Gas Disk around the Young Star GG Tauri. *R. Kawabe, M. Ishiguro, T. Omodaka, Y. Kitamura, & S. M. Miyama.* 404, L63, 40-E1 (1993)

Do the Spectral Energy Distributions of GK Tauri and HK Tauri Indicate the Presence of Planetary Companions? *Kenneth A. Marsh & Michael J. Mahoney.* 405, L71, 54-D10 (1993)

Three-Body Effects in the PSR 1257+12 Planetary System. *Renu Malhotra.* 407, 266, 72-D3 (1993)

Gas and Dust in the Pre–Main-Sequence Multiple System GG Tauri. *D. W. Koerner, A. I. Sargent, & S. V. W. Beckwith.* 408, L93, 95-D7 (1993)

PSR B1620−26: A Binary Radio Pulsar with a Planetary Companion? *S. E. Thorsett, Z. Arzoumanian, & J. H. Taylor.* 412, L33, 148-D6 (1993)

Formation of Planets around Pulsars. *M. Banit, M. A. Ruderman, J. Shaham, & J. H. Applegate.* 415, 779, 197-E6 (1993)

Effects of Convection on Pressure Wave Excitation in Common Envelopes. *Noam Soker.* 417, 347, 221-G8 (1993)

Constraints on the Evolution of Remnant Protostellar Dust Debris around HR 4796. *M. Jura, B. Zuckerman, E. E. Becklin, & R. C. Smith.* 418, L37, 238-E5 (1993)

Limits on Planets Orbiting Massive Stars from Radio Pulsar Timing. *S. E. Thorsett & R. J. Dewey.* 419, L65, 259-D1 (1993)

Formation, Early Evolution, and Gravitational Stability of Protoplanetary Disks. *Taishi Nakamoto & Yoshitsugu Nakagawa.* 421, 640, 26-C1 (1994)

Imaging Polarimetry of HL Tauri and GG Tauri: A Geometrically Thin Disk around GG Tauri. *Takuya Yamashita, Klaus-W. Hodapp, & Toby J. T. Moore.* 422, L21, 36-D7 (1994)

Planet Detectability by an Adaptive Optics Stellar Coronagraph. *Tadashi Nakajima.* 425, 348, 84-F1 (1994)

Subarcsecond VLA Maps of the Disk and the Jet in HL Tauri. *L. F. Rodríguez, J. Cantó, J. M. Torrelles, J. F. Gómez, G. Anglada, & P. T. P. Ho.* 427, L103, 127-C3 (1994)

Is There a Planet in the PSR 1620−26 Triple System? *Frederic A. Rasio.* 427, L107, 127-C11 (1994)

The Detectability of Planetary Companions of Compact Galactic Objects from Their Effects on Microlensed Light Curves of Distant Stars. *Alberto D. Bolatto & Emilio E. Falco.* 436, 112, 262-G1 (1994)

Evolution of Magnetized Protoplanetary Disks. *Mauricio Reyes-Ruiz & Tomasz F. Stepinski.* 438, 750, 14-E10 (1995)

The Kinetics of Systems of Planetesimals. *J. F. Luciani, F. Namouni, & R. Pellat.* 439, 800, 35-E13 (1995)

Test of When Free Precession of a Pulsar Cannot Mimic an Orbiting Planet. *Norman K. Glendenning.* 440, 881, 55-C6 (1995)

Growth of Protoplanetary Disks around Young Stellar Objects. *Taishi Nakamoto & Yoshitsugu Nakagawa.* 445, 330, 137-A12 (1995)

An Equation of State for Low-Mass Stars and Giant Planets. *D. Saumon, G. Chabrier, & H. M. Van Horn.* 99, 713, 44-E12 (1995)

Model of a Kuiper Belt Small Grain Population and Resulting Far-Infrared Emission. *D. E. Backman, A. Dasgupta, & R. E. Stencel.* 450, L35, 236-A11 (1995)

Vortices in Circumstellar Disks. *Fred C. Adams & Richard Watkins.* 451, 314, 250-C3 (1995)

Assessing the Environmental Impact on PSR B1620−26 in M4. *Steinn Sigurdsson.* 452, 323, 266-E8 (1995)

Aperture Synthesis Imaging of the Circumstellar Dust Disk around DO Tauri. *D. W. Koerner, C. J. Chandler, & A. I. Sargent.* 452, L69, 270-E14 (1995)

Evidence for a Planet around the Pulsar PSR B0329+54. *Tatiana V. Shabanova.* 453, 779, 294-F2 (1995)

STARS: POPULATION II

Evolutionary Models of Halo Stars with Rotation. I. Evidence for Differential Rotation with Depth in Stars. *Marc H. Pinsonneault, Constantine P. Deliyannis, & Pierre Demarque.* 367, 239, 15-A12 (1991)

Metal Abundances of RR Lyrae Variables in Selected Galactic Star Fields. V. The Lick Astrographic Fields at Intermediate Galactic Latitudes. *Nicholas B. Suntzeff, T. D. Kinman, & Robert P. Kraft.* 367, 528, 19-G13 (1991)

Lithium in the Most Extreme Halo Stars; Trends with Metallicity. *Constantine P. Deliyannis & Pierre Demarque.* 370, L89, 59-E5 (1991)

Diffusion and Mixing of Lithium and Helium in Population II Dwarfs. *Charles R. Proffitt & Georges Michaud.* 371, 584, 68-G1 (1991)

An Extreme Population II Dwarf without Lithium. *L. M. Hobbs, D. E. Welty, & J. A. Thorburn.* 373, L47, 97-B13 (1991)

The Lithium Abundance in Extreme Halo Stars. *L. M. Hobbs & J. A. Thorburn.* 375, 116, 112-D8 (1991)

The Metallicity of RR Lyrae Stars in Baade's Window. *Alistair R. Walker & Donald M. Terndrup.* 378, 119, 152-D13 (1991)

Lithium in Halo Stars: Constraining the Effects of Helium Diffusion on Globular Cluster Ages and Cosmology. *Constantine P. Deliyannis & Pierre Demarque.* 379, 216, 165-F7 (1991)

Oxygen Abundances in Halo Stars. *Michael S. Bessell, Ralph S. Sutherland, & Kui Ruan.* 383, L71, 226-E6 (1991)

Evolutionary Models of Halo Stars with Rotation. II. Effects of Metallicity on Lithium Depletion, and Possible Implications for the Primordial Lithium Abundance. *M. H. Pinsonneault, Constantine P. Deliyannis, & P. Demarque.* 78, 179, 4-B3 (1992)

Discovery of a Fast Wind from a Field Population II Giant Star. *A. K. Dupree, Dimitar D. Sasselov, & John B. Lester.* 387, L85, 48-D11 (1992)

Evolution of Beryllium Abundances in the Galactic Halo. *Sean G. Ryan, John E. Norris, M. S. Bessell, & Constantine P. Deliyannis.* 388, 184, 51-C6 (1992)

Evidence for Dwarf Stars at $D \sim 100$ Kiloparsecs near the Sextans Dwarf Spheroidal Galaxy. *Andrew Gould, Puragra Guhathakurta, Douglas Richstone, & Chris Flynn.* 388, 345, 54-F1 (1992)

The Formation of Primordial Degenerate Protostars. *Paolo Lenzuni, David F. Chernoff, & Edwin E. Salpeter.* 393, 232, 117-A11 (1992)

Mass Loss and a Possible Population II Lithium Dip. *David S. P. Dearborn, David N. Schramm, & L. M. Hobbs.* 394, L61, 139-E1 (1992)

Abundances for Giant Stars in the Draco Dwarf Galaxy. *Matthew D. Lehnert, R. A. Bell, James E. Hesser, & J. B. Oke.* 395, 466, 148-C9 (1992)

Two New Lithium-deficient Population II Dwarfs. *J. A. Thorburn.* 399, L83, 201-B13 (1992)

New Lithium Observations of Two [Fe/H] $\leq$ -3.5 Dwarfs. *J. A. Thorburn & Timothy C. Beers.* 404, L13, 33-E1 (1993)

Mass Loss in Globular Cluster Red Giants: An Evolutionary Investigation. *M. Castellani & V. Castellani.* 407, 649, 78-F1 (1993)

The Abundance of Lithium in Metal-poor Subgiant Stars. *C. A. Pilachowski, C. Sneden, & J. Booth.* 407, 699, 79-C1 (1993)

The ^{6}Li/^{7}Li Ratio in the Metal-poor Halo Dwarfs HD 19445 and HD 84937. *Verne V. Smith, David L. Lambert, & Poul E. Nissen.* 408, 262, 86-D1 (1993)

The Effect of Livermore Opal Opacities on the Evolutionary Masses of RR Lyrae Stars. *Sukyoung Yi, Young-Wook Lee, & Pierre Demarque.* 411, L25, 133-G8 (1993)

High-Dispersion Spectroscopy of Giants in Metal-poor Globular Clusters. I. Iron Abundances. *Dante Minniti, Doug Geisler, Ruth C. Peterson, & Juan J. Claria.* 413, 548, 163-C8 (1993)

The Boron-to-Beryllium Ratio in Halo Stars: A Signature of Cosmic-Ray Nucleosynthesis in the Early Galaxy. *T. P. Walker, G. Steigman, D. N. Schramm, K. A. Olive, & B. Fields.* 413, 562, 163-D12 (1993)

Evidence for a Dispersion in the Lithium Abundances of Extreme Halo Stars. *Constantine P. Deliyannis, M. H. Pinsonneault, & Douglas K. Duncan.* 414, 740, 180-D10 (1993)

Abundances of Four Ultra–Metal-Deficient Stars. *John E. Norris, Ruth C. Peterson, & Timothy C. Beers.* 415, 797, 197-F13 (1993)

An Evolutionary Scenario for Primeval Stellar Populations. *Santi Cassisi & Vittorio Castellani.* 88, 509, 47-B1 (1993)

Ultraviolet Radiation from Evolved Stellar Populations. I. Models. *Ben Dorman, Robert T. Rood, & Robert W. O'Connell.* 419, 596, 255-B8 (1993)

The Stellar Population in the Core of M15. *Guido De Marchi & Francesco Paresce.* 422, 597, 39-C6 (1994)

Do Gamma-Ray Bursts Originate from an Extended Galactic Halo of High-Velocity Neutron Stars? *Dieter H. Hartmann, Lawrence E. Brown, Lih-Sin The, Eric V. Linder, Vahe Petrosian, George R. Blumenthal, & Kevin C. Hurley.* 90, 893, 14-G10 (1994)

The Production of Beryllium in the Early Galaxy. *Sofia Feltzing & Bengt Gustafsson.* 423, 68, 47-A6 (1994)

Lithium Abundances in the Most Metal-deficient Stars. *John E. Norris, Sean G. Ryan, & Guy S. Stringfellow.* 423, 386, 51-A1 (1994)

Detection of Lithium in the Cool Halo Dwarfs Groombridge 1830 and HD 134439: Implications for Internal Stellar Mixing and Cosmology. *Constantine P. Deliyannis, Sean G. Ryan, Timothy C. Beers, & Julie A. Thorburn.* 425, L21, 85-D3 (1994)

Lithium Isotope Ratios in Six Halo Stars. *L. M. Hobbs & J. A. Thorburn.* 428, L25, 134-D8 (1994)

Red Giant Stragglers and He White Dwarfs in Galactic Globulars. *V. Castellani, V. Luridiana, & M. Romaniello.* 428, 633, 138-B7 (1994)

Production of Lithium, Beryllium, and Boron from Baryon Inhomogeneous Primordial Nucleosynthesis. *David Thomas, David N. Schramm, Keith A. Olive, Grant J. Mathews, Bradley S. Meyer, & Brian D. Fields.* 430, 291, 162-F11 (1994)

CCD Photometry for Six Metal-rich Galactic Globular Clusters. *Ata Sarajedini & John E. Norris.* 93, 161, 44-A2 (1994)

Summary of ΔS Metallicity Measurements for Bright RR Lyrae Variables Observed at Lick Observatory and KPNO between 1972 and 1987. *Nicholas B. Suntzeff, Robert P. Kraft, & T. D. Kinman.* 93, 271, 45-D2 (1994)

Ultra–Metal-poor Halo Stars: The Remarkable Spectrum of CS 22892−052. *Christopher Sneden, George W. Preston, Andrew McWilliam, & Leonard Searle.* 431, L27, 182-E13 (1994)

^{7}Li Abundances in Halo Stars: Testing Stellar Evolution Models and the Primordial ^{7}Li Abundance. *Brian Chaboyer & P. Demarque.* 433, 510, 217-C11 (1994)

Stellar Oxygen Abundances. III. The Oxygen Abundance of the Very Metal Poor Halo Star BD −13°3442. *Jeremy R. King.* 436, 331, 265-G6 (1994)

Lithium in Halo Dwarfs: The Undoing of Diffusion by Mass Loss. *Fritz J. Swenson.* 438, L87, 19-G8 (1995)

Kinematics of Metal-poor Stars in the Galaxy. *Timothy C. Beers & Jesper Sommer-Larsen.* 96, 175, 3-G8 (1995)

Implications of a High Population II B/Be Ratio. *Brian D. Fields, Keith A. Olive, & David N. Schramm.* 439, 854, 36-D7 (1995)

Evidence of Heavy Element Nucleosynthesis Early in the History of the Galaxy: The Ultra–metal-poor Star CS 22892−052. *John J. Cowan, Debra L. Burris, Christopher Sneden, Andrew McWilliam, & George W. Preston.* 439, L51, 40-E3 (1995)

The Sodium/Aluminum–Oxygen Anticorrelation in ω Centauri and Other Clusters. *John E. Norris & G. S. Da Costa.* 441, L81, 76-B11 (1995)

The Hot End of Evolutionary Horizontal Branches. *V. Castellani, S. Degl'Innocenti, & L. Pulone.* 446, 228, 156-C8 (1995)

The Giant Branch of ω Centauri. IV. Abundance Patterns Based on Echelle Spectra of 40 Red Giants. *John E. Norris & G. S. Da Costa.* 447, 680, 185-D9 (1995)

The Primordial Lithium Abundance. *Robert L. Kurucz.* 452, 102, 263-E2 (1995)

Evidence of Higher Primordial Lithium from Keck Observations of M92. *Constantine P. Deliyannis, Ann Merchant Boesgaard, & Jeremy R. King.* 452, L13, 269-D10 (1995)

STARS: POST–ASYMPTOTIC GIANT BRANCH

The Multiple Molecular Winds of CRL 2688. *K. Young, G. Serabyn, T. G. Phillips, G. R. Knapp, R. Güsten, & A. Schulz.* 385, 265, 15-B13 (1992)

The Evolution of High-Metallicity Horizontal-Branch Stars and the Origin of the Ultraviolet Light in Elliptical Galaxies. *E. Horch, P. Demarque, & M. Pinsonneault.* 388, L53, 59-B7 (1992)

Models of Planetary Nebula Spectral Evolution. *Kevin Volk.* 80, 347, 27-B11 (1992)

Discovery of Hot Ammonia in the Proto–Planetary Nebulae CRL 618 and CRL 2688. *Jesús Martín-Pintado & Rafael Bachiller.* 391, L93, 99-G12 (1992)

Hot Post–Asymptotic Giant Branch Stars at High Galactic Latitudes. *R. J. H. McCausland, E. S. Conlon, P. L. Dufton, & F. P. Keenan.* 394, 298, 131-F5 (1992)

An Ultraviolet Imaging Telescope Study of the Globular Cluster M79 (NGC 1904). *Robert S. Hill, Jesse K. Hill, Wayne B. Landsman, Ralph C. Bohlin, K.-P. Cheng, Paul M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L17, 144-F1 (1992)

The Ultraviolet-bright Stars of Omega Centauri, M3, and M13. *Wayne B. Landsman, Robert W. O'Connell, Jonathan H. Whitney, Ralph C. Bohlin, Robert S. Hill, Stephen P. Maran, Ronald A. Parise, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L21, 144-F9 (1992)

Nonequilibrium Iron Oxide Formation in Some Low-Mass Post–Asymptotic Giant Branch Stars. *Frans J. M. Rietmeijer.* 400, L39, 214-E6 (1992)

STARS: PRE–MAIN-SEQUENCE

A Spectroscopic Study of the DR 21 Outflow Source. II. The Vibrational H_2 Line Emission. *R. P. Garden, T. R. Geballe, I. Gatley, & D. Nadeau.* 366, 474, 8-G1 (1991)

Infrared Spectroscopy of T Tauri Stars. *C. Giovanardi, S. Gennari, A. Natta, & R. Stanga.* 367, 173, 14-B11 (1991)

Young Stellar Objects Detected by *IRAS*. *Frank O. Clark.* 75, 611, 9-B5 (1991)

A Search for Embedded Young Stellar Objects in and near the IC 1396 Complex. *Richard D. Schwartz, Armen L. Gyulbudaghian, & Bruce A. Wilking.* 370, 263, 50-D9 (1991)

The High State of the FU Orionis Variable Z Canis Majoris. *F. V. Hessman, J. Eislöffel, R. Mundt, L. W. Hartmann, W. Herbst, & J. Krautter.* 370, 384, 52-A10 (1991)

Star Formation and the Nature of Bipolar Outflows. *Frank H. Shu, Steven P. Ruden, Charles J. Lada, & Susana Lizano.* 370, L31, 53-E1 (1991)

The Effect of an External Disk on the Orbital Elements of a Central Binary. *P. Artymowicz, C. J. Clarke, S. H. Lubow, & J. E. Pringle.* 370, L35, 53-E7 (1991)

Disk Accretion onto Magnetic T Tauri Stars. *Arieh Königl.* 370, L39, 53-E13 (1991)

The Spectral Signatures of Collapse and Outflow around Young Stars. *E. R. Keto.* 371, 163, 62-B3 (1991)

Near-Infrared Emission-Line Images of Three Herbig-Haro Objects. *Karl R. Stapelfeldt, Charles A. Beichman, J. Jeff Hester, Nicholas Z. Scoville, & Thomas N. Gautier III.* 371, 226, 63-A1 (1991)

HH 5, HH 6, and Their Exciting Stars. *Martin Cohen, Burton F. Jones, & Mark Hereld.* 371, 237, 63-B1 (1991)

The Ultraviolet Continuum and the Fluorescent H_2 Lines in Low-Excitation Herbig-Haro Objects. *K.-H. Böhm, D. M. Scott, & J. Solf.* 371, 248, 63-C1 (1991)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. I. The Issues, Formulation of the Problem, and Method of Solution. *Telemachos Ch. Mouschovias & Scott A. Morton.* 371, 296, 63-G1 (1991)

Episodic Outflows from High-Mass Protostars. *G. F. Mitchell, J.-P. Maillard, & T. I. Hasegawa.* 371, 342, 64-D1 (1991)

An Extremely High Velocity CO Outflow from NGC 7538 IRS 9. *George F. Mitchell & Tatsuhiko I. Hasegawa.* 371, L33, 66-E1 (1991)

Multifrequency VLA Observations of Radio Continuum from IRAS 16293−2422. *R. Estalella, G. Anglada, L. F. Rodríguez, & G. Garay.* 371, 626, 69-C12 (1991)

Nonlinear Evolution of Accretion Disks Induced by Radiative Feedback Processes. *K. R. Bell, D. N. C. Lin, & Steven P. Ruden.* 372, 633, 83-E7 (1991)

Mixing Layers in Stellar Outflows. *J. Cantó & A. C. Raga.* 372, 646, 83-F7 (1991)

The Lithium Abundance of the T Tauri Star BP Tauri. *Douglas K. Duncan.* 373, 250, 89-B1 (1991)

The Formation of Molecules in Protostellar Winds. *A. E. Glassgold, G. A. Mamon, & P. J. Huggins.* 373, 254, 89-B7 (1991)

The Evolution of Intermediate-Mass Protostars. I. Basic Results. *Francesco Palla & Steven W. Stahler.* 375, 288, 114-E1 (1991)

Spectroscopic Study of Direct and Dust-scattered Line Emission in the HH 1–HH 2 System. *J. Solf & K.-H. Böhm.* 375, 618, 120-D3 (1991)

NGC 1333 IRAS 4: A Very Young, Low-Luminosity Binary System. *Göran Sandell, Colin Aspin, William D. Duncan, Adrian P. G. Russell, & E. Ian Robson.* 376, L17, 130-C1 (1991)

Observations and Chemistry of Interstellar Refractory Elements. *B. E. Turner.* 376, 573, 133-E1 (1991)

A Double Radio Source at the Center of the Outflow in L723. *Guillem Anglada, Robert Estalella, Luis F. Rodríguez, José M. Torrelles, Rosario López, & Jorge Cantó.* 376, 615, 134-A7 (1991)

Molecular Outflows Associated with Young Stellar Objects in the L1641 Region of Orion. *James A. Morgan, F. Peter Schloerb, Ronald L. Snell, & John Bally.* 376, 618, 134-A12 (1991)

Direct VLBI Detection of the Magnetosphere Surrounding the Young Star S1 in ρ Ophiuchi. *Philippe André, Robert B. Phillips, Jean-François Lestrade, & Karl-Ludwig Klein.* 376, 630, 134-B12 (1991)

The LkHα 101 Infrared Cluster. *M. Barsony, J. M. Schombert, & K. Kis-Halas.* 379, 221, 165-G1 (1991)

Models for Light Scattering by Dust around Herbig-Haro Objects. *Alberto Noriega-Crespo, Nuria Calvet, & Karl-Heinz Böhm.* 379, 676, 173-B1 (1991)

A Rich Cluster of Radio Stars in the ρ Ophiuchi Cloud Cores. *James A. Leous, Eric D. Feigelson, Philippe André, & Thierry Montmerle.* 379, 683, 173-B10 (1991)

Magnetically Driven Jets and Winds. *R. V. E. Lovelace, H. L. Berk, & J. Contopoulos.* 379, 696, 173-D1 (1991)

Irradiation of Accretion Disks around Young Objects. I. Near-Infrared CO Bands. *Nuria Calvet, Alberto Patiño, Gladis Magris C., & Paola D'Alessio.* 380, 617, 185-G8 (1991)

Interstellar Solid CO: Polar and Nonpolar Interstellar Ices. *A. G. G. M. Tielens, A. T. Tokunaga, T. R. Geballe, & F. Baas.* 381, 181, 191-C5 (1991)

Particle Emissivity in Circumstellar Disks. *Steven V. W. Beckwith & Anneila I. Sargent.* 381, 250, 192-B1 (1991)

Milliarcsecond Radio Structure of Weak-lined T Tauri Stars. *R. B. Phillips, C. J. Lonsdale, & E. D. Feigelson.* 382, 261, 203-D9 (1991)

Are FU Orionis Stars Younger than T Tauri Stars? Submillimeter Constraints on Circumstellar Disks. *David A. Weintraub, Göran Sandell, & William D. Duncan.* 382, 270, 203-E8 (1991)

The Molecular Structure around HL Tauri. *A. I. Sargent & S. V. W. Beckwith.* 382, L31, 205-D6 (1991)

10 Micron Spectra of Protostars and the Solid Methanol Abundance. *W. A. Schutte, A. G. G. M. Tielens, & S. A. Sandford.* 382, 523, 208-A11 (1991)

Asymptotic Theory for the Spatial Distribution of Protostellar Emission. *Fred C. Adams.* 382, 544, 208-C8 (1991)

Far-Infrared and Submillimeter Wavelength Observations of Star-forming Dense Cores. II. Images. *E. F. Ladd, Fred C. Adams, S. Casey, J. A. Davidson, G. A. Fuller, D. A. Harper, P. C. Myers, & R. Padman.* 382, 555, 208-D7 (1991)

Optical Excess Emission in T Tauri Stars. *Patrick Hartigan, Scott J. Kenyon, Lee Hartmann, Stephen E. Strom, Suzan Edwards, Alan D. Welty, & John Stauffer.* 382, 617, 209-C1 (1991)

A Nearly Unipolar CO Outflow from the HH 46–47 System. *Lawrence M. Chernin & Colin R. Masson.* 382, L93, 211-E3 (1991)

Molecular Line Emission Models of Herbig-Haro Objects. I. H_2 Emission. *Mark G. Wolfire & Arieh Königl.* 383, 205, 214-E9 (1991)

Time-dependent Radio Sources in the Star-forming Region Cepheus A (East). *V. A. Hughes.* 383, 280, 215-F1 (1991)

Infrared Recombination Lines of Hydrogen from Young Objects in the Southern Galactic Plane. *Sara C. Beck, Jacqueline Fischer, & Howard A. Smith.* 383, 336, 216-D1 (1991)

The 1.0–1.3 Micron Spectrum of LkHα 101. *Richard J. Rudy, Peter Erwin, George S. Rossano, & R. C. Puetter.* 383, 344, 216-D7 (1991)

An Optical/Infrared Outburst in the Exciting Source of HH 7–11. *Jochen Eislöffel, Eike Günther, Frederic V. Hessman, Reinhard Mundt, Ralf Poetzel, John S. Carr, Steven Beckwith, & Tom P. Ray.* 383, L19, 219-C7 (1991)

The Dusty Envelopes of FU Orionis Variables. *Scott J. Kenyon & Lee W. Hartmann.* 383, 664, 222-E1 (1991)

Two New Molecular Outflows in L1551? *Marc W. Pound & John Bally.* 383, 705, 223-A7 (1991)

The Vertical Structure of T Tauri Accretion Disks. I. Heating by the Central Star. *Fabien Malbet & Claude Bertout.* 383, 814, 224-D1 (1991)

Multiplicity among the Young Stars in Taurus. *M. Simon, W. P. Chen, R. R. Howell, J. A. Benson, & D. Slowik.* 384, 212, 3-E8 (1992)

The Molecular Core in the AFGL 5157 Region. *José M. Torrelles, Carlos Eiroa, Rainer Mauersberger, Robert Estalella, Luis F. Miranda, & Guillem Anglada.* 384, 528, 8-F7 (1992)

On the Origin of Submillimeter Emission from Young Stars in Taurus-Auriga. *Mary Barsony & Scott J. Kenyon.* 384, L53, 11-D1 (1992)

The Triple Radio Continuum Source in Serpens: Its Interaction with the Ambient Molecular Gas. *J. M. Torrelles, J. F. Gómez, S. Curiel, C. Eiroa, L. F. Rodríguez, & P. T. P. Ho.* 384, L59, 11-D7 (1992)

A Study of the Stellar Population in the Chamaeleon Dark Clouds. *Lisa S. Gauvin & Karen M. Strom.* 385, 217, 14-F1 (1992)

The Inverse Planckian Transform and Temperature Spectra. *Luis Salas.* 385, 288, 15-D12 (1992)

IRAS 16293−2422: A Very Young Binary System? *Lee G. Mundy, Alwyn Wootten, Bruce A. Wilking, Geoffrey A. Blake, & Anneila I. Sargent.* 385, 306, 15-F5 (1992)

Discovery of Outflows from Young Stellar Objects in Bok Globules. *João Lin Yun & Dan P. Clemens.* 385, L21, 17-C6 (1992)

A Catalog of Co-added *IRAS* Fluxes of Orion Population Stars. *Wm. Bruce Weaver & Gordon Jones.* 78, 239, 4-G7 (1992)

Knots in Stellar Jets from Time-dependent Sources. *A. C. Raga & Lev Kofman.* 386, 222, 27-A1 (1992)

Winds from T Tauri Stars. II. Balmer Line Profiles for Inner Disk Winds. *Nuria Calvet, Lee Hartmann, & Robert Hewett.* 386, 229, 27-A9 (1992)

Balmer Line Profiles for Infalling T Tauri Envelopes. *Nuria Calvet & Lee Hartmann.* 386, 239, 27-B8 (1992)

Star Formation in Taurus. I. The *IRAS* Faint Source Survey. *C. A. Beichman, F. Boulanger, & M. Moshir.* 386, 248, 27-C5 (1992)

10 AU Scale Halo Structure around DG Tauri. *Wen Ping Chen, R. R. Howell, M. Simon, & J. A. Benson.* 387, L43, 43-E8 (1992)

Properties of Swept-up Molecular Outflows. *Colin R. Masson & Lawrence M. Chernin.* 387, L47, 43-F1 (1992)

The Magnetic Collimation of Bipolar Outflows. I. Adiabatic Simulations. *James M. Stone & Michael L. Norman.* 389, 297, 63-F1 (1992)

Rotating Stars: The Angular Momentum Constraints. *Fernando de Felice & Leonardo Di G. Sigalotti.* 389, 386, 64-F7 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. II. Results and a Length Scale for Protostellar Cores. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 144, 75-G1 (1992)

Ambipolar Diffusion, Cloud Cores, and Star Formation: Two-dimensional, Cylindrically Symmetric Contraction. III. A Further Parameter Study and Magnetically Controlled Accretion Rate. *Telemachos Ch. Mouschovias & Scott A. Morton.* 390, 166, 76-A11 (1992)

Limits on the Magnetic Flux of Pre–Main-Sequence Stars. *Gibor Basri, Geoffrey W. Marcy, & Jeff A. Valenti.* 390, 622, 83-A9 (1992)

Near-Infrared Polarized Images of a Nebula around T Tauri. *David A. Weintraub, Joel H. Kastner, B. Zuckerman, & Ian Gatley.* 391, 784, 97-F7 (1992)

Infrared Studies of Pre–Main-Sequence Intermediate-Mass Stars: LkHα 198. *Antonella Natta, Francesco Palla, Harold M. Butner, Neal J. Evans II, & Paul M. Harvey.* 391, 805, 98-A1 (1992)

Chemistry in Circumstellar Disks: CS toward HL Tauri. *Geoffrey A. Blake, Ewine F. van Dishoeck, & Anneila I. Sargent.* 391, L99, 100-A5 (1992)

Structure and Kinematics of the HH 111 Jet. *Bo Reipurth, A. C. Raga, & Steve Heathcote.* 392, 145, 102-F10 (1992)

Lithium Abundances in Classical and Weak T Tauri Stars. *Antonio Magazzù, Rafael Rebolo, & Yakov V. Pavlenko.* 392, 159, 103-A1 (1992)

The Evolution of Intermediate-Mass Protostars. II. Influence of the Accretion Flow. *Francesco Palla & Steven W. Stahler.* 392, 667, 110-E5 (1992)

Interpreting Infrared Color-Color Diagrams: Circumstellar Disks around Low- and Intermediate-Mass Young Stellar Objects. *Charles J. Lada & Fred C. Adams.* 393, 278, 117-E12 (1992)

VLA Imaging of a Possible Circumstellar Disk around HL Tauri. *L. F. Rodríguez, J. Cantó, J. M. Torrelles, J. F. Gómez, & P. T. P. Ho.* 393, L29, 120-E1 (1992)

Measurement of CO Overtone Line Profiles in SVS 13. *John S. Carr & Alan T. Tokunaga.* 393, L67, 127-D7 (1992)

Hydromagnetic Disk Winds in Young Stellar Objects and Active Galactic Nuclei. *Guy Pelletier & Ralph E. Pudritz.* 394, 117, 129-D13 (1992)

Emission-Line Studies of Young Stars. III. Correlations with the Infrared Excess. *Fred Hamann & S. E. Persson.* 394, 628, 137-C5 (1992)

Possible Detection of a High-Velocity Neutral Wind in T Tauri. *Abraham Ruiz, José L. Alonso, & I. F. Mirabel.* 394, L57, 139-D7 (1992)

Evidence for a Wind-swept Cavity in HH 34? *Alexander Rudolph & William J. Welch.* 395, 488, 148-F3 (1992)

Radio Continuum from the Powering Sources of the RNO 43, Haro 4-255 FIR, B335, and PV Cephei Outflows and from the Herbig-Haro Object 32A. *G. Anglada, L. F. Rodríguez, J. Cantó, R. Estalella, & J. M. Torrelles.* 395, 494, 148-G1 (1992)

Global Aspects of Dynamics and Star Formation in Taurus. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 395, 501, 148-G13 (1992)

Near-Infrared Observations of Young Stellar Objects in the ρ Ophiuchi Dark Cloud. *Thomas P. Greene & Erick T. Young.* 395, 516, 149-B5 (1992)

Model Scattering Envelopes of Young Stellar Objects. I. Method and Application to Circumstellar Disks. *Barbara A. Whitney & Lee Hartmann.* 395, 529, 149-D1 (1992)

The 8–13 Micron Spectrum of the Young Stellar Object WL 16. *M. S. Hanner, A. T. Tokunaga, & T. R. Geballe.* 395, L111, 154-C12 (1992)

Evidence for Unseen Companions around T Tauri Stars. *Kenneth A. Marsh & Michael J. Mahoney.* 395, L115, 154-D1 (1992)

Extremely High Velocity CO Emission from NGC 2071. *Lawrence M. Chernin & Colin R. Masson.* 396, L35, 160-F8 (1992)

On the Detectability of the Gas of Other Solar Nebulae. *Toshihiro Omodaka, Yoshimi Kitamura, & Eiko Kawazoe.* 396, L87, 167-C7 (1992)

On the Nature of the Excitation of Herbig-Haro Object 2. *José M. Torrelles, Luis F. Rodríguez, Jorge Cantó, Guillem Anglada, José F. Gómez, Salvador Curiel, & Paul T. P. Ho.* 396, L95, 167-D7 (1992)

Neutral Winds from Protostars. *Carlo Giovanardi, Susana Lizano, Antonella Natta, Neal J. Evans II, & Carl Heiles.* 397, 214, 170-E13 (1992)

Dusty Disks in the Multiple Systems UZ Tauri and GG Tauri. *M. Simon & S. Guilloteau.* 397, L47, 173-F9 (1992)

Emission-Line Studies of Young Stars. I. The T Tauri Stars. *Fred Hamann & S. E. Persson.* 82, 247, 52-F9 (1992)

Emission-Line Studies of Young Stars. II. The Herbig Ae/Be Stars. *Fred Hamann & S. E. Persson.* 82, 285, 53-C11 (1992)

IRAS Observations of Young Stellar Objects in the Corona Australis Dark Cloud. *Bruce A. Wilking, Thomas P. Greene, Charles J. Lada, Michael R. Meyer, & Erick T. Young.* 397, 520, 177-C9 (1992)

Herbig Ae/Be Stars: Intermediate-Mass Stars Surrounded by Massive Circumstellar Accretion Disks. *Lynne A. Hillenbrand, Stephen E. Strom, Frederick J. Vrba, & Jocelyn Keene.* 397, 613, 178-F1 (1992)

Resolving the Forbidden-Line Emission Regions of Young Stellar Objects: DD Tauri. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 397, L107, 181-D7 (1992)

Infrared Emission from Dust Structures Surrounding Herbig Ae/Be Stars. *F. Berrilli, G. Corciulo, G. Ingrosso, D. Lorenzetti, B. Nisini, & F. Strafella.* 398, 254, 185-A1 (1992)

Near-Infrared Spectrophotometry of FU Orionis Variables. *S. Sato, K. Okita, T. Yamashita, K. Mizutani, H. Shiba, Y. Kobayashi, & H. Takami.* 398, 273, 185-B7 (1992)

Rotation Periods of T Tauri Stars in the Orion Nebula Cluster: A Bimodal Frequency Distribution. *Joanne M. Attridge & William Herbst.* 398, L61, 188-B1 (1992)

The Bow Shock and Mach Disk of HH 34. *Jon A. Morse, Patrick Hartigan, Gerald Cecil, John C. Raymond, & Steve Heathcote.* 399, 231, 198-B3 (1992)

Cool Mass-losing Boundary Layers of T Tauri Accretion Disks. *Claude Bertout & Oded Regev.* 399, L163, 208-E1 (1992)

Spectacular Herbig-Haro Objects in the Carina Region. *K. Ogura & J. R. Walsh.* 400, 248, 212-A7 (1992)

Circumprotostellar Environments. I. Molecular Outflows from Protostar Candidates in Taurus. *G. H. Moriarty-Schieven, P. G. Wannier, M. Tamura, & Jocelyn Keene.* 400, 260, 212-B10 (1992)

The FU Orionis–Type Spectrum and Bipolar Outflow of Parsamyan 21. *H. J. Staude & Th. Neckel.* 400, 556, 217-C6 (1992)

A Binary Origin for FU Orionis Stars. *Ian Bonnell & Pierre Bastien.* 401, L31, 227-E1 (1992)

VLBI Survey of ρ Ophiuchi: A Population of Magnetized, Diskless Young Stellar Objects. *Philippe André, Bryan D. Deeney, Robert B. Phillips, & Jean-François Lestrade.* 401, 667, 230-G1 (1992)

Molecular Line Emission from Circumstellar Disks. *Steven V. W. Beckwith & Anneila I. Sargent.* 402, 280, 4-E9 (1993)

Model Scattering Envelopes of Young Stellar Objects. II. Infalling Envelopes. *Barbara A. Whitney & Lee Hartmann.* 402, 605, 10-B5 (1993)

Mass Loss from Pre–Main-Sequence Accretion Disks. I. The Accelerating Wind of FU Orionis. *Nuria Calvet, Lee Hartmann, & Scott J. Kenyon.* 402, 623, 10-D1 (1993)

The IRAS 16293−2422 Cloud Core: A Study of a Young Binary System. *Christopher K. Walker, John E. Carlstrom, & John H. Bieging.* 402, 655, 10-F11 (1993)

Theory of Jets from Young Stars. *R. V. E. Lovelace, M. M. Romanova, & J. Contopoulos.* 403, 158, 16-A1 (1993)

Wiggled Structure of Herbig-Haro Objects: Helical Kink Instability of Jets from Young Stellar Objects. *Yasushi Todo, Yutaka Uchida, Tetsuya Sato, & Robert Rosner.* 403, 164, 16-A9 (1993)

Observations of SO and SiO in the Outflow from NGC 2071. *Lawrence Chernin & Colin Masson.* 403, L21, 20-C6 (1993)

Magnetic Nonthermal Activity in the T Tauri System. *Robert B. Phillips, Colin J. Lonsdale, & Eric D. Feigelson.* 403, L43, 20-E5 (1993)

Formation of Double-peaked Lines in Stochastic Winds of T Tauri Stars. *A. S. Mitskevich, A. Natta, & V. P. Grinin.* 404, 751, 38-C7 (1993)

Discovery of a Rotating Protoplanetary Gas Disk around the Young Star GG Tauri. *R. Kawabe, M. Ishiguro, T. Omodaka, Y. Kitamura, & S. M. Miyama.* 404, L63, 40-E1 (1993)

Hard X-Rays from the Orion Nebula Region. *Shigeo Yamauchi & Katsuji Koyama.* 405, 268, 44-D8 (1993)

Magnetic Confinement of the Optical Jets in Young Stellar Objects. *S.-U. Choe & T. W. Jones.* 405, 698, 51-F11 (1993)

An *IRAS* Survey of Star-forming Regions toward Cygnus. *Sten F. Odenwald & Phil R. Schwartz.* 405, 706, 51-G7 (1993)

Do the Spectral Energy Distributions of GK Tauri and HK Tauri Indicate the Presence of Planetary Companions? *Kenneth A. Marsh & Michael J. Mahoney.* 405, L71, 54-D10 (1993)

Submillimeter Continuum Observations of ρ Ophiuchi A: The Candidate Protostar VLA 1623 and Prestellar Clumps. *Philippe André, Derek Ward-Thompson, & Mary Barsony.* 406, 122, 56-F3 (1993)

Rotation of Young Solar-Type Stars in the Orion Nebula Region. *Douglas K. Duncan.* 406, 172, 57-C1 (1993)

The H_2 Velocity Field in Herbig-Haro 7-11. *John S. Carr.* 406, 553, 64-F6 (1993)

Fragmentation of Elongated Cylindrical Clouds. VI. Comparison with Observations. *Ian Bonnell & Pierre Bastien.* 406, 614, 65-E1 (1993)

Infrared Studies of Circumstellar Matter around Herbig Ae/Be and Related Stars. *Antonella Natta, Francesco Palla, Harold M. Butner, Neal J. Evans II, & Paul M. Harvey.* 406, 674, 66-C4 (1993)

The Circumstellar Density Distribution of L1551NE. *M. Barsony & C. J. Chandler.* 406, L71, 68-E1 (1993)

The Excess Infrared Emission of Herbig Ae/Be Stars: Disks or Envelopes? *Lee Hartmann, Scott J. Kenyon, & Nuria Calvet.* 407, 219, 71-F11 (1993)

X-Rays from Emission-Line Stars in the Herbig-Haro 1 Region. *Steven H. Pravdo & Lorella Angelini.* 407, 232, 72-A1 (1993)

Near-Infrared Observations of the HH 111 Region. *Roland Gredel & Bo Reipurth.* 407, L29, 75-D1 (1993)

Infrared and Optical Imaging of *IRAS* Sources with CO Outflow: A Snapshot of Early Star Formation. *H. Chen, A. T. Tokunaga, K. M. Strom, & K.-W. Hodapp.* 407, 639, 78-E4 (1993)

Embedded Star Clusters Associated with Luminous *IRAS* Point Sources. *John M. Carpenter, Ronald L. Snell, F. Peter Schloerb, & M. F. Skrutskie.* 407, 657, 78-F11 (1993)

Centrifugally Driven Winds from Protostellar Disks. I. Wind Model and Thermal Structure. *Pedro N. Safier.* 408, 115, 84-E6 (1993)

Centrifugally Driven Winds from Protostellar Disks. II. Forbidden-Line Emission in T Tauri Stars. *Pedro N. Safier.* 408, 148, 85-A1 (1993)

Circumstellar Molecular Gas of the HH 34 and HH 111 Exciting Stars. *Karl R. Stapelfeldt & Nicholas Z. Scoville.* 408, 239, 86-B1 (1993)

Multiplicity and the Ages of the Stars in the Taurus Star-forming Region. *M. Simon, A. M. Ghez, & Ch. Leinert.* 408, L33, 89-B1 (1993)

A New Herbig-Haro Flow in the HH 1–2 Complex. *Bo Reipurth, Steve Heathcote, M. Roth, A. Noriega-Crespo, & A. C. Raga.* 408, L49, 89-D1 (1993)

Chemical Differentiation between Star-forming Regions: The Orion Hot Core and Compact Ridge. *P. Caselli, T. I. Hasegawa, & Eric Herbst.* 408, 548, 92-A11 (1993)

Circularly Polarized Radio Emission from the T Tauri Star Hubble 4. *Stephen L. Skinner.* 408, 660, 93-D6 (1993)

Near-Infrared Discovery of the L810 Nebula Illuminator. *João Lin Yun, Dan P. Clemens, Mark J. McCaughrean, & Marcia Rieke.* 408, L101, 95-E9 (1993)

Ice Grains in the Corona Australis Molecular Cloud. *W. P. Chen & J. A. Graham.* 409, 319, 101-A11 (1993)

Detection of Circumstellar Gas Associated with GG Tauri. *M. F. Skrutskie, R. L. Snell, K. M. Strom, S. E. Strom, S. Edwards, Y. Fukui, A. Mizuno, M. Hayashi, & N. Ohashi.* 409, 422, 102-C1 (1993)

The Formation and Evolution of Shocks in Stellar Jets from a Variable Wind. *Patrick Hartigan & John Raymond.* 409, 705, 107-G5 (1993)

The Origin of Forbidden Line Emission from Young Stellar Objects. *Ana I. Gomez de Castro & Ralph E. Pudritz.* 409, 748, 108-D3 (1993)

An Infrared Survey for Embedded Young Stars in the Perseus Molecular Cloud Complex. *E. F. Ladd, E. A. Lada, & P. C. Myers.* 410, 168, 114-C1 (1993)

High-Resolution Long-Slit Spectral Imaging of the Mass Outflows in the Immediate Vicinity of DG Tauri. *J. Solf & K. H. Böhm.* 410, L31, 118-F13 (1993)

Three-dimensional Simulations of Protostellar Jets. *Elisabete M. de Gouveia Dal Pino & Willy Benz.* 410, 686, 122-B13 (1993)

The Bow Shock and Mach Disk of HH 111V. *Jon A. Morse, Steve Heathcote, Gerald Cecil, Patrick Hartigan, & John C. Raymond.* 410, 764, 123-C5 (1993)

A Search for Herbig-Haro Objects near Herbig Ae/Be Stars. *Robert W. Goodrich.* 86, 499, 21-A5 (1993)

The Inner-Disk and Stellar Properties of the Young Stellar Object WL 16. *John S. Carr, Alan T. Tokunaga, Joan Najita, Frank H. Shu, & Alfred E. Glassgold.* 411, L37, 134-A13 (1993)

The Exciting Young Stellar Object for the Molecular Outflow at the Core of L1287. *David A. Weintraub & Joel Kastner.* 411, 767, 139-C9 (1993)

An Alternative to Unseen Companions to T Tauri Stars. *Alan P. Boss & Harold W. Yorke.* 411, L99, 142-F11 (1993)

Infrared Luminosity Functions for the Young Stellar Population Associated with the L1641 Molecular Cloud. *Karen M. Strom, Stephen E. Strom, & K. M. Merrill.* 412, 233, 145-A8 (1993)

The Atmospheres of T Tauri Stars. II. Chromospheric Line Fluxes and Veiling. *C. C. Batalha & Gibor Basri.* 412, 363, 146-E13 (1993)

Subarcsecond Images of CW Tauri: Constraints on Disk Size and Jet Formation. *Ana I. Gómez de Castro.* 412, L43, 148-E5 (1993)

A High-Sensitivity Survey of Radio Continuum Emission from Herbig Ae/Be Stars. *Stephen L. Skinner, Alexander Brown, & Ron T. Stewart.* 87, 217, 29-G13 (1993)

The Temperature Profile of T Tauri Disks. *Antonella Natta.* 412, 761, 153-C6 (1993)

The Discovery of Two FU Orionis Objects in L1641. *Karen M. Strom & Stephen E. Strom.* 412, L63, 155-D1 (1993)

Submillimeter CO Observations of Warm Gas around T Tauri Stars. *K. F. Schuster, A. I. Harris, Nels Anderson, & A. P. G. Russell.* 412, L67, 155-D7 (1993)

Infrared CO Emission from Young Stars: High-Resolution Spectroscopy. *C. J. Chandler, J. E. Carlstrom, N. Z. Scoville, W. R. F. Dent, & T. R. Geballe.* 412, L71, 155-D13 (1993)

Numerical Simulations of Protostellar Jets with Nonequilibrium Cooling. I. Method and Two-dimensional Results. *James M. Stone & Michael L. Norman.* 413, 198, 158-E6 (1993)

Properties of Jet-driven Molecular Outflows. *Colin R. Masson & Lawrence M. Chernin.* 414, 230, 172-G10 (1993)

Upper Limits to the Detection of Ammonia from Protoplanetary Disks around HL Tauri and L1551-IRS 5. *José F. Gómez, José M. Torrelles, Paul T. P. Ho, Luis F. Rodríguez, & Jorge Cantó.* 414, 333, 174-B6 (1993)

The Embedded Young Stars in the Taurus-Auriga Molecular Cloud. I. Models for Spectral Energy Distributions. *Scott J. Kenyon, Nuria Calvet, & Lee Hartmann.* 414, 676, 179-F1 (1993)

The Contribution of Disks and Envelopes to the Millimeter Continuum Emission from Very Young Low-Mass Stars. *S. Terebey, C. J. Chandler, & P. André.* 414, 759, 180-F6 (1993)

The Embedded Young Stars in the Taurus-Auriga Molecular Cloud. II. Models for Scattered Light Images. *Scott J. Kenyon, Barbara A. Whitney, Mercedes Gomez, & Lee Hartmann.* 414, 773, 180-G9 (1993)

Disks around Pre–Main-Sequence Binary Systems: The Case of Haro 6-10. *François Ménard, Jean-Louis Monin, Françoise Angelucci, & Daniel Rouan.* 414, L117, 186-B5 (1993)

Observations of Entrainment and Time Variability in the HH 47 Jet. *Patrick Hartigan, Jon A. Morse, Steve Heathcote, & Gerald Cecil.* 414, L121, 186-B11 (1993)

The Triple Radio Continuum Source in Serpens: The Birth of a Herbig-Haro System? *S. Curiel, L. F. Rodríguez, J. M. Moran, & J. Cantó.* 415, 191, 187-D5 (1993)

Molecular Line Emission Models of Herbig-Haro Objects. II. HCO^+ Emission. *Mark G. Wolfire & Arieh Königl.* 415, 204, 187-E6 (1993)

Detection of Accreting Gas toward HD 45677: A Newly Recognized, Herbig Be Proto–Planetary System. *C. A. Grady, K. S. Bjorkman, D. Shepherd, R. E. Schulte-Ladbeck, M. R. Pérez, D. de Winter, & P. S. Thé.* 415, L39, 192-B6 (1993)

Hubble Space Telescope Images of the Subarcsecond Jet in DG Tauri. *J. Kepner, P. Hartigan, C. Yang, & S. Strom.* 415, L119, 200-C8 (1993)

Boundary Layers in Pre–Main-Sequence Accretion Disks. *Robert Popham, Ramesh Narayan, Lee Hartmann, & Scott Kenyon.* 415, L127, 200-D9 (1993)

HH 80–81: A Highly Collimated Herbig-Haro Complex Powered by a Massive Young Star. *J. Martí, L. F. Rodríguez, & B. Reipurth.* 416, 208, 203-F1 (1993)

Gravitational Collapse of an Isothermal Sphere. *Prudence N. Foster & Roger A. Chevalier.* 416, 303, 204-G8 (1993)

ROSAT X-Ray Study of the Chamaeleon I Dark Cloud. I. The Stellar Population. *Eric D. Feigelson, Sophie Casanova, Thierry Montmerle, & Jean Guibert.* 416, 623, 211-B8 (1993)

Ultraviolet Spectroscopy of Herbig-Haro Objects: Spatial Structure, Spectroscopic Diagnostics, and Variability. *K.-H. Böhm, A. Noriega-Crespo, & J. Solf.* 416, 647, 211-D11 (1993)

Ammonia Emission Downstream of the Herbig-Haro Object 1. *J. M. Torrelles, J. F. Gómez, P. T. P. Ho, G. Anglada, L. F. Rodríguez, & J. Cantó.* 417, 655, 227-D13 (1993)

Spectrum of the "Invisible" Companion of Z Canis Majoris Revealed in Polarized Light. *Barbara A. Whitney, Geoffrey C. Clayton, Regina E. Schulte-Ladbeck, Nuria Calvet, Lee Hartmann, & Scott J. Kenyon.* 417, 687, 228-A1 (1993)

The Pre–Main-Sequence Evolution of Intermediate-Mass Stars. *Francesco Palla & Steven W. Stahler.* 418, 414, 236-B10 (1993)

A Dynamically Accreting Gas Disk around HL Tauri. *Masahiko Hayashi, Nagayoshi Ohashi, & Shoken M. Miyama.* 418, L71, 245-C13 (1993)

Molecular Hydrogen in the IRAS 03282+3035 Stellar Jet. *John Bally, David Devine, Mark Hereld, & Bernard J. Rauscher.* 418, L75, 245-D7 (1993)

Forbidden Line Formation in Hydromagnetic Disk Winds. I. Oblique Shocks. *Rachid Ouyed & Ralph E. Pudritz.* 419, 255, 249-C13 (1993)

A Well-shaped Bipolar Outflow Shell in Monoceros R2. *Taoling Xie, Paul F. Goldsmith, & Nimesh Patel.* 419, L33, 252-E7 (1993)

Molecular Cloud Core and CS Outflow Associated with Haro 4-255 FIR. *Ken'ichi Tatematsu, Tomofumi Umemoto, Yasuhiro Murata, Hua Chen, Naomi Hirano, & Hiroshi Takaba.* 419, 746, 257-A1 (1993)

Detection of Water Vapor in T Tauri Stars. *H. Shiba, S. Sato, T. Yamashita, Y. Kobayashi, & H. Takami.* 89, 299, 53-F1 (1993)

A Synoptic Study of Hα Line Profile Variability in the T Tauri Star SU Aurigae. *Mark S. Giampapa, Gibor S. Basri, Christopher M. Johns, & Catherine L. Imhoff.* 89, 321, 54-A8 (1993)

Numerical Simulations of Protostellar Jets with Nonequilibrium Cooling. III. Three-dimensional Results. *James M. Stone & Michael L. Norman.* 420, 237, 3-G4 (1994)

"Spherical" Disks: Moving toward a Unified Source Model for L1551. *Harold M. Butner, Antonella Natta, & Neal J. Evans II.* 420, 326, 5-A1 (1994)

From T Tauri Stars to Protostars: Circumstellar Material and Young Stellar Objects in the ρ Ophiuchi Cloud. *Philippe André & Thierry Montmerle.* 420, 837, 13-C12 (1994)

Discovery of a Deeply Embedded Companion to LkHα 234. *David A. Weintraub, Joel H. Kastner, & Ashwin Mahesh.* 420, L87, 15-F1 (1994)

A Radio Candidate for the Exciting Source of the L1287 Bipolar Outflow. *Guillem Anglada, Luis F. Rodríguez, José M. Girart, Robert Estalella, & José M. Torrelles.* 420, L91, 15-F7 (1994)

Stellar Density Enhancements Associated with *IRAS* Sources in L1641. *Hua Chen & Alan T. Tokunaga.* 90, 149, 2-G12 (1994)

New Pre–Main-Sequence Tracks for $M \leq 2.5 M\odot$ as Tests of Opacities and Convection Model. *Francesca D'Antona & Italo Mazzitelli.* 90, 467, 8-D14 (1994)

Slender Elliptical Jets. *Michael D. Smith.* 421, 400, 23-B11 (1994)

HST Photometry of the Trapezium Cluster. *Charles F. Prosser, John R. Stauffer, Lee Hartmann, David R. Soderblom, Burton F. Jones, Michael W. Werner, & Mark J. McCaughrean.* 421, 517, 24-E9 (1994)

Dynamics of Binary-Disk Interaction. I. Resonances and Disk Gap Sizes. *Paweł Artymowicz & Stephen H. Lubow.* 421, 651, 26-D1 (1994)

Imaging Polarimetry of HL Tauri and GG Tauri: A Geometrically Thin Disk around GG Tauri. *Takuya Yamashita, Klaus-W. Hodapp, & Toby J. T. Moore.* 422, L21, 36-D7 (1994)

Radio Evidence for Nonthermal Particle Acceleration on Stars of Late Spectral Type. *Kenneth R. Lang.* 90, 753, 13-B5 (1994)

Effect of Advected Fields on Accretion Disk Dynamos. *Arun V. Mangalam & K. Subramanian.* 90, 963, 15-G3 (1994)

A Molecular Jet from LkHα 234. *George F. Mitchell & Henry E. Matthews.* 423, L55, 53-G8 (1994)

Infrared Spectroscopy and Imaging Polarimetry of the Disk around the T Tauri Star RNO 91. *David A. Weintraub, Stephen C. Tegler, Joel H. Kastner, & Terrence Rettig.* 423, 674, 57-A3 (1994)

Velocity, Obscuration, and Age of Ionized Winds: Can They Be Correlated? *S. C. Beck.* 423, 733, 57-F5 (1994)

Forbidden-Line Formation in Hydromagnetic Disk Winds. II. Line Profiles. *Rachid Ouyed & Ralph E. Pudritz.* 423, 753, 58-A3 (1994)

Circumstellar Gas around the Exciting Source of the HH 83 Jet. *Makoto Nakano, Koji Sugitani, Fumio Sato, & Katsuo Ogura.* 423, L147, 61-D5 (1994)

A Multiwavelength Study of Star Formation in the L1495E Cloud in Taurus. *Karen M. Strom & Stephen E. Strom.* 424, 237, 64-G4 (1994)

Capture and Induced Disk Accretion in Young Star Encounters. *Eve C. Ostriker.* 424, 292, 65-D14 (1994)

Near-Infrared Spectroscopy of Young Stellar Objects. *D. M. Kelly, G. H. Rieke, & B. Campbell.* 425, 231, 83-B5 (1994)

Optical Variability in the Unusual K5 V Infrared-Excess Star HD 98800. *Gregory W. Henry & Douglas S. Hall.* 425, L25, 85-D9 (1994)

Evidence for HCO^+ Infall toward T Tauri? *Huib Jan van Langevelde, Ewine F. van Dishoeck, & Geoffrey A. Blake.* 425, L45, 85-F11 (1994)

Fabry-Perot Observations and New Models of the HH 47A and HH 47D Bow Shocks. *Jon A. Morse, Patrick Hartigan, Steve Heathcote, John C. Raymond, & Gerald Cecil.* 425, 738, 91-A1 (1994)

Successive Ejection Events in the L1551 Molecular Outflow. *R. Bachiller, M. Tafalla, & J. Cernicharo.* 425, L93, 94-F1 (1994)

Momentum Transfer by Astrophysical Jets. *Lawrence Chernin, Colin Masson, Elisabete M. de Gouveia Dal Pino, & Willy Benz.* 426, 204, 98-F2 (1994)

A $C^{18}O$ (J = 1–0) Survey of Protostellar Candidates Embedded in the Taurus Molecular Cloud. *Masahiko Hayashi, Tetsuo Hasegawa, Nagayoshi Ohashi, & Kazuyoshi Sunada.* 426, 234, 99-A8 (1994)

Magnetospheric Accretion Models for T Tauri Stars. I. Balmer Line Profiles without Rotation. *Lee Hartmann, Robert Hewett, & Nuria Calvet.* 426, 669, 106-F13 (1994)

Molecular Lines in Bok Globules and around Herbig Ae/Be Stars. *F. Scappini, G. G. C. Palumbo, G. Bruni, & P. Bergman.* 427, 259, 113-B12 (1994)

Polarization Profiles of Scattered Emission Lines. II. Upstream Dust Scattering in the HH 1 Jet. *W. J. Henney, A. C. Raga, & D. J. Axon.* 427, 305, 113-F6 (1994)

Outflows from Young Stellar Objects in Bok Globules: Maps. *João Lin Yun & Dan P. Clemens.* 92, 145, 33-C5 (1994)

Are Wide Pre–Main-Sequence Binaries Coeval? *Patrick Hartigan, Karen M. Strom, & Stephen E. Strom.* 427, 961, 124-E10 (1994)

Using FU Orionis Outbursts to Constrain Self-regulated Protostellar Disk Models. *K. R. Bell & D. N. C. Lin.* 427, 987, 125-A1 (1994)

Asymmetries in Bipolar Jets from Young Stars. *Gerhard A. Hirth, Reinhard Mundt, Josef Solf, & Thomas P. Ray.* 427, L99, 127-B11 (1994)

Subarcsecond VLA Maps of the Disk and the Jet in HL Tauri. *L. F. Rodríguez, J. Cantó, J. M. Torrelles, J. F. Gómez, G. Anglada, & P. T. P. Ho.* 427, L103, 127-C3 (1994)

Dense Molecular Shocks and Accretion onto Protostellar Disks. *David A. Neufeld & David J. Hollenbach.* 428, 170, 130-C11 (1994)

Magnetic Braking in Spin Evolution of Magnetized T Tauri Stars. *Insu Yi.* 428, 760, 139-F6 (1994)

A Parsec-Scale "Superjet" and Quasi-periodic Structure in the HH 34 Outflow? *John Bally & David Devine.* 428, L65, 142-F8 (1994)

A Connection between Submillimeter Continuum Flux and Separation in Young Binaries. *Eric L. N. Jensen, Robert D. Mathieu, & Gary A. Fuller.* 429, L29, 150-D9 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. I. A Generalized Model. *Frank Shu, Joan Najita, Eve Ostriker, Frank Wilkin, Steven Ruden, & Susana Lizano.* 429, 781, 155-D5 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. II. Formulation of the Dynamical Problem. *Frank H. Shu, Joan Najita, Steven P. Ruden, & Susana Lizano.* 429, 797, 155-E9 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. III. Numerical Solution of the Sub-Alfvénic Region. *Joan R. Najita & Frank H. Shu.* 429, 808, 155-F9 (1994)

A Sub-Arcsecond–Scale Spectroscopic Study of the Complex Mass Outflows in the Vicinity of T Tauri. *K.-H. Böhm & J. Solf.* 430, 277, 162-E6 (1994)

Protostellar Collapse in a Self-gravitating Sheet. *Lee Hartmann, Alan Boss, Nuria Calvet, & Barbara Whitney.* 430, L49, 165-G5 (1994)

Cepheus A HW2: A Powerful Thermal Radio Jet. *Luis F. Rodríguez, Guido Garay, Salvador Curiel, Solange Ramírez, José M. Torrelles, Yolanda Gómez, & Arturo Velázquez.* 430, L65, 166-B2 (1994)

The Nature of CO and H_2O Ices in the Corona Australis Molecular Cloud. *Masuo Tanaka, Tetsuya Nagata, Shuji Sato, & Tetsuo Yamamoto.* 430, 779, 171-E8 (1994)

Spectroscopic Signatures of Infall in Young Protostellar Systems. *Christopher K. Walker, Gopal Narayanan, & Alan P. Boss.* 431, 767, 188-B5 (1994)

Water Masers Associated with Low-Mass Stars: A 13 Month Monitoring Survey. *Bruce A. Wilking, Mark J. Claussen, Priscilla J. Benson, Philip C. Myers, Susan Terebey, & Alwyn Wootten.* 431, L119, 192-B1 (1994)

Emission-Line Studies of Young Stars. IV. The Optical Forbidden Lines. *Fred Hamann.* 93, 485, 49-D4 (1994)

Multiwavelength Study of the Magnetically Active T Tauri Star HD 283447. *Eric D. Feigelson, Alan D. Welty, Catherine L. Imhoff, Jeffrey C. Hall, Paul B. Etzel, Robert B. Phillips, & Colin J. Lonsdale.* 432, 373, 197-G1 (1994)

Constraining Circumstellar Environments: Far-Infrared Observations of Herbig Ae/Be Stars. *James Di Francesco, Neal J. Evans II, Paul M. Harvey, Lee G. Mundy, & Harold M. Butner.* 432, 710, 204-G8 (1994)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. I. Axisymmetric Solutions. *Shantanu Basu & Telemachos Ch. Mouschovias.* 432, 720, 205-A6 (1994)

Variable Extinction in HD 45677 and the Evolution of Dust Grains in Pre–Main-Sequence Disks. *Michael L. Sitko, Elaine M. Halbedel, Geoffrey F. Lawrence, J. Allyn Smith, & Ken Yanow.* 432, 753, 205-D3 (1994)

The 3.2–3.6 Micron Spectra of Monoceros R2/IRS-3 and Elias 16. *K. Sellgren, R. G. Smith, & T. Y. Brooke.* 433, 179, 210-E5 (1994)

Near-Infrared (J, H, K') Imaging of Herbig Ae/Be Stars. *Wenbin Li, Neal J. Evans II, Paul M. Harvey, & Cecilia Colomé.* 433, 199, 210-G3 (1994)

Silicates and Aromatic Hydrocarbons in the 10 Micron Spectrum of the Taurus Dark Cloud Source Elias 1. *Martha S. Hanner, Timothy Y. Brooke, & Alan T. Tokunaga.* 433, L97, 224-C7 (1994)

A Numerical Simulation of a Variable Velocity Jet. *S. Biro & A. C. Raga.* 434, 221, 228-D11 (1994)

Flat Spectrum T Tauri Stars: The Case for Infall. *Nuria Calvet, Lee Hartmann, Scott J. Kenyon, & Barbara A. Whitney.* 434, 330, 230-A6 (1994)

Further Mid-Infrared Study of the ρ Ophiuchi Cloud Young Stellar Population: Luminosities and Masses of Pre–Main-Sequence Stars. *Thomas P. Greene, Bruce A. Wilking, Philippe André, Erick T. Young, & Charles J. Lada.* 434, 614, 236-C6 (1994)

10 Micron Imaging of UZ Tauri: Evidence for Circumstellar Disk Clearing due to a Close Companion Star. *A. M. Ghez, J. P. Emerson, J. R. Graham, M. Meixner, & C. J. Skinner.* 434, 707, 237-E3 (1994)

Protostellar Accretion Disks Resolved with the JCMT-CSO Interferometer. *O. P. Lay, J. E. Carlstrom, R. E. Hills, & T. G. Phillips.* 434, L75, 241-G9 (1994)

Multiple Outflow Episodes from Protostars: Three-dimensional Models of Intermittent Jets. *Elisabete M. de Gouveia Dal Pino & Willy Benz.* 435, 261, 246-G11 (1994)

The Puzzling Distribution of the High-Density Molecular Gas in HH 1–2: A Contracting Interstellar Toroid? *José M. Torrelles, José F. Gómez, Paul T. P. Ho, Luis F. Rodríguez, Guillem Anglada, & Jorge Cantó.* 435, 290, 247-D2 (1994)

The Luminosity Functions of Embedded Stellar Clusters. I. Method of Solution and Analytic Results. *André B. Fletcher & Steven W. Stahler.* 435, 313, 247-F11 (1994)

The Luminosity Functions of Embedded Stellar Clusters. II. Numerical Results. *André B. Fletcher & Steven W. Stahler.* 435, 329, 248-A3 (1994)

WFPC2 Observations of the Double Cluster NGC 1850 in the Large Magellanic Cloud. *R. Gilmozzi, E. K. Kinney, S. P. Ewald, N. Panagia, & M. Romaniello.* 435, L43, 252-B7 (1994)

Mass-Loss Rates, Ionization Fractions, Shock Velocities, and Magnetic Fields of Stellar Jets. *Patrick Hartigan, Jon A. Morse, & John Raymond.* 436, 125, 263-A6 (1994)

Postrefurbishment Mission *Hubble Space Telescope* Images of the Core of the Orion Nebula: Proplyds, Herbig-Haro Objects, and Measurements of a Circumstellar Disk. *C. R. O'Dell & Zheng Wen.* 436, 194, 263-G8 (1994)

[Fe II] 1.53 and 1.64 Micron Emission from Pre–Main-Sequence Stars. *Fred Hamann, Michal Simon, John S. Carr, & Lisa Prato.* 436, 292, 265-C10 (1994)

High-Velocity Sulfur Monoxide Emission from Protostellar Outflows. *Lawrence M. Chernin, Colin R. Masson, & Gary A. Fuller.* 436, 741, 275-F3 (1994)

The Molecular Core and the Powering Source of the Bipolar Molecular Outflow in NGC 2264G. *José F. Gómez, Salvador Curiel, José M. Torrelles, Luis F. Rodríguez, Guillem Anglada, & José M. Girart.* 436, 749, 275-G1 (1994)

Circumprotostellar Environments. II. Envelopes, Activity, and Evolution. *G. H. Moriarty-Schieven, P. G. Wannier, Jocelyn Keene, & M. Tamura.* 436, 800, 276-F1 (1994)

Einstein X-Ray Observations of Herbig Ae/Be Stars. *F. Damiani, G. Micela, S. Sciortino, & F. R. Harnden, Jr.* 436, 807, 276-F12 (1994)

A Molecular Outflow Driven by an Optical Jet. *George F. Mitchell, Tatsuhiko I. Hasegawa, William R. F. Dent, & Henry E. Matthews.* 436, L177, 282-A11 (1994)

Shocked Molecular Gas around the Extremely Young Source IRAS 03282+3035. *R. Bachiller, S. Terebey, T. Jarrett, J. Martín-Pintado, C. A. Beichman, & D. Van Buren.* 437, 296, 287-C2 (1994)

The Circumstellar Environment of IRAS 05338−0624. *Joseph P. McMullin, Lee G. Mundy, & Geoff A. Blake.* 437, 305, 287-D6 (1994)

The Complete *Einstein Observatory* X-Ray Survey of the Orion Nebula Region. *Marc Gagné & Jean-Pierre Caillault.* 437, 361, 288-B10 (1994)

Solar Neutrinos: Sensitivity to Pre–Main-Sequence Evolution and to the Depth of the Convective Zone. *John N. Bahcall & Ami Glasner.* 437, 485, 289-F13 (1994)

Vibrationally Excited CS: A New Probe of Conditions in Young Protostellar Systems. *Christopher K. Walker, Philip R. Maloney, & E. Serabyn.* 437, L127, 299-E3 (1994)

Formation and Evolution of Massive Stars. *Martin Beech & R. Mitalas.* 95, 517, 71-D9 (1994)

10 Micron Spectroscopy of Young Stars in the ρ Ophiuchi Cloud. *M. S. Hanner, T. Y. Brooke, & A. T. Tokunaga.* 438, 250, 4-G9 (1995)

Photoevaporating Stellar Envelopes Observed with Rayleigh Beacon Adaptive Optics. *P. R. McCullough, R. Q. Fugate, J. C. Christou, B. L. Ellerbroek, C. H. Higgins, J. M. Spinhirne, R. A. Cleis, & J. F. Moroney.* 438, 394, 6-G11 (1995)

A Multitransition CO Study of GL 490. *George F. Mitchell, Siow Wang Lee, Jean-Pierre Maillard, Henry Matthews, Tatsuhiko I. Hasegawa, & Andrew I. Harris.* 438, 794, 15-B12 (1995)

The Evolutionary Status of the Stellar Population in the ρ Ophiuchi Cloud Core. *Karen M. Strom, Jeremy Kepner, & Stephen E. Strom.* 438, 813, 15-D7 (1995)

Multiple Star Formation in Bok Globule CB 34. *João F. Alves & João L. Yun.* 438, L107, 20-C1 (1995)

Evidence for Chemical Processing of Precometary Icy Grains in Circumstellar Environments of Pre–Main-Sequence Stars. *Stephen C. Tegler, David A. Weintraub, Terrence W. Rettig, Yvonne J. Pendleton, Douglas C. B. Whittet, & Craig A. Kulesa.* 439, 279, 25-A9 (1995)

Millimeter-Wave Continuum Measurements of Young Stars. *M. Osterloh & V. W. Beckwith.* 439, 288, 25-B8 (1995)

A Search for T Tauri Stars in High-Latitude Molecular Clouds. II. The *IRAS* Faint Source Survey Catalog. *Loris Magnani, Jean-Pierre Caillault, Ari Buchalter, & C. A. Beichman.* 96, 159, 3-F3 (1995)

ROSAT X-Ray Sources Embedded in the ρ Ophiuchi Cloud Core. *Sophie Casanova, Thierry Montmerle, Eric D. Feigelson, & Philippe André.* 439, 752, 35-A7 (1995)

Spatially Resolved Submillimeter Continuum Emission toward L1551 IRS 5. *E. F. Ladd, G. A. Fuller, R. Padman, P. C. Myers, & Fred C. Adams.* 439, 771, 35-C2 (1995)

Spectral Energy of First Protostellar Cores: Detecting "Class −I" Protostars with *ISO* and *SIRTF*. *Alan P. Boss & Harold W. Yorke.* 439, L55, 40-E11 (1995)

Hot Spots in the NGC 2071 Molecular Outflow. *Lawrence M. Chernin & W. J. Welch.* 440, L21, 48-D8 (1995)

Composite Spectra in Young Stars: Accretion or Close Companions? *Chris D. Koresko.* 440, 764, 53-F1 (1995)

Evidence for Dust around Post T Tauri Stars. *Thomas P. Ray, Anneila I. Sargent, Steve V. W. Beckwith, Chris Koresko, & Patrick Kelly.* 440, L89, 58-B9 (1995)

Water Masers in the L1448C Outflow. *Lawrence M. Chernin.* 440, L97, 58-C9 (1995)

A Search for Pre–Main-Sequence Stars in High-Latitude Molecular Clouds. III. A Survey of the *Einstein* Database. *Jean-Pierre Caillault, Loris Magnani, & Chris Fryer.* 441, 261, 62-G12 (1995)

H I, CO, and *IRAS* Observations of NGC 7023. *C. Rogers, Mark H. Heyer, & P. E. Dewdney.* 442, 694, 89-F10 (1995)

Magnetized Accretion and Spin Evolution in Classical T Tauri Stars. *Insu Yi.* 442, 768, 90-G2 (1995)

Powerful Jets and Weak Outflows: HH 1–2 and HH 34. *Lawrence M. Chernin & Colin R. Masson.* 443, 181, 97-E11 (1995)

A Lunar Occultation and Direct Imaging Survey of Multiplicity in the Ophiuchus and Taurus Star-forming Regions. *M. Simon, A. M. Ghez, Ch. Leinert, L. Cassar, W. P. Chen, R. R. Howell, R. F. Jameson, K. Matthews, G. Neugebauer, & A. Richichi.* 443, 625, 106-E1 (1995)

The Molecular Environment of the HH 34 System. *G. Anglada, R. Estalella, R. Mauersberger, J. M. Torrelles, L. F. Rodríguez, J. Cantó, P. T. P. Ho, & P. D'Alessio.* 443, 682, 107-C9 (1995)

The FU Orionis Outburst as a Thermal Accretion Event: Observational Constraints for Protostellar Disk Models. *K. R. Bell, D. N. C. Lin, L. W. Hartmann, & S. J. Kenyon.* 444, 376, 118-F8 (1995)

Socket Stars: *UBVRIJK* Radial Profiles. *Bradley E. Schaefer.* 444, 739, 126-D13 (1995)

Another Look at the *UBV* Variability of T Tauri Stars. *Pedro N. Safier.* 444, 818, 127-F12 (1995)

Detection of Shocked Molecular Hydrogen in Infrared Companions to T Tauri Stars: Evidence for Ongoing Accretion. *T. M. Herbst, C. D. Koresko, & Christoph Leinert.* 444, L93, 130-F13 (1995)

Deep *ROSAT* HRI Observations of the Orion Nebula Region. *Marc Gagné, Jean-Pierre Caillault, & John R. Stauffer.* 445, 280, 136-D2 (1995)

Growth of Protoplanetary Disks around Young Stellar Objects. *Taishi Nakamoto & Yoshitsugu Nakagawa.* 445, 330, 137-A12 (1995)

Bolometric Temperature and Young Stars in the Taurus and Ophiuchus Complexes. *H. Chen, P. C. Myers, E. F. Ladd, & D. O. S. Wood.* 445, 377, 137-F9 (1995)

Infrared Spectroscopy of Herbig-Haro Objects. *Richard D. Schwartz, A. S. B. Schultz, Martin Cohen, & Peredur M. Williams.* 446, 318, 157-E8 (1995)

Einstein Observations of T Tauri Stars in Taurus-Auriga. I. Properties of X-Ray Emission. *F. Damiani, G. Micela, S. Sciortino, & F. R. Harnden, Jr.* 446, 331, 157-F10 (1995)

Einstein Observations of T Tauri Stars in Taurus-Auriga. II. Relationships between X-Ray Emission and Pre–Main-Sequence Activity. *F. Damiani & G. Micela.* 446, 341, 157-G11 (1995)

Infrared CO Emission from Young Stars: Accretion Disks and Neutral Winds. *C. J. Chandler, J. E. Carlstrom, & N. Z. Scoville.* 446, 793, 167-A7 (1995)

Emission-Line Pre–Main-Sequence Stars and X-Ray Sources in Orion. *Steven H. Pravdo & Lorella Angelini.* 447, 342, 177-B3 (1995)

The Subarcsecond 10 Micron Size of LkHα 101: Constraints on Circumstellar Dust. *R. M. Danen, C. R. Gwinn, & E. E. Bloemhof.* 447, 391, 177-F13 (1995)

HST/GHRS Observations of the β Pictoris System: Basic Parameters of the Age of the System. *Thierry Lanz, Sara R. Heap, & Ivan Hubeny.* 447, L41, 181-B5 (1995)

Thermal Structure of Mixing Layers in Bipolar Outflows. *Susana Lizano & Carlo Giovanardi.* 447, 742, 186-C1 (1995)

Molecular Abundances and Low-Mass Star Formation. II. Organic and Deuterated Species toward IRAS 16293−2422. *Ewine F. van Dishoeck, Geoffrey A. Blake, David J. Jansen, & T. D. Groesbeck.* 447, 760, 186-D12 (1995)

Magnetocentrifugally Driven Flows from Young Stars and Disks. IV. The Accretion Funnel and Dead Zone. *Eve C. Ostriker & Frank H. Shu.* 447, 813, 187-B11 (1995)

The Rotational Rates of Blue Stragglers Produced by Physical Stellar Collisions. *Peter J. T. Leonard & Mario Livio.* 447, L121, 191-B11 (1995)

1 Millimeter Polarimetry of Young Stellar Objects: Low-Mass Protostars and T Tauri Stars. *Motohide Tamura, J. H. Hough, & Saeko S. Hayashi.* 448, 346, 197-A2 (1995)

IRAS 08159−3543: Optical Detection of the Dusty, Neutral Bipolar Wind of a Luminous Young Stellar Object. *Th. Neckel & H. J. Staude.* 448, 832, 206-D1 (1995)

Large Proper Motions and Ejection of New Condensations in the HH 80–81 Thermal Radio Jet. *J. Martí, L. F. Rodríguez, & Bo Reipurth.* 449, 184, 212-F6 (1995)

The Line Profile Variability of SU Aurigae. *Christopher M. Johns & Gibor Basri.* 449, 341, 214-G3 (1995)

Vertical Disk Structure in HL Tauri. *Steven V. W. Beckwith & Christoph C. Birk.* 449, L59, 217-A4 (1995)

A New 3.25 Micron Absorption Feature Toward Monoceros R2/IRS 3. *K. Sellgren, T. Y. Brooke, R. G. Smith, & T. R. Geballe.* 449, L69, 217-B8 (1995)

Further Mapping of the Radio Emission from Massive Young Stellar Objects. *Melvin G. Hoare & Simon T. Garrington.* 449, 874, 224-F11 (1995)

WFPC2 Imaging of the Circumstellar Nebulosity of HL Tauri. *Karl R. Stapelfeldt, Christopher J. Burrows, John E. Krist, John T. Trauger, J. Jeff Hester, Jon A. Holtzman, Gilda E. Ballester, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, John S. Gallagher III, Richard E. Griffiths, John G. Hoessel, Jeremy R. Mould, Paul A. Scowen, Alan M. Watson, & James A. Westphal.* 449, 888, 225-A4 (1995)

Detection of a Circumstellar Gas around DM Tauri: A Protoplanetary Disk around a Single Star? *Toshihiro Handa, Shoken M. Miyama, Takuya Yamashita, Toshihiro Omodaka, Yoshimi Kitamura, Masahiko Hayashi, Toshikazu Onishi, Ronald L. Snell, Stephen E. Strom, Karen M. Strom, Michael F. Skrutskie, Suzan Edwards, Nagayoshi Ohashi, Kazuyoshi Sunada, Masao Saito, Yasuo Fukui, Akira Mizuno, Jun-ichi Watanabe, & Hirokazu Kataza.* 449, 894, 225-B1 (1995)

Spectroscopic *EUVE* Observations of the Active Star AB Doradus. *Slavek M. Rucinski, Rolf Mewe, Jelle S. Kaastra, Osmi Vilhu, & Stephen M. White.* 449, 900, 225-B11 (1995)

An Infrared Spectroscopic Survey of the ρ Ophiuchi Young Stellar Cluster: Masses and Ages from the H-R Diagram. *Thomas P. Greene & Michael R. Meyer.* 450, 233, 231-C3 (1995)

The Structure and Evolution of an Accretion Flow Interacting with the Central Star. *Masayuki Y. Fujimoto.* 450, 262, 231-E13 (1995)

Giant Bow Shock Pairs Associated with Herbig-Haro Jets. *Katsuo Ogura.* 450, L23, 235-F6 (1995)

Disk Dissipation in Single and Binary Young Star Systems in Taurus. *M. Simon & L. Prato.* 450, 824, 242-A12 (1995)

Vortices in Circumstellar Disks. *Fred C. Adams & Richard Watkins.* 451, 314, 250-C3 (1995)

Spatially Resolved Mid-Infrared Observations of Circumstellar Dust around AB Aurigae. *Kenneth A. Marsh, Jeffrey E. Van Cleve, M. J. Mahoney, T. L. Hayward, & J. R. Houck.* 451, 777, 257-G10 (1995)

Doppler Imaging of the Cool Spot Distribution on the Weak T Tauri Star V410 Tauri. *Artie P. Hatzes.* 451, 784, 258-A6 (1995)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. II. A Parameter Study. *Shantanu Basu & Telemachos Ch. Mouschovias.* 452, 386, 267-D7 (1995)

NGC 1333 IRAS 4: Further Multiplicity Revealed with the CSO-JCMT Interferometer. *O. P. Lay, J. E. Carlstrom, & R. E. Hills.* 452, L73, 270-F7 (1995)

Disk Accretion and Mass Loss from Young Stars. *Patrick Hartigan, Suzan Edwards, & Louma Ghandour.* 452, 736, 274-G4 (1995)

Constraints on Circumstellar Disk Masses in the Trapezium Cluster. *Lee G. Mundy, Leslie W. Looney, & Elizabeth A. Lada.* 452, L137, 280-D12 (1995)

In Search of HL Tauri. *David A. Weintraub, Joel H. Kastner, & Barbara A. Whitney.* 452, L141, 280-E6 (1995)

Thermal Jets and H_2O Masers: The Case of HH 80–81. *Y. Gómez, L. F. Rodríguez, & J. Martí.* 453, 268, 284-G3 (1995)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. III. Effect of the Initial Mass-to-Flux Ratio. *Shantanu Basu & Telemachos Ch. Mouschovias.* 453, 271, 284-G9 (1995)

Molecular H_2 Emission in HH 47A: *Hubble Space Telescope* GHRS and FOC Observations. *Salvador Curiel, John C. Raymond, Mark Wolfire, Patrick Hartigan, Jon Morse, Richard D. Schwartz, & Peter Nisenson.* 453, 322, 285-E10 (1995)

Aperture Synthesis ^{12}CO and ^{13}CO Observations of DM Tauri: 350 AU Radius Circumstellar Gas Disk. *M. Saito, R. Kawabe, M. Ishiguro, S. M. Miyama, M. Hayashi, T. Handa, Y. Kitamura, & T. Omodaka.* 453, 384, 286-D6 (1995)

Bipolar Jets from Extremely Young Stars Observed in Molecular Hydrogen Emission. *Klaus-Werner Hodapp & E. F. Ladd.* 453, 715, 293-E13 (1995)

Twin Herbig-Haro Jets and Molecular Outflows in L1228. *John Bally, David Devine, Robert A. Fesen, & Adair P. Lane.* 454, 345, 304-A9 (1995)

Disk Winds from T Tauri Stars. *John Kwan & Eugene Tademaru.* 454, 382, 304-E5 (1995)

Pre–Main-Sequence Evolution in the Taurus-Auriga Molecular Cloud. *Scott J. Kenyon & Lee Hartmann.* 101, 117, 54-D3 (1995)

Discovery of Herbig-Haro Objects and Molecular Hydrogen Jets near Bok Globule CB 34. *Miguel C. Moreira & João L. Yun.* 454, 850, 313-E1 (1995)

The Circumstellar Molecular Core around L1551 IRS 5. *G. A. Fuller, E. F. Ladd, R. Padman, P. C. Myers, & Fred C. Adams.* 454, 862, 313-F7 (1995)

Radio Continuum Detection of the Exciting Sources of the DG Tauri B and L1551NE Outflows. *Luis F. Rodríguez, Guillem Anglada, & Alejandro Raga.* 454, L149, 316-F5 (1995)

Interferometric Observations of the Circumstellar Molecular Structure around the Young Stellar Object in L1287. *Ji Yang, Nagayoshi Ohashi, & Yasuo Fukui.* 455, 175, 320-E7 (1995)

Momentum Distribution in Molecular Outflows. *Lawrence M. Chernin & Colin R. Masson.* 455, 182, 320-F3 (1995)

Circum-Protostellar Environments. III. Gas Densities and Kinetic Temperatures. *G. H. Moriarty-Schieven, P. G. Wannier, J. G. Mangum, M. Tamura, & V. K. Olmsted.* 455, 190, 320-F14 (1995)

Young Star Clusters in Bright-rimmed Clouds: Small-Scale Sequential Star Formation? *Koji Sugitani, Motohide Tamura, & Katsuo Ogura.* 455, L39, 324-G9 (1995)

STARS: PROPER-MOTION

The Proper Motion of the Soft X-Ray–emitting Radio Pulsar PSR 0656+14. *R. J. Thompson, Jr., F. A. Córdova, R. M. Hjellming, & E. B. Fomalont.* 366, L83, 11-E1 (1991)

ESO 207-61: A Brown Dwarf Candidate in the Hyades Moving Group. *María Teresa Ruiz, Marianne Y. Takamiya, & Miguel Roth.* 367, L59, 22-C7 (1991)

The Radio "Lobes" of Scorpius X-1 Are Unrelated Background Sources. *E. B. Fomalont & B. J. Geldzahler.* 383, 289, 215-G1 (1991)

STARS: PULSARS: GENERAL

Is There a Recycled Old Pulsar in Cygnus X-3? *Abhas Mitra.* 384, 255, 4-B3 (1992)

Precision Measurements of Pulsar Dispersion. *J. A. Phillips & A. Wolszczan.* 385, 273, 15-C8 (1992)

Radio Emission Altitudes in the Pulsar Magnetosphere. *J. A. Phillips.* 385, 282, 15-D5 (1992)

The Dynamical Evolution of Tidal Capture Binaries. *Christopher S. Kochanek.* 385, 604, 20-E13 (1992)

Low-Mass X-Ray Binary Evolution and the Origin of Millisecond Pulsars. *Juhan Frank, Andrew R. King, & Jean-Pierre Lasota.* 385, L45, 23-C8 (1992)

Vortex Drag and the Spin-up Time Scale for Pulsar Glitches. *Richard I. Epstein & Gordon Baym.* 387, 276, 40-D1 (1992)

Gamma-Ray Bursts and Radio Pulsar Glitches. *D. Hartmann, K. Hurley, & M. Niel.* 387, 622, 46-D1 (1992)

Rocks around the Clock: Limits on Pulsar Planetary Systems. *S. E. Thorsett & J. A. Phillips.* 387, L69, 48-C6 (1992)

Photodissociation in Strong Magnetic Fields and Application to Pulsars. *V. B. Bhatia, Namrata Chopra, & N. Panchapakesan.* 388, 131, 50-F1 (1992)

Light Curves of Rotating, Oscillating Neutron Stars. *T. E. Strohmayer.* 388, 138, 50-F9 (1992)

Determining the Coherence of Micropulses. *T. E. Strohmayer, J. M. Cordes, & H. M. Van Horn.* 389, 685, 69-G12 (1992)

Relativistic Magnetosonic Shock Waves in Synchrotron Sources: Shock Structure and Nonthermal Acceleration of Positrons. *Masahiro Hoshino, Jonathan Arons, Yves A. Gallant, & A. Bruce Langdon.* 390, 454, 81-A9 (1992)

Steady, Periodic Gamma-Ray Emission from Accreting X-Ray Pulsars. *K. S. Cheng, M. M. Lau, T. Cheung, P. P. Leung, & K. Y. Ding.* 390, 480, 81-C8 (1992)

Remarks on Triaxiality, Spin-up, and Magnetic Field Obliquity of Some Millisecond Pulsars. *W. Y. Chau, K. S. Cheng, & J. L. Zhang.* 390, 486, 81-D1 (1992)

Adiabatic Properties of Pulsating DA White Dwarfs. II. Mode Trapping in Compositionally Stratified Models. *P. Brassard, G. Fontaine, F. Wesemael, & C. J. Hansen.* 80, 369, 27-E3 (1992)

Galactic Gamma-Ray Emission from Radio Pulsars. *M. Bailes & D. A. Kniffen.* 391, 659, 96-C1 (1992)

Formation of Very Strongly Magnetized Neutron Stars: Implications for Gamma-Ray Bursts. *Robert C. Duncan & Christopher Thompson.* 392, L9, 106-B7 (1992)

Long-Term Pulsar Flux Monitoring and Refractive Interstellar Scintillation. *Victoria M. Kaspi & Daniel R. Stinebring.* 392, 530, 108-G8 (1992)

The Nonexponential Evolution of Pulsar Magnetic Fields. *Shigeto Wakatsuki, Atsushi Hikita, Naohiro Sato, & Naoki Itoh.* 392, 628, 110-A10 (1992)

Electromagnetically Driven Relativistic Jets: A Class of Self-similar Solutions. *Zhi-Yun Li, Tzihong Chiueh, & Mitchell C. Begelman.* 394, 459, 135-B1 (1992)

An Analysis of Radio Pulsar Nulling Statistics. *James D. Biggs.* 394, 574, 136-D13 (1992)

Pulsar Nebulae in Supernovae. *Roger A. Chevalier & Claes Fransson.* 395, 540, 149-E3 (1992)

Magnetized Stimulated Scattering in Pulsar Winds. *Mark W. Sincell & Julian H. Krolik.* 395, 553, 149-F7 (1992)

High-Resolution Optical Imaging of the Large Magellanic Cloud Plerion 0540−69. *P. A. Caraveo, G. F. Bignami, S. Mereghetti, & M. Mombelli.* 395, L103, 154-B11 (1992)

Effects of Evolving Rotating Equilibrium Configurations on the Cooling and Spin-down of Pulsars. *K. S. Cheng, W. Y. Chau, J. L. Zhang, & H. F. Chau.* 396, 135, 156-G3 (1992)

Production of Recycled Pulsars in Globular Clusters via Two-Body Tidal Capture. *R. Di Stefano & S. Rappaport.* 396, 587, 164-F9 (1992)

The Perihelion Problem in Kaluza-Klein Gravity. *Paul H. Lim & Paul S. Wesson.* 397, L91, 181-B8 (1992)

Spin-up of a Rapidly Rotating Star by Angular Momentum Loss: Effects of General Relativity. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 398, 203, 184-D1 (1992)

Very High Energy Gamma Rays from Isolated Radio Pulsars: A Survey. *H. I. Nel, B. C. Raubenheimer, O. C. de Jager, C. Brink, P. J. Meintjes, A. R. North, & G. Van Urk.* 398, 602, 191-E11 (1992)

Gamma-Ray Bursts from Extragalactic Radio Pulsars. *Fulvio Melia & Marco Fatuzzo.* 398, L85, 194-B10 (1992)

Planets in Globular Clusters? *Steinn Sigurdsson.* 399, L95, 201-D5 (1992)

Gamma Radiation from Pulsar Magnetospheric Gaps. *James Chiang & Roger W. Romani.* 400, 629, 218-C1 (1992)

Radiation from a Relativistic Magnetized Star. *V. Belinsky & R. Ruffini.* 401, L27, 227-D7 (1992)

A Novel Mechanism for Creating Double Pulsars. *Steinn Sigurdsson & Lars Hernquist.* 401, L93, 233-C7 (1992)

Pulsar Death Lines and Death Valley. *Kaiyou Chen & Malvin Ruderman.* 402, 264, 4-D1 (1993)

Refractive Interstellar Scintillation of Pulsar Intensities at 74 MHz. *Y. Gupta, B. J. Rickett, & W. A. Coles.* 403, 183, 16-C3 (1993)

An X-Ray Excited Wind in Centaurus X-3. *C. S. R. Day & Ian R. Stevens.* 403, 322, 17-G9 (1993)

Temporal Variations of Pulsar Dispersion Measures. *D. C. Backer, S. Hama, S. Van Hook, & R. S. Foster.* 404, 636, 36-G10 (1993)

Toward an Empirical Theory of Pulsar Emission. VI. The Geometry of the Conal Emission Region. *Joanna M. Rankin.* 405, 285, 44-F5 (1993)

The Masses of Two Binary Neutron Star Systems. *S. E. Thorsett, Z. Arzoumanian, M. M. McKinnon, & J. H. Taylor.* 405, L29, 47-E8 (1993)

Fitting Pulse Profiles of X-Ray Pulsars: The Effects of Relativistic Light Deflection. *H. Riffert, H.-P. Nollert, U. Kraus, & H. Ruder.* 406, 185, 57-D1 (1993)

Toward an Empirical Theory of Pulsar Emission. VI. The Geometry of the Conal Emission Region: Appendix and Tables. *Joanna M. Rankin.* 85, 145, 8-B9 (1993)

Nonlinear Plasma Mechanisms of Pulsar Eclipse in Binary Systems. *M. Gedalin & D. Eichler.* 406, 629, 65-F4 (1993)

Gamma Rays from Globular Clusters. *Marco Tavani.* 407, 135, 70-F11 (1993)

Magnetic Field Topology in Pulsars. *Jonathan Arons.* 408, 160, 85-B1 (1993)

Magnetic Field Decay from the Core of Neutron Stars: Effects of Interpinning of $^3P_2$ Neutron Superfluid and $^1S_0$ Proton Superconducting Fluid. *K. Y. Ding, K. S. Cheng, & H. F. Chau.* 408, 167, 85-B11 (1993)

Origin and Radio Pulse Properties of Millisecond Pulsars. *Kaiyou Chen & Malvin Ruderman.* 408, 179, 85-C12 (1993)

Thermal Evolution of Neutron Stars with Internal Frictional Heating. *Hideyuki Umeda, Noriaki Shibazaki, Ken'ichi Nomoto, & Sachiko Tsuruta.* 408, 186, 85-D7 (1993)

Neutron Star Dynamos and the Origins of Pulsar Magnetism. *Christopher Thompson & Robert C. Duncan.* 408, 194, 85-E4 (1993)

Diffuse Gamma-Ray Emission from Pulsars in the Large Magellanic Cloud. *Dieter H. Hartmann, Lawrence E. Brown, & Neil Schnepf.* 408, L13, 88-F8 (1993)

Low-Mass X-Ray Binaries and Millisecond Pulsars in Globular Clusters. *Kaiyou Chen, John Middleditch, & Malvin Ruderman.* 408, L17, 88-G1 (1993)

TeV Gamma Rays from Millisecond Pulsars and the Detectability of Globular Clusters. *I. A. Smith.* 408, 468, 91-A7 (1993)

Deep VLA Imaging of Pulsar-powered Nebulae and the Beaming Fraction of Young Pulsars. *Dale A. Frail & David A. Moffett.* 408, 637, 93-B5 (1993)

A Model of Nonthermal Radiation from Accreting X-Ray Pulsars. *P. P. Leung, K. S. Cheng, & P. C. W. Fung.* 410, 309, 115-G12 (1993)

Angular Broadening of Pulsars and the Distribution of Interstellar Plasma Fluctuations. *C. R. Gwinn, N. Bartel, & J. M. Cordes.* 410, 673, 122-A13 (1993)

Reliability of Magnetic Inclination Angle Determinations for Pulsars. *M. Coleman Miller & Russell J. Hamilton.* 411, 298, 131-A1 (1993)

Pulsar Distances and the Galactic Distribution of Free Electrons. *J. H. Taylor & J. M. Cordes.* 411, 674, 138-B3 (1993)

Strong-Field Cyclotron Scattering. I. Scattering Amplitudes and Natural Line Width. *Carlo Graziani.* 412, 351, 146-D13 (1993)

The Evolution of a Pulsar's Polar Cap Geometry. *M. M. McKinnon.* 413, 317, 160-B12 (1993)

Hidden Slow Pulsars in Binaries. *Marco Tavani & Leigh Brookshaw.* 413, L39, 162-F3 (1993)

Focusing of Alfvénic Wave Power in the Context of Gamma-Ray Burst Emissivity. *Marco Fatuzzo & Fulvio Melia.* 414, L89, 185-F7 (1993)

Polarization Changes of Radiation through Stimulated Raman Scattering. *R. T. Gangadhara & V. Krishan.* 415, 505, 194-B6 (1993)

Formation of Planets around Pulsars. *M. Banit, M. A. Ruderman, J. Shaham, & J. H. Applegate.* 415, 779, 197-E6 (1993)

Associating Young Pulsars and Supernova Remnants: PSR 1610−50 and the Case for High-Velocity Pulsars. *Patrizia A. Caraveo.* 415, L111, 200-B6 (1993)

Finite-Velocity Effects on Atoms in Strong Magnetic Fields and Implications for Neutron Star Atmospheres. *G. G. Pavlov & P. Mészáros.* 416, 752, 212-F8 (1993)

Catalog of 558 Pulsars. *J. H. Taylor, R. N. Manchester, & A. G. Lyne.* 88, 529, 47-C9 (1993)

Cooling and Spin-down of Pulsars with Evolving Rotating Equilibrium Configuration. II. Effects of Equations of State. *N. Chong & K. S. Cheng.* 417, 279, 221-A3 (1993)

Reconciliation of the Disparate Gamma-Ray Burst Catalogs in the Context of a Cosmological Source Distribution. *Peter Tamblyn & Fulvio Melia.* 417, L21, 223-A3 (1993)

Unpulsed Emission from Pulsars. *T. H. Hankins, D. A. Moffett, A. Novikov, & M. Popov.* 417, 735, 228-E3 (1993)

TeV Gamma-Ray Observations of *Compton Gamma-Ray Observatory* Pulsars: Evidence against Inverse-Compton Controlled Outer Gaps. *H. I. Nel, O. C. de Jager, B. C. Raubenheimer, C. Brink, P. J. Meintjes, & A. R. North.* 418, 836, 243-A3 (1993)

On the Observability of Microsecond Temporal Structure in the Emission from X-Ray Binary Pulsars. *Mauro Orlandini & Elihu Boldt.* 419, 776, 257-C9 (1993)

Limits on Planets Orbiting Massive Stars from Radio Pulsar Timing. *S. E. Thorsett & R. J. Dewey.* 419, L65, 259-D1 (1993)

On the Energetics and Number of Gamma-Ray Pulsars. *Charles D. Dermer & Steven J. Sturner.* 420, L75, 15-D11 (1994)

On the Spectra and Pulse Profiles of Gamma-Ray Pulsars. *Steven J. Sturner & Charles D. Dermer.* 420, L79, 15-E3 (1994)

A Search for Circumstellar Material around Pulsars. *J. A. Phillips & C. J. Chandler.* 420, L83, 15-E9 (1994)

The Time-Delay Spectrum of GX 5−1 in Its Horizontal Branch. *B. Vaughan, M. van der Klis, W. H. G. Lewin, R. A. M. J. Wijers, J. van Paradijs, T. Dotani, & K. Mitsuda.* 421, 738, 27-D6 (1994)

Physical Processes in Eclipsing Pulsars: Eclipse Mechanisms and Diagnostics. *C. Thompson, R. D. Blandford, Charles R. Evans, & E. S. Phinney.* 422, 304, 33-G10 (1994)

Secular Variations of the Integrated Pulse Profile of, and Torque on, PSR 2217+47: Precession of the Neutron Star? *Svetlana A. Suleymanova & Yurii P. Shitov.* 422, L17, 36-D1 (1994)

Timing Behavior of 96 Radio Pulsars. *Z. Arzoumanian, D. J. Nice, J. H. Taylor, & S. E. Thorsett.* 422, 671, 40-B13 (1994)

A Candidate Identification for PSR 0656+14 and the Optical Emission from Isolated Neutron Stars. *Patrizia A. Caraveo, Giovanni F. Bignami, & Sandro Mereghetti.* 422, L87, 45-C1 (1994)

Gamma-Ray Observations of Pulsars. *M. P. Ulmer.* 90, 789, 13-E6 (1994)

Pulsar Studies with COMPTEL. *K. Bennett, M. Busetta, A. Carramiñana, R. Diehl, G. Lichti, V. Schönfelder, A. Strong, W. Hermsen, L. Kuiper, A. Connors, J. Ryan, & R. Buccheri.* 90, 823, 14-A5 (1994)

Do Quiescent Soft X-Ray Transients Contain Millisecond Radio Pulsars? *L. Stella, S. Campana, M. Colpi, S. Mereghetti, & M. Tavani.* 423, L47, 53-F11 (1994)

Recycling Pulsars to Millisecond Periods in General Relativity. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 423, L117, 60-G3 (1994)

Binary Radiopulsars with Black Holes. *V. M. Lipunov, K. A. Postnov, M. E. Prokhorov, & E. Yu. Osminkin.* 423, L121, 60-G9 (1994)

An Optical Counterpart for PSR 1509−58. *P. A. Caraveo, S. Mereghetti, & G. F. Bignami.* 423, L125, 61-A7 (1994)

Rapidly Rotating Neutron Stars in General Relativity: Realistic Equations of State. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 424, 823, 75-A11 (1994)

General Relativistic Corrections in the Gamma-Ray Emission from Pulsars. *P. L. Gonthier & A. K. Harding.* 425, 767, 91-C10 (1994)

Radiation from Vela-like Pulsars near the Death Line. *V. V. Usov.* 427, 394, 114-F11 (1994)

The Post-Keplerian Orbital Representations of the Relativistic Two-Body Problem. *S. A. Klioner & S. M. Kopeikin.* 427, 951, 124-D10 (1994)

Is There a Planet in the PSR 1620−26 Triple System? *Frederic A. Rasio.* 427, L107, 127-C11 (1994)

Geminga: A Cooling Superfluid Neutron Star. *Dany Page.* 428, 250, 131-C6 (1994)

Streaming Instability in Relativistically Hot Pulsar Magnetospheres. *James C. Weatherall.* 428, 261, 131-D5 (1994)

Multiwavelength Observations of Isolated Neutron Stars. *S. Mereghetti, P. A. Caraveo, & G. F. Bignami.* 92, 521, 38-F12 (1994)

Gamma-Ray Pulsar Studies with COMPTEL. *W. Hermsen, L. Kuiper, R. Diehl, G. Lichti, V. Schönfelder, A. W. Strong, A. Connors, J. Ryan, K. Bennett, M. Busetta, A. Carramiñana, R. Buccheri, & I. A. Grenier.* 92, 559, 39-C7 (1994)

Polar Cap Models of Gamma-Ray Pulsars: Emission from Single Poles of Nearly Aligned Rotators. *Joseph K. Daugherty & Alice K. Harding.* 429, 325, 148-B1 (1994)

Magnetic Structure of Pulsar Winds. *F. Curtis Michel.* 431, 397, 181-A6 (1994)

The Relativistic Rotation Transformation and Pulsar Electrodynamics. *S. Kichenassamy & R. A. Krikorian.* 431, 715, 187-D8 (1994)

Stable Space Charge Configurations near the Force-free Surface of Rotating Magnets. *K. O. Thielheim & H. Wolfsteller.* 431, 718, 187-D13 (1994)

Pulsed Gamma-Ray Emission from Short-Period Pulsars. *K. S. Cheng & Winnis K. Y. Ding.* 431, 724, 187-E7 (1994)

Long-Term Evolution of Crustal Neutron Star Magnetic Fields. *V. A. Urpin, G. Chanmugam, & Yeming Sang.* 433, 780, 220-G5 (1994)

EGRET Upper Limits to the High-Energy Gamma-Ray Emission from the Millisecond Pulsars in Nearby Globular Clusters. *P. F. Michelson, D. L. Bertsch, K. Brazier, J. Chiang, B. L. Dingus, C. E. Fichtel, J. Fierro, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, C. von Montigny, P. L. Nolan, E. Schneid, P. Sreekumar, & D. J. Thompson.* 435, 218, 246-C12 (1994)

Structure of Relativistic Shocks in Pulsar Winds: A Model of the Wisps in the Crab Nebula. *Yves A. Gallant & Jonathan Arons.* 435, 230, 246-E4 (1994)

The Nonexponential Evolution of Pulsar Magnetic Fields. II. Velocity–Magnetic Field Correlation. *Naoki Itoh & Kentaro Hiraki.* 435, 784, 256-G8 (1994)

Probing the Interstellar Medium with Pulsars on AU Scales. *Dale A. Frail, Joel M. Weisberg, James M. Cordes, & Corey Mathers.* 436, 144, 263-C1 (1994)

EGRET High-Energy Gamma-Ray Pulsar Studies. I. Young Spin-powered Pulsars. *D. J. Thompson, Z. Arzoumanian, D. L. Bertsch, K. T. S. Brazier, J. Chiang, N. D'Amico, B. L. Dingus, J. A. Esposito, J. M. Fierro, C. E. Fichtel, R. C. Hartman, S. D. Hunter, S. Johnston, G. Kanbach, V. M. Kaspi, D. A. Kniffen, Y. C. Lin, A. G. Lyne, R. N. Manchester, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, H. I. Nel, D. J. Nice, P. L. Nolan, P. V. Ramanamurthy, S. L. Shemar, E. J. Schneid, P. Sreekumar, & J. H. Taylor.* 436, 229, 264-D1 (1994)

On Periodicity Tests and Flux Limit Calculations for Gamma-Ray Pulsars. *O. C. de Jager.* 436, 239, 264-E1 (1994)

An Outer Gap Model of High-Energy Emission from Rotation-powered Pulsars. *James Chiang & Roger W. Romani.* 436, 754, 275-G9 (1994)

ROSAT Observations of Six Millisecond Pulsars. *R. Danner, S. R. Kulkarni, & S. E. Thorsett.* 436, L153, 281-E7 (1994)

The Radio Lifetime of Supernova Remnants and the Distribution of Pulsar Velocities at Birth. *D. A. Frail, W. M. Goss, & J. B. Z. Whiteoak.* 437, 781, 296-D2 (1994)

Frictional Instabilities in Neutron Star Interiors. *Noriaki Shibazaki & Yuko Mochizuki.* 438, 288, 5-D7 (1995)

Gamma-Ray Pulsars: Emission Zones and Viewing Geometries. *Roger W. Romani & I.-A. Yadigaroglu.* 438, 314, 5-G3 (1995)

Physics of Magnetospheric Emission in Soft Gamma-Ray Repeaters. *Fulvio Melia & Marco Fatuzzo.* 438, 904, 16-E7 (1995)

Relativistic, Hot Stellar Winds with Anisotropic Pressure. *Elgouja G. Tsikarishvili, Andria D. Rogava, & David G. Tsiklauri.* 439, 822, 36-A1 (1995)

Rapid Polarization Variability in Intense Sources. *R. T. Gangadhara & V. Krishan.* 440, 116, 42-G1 (1995)

Self-trapping of Superfluid Vortices and the Origin of Pulsar Glitches. *Yuko Mochizuki & Takeo Izuyama.* 440, 263, 44-G2 (1995)

Neutron Star Accretion and Binary Pulsar Formation. *G. E. Brown.* 440, 270, 44-G12 (1995)

Test of When Free Precession of a Pulsar Cannot Mimic an Orbiting Planet. *Norman K. Glendenning.* 440, 881, 55-C6 (1995)

H I Line Measurements of Eight Southern Pulsars. *Bärbel Koribalski, Simon Johnston, J. M. Weisberg, & W. Wilson.* 441, 756, 72-C13 (1995)

On the Nature of the Unidentified EGRET Sources: Are They Geminga-like Pulsars? *R. Mukherjee, D. L. Bertsch, B. L. Dingus, G. Kanbach, D. A. Kniffen, P. Sreekumar, & D. J. Thompson.* 441, L61, 75-F13 (1995)

Surface Temperature of a Magnetized Neutron Star and Interpretation of the *ROSAT* Data. I. Dipolar Fields. *Dany Page.* 442, 273, 81-A1 (1995)

The Very Low Mass X-Ray Binary Pulsars: A New Class of Sources? *S. Mereghetti & L. Stella.* 442, L17, 84-F9 (1995)

Deviations from Chemical Equilibrium Due to Spin-down as an Internal Heat Source in Neutron Stars. *Andreas Reisenegger.* 442, 749, 90-E3 (1995)

Postaccretion Magnetic Field Evolution of Neutron Stars. *E. J. Young & G. Chanmugam.* 442, L53, 94-D3 (1995)

Electron Density Power Spectrum in the Local Interstellar Medium. *J. W. Armstrong, B. J. Rickett, & S. R. Spangler.* 443, 209, 98-A6 (1995)

Temporal Variation of Pulsar Dispersion Measure. *Xinji Wu & Abraham C.-L. Chian.* 443, 261, 98-G1 (1995)

Much Ado about Nothing: Several Large-Area Surveys for Radio Pulsars from Arecibo. *Paul S. Ray, W. T. S. Deich, S. R. Kulkarni, Thomas A. Prince, S. E. Thorsett, Gautam Vasisht, A. Wolszczan, Donald C. Backer, John H. Holliman II, & John Middleditch.* 443, 265, 98-G8 (1995)

Long-Term Stability of Pulsed X-Ray Emission from the Crab Pulsar. *Y. Sekimoto, M. Hirayama, T. Kamae, & N. Kawai.* 443, 271, 99-A3 (1995)

A Unified Picture for High-Energy Emission in Spin-powered Pulsars. *T. Kamae & Y. Sekimoto.* 443, 780, 108-E7 (1995)

Search for TeV γ-Ray Emission from Binary Radio Pulsars. *B. C. Raubenheimer, C. Brink, O. C. De Jager, & H. I. Nel.* 444, 419, 119-C12 (1995)

A Search for Fast Gamma-Ray Pulsars with OSSE. *P. Hertz, J. E. Grove, D. A. Grabelsky, & S. M. Matz.* 445, 351, 137-D1 (1995)

Magnetic Compton-induced Pair Cascade Model for Gamma-Ray Pulsars. *Steven J. Sturner, Charles D. Dermer, & F. Curtis Michel.* 445, 736, 145-D1 (1995)

Timing Parameters of 29 Pulsars. *F. Camilo & D. J. Nice.* 445, 756, 145-E11 (1995)

Equilibrium in the Oblique Rotating Outer Pulsar Magnetosphere. *Geoffrey Endean.* 445, 762, 145-F7 (1995)

The Orbital Eccentricities of Binary Millisecond Pulsars in Globular Clusters. *Frederic A. Rasio & Douglas C. Heggie.* 445, L133, 151-E9 (1995)

Electron Energy Losses near Pulsar Polar Caps. *Steven J. Sturner.* 446, 292, 157-C4 (1995)

Self-lensing by Binaries. *Andrew Gould.* 446, 541, 163-E6 (1995)

Neutral Hydrogen Absorption Measurements of Four Distant Pulsars and the Electron Density in the Inner Galaxy. *J. M. Weisberg, M. H. Siegel, D. A. Frail, & S. Johnston.* 447, 204, 175-A10 (1995)

Superfluid Core Rotation in Pulsars. I. Vortex Cluster Dynamics. *Armen D. Sedrakian & David M. Sedrakian.* 447, 305, 176-F1 (1995)

Superfluid Core Rotation in Pulsars. II. Postjump Relaxations. *A. D. Sedrakian, D. M. Sedrakian, J. M. Cordes, & Yervant Terzian.* 447, 324, 176-G10 (1995)

Were There Significant Starburst Episodes near the Galactic Center? *Dieter H. Hartmann.* 447, 646, 185-A11 (1995)

EGRET High-Energy γ-Ray Pulsar Studies. II. Individual Millisecond Pulsars. *J. M. Fierro, Z. Arzoumanian, M. Bailes, J. F. Bell, D. L. Bertsch, K. T. S. Brazier, J. Chiang, N. D'Amico, B. L. Dingus, J. A. Esposito, C. E. Fichtel, R. C. Hartman, S. D. Hunter, S. Johnston, G. Kanbach, V. M. Kaspi, D. A. Kniffen, Y. C. Lin, A. G. Lyne, R. N. Manchester, J. R Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, H. I. Nel, D. Nice, P. L. Nolan, E. J. Schneid, S. K. Shriver, P. Sreekumar, J. H. Taylor, D. J. Thompson, & T. D. Willis.* 447, 807, 187-B2 (1995)

Variation of Gravitational Delay in Pulsar Timing Observations due to Proper Motion of Foreground Stars and Measurement of Stellar Mass. *Kouji Ohnishi, Mizuhiko Hosokawa, Toshio Fukushima, & Mine Takeuti.* 448, 271, 196-A1 (1995)

The Synchrotron Self-Compton Model for X-Ray and γ-Ray Emission from Pulsars. *K. S. Cheng & D. M. Wei.* 448, 281, 196-B1 (1995)

Discrete Mass Loss in a Low-Mass Binary with a Rapidly Spinning Neutron Star. *Alexander Muslimov & Marek J. Sarna.* 448, 289, 196-B12 (1995)

A Search for Fast Pulsars along the Galactic Plane. *D. J. Nice, A. S. Fruchter, & J. H. Taylor.* 449, 156, 212-C11 (1995)

Gamma-Ray Pulsars: Beaming Evolution, Statistics, and Unidentified EGRET Sources. *I.-A. Yadigaroglu & Roger W. Romani.* 449, 211, 213-B1 (1995)

General Relativistic Effects on the Induced Electric Field Exterior to Pulsars. *S. Sengupta.* 449, 224, 213-C6 (1995)

Tidal Excitation of Modes in Binary Systems with Applications to Binary Pulsars. *Pawan Kumar, Chi On Ao, & Eliot J. Quataert.* 449, 294, 214-B10 (1995)

Dynamics and Interactions of Binaries and Neutron Stars in Globular Clusters. *Steinn Sigurdsson & E. S. Phinney.* 99, 609, 43-D7 (1995)

Millisecond Pulsars: Detectable Sources of Continuous Gravitational Waves? *Kimberly C. B. New, G. Chanmugam, Warren W. Johnson, & Joel E. Tohline.* 450, 757, 241-B9 (1995)

Analyzing X-Ray Pulsar Profiles: Asymmetry as a Key to Geometry and Beam Pattern. *U. Kraus, H.-P. Nollert, H. Ruder, & H. Riffert.* 450, 763, 241-C4 (1995)

OSSE Upper Limits to Pulsar Gamma-Ray Emission. *P. C. Schroeder, M. P. Ulmer, S. M. Matz, D. A. Grabelsky, W. R. Purcell, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, & G. V. Jung.* 450, 784, 241-E1 (1995)

Geminga's Soft X-Ray Emission and the Structure of Its Surface. *Dany Page, Yu. A. Shibanov, & V. E. Zavlin.* 451, L21, 252-D4 (1995)

On the Correlation between Proper Motion Velocities and Scintillation Velocities of Radio Pulsars. *Yashwant Gupta.* 451, 717, 257-B2 (1995)

Pulsar Eclipses due to Induced Scattering in Magnetized Plasmas. *Qinghuan Luo & D. B. Melrose.* 452, 346, 266-G11 (1995)

On the Approach to Stability of Pulsar Average Profiles. *N. Rathnasree & Joanna M. Rankin.* 452, 814, 275-G4 (1995)

Soft X-Ray Emission from Selected Isolated Pulsars. *Patrick Slane & Nicole Lloyd.* 452, L115, 280-A12 (1995)

Spin-down of Neutron Stars in Massive Radio Pulsar Binaries: The Periastron Passage of PSR B1259−63. *Pranab Ghosh.* 453, 411, 286-F13 (1995)

The X-Ray Emission of 3C 58 Revisited. *David J. Helfand, Robert H. Becker, & Richard L. White.* 453, 741, 294-A12 (1995)

A High Galactic Latitude Pulsar Survey of the Arecibo Sky. *R. S. Foster, B. J. Cadwell, A. Wolszczan, & S. B. Anderson.* 454, 826, 313-B12 (1995)

The Nonexponential Evolution of Pulsar Magnetic Fields. III. Comparison with the New Velocity Measurement. *Naoki Itoh, Takemi Kotouda, & Kentaro Hiraki.* 455, 244, 321-D13 (1995)

Discovery of a Candidate Isolated Neutron Star in a New Supernova Remnant near CTB 1. *Charles J. Hailey & William W. Craig.* 455, L151, 334-B12 (1995)

STARS: PULSARS: INDIVIDUAL

Name: Centaurus X-3

Ginga Observations of Centaurus X-3. *F. Nagase, R. H. D. Corbet, C. S. R. Day, H. Inoue, T. Takeshima, K. Yoshida, & T. Mihara.* 396, 147, 157-A3 (1992)

The Discovery of Pulsed Iron Line Emission from Centaurus X-3. *C. S. R. Day, F. Nagase, K. Asai, & T. Takeshima.* 408, 656, 93-D1 (1993)

ASCA Measurements of the Grain-scattered X-Ray Halos of Eclipsing Massive X-Ray Binaries: Vela X-1 and Centaurus X-3. *Jonathan W. Woo, George W. Clark, Charles S. R. Day, Fumiaki Nagase, & Toshiaki Takeshima.* 436, L5, 268-C9 (1994)

Name: Crab Nebula

Postglitch Behavior of the Crab Pulsar: Evidence for External Torque Variations. *Bennett Link, Richard I. Epstein, & Gordon Baym.* 390, L21, 78-D5 (1992)

On the 440 keV Line in the Crab Nebula Pulsar. *W. Bednarek, O. Cremonesi, & A. Treves.* 390, 489, 81-D5 (1992)

The Expected High-Energy to Ultra–High-Energy Gamma-Ray Spectrum of the Crab Nebula. *O. C. de Jager & A. K. Harding.* 396, 161, 157-B6 (1992)

An Axisymmetric Magnetohydrodynamic Model for the Crab Pulsar Wind Bubble. *Mitchell C. Begelman & Zhi-yun Li.* 397, 187, 170-C11 (1992)

Formation of the Dark Bays in the Crab Optical Synchrotron Nebula: Is the Crab Pulsar Wind Bubble Interacting with Its Progenitor's Wind? *Zhi-Yun Li & Mitchell C. Begelman.* 400, 186, 211-C1 (1992)

Observations of the Crab Pulsar and Nebula by the EGRET Telescope on the *Compton Gamma-Ray Observatory*. *P. L. Nolan, Z. Arzoumanian, D. L. Bertsch, J. Chiang, C. E. Fichtel, J. M. Fierro, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, P. W. Kwok, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, H. I. Nel, D. Nice, K. Pinkau, H. Rothermel, E. Schneid, M. Sommer, P. Sreekumar, J. H. Taylor, & D. J. Thompson.* 409, 697, 107-F8 (1993)

A Model of Unpulsed Gamma Rays from the Crab Pulsar. *W. M. Cheung & K. S. Cheng.* 413, 694, 165-B1 (1993)

The Status of Ultra–High-Energy Gamma-Ray Observations. *R. J. Protheroe.* 90, 883, 14-F10 (1994)

Observation of 7 TeV Gamma Rays from the Crab Using the Large Zenith Angle Air Čerenkov Imaging Technique. *T. Tanimori, T. Tsukagoshi, T. Kifune, P. G. Edwards, M. Fujimoto, T. Hara, N. Hayashida, Y. Matsubara, Y. Mizumoto, Y. Muraki, S. Ogio, J. R. Patterson, M. D. Roberts, G. Rowell, T. Suda, T. Tamura, M. Teshima, G. J. Thornton, T. Watase, & T. Yoshikoshi.* 429, L61, 158-A5 (1994)

Name: Crab Pulsar

The Crab Pulsar in the Visible and Ultraviolet with 10 Microsecond Time Resolution. *J. W. Percival, J. D. Biggs, J. F. Dolan, E. L. Robinson, M. J. Taylor, R. C. Bless, J. L. Elliot, M. J. Nelson, T. F. Ramseyer, G. W. van Citters, & E. Zhang.* 407, 276, 72-E1 (1993)

Hard X-Ray Timing Observation of the Crab Pulsar and Cygnus X-1. *P. Ubertini, A. Bazzano, M. Cocchi, C. La Padula, V. F. Polcaro, R. Staubert, & E. Kendziorra.* 421, 269, 19-C11 (1994)

Unpulsed High-Energy Radiation from the Crab Pulsar and Nebula. *W. M. Cheung & K. S. Cheng.* 90, 827, 14-A11 (1994)

Postglitch Relaxation of the Crab Pulsar: Evidence for Crust Cracking. *M. A. Alpar, H. F. Chau, K. S. Cheng, & D. Pines.* 427, L29, 117-E1 (1994)

Observation of 7 TeV Gamma Rays from the Crab Using the Large Zenith Angle Air Čerenkov Imaging Technique. *T. Tanimori, T. Tsukagoshi, T. Kifune, P. G. Edwards, M. Fujimoto, T. Hara, N. Hayashida, Y. Matsubara, Y. Mizumoto, Y. Muraki, S. Ogio, J. R. Patterson, M. D. Roberts, G. Rowell, T. Suda. T. Tamura, M. Teshima, G. J. Thornton, T. Watase, & T. Yoshikoshi.* 429, L61, 158-A5 (1994)

OSSE Observations of the Crab Pulsar. *M. P. Ulmer, S. Lomatch, S. M. Matz, D. A. Grabelsky, W. R. Purcell, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, R. A. Cameron, & G. V. Jung.* 432, 228, 196-A12 (1994)

Long-Term Stability of Pulsed X-Ray Emission from the Crab Pulsar. *Y. Sekimoto, M. Hirayama, T. Kamae, & N. Kawai.* 443, 271, 99-A3 (1995)

Compton Gamma-Ray Observatory Observations of the Crab Pulsar. *M. P. Ulmer, S. M. Matz, D. A. Grabelsky, J. E. Grove, M. S. Strickman, R. Much, M. C. Busetta, A. Strong, L. Kuiper, D. J. Thompson, D. Bertsch, J. M. Fierro, & P. L. Nolan.* 448, 356, 197-B1 (1995)

A Long-Term Study of High-Energy Gamma-Ray Emission from the Vela, Geminga, and Crab Pulsars. *P. V. Ramanamurthy, D. L. Bertsch, C. E. Fichtel, G. Kanbach, D. A. Kniffen, H. A. Mayer-Hasselwander, P. L. Nolan, P. Sreekumar, & D. J. Thompson.* 450, 791, 241-E11 (1995)

Giant Pulses from the Crab Pulsar: A Joint Radio and Gamma-Ray Study. *S. C. Lundgren, J. M. Cordes, M. Ulmer, S. M. Matz, S. Lomatch, R. S. Foster, & T. Hankins.* 453, 433, 287-A13 (1995)

Name: Geminga

SAS 2 Observation of Pulsed High-Energy Gamma Radiation from Geminga. *J. R. Mattox, D. L. Bertsch, C. E. Fichtel, R. C. Hartman, D. A. Kniffen, & D. J. Thompson.* 401, L23, 227-D1 (1992)

Soft X-Ray Properties of the Geminga Pulsar. *J. P. Halpern & M. Ruderman.* 415, 286, 188-E8 (1993)

High-Energy Gamma Radiation from Geminga Observed by EGRET. *H. A. Mayer-Hasselwander, D. L. Bertsch, K. T. S. Brazier, J. Chiang, C. E. Fichtel, J. M. Fierro, R. C. Hartman, S. D. Hunter, G. Kanbach, P. W. Kwok, D. A. Kniffen, Y. C. Lin, J. R. Mattox, P. F. Michelson, P. L. Nolan, K. Pinkau, H. Rothermel, E. J. Schneid, M. Sommer, P. Sreekumar, D. J. Thompson, & C. von Montigny.* 421, 276, 19-D6 (1994)

Gamma Rays from the Geminga Pulsar: Variations with Time and Phase. *I. A. Grenier, K. Bennett, R. Buccheri, M. Gros, R. N. Henriksen, W. Hermsen, G. Kanbach, & B. Sacco.* 90, 813, 13-G6 (1994)

Soft X-Ray Spectral Fits of Geminga with Model Neutron Star Atmospheres. *R. D. Meyer, G. G. Pavlov, & P. Mészáros.* 433, 265, 211-E12 (1994)

On the Nature of the Unidentified EGRET Sources: Are They Geminga-like Pulsars? *R. Mukherjee, D. L. Bertsch, B. L. Dingus, G. Kanbach, D. A. Kniffen, P. Sreekumar, & D. J. Thompson.* 441, L61, 75-F13 (1995)

A Long-Term Study of High-Energy Gamma-Ray Emission from the Vela, Geminga, and Crab Pulsars. *P. V. Ramanamurthy, D. L. Bertsch, C. E. Fichtel, G. Kanbach, D. A. Kniffen, H. A. Mayer-Hasselwander, P. L. Nolan, P. Sreekumar, & D. J. Thompson.* 450, 791, 241-E11 (1995)

Geminga's Soft X-Ray Emission and the Structure of Its Surface. *Dany Page, Yu. A. Shibanov, & V. E. Zavlin.* 451, L21, 252-D4 (1995)

Name: Hercules X-1

Multiwavelength Observations of Hercules X-1/HZ Herculis. *S. D. Vrtilek, T. Mihara, F. A. Primini, P. Kahabka, H. Marshall, F. Agerer, P. A. Charles, F. H. Cheng, K. Dennerl, C. la Dous, E. M. Hu, R. Rutten, P. Serlemitsos, Y. Soong, J. Stull, J. Trümper, W. Voges, R. M. Wagner, & R. Wilson.* 436, L9, 268-D3 (1994)

Iron Line Intensity Variations of Hercules X-1 over the Pulse Phase and the 35 Day Cycle. *C. S. Choi, F. Nagase, F. Makino, T. Dotani, S. Kitamoto, & S. Takahama.* 437, 449, 289-C6 (1994)

An Archival Study of *Hubble Space Telescope* Observations of Hercules X-1/HZ Herculis. *F. H. Cheng, S. D. Vrtilek, & John C. Raymond.* 452, 825, 276-A10 (1995)

Name: Vela Pulsar

A Speckle Hologram of the Interstellar Plasma. *K. M. Desai, C. R. Gwinn, J. Reynolds, E. A. King, D. Jauncey, C. Flanagan, G. Nicolson, R. A. Preston, & D. L. Jones.* 393, L75, 127-E7 (1992)

Postglitch Relaxation of the Vela Pulsar after Its First Eight Large Glitches: A Reevaluation with the Vortex Creep Model. *M. Ali Alpar, H. F. Chau, K. S. Cheng, & David Pines.* 409, 345, 101-D1 (1993)

Postglitch Relaxation following the Ninth Glitch of the Vela Pulsar. *H. F. Chau, P. M. McCulloch, R. Nandkumar, & D. Pines.* 413, L113, 169-A6 (1993)

Gamma Rays from the Geminga Pulsar: Variations with Time and Phase. *I. A. Grenier, K. Bennett, R. Buccheri, M. Gros, R. N. Henriksen, W. Hermsen, G. Kanbach, & B. Sacco.* 90, 813, 13-G6 (1994)

Superfluid Core Rotation in Pulsars. II. Postjump Relaxations. *A. D. Sedrakian, D. M. Sedrakian, J. M. Cordes, & Yervant Terzian.* 447, 324, 176-G10 (1995)

A Long-Term Study of High-Energy Gamma-Ray Emission from the Vela, Geminga, and Crab Pulsars. *P. V. Ramanamurthy, D. L. Bertsch, C. E. Fichtel, G. Kanbach, D. A. Kniffen, H. A. Mayer-Hasselwander, P. L. Nolan, P. Sreekumar, & D. J. Thompson.* 450, 791, 241-E11 (1995)

Name: Vela X-1

Line-dominated Eclipse Spectrum of Vela X-1. *Fumiaki Nagase, Gregory Zylstra, Takashi Sonobe, Taro Kotani, Hajime Inoue, & Jonathan Woo.* 436, L1, 268-C1 (1994)

ASCA Measurements of the Grain-scattered X-Ray Halos of Eclipsing Massive X-Ray Binaries: Vela X-1 and Centaurus X-3. *Jonathan W. Woo, George W. Clark, Charles S. R. Day, Fumiaki Nagase, & Toshiaki Takeshima.* 436, L5, 268-C9 (1994)

Geometry and Pulse Profiles of X-Ray Pulsars: Asymmetric Relativistic Fits to 4U 1538−52 and Vela X-1. *T. Bulik, H. Riffert, P. Mészáros, K. Makishima, T. Mihara, & B. Thomas.* 444, 405, 119-B3 (1995)

Alphanumeric: 1620−26

Genesis of a Planet in Messier 4. *Steinn Sigurdsson.* 415, L43, 192-B13 (1993)

Alphanumeric: 1E 1048.1−5937

A Spin-down Variation in the 6 Second X-Ray Pulsar 1E 1048.1−5937. *Sandro Mereghetti.* 455, 598, 330-B6 (1995)

Alphanumeric: 1E 2259+586

High-Frequency Emission of X-Ray Pulsar 1E 2259+586. *V. V. Usov.* 410, 761, 123-C1 (1993)

Glitches in the X-Ray Pulsar 1E 2259+586. *V. V. Usov.* 427, 984, 124-G10 (1994)

Alphanumeric: B0540−69

High-Speed Photometer Observations of the LMC Pulsar B0540−69. *P. T. Boyd, G. W. van Citters, J. F. Dolan, K. G. Wolinski, J. W. Percival, R. C. Bless, J. L. Elliot, M. J. Nelson, & M. J. Taylor.* 448, 365, 197-B13 (1995)

Alphanumeric: EXO 2030+375

The Luminosity Dependence of the X-Ray Spectrum of the Transient 42 Second Pulsar EXO 2030+375. *A. P. Reynolds, A. N. Parmar, & N. E. White.* 414, 302, 173-F9 (1993)

Alphanumeric: GRO J1008−57

An *EXOSAT* Detection of the Transient X-Ray Pulsar GRO J1008−57. *D. J. Macomb, C. R. Shrader, & A. B. Schultz.* 437, 845, 297-C1 (1994)

Alphanumeric: GRO J1948+32

Discovery of the 18.7 Second Accreting X-Ray Pulsar GRO J1948+32. *Deepto Chakrabarty, Towsian Koh, Lars Bildsten, Thomas A. Prince, Mark H. Finger, Robert B. Wilson, Geoffrey N. Pendleton, & Bradley C. Rubin.* 446, 826, 167-D8 (1995)

Alphanumeric: GRO J2014+34

Discovery of the 18.7 Second Accreting X-Ray Pulsar GRO J1948+32. *Deepto Chakrabarty, Towsian Koh, Lars Bildsten, Thomas A. Prince, Mark H. Finger, Robert B. Wilson, Geoffrey N. Pendleton, & Bradley C. Rubin.* 446, 826, 167-D8 (1995)

Alphanumeric: GX 301−2

On the Power Spectra of the Wind-fed X-Ray Binary Pulsar GX 301−2. *Mauro Orlandini & G. E. Morfill.* 386, 703, 34-A9 (1992)

ASCA and *GRO* Observations of GX 301−2. *Steven H. Pravdo, Charles S. R. Day, Lorella Angelini, B. Alan Harmon, A. Yoshida, & P. Saraswat.* 454, 872, 313-G6 (1995)

Alphanumeric: OAO 1657−415

Discovery of the Orbit of the X-Ray Pulsar OAO 1657−415. *Deepto Chakrabarty, John M. Grunsfeld, Thomas A. Prince, Lars Bildsten, Mark H. Finger, Robert B. Wilson, Gerald J. Fishman, Charles A. Meegan, & William S. Paciesas.* 403, L33, 20-D6 (1993)

Alphanumeric: PSR 0355+54

X-Ray Emission from PSR 0355+54. *Patrick Slane.* 437, 458, 289-D4 (1994)

Alphanumeric: PSR 0531+21

High Time Resolution Infrared Observations of the Crab Nebula Pulsar. *S. M. Ransom, G. G. Fazio, S. S. Eikenberry, J. Middleditch, J. Kristian, K. Hays, & C. R. Pennypacker.* 431, L43, 182-G11 (1994)

Extraordinary Line-emitting Knots in the Crab Nebula. *Gordon M. MacAlpine, Stephen S. Lawrence, Beth A. Brown, Alan Uomoto, Bruce E. Woodgate, Larry W. Brown, Ronald J. Oliversen, James D. Lowenthal, & Charles Liu.* 432, L131, 207-C5 (1994)

Alphanumeric: PSR 0540−69

Rotational Parameters of PSR 0540−69 as Measured at Optical Wavelengths. *Christian Gouiffes, John P. Finley, & Hakki Ögelman.* 394, 581, 136-E8 (1992)

High-Resolution Optical Imaging of the Large Magellanic Cloud Plerion 0540−69. *P. A. Caraveo, G. F. Bignami, S. Mereghetti, & M. Mombelli.* 395, L103, 154-B11 (1992)

ROSAT Observations of the Large Magellanic Cloud Pulsar PSR 0540−69. *John P. Finley, Hakki Ögelman, Günther Hasinger, & Joachim Trümper.* 410, 323, 116-B1 (1993)

The Position of PSR 0540−69. *A. Shearer, M. Redfern, H. Pedersen, T. Rowold, P. O'Kane, R. Butler, C. O'Byrne, & M. Cullum.* 423, L51, 53-G3 (1994)

Alphanumeric: PSR 0655+64

PSR 0655+64: An Astrophysical Laboratory for Testing Relativistic Gravity Theories. *Itzhak Goldman.* 390, 494, 81-D11 (1992)

Alphanumeric: PSR 0656+14

ROSAT Observations of PSR 0656+14: A Pulsating and Cooling Neutron Star. *John P. Finley, Hakki Ögelman, & Ümit Kiziloğlu.* 394, L21, 133-C13 (1992)

ROSAT High Resolution Imager Observations of PSR 0656+14. *S. B. Anderson, F. A. Córdova, G. G. Pavlov, C. R. Robinson, & R. J. Thompson, Jr.* 414, 867, 182-A12 (1993)

Revised Proper-Motion Results for the Soft X-Ray–emitting Radio Pulsar PSR 0656+14. *R. J. Thompson, Jr., & F. A. Córdova.* 421, L13, 21-D11 (1994)

A Candidate Identification for PSR 0656+14 and the Optical Emission from Isolated Neutron Stars. *Patrizia A. Caraveo, Giovanni F. Bignami, & Sandro Mereghetti.* 422, L87, 45-C1 (1994)

Alphanumeric: PSR 0820+02

The White Dwarf Companion to PSR 0820+02. *D. Koester, G. Chanmugam, & D. Reimers.* 395, L107, 154-C7 (1992)

Alphanumeric: PSR 0823+26

Discontinuities in the Dynamic Spectrum of the Pulsar 0823+26. *Andrew W. Clegg, Ralph L. Fiedler, & James M. Cordes.* 409, 691, 107-E13 (1993)

Alphanumeric: PSR 0950+08

A Search for Circumstellar Material around Pulsars. *J. A. Phillips & C. J. Chandler.* 420, L83, 15-E9 (1994)

Alphanumeric: PSR 1055−52

Pulsed High-Energy Gamma Rays from PSR 1055−52. *J. M. Fierro, D. L. Bertsch, K. T. S. Brazier, J. Chiang, N. D'Amico, C. E. Fichtel, R. C. Hartman, S. D. Hunter, S. Johnston, G. Kanbach, V. M. Kaspi, D. A. Kniffen, Y. C. Lin, A. G. Lyne, R. N. Manchester, J. R. Mattox, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, P. L. Nolan, E. Schneid, & D. J. Thompson.* 413, L27, 162-D13 (1993)

ROSAT Observations of Pulsed Soft X-Ray Emission from PSR 1055−52. *Hakkı Ögelman & John P. Finley.* 413, L31, 162-E5 (1993)

Alphanumeric: PSR 1133+16

A Search for Circumstellar Material around Pulsars. *J. A. Phillips & C. J. Chandler.* 420, L83, 15-E9 (1994)

Alphanumeric: PSR 1257+12

Three-Body Effects in the PSR 1257+12 Planetary System. *Renu Malhotra.* 407, 266, 72-D3 (1993)

A Search for Circumstellar Material around Pulsars. *J. A. Phillips & C. J. Chandler.* 420, L83, 15-E9 (1994)

Alphanumeric: PSR 1259−63

PSR 1259−63: A Binary Radio Pulsar with a Be Star Companion. *Simon Johnston, R. N. Manchester, A. G. Lyne, M. Bailes, V. M. Kaspi, Qiao Guojun, & N. D'Amico.* 387, L37, 43-E1 (1992)

The Evolutionary Status of the Pulsar–Be Star Binary PSR 1259−63. *A. R. King.* 405, 727, 52-B5 (1993)

Some Implications of PSR 1259−63. *Christopher S. Kochanek.* 406, 638, 65-G1 (1993)

Detection of X-Ray Emission from the PSR 1259−63/SS 2883 Binary System. *Lynn Cominsky, Mallory Roberts, & Simon Johnston.* 427, 978, 124-G2 (1994)

X-Ray Emission of the Pulsar–Be Star Binary PSR 1259−63. *Andrew King & Lynn Cominsky.* 435, 411, 249-B3 (1994)

X-Ray Emission from the PSR B1259−63 System near Apastron. *J. Greiner, M. Tavani, & T. Belloni.* 441, L43, 67-B9 (1995)

Alphanumeric: PSR 1509−58

An Optical Counterpart for PSR 1509−58. *P. A. Caraveo, S. Mereghetti, & G. F. Bignami.* 423, L125, 61-A7 (1994)

Observation of Pulsed Hard X-Rays/γ-Rays from PSR 1509−58. *S. Gunji, M. Hirayama, T. Kamae, S. Miyazaki, Y. Sekimoto, T. Takahashi, T. Tamura, M. Tanaka, N. Yamasaki, T. Yamagami, M. Nomachi, H. Murakami, J. Braga, & J. A. Neri.* 428, 284, 131-F7 (1994)

PSR 1509−58 and Its Plerionic Environment. *C. Greiveldinger, S. Caucino, S. Massaglia, H. Ögelman, & E. Trussoni.* 454, 855, 313-E11 (1995)

Alphanumeric: PSR 1534+12

A Search for Circumstellar Material around Pulsars. *J. A. Phillips & C. J. Chandler.* 420, L83, 15-E9 (1994)

Alphanumeric: PSR 1610−50

Associating Young Pulsars and Supernova Remnants: PSR 1610−50 and the Case for High-Velocity Pulsars. *Patrizia A. Caraveo.* 415, L111, 200-B6 (1993)

Alphanumeric: PSR 1620−26

The Unusual Ω of the Millisecond Pulsar 1620−26: The Consequence of a Giant Glitch? *K. S. Cheng, N. Chong, & T. M. Lee.* 434, 733, 237-G10 (1994)

Frictional Instabilities in Neutron Star Interiors. *Noriaki Shibazaki & Yuko Mochizuki.* 438, 288, 5-D7 (1995)

Alphanumeric: PSR 1706−44

Very High Energy Gamma Rays from PSR 1706−44. *T. Kifune, T. Tanimori, S. Ogio, T. Tamura, H. Fujii, M. Fujimoto, T. Hara, N. Hayashida, S. Kabe, F. Kakimoto, Y. Matsubara, Y. Mizumoto, Y. Muraki, T. Suda, M. Teshima, T. Tsukagoshi, Y. Watase, T. Yoshikoshi, P. G. Edwards, J. R. Patterson, M. D. Roberts, G. P. Rowell, & G. J. Thornton.* 438, L91, 20-A1 (1995)

Alphanumeric: PSR 1718−19

Hidden Slow Pulsars in Binaries. *Marco Tavani & Leigh Brookshaw.* 413, L39, 162-F3 (1993)

The Mass of the Companion of PSR 1718−19. *L. Burderi & A. R. King.* 430, L57, 166-A4 (1994)

Alphanumeric: PSR 1744−24A

Pulsar PSR 1744−24A: Timing, Eclipses, and the Evolution of Neutron Star Binaries. *D. J. Nice & S. E. Thorsett.* 397, 249, 171-A12 (1992)

Alphanumeric: PSR 1800−21

The PSR 1800−21/G8.7−0.1 Association: A View from *ROSAT*. *John P. Finley & Hakki Ögelman.* 434, L25, 232-D11 (1994)

Alphanumeric: PSR 1821−24

ROSAT Observations of Six Millisecond Pulsars. *R. Danner, S. R. Kulkarni, & S. E. Thorsett.* 436, L153, 281-E7 (1994)

Alphanumeric: PSR 1829−10

Rocks around the Clock: Limits on Pulsar Planetary Systems. *S. E. Thorsett & J. A. Phillips.* 387, L69, 48-C6 (1992)

Alphanumeric: PSR 1908+00

The Binary Pulsar PSR 1908+00 in NGC 6760. *W. T. S. Deich, J. Middleditch, S. B. Anderson, S. R. Kulkarni, T. A. Prince, & A. Wolszczan.* 410, L95, 126-A13 (1993)

Alphanumeric: PSR 1913+16

Is Momentum Conserved? A Test in the Binary System PSR 1913+16. *Clifford M. Will.* 393, L59, 127-C7 (1992)

Supplementary Parameters in the Parameterized Post-Keplerian Formalism. *S. M. Kopeikin.* 434, L67, 241-F9 (1994)

Alphanumeric: PSR 1919+21

Interstellar Matter near the Pleiades. IV. The Wake of the Pleiades through the Interstellar Medium in Taurus. *Richard E. White & John Bally.* 409, 234, 99-G13 (1993)

Alphanumeric: PSR 1929+10

The Detection of Pulsed X-Ray Emission from a Nearby Radio Pulsar. *S. Yancopoulos, T. T. Hamilton, & D. J. Helfand.* 429, 832, 156-A9 (1994)

Alphanumeric: PSR 1937+21

A Search for Circumstellar Material around Pulsars. *J. A. Phillips & C. J. Chandler.* 420, L83, 15-E9 (1994)

Alphanumeric: PSR 1951+32

ROSAT Observations of the Unusual Supernova Remnant CTB 80 Containing the Pulsar PSR 1951+32. *Samar Safi-Harb, Hakki Ögelman, & John P. Finley.* 439, 722, 34-E10 (1995)

Alphanumeric: PSR 1957+20

The Continuum Eclipse of PSR 1957+20. *A. S. Fruchter & W. M. Goss.* 384, L47, 11-C9 (1992)

Orbital Angular Momentum Loss in PSR 1957+20. *Menashe Banit & Jacob Shaham.* 388, L19, 52-B11 (1992)

Spectroscopy of the Companion and Bow-Shock Nebula of PSR 1957+20. *Thomas L. Aldcroft, Roger W. Romani, & James M. Cordes.* 400, 638, 218-C13 (1992)

High-Energy Emission from the Eclipsing Millisecond Pulsar PSR 1957+20. *Jonathan Arons & Marco Tavani.* 403, 249, 17-A8 (1993)

SIGMA Upper Limits to the Hard X-Ray/Soft Gamma-Ray Emission from the Millisecond Pulsars of the Nearby Globular Cluster 47 Tucanae. *D. Barret, P. Mandrou, M. Denis, J. F. Olive, P. Laurent, A. Claret, F. Lebrun, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, A. Dyachkov, N. Khavenson, B. Novikov, R. Kremnev, & A. Sukhanov.* 405, L59, 54-C7 (1993)

The Orbital Light Curve of PSR 1957+20. *Paul J. Callanan, Jan van Paradijs, & Roeland Rengelink.* 439, 928, 37-D4 (1995)

Alphanumeric: PSR 2127+11C

The Role of Chaos in the Circularization of Tidal Capture Binaries. II. Long-Time Evolution. *Rosemary A. Mardling.* 450, 732, 240-G6 (1995)

Alphanumeric: PSR 2217+47

Secular Variations of the Integrated Pulse Profile of, and Torque on, PSR 2217+47: Precession of the Neutron Star? *Svetlana A. Suleymanova & Yurii P. Shitov.* 422, L17, 36-D1 (1994)

Alphanumeric: PSR B0042−73

On the Nature of the Binary Radio Pulsar PSR B0042−73 in the Small Magellanic Cloud. *V. M. Lipunov, K. A. Postnov, & M. E. Prokhorov.* 441, 776, 72-F1 (1995)

Alphanumeric: PSR B0329+54

Evidence for a Planet around the Pulsar PSR B0329+54. *Tatiana V. Shabanova.* 453, 779, 294-F2 (1995)

Alphanumeric: PSR B0540−69

The Radio Structure of Supernova Remnant 0540−693. *R. N. Manchester, L. Staveley-Smith, & M. J. Kesteven.* 411, 756, 139-B8 (1993)

Alphanumeric: PSR B1257+12

The Magnetic Fields, Ages, and Original Spin Periods of Millisecond Pulsars. *F. Camilo, S. E. Thorsett, & S. R. Kulkarni.* 421, L15, 21-E1 (1994)

Alphanumeric: PSR B1259−63

Regimes of High-Energy Shock Emission from the Be Star/Pulsar System PSR 1259−63. *Marco Tavani, Jonathan Arons, & Victoria M. Kaspi.* 433, L37, 215-B1 (1994)

On Possible Implications of Orbital Parallaxes of Wide Orbit Binary Pulsars and Their Measurability. *S. M. Kopeikin.* 439, L5, 29-E11 (1995)

Polarization Properties of Two Pulsars. *R. N. Manchester & Simon Johnston.* 441, L65, 75-G6 (1995)

Period Evolution of PSR B1259−63: Evidence for Propeller-Torque Spin-down. *R. N. Manchester, S. Johnston, A. G. Lyne, N. D'Amico, M. Bailes, & L. Nicastro.* 445, L137, 151-F1 (1995)

Evidence for Shock Acceleration in the Binary Pulsar System PSR B1259−63. *J. E. Grove, M. Tavani, W. R. Purcell, W. N. Johnson, J. D. Kurfess, M. S. Strickman, & J. Arons.* 447, L113, 191-B1 (1995)

Spin-Orbit Interactions in Neutron Star/Main-Sequence Binaries and Implications for Pulsar Timing. *Dong Lai, Lars Bildsten, & Victoria M. Kaspi.* 452, 819, 276-A1 (1995)

Spin-down of Neutron Stars in Massive Radio Pulsar Binaries: The Periastron Passage of PSR B1259−63. *Pranab Ghosh.* 453, 411, 286-F13 (1995)

X-Ray Detection of PSR B1259−63 at Periastron. *V. M. Kaspi, M. Tavani, F. Nagase, M. Hirayama, M. Hoshino, T. Aoki, N. Kawai, & J. Arons.* 453, 424, 287-A1 (1995)

Alphanumeric: PSR B1509−58

Gamma-Ray and Radio Observations of PSR B1509−58. *M. P. Ulmer, S. M. Matz, R. B. Wilson, M. J. Finger, K. S. Hagedon, D. A. Grabelsky, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, W. R. Purcell, M. S. Strickman, V. M. Kaspi, S. Johnston, R. N. Manchester, A. G. Lyne, & N. D'Amico.* 417, 738, 228-E8 (1993)

On the Spin-down of PSR B1509−58. *V. M. Kaspi, R. N. Manchester, B. Siegman, S. Johnston, & A. G. Lyne.* 422, L83, 45-B11 (1994)

The Pulsed Hard X-Ray Spectrum of PSR B1509−58. *S. M. Matz, M. P. Ulmer, D. A. Grabelsky, W. R. Purcell, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, & G. V. Jung.* 434, 288, 229-D7 (1994)

The Nonthermal Radio, X-Ray, and TeV Gamma-Ray Spectra of MSH 15−52. *I. du Plessis, O. C. de Jager, S. Buchner, H. I. Nel, A. R. North, B. C. Raubenheimer, & D. J. van der Walt.* 453, 746, 294-B6 (1995)

Alphanumeric: PSR B1620−26

PSR B1620−26: A Binary Radio Pulsar with a Planetary Companion? *S. E. Thorsett, Z. Arzoumanian, & J. H. Taylor.* 412, L33, 148-D6 (1993)

Is There a Planet in the PSR 1620−26 Triple System? *Frederic A. Rasio.* 427, L107, 127-C11 (1994)

Orbital Elements of PSR B1620−26. *F. Curtis Michel.* 432, 239, 196-B11 (1994)

A Possible Optical Counterpart for the Triple Pulsar System PSR B1620−26. *Charles D. Bailyn, Eric P. Rubenstein, Terrence M. Girard, Dana I. Dinescu, Frederic A. Rasio, & Brian Yanny.* 433, L89, 224-B3 (1994)

Binary-Binary Interactions and the Formation of the PSR B1620−26 Triple System in M4. *Frederic A. Rasio, Steve McMillan, & Piet Hut.* 438, L33, 10-B11 (1995)

Assessing the Environmental Impact on PSR B1620−26 in M4. *Steinn Sigurdsson.* 452, 323, 266-E8 (1995)

Alphanumeric: PSR B1718−19

On the Origin of the Eclipsing Pulsar PSR B1718−19 and Its Wind. *R. A. M. J. Wijers & B. Paczyński.* 415, L115, 200-C1 (1993)

Alphanumeric: PSR B1855+09

High-Precision Timing of Millisecond Pulsars. III. Long-Term Monitoring of PSRs B1855+09 and B1937+21. *V. M. Kaspi, J. H. Taylor, & M. F. Ryba.* 428, 713, 139-B9 (1994)

Search for TeV γ-Ray Emission from Binary Radio Pulsars. *B. C. Raubenheimer, C. Brink, O. C. De Jager, & H. I. Nel.* 444, 419, 119-C12 (1995)

Alphanumeric: PSR B1937+21

High-Precision Timing of Millisecond Pulsars. III. Long-Term Monitoring of PSRs B1855+09 and B1937+21. *V. M. Kaspi, J. H. Taylor, & M. F. Ryba.* 428, 713, 139-B9 (1994)

Alphanumeric: PSR B1951+32

EGRET Detection of Pulsed Gamma Radiation from PSR B1951+32. *P. V. Ramanamurthy, D. L. Bertsch, B. L. Dingus, J. A. Esposito, J. M. Fierro, C. E. Fichtel, S. D. Hunter, G. Kanbach, D. A. Kniffen, Y. C. Lin, A. G. Lyne, J. R. Mattox, H. A. Mayer-Hasselwander, M. Merck, P. F. Michelson, C. von Montigny, R. Mukherjee, P. L. Nolan, & D. J. Thompson.* 447, L109, 191-A8 (1995)

Alphanumeric: PSR B1957+20

Orbital Variability in the Eclipsing Pulsar Binary PSR B1957+20. *Z. Arzoumanian, A. S. Fruchter, & J. H. Taylor.* 426, L85, 109-E6 (1994)

Orbital Period Variability in the Eclipsing Pulsar Binary PSR B1957+20: Evidence for a Tidally Powered Star. *James H. Applegate & Jacob Shaham.* 436, 312, 265-E8 (1994)

HST Images of the Eclipsing Pulsar B1957+20. *Andrew S. Fruchter, Jay Bookbinder, & Charles D. Bailyn.* 443, L21, 102-D13 (1995)

Alphanumeric: PSR J0034−0534

Discovery of Three Binary Millisecond Pulsars. *M. Bailes, P. A. Harrison, D. R. Lorimer, S. Johnston, A. G. Lyne, R. N. Manchester, N. D'Amico, L. Nicastro, T. M. Tauris, & C. Robinson.* 425, L41, 85-F5 (1994)

Optical Observations of the Binary Millisecond Pulsars J2145−0750 and J0034−0534. *J. F. Bell, S. R. Kulkarni, M. Bailes, E. M. Leitch, & A. G. Lyne.* 452, L121, 280-B7 (1995)

Alphanumeric: PSR J0045−7319

A Massive Radio Pulsar Binary in the Small Magellanic Cloud. *V. M. Kaspi, S. Johnston, J. F. Bell, R. N. Manchester, M. Bailes, M. Bessell, A. G. Lyne, & N. D'Amico.* 423, L43, 53-F7 (1994)

PSR J0045−7319: A Dual-Line Binary Radio Pulsar. *J. F. Bell, M. S. Bessell, B. W. Stappers, M. Bailes, & V. M. Kaspi.* 447, L117, 191-B6 (1995)

Tidal Excitation of Modes in Binary Systems with Applications to Binary Pulsars. *Pawan Kumar, Chi On Ao, & Eliot J. Quataert.* 449, 294, 214-B10 (1995)

The Role of Chaos in the Circularization of Tidal Capture Binaries. I. The Chaos Boundary. *Rosemary A. Mardling.* 450, 722, 240-F7 (1995)

Spin-Orbit Interactions in Neutron Star/Main-Sequence Binaries and Implications for Pulsar Timing. *Dong Lai, Lars Bildsten, & Victoria M. Kaspi.* 452, 819, 276-A1 (1995)

Alphanumeric: PSR J0108−1431

Discovery of PSR J0108−1431: The Closest Known Neutron Star? *T. M. Tauris, L. Nicastro, S. Johnston, R. N. Manchester, M. Bailes, A. G. Lyne, J. Glowacki, D. R. Lorimer, & N. D'Amico.* 428, L53, 142-E1 (1994)

Alphanumeric: PSR J0218+4232

A Very Luminous Binary Millisecond Pulsar. *José Navarro, A. G. de Bruyn, D. A. Frail, S. R. Kulkarni, & A. G. Lyne.* 455, L55, 325-C1 (1995)

Alphanumeric: PSR J0437−4715

The Optical Counterpart of the Bright Nearby Millisecond Pulsar PSR J0437−4715. *Charles D. Bailyn.* 411, L83, 142-E1 (1993)

The Magnetic Fields, Ages, and Original Spin Periods of Millisecond Pulsars. *F. Camilo, S. E. Thorsett, & S. R. Kulkarni.* 421, L15, 21-E1 (1994)

The Proper Motion and Wind Nebula of the Nearby Millisecond Pulsar J0437−4715. *J. F. Bell, M. Bailes, R. N. Manchester, J. M. Weisberg, & A. G. Lyne.* 440, L81, 58-A10 (1995)

Polarization Properties of Two Pulsars. *R. N. Manchester & Simon Johnston.* 441, L65, 75-G6 (1995)

Extreme Ultraviolet Emission from the Millisecond Pulsar J0437−4715. *J. Edelstein, R. S. Foster, & S. Bowyer.* 454, 442, 305-D4 (1995)

Alphanumeric: PSR J0613−0200

Four New Millisecond Pulsars in the Galactic Disk. *D. R. Lorimer, L. Nicastro, A. G. Lyne, M. Bailes, R. N. Manchester, S. Johnston, J. F. Bell, N. D'Amico, & P. A. Harrison.* 439, 933, 37-D13 (1995)

Alphanumeric: PSR J0751+1807

A Millisecond Pulsar in a 6 Hour Orbit: PSR J0751+1807. *S. C. Lundgren, A. F. Zepka, & J. M. Cordes.* 453, 419, 286-G10 (1995)

Alphanumeric: PSR J0943+22

A Search for Pulsars at High Galactic Latitudes. *S. E Thorsett, W. T. S. Deich, S. R. Kulkarni, J. Navarro, & G. Vasisht.* 416, 182, 203-C10 (1993)

Alphanumeric: PSR J1045−4509

Discovery of Three Binary Millisecond Pulsars. *M. Bailes, P. A. Harrison, D. R. Lorimer, S. Johnston, A. G. Lyne, R. N. Manchester, N. D'Amico, L. Nicastro, T. M. Tauris, & C. Robinson.* 425, L41, 85-F5 (1994)

Alphanumeric: PSR J1246+22

A Search for Pulsars at High Galactic Latitudes. *S. E Thorsett, W. T. S. Deich, S. R. Kulkarni, J. Navarro, & G. Vasisht.* 416, 182, 203-C10 (1993)

Alphanumeric: PSR J1341−6220

G308.8−0.1: An Unusual Supernova Remnant Containing a Short-Period Pulsar, PSR J1341−6220. *J. L. Caswell, M. J. Kesteven, R. T. Stewart, D. K. Milne, & R. F. Haynes.* 399, L151, 208-D1 (1992)

PSR J1341−6220: A Young Pulsar in a Supernova Remnant. *Victoria M. Kaspi, R. N. Manchester, Simon Johnston, A. G. Lyne, & N. D'Amico.* 399, L155, 208-D5 (1992)

Alphanumeric: PSR J1455−3330

Four New Millisecond Pulsars in the Galactic Disk. *D. R. Lorimer, L. Nicastro, A. G. Lyne, M. Bailes, R. N. Manchester, S. Johnston, J. F. Bell, N. D'Amico, & P. A. Harrison.* 439, 933, 37-D13 (1995)

Alphanumeric: PSR J1643−1224

Four New Millisecond Pulsars in the Galactic Disk. *D. R. Lorimer, L. Nicastro, A. G. Lyne, M. Bailes, R. N. Manchester, S. Johnston, J. F. Bell, N. D'Amico, & P. A. Harrison.* 439, 933, 37-D13 (1995)

Alphanumeric: PSR J1713+0747

A New Binary Millisecond Pulsar. *R. S. Foster, A. Wolszczan, & F. Camilo.* 410, L91, 126-A7 (1993)

High-Precision Timing of PSR J1713+0747: Shapiro Delay. *F. Camilo, R. S. Foster, & A. Wolszczan.* 437, L39, 291-F13 (1994)

On Possible Implications of Orbital Parallaxes of Wide Orbit Binary Pulsars and Their Measurability. *S. M. Kopeikin.* 439, L5, 29-E11 (1995)

Alphanumeric: PSR J1730−2304

Four New Millisecond Pulsars in the Galactic Disk. *D. R. Lorimer, L. Nicastro, A. G. Lyne, M. Bailes, R. N. Manchester, S. Johnston, J. F. Bell, N. D'Amico, & P. A. Harrison.* 439, 933, 37-D13 (1995)

Alphanumeric: PSR J2019+2425

Two Newly Discovered Millisecond Pulsars. *D. J. Nice, J. H. Taylor, & A. S. Fruchter.* 402, L49, 12-E7 (1993)

The Magnetic Fields, Ages, and Original Spin Periods of Millisecond Pulsars. *F. Camilo, S. E. Thorsett, & S. R. Kulkarni.* 421, L15, 21-E1 (1994)

On Possible Implications of Orbital Parallaxes of Wide Orbit Binary Pulsars and Their Measurability. *S. M. Kopeikin.* 439, L5, 29-E11 (1995)

PSR J2019+2425 and PSR J2322+2057 and the Proper Motions of Millisecond Pulsars. *D. J. Nice & J. H. Taylor.* 441, 429, 65-C7 (1995)

Alphanumeric: PSR J2145−0750

Discovery of Three Binary Millisecond Pulsars. *M. Bailes, P. A. Harrison, D. R. Lorimer, S. Johnston, A. G. Lyne, R. N. Manchester, N. D'Amico, L. Nicastro, T. M. Tauris, & C. Robinson.* 425, L41, 85-F5 (1994)

Optical Observations of the Binary Millisecond Pulsars J2145−0750 and J0034−0534. *J. F. Bell, S. R. Kulkarni, M. Bailes, E. M. Leitch, & A. G. Lyne.* 452, L121, 280-B7 (1995)

Alphanumeric: PSR J2235+1506

Discovery of Two Fast-rotating Pulsars. *F. Camilo, D. J. Nice, & J. H. Taylor.* 412, L37, 148-D11 (1993)

Alphanumeric: PSR J2317+1439

Discovery of Two Fast-rotating Pulsars. *F. Camilo, D. J. Nice, & J. H. Taylor.* 412, L37, 148-D11 (1993)

Alphanumeric: PSR J2322+2057

Two Newly Discovered Millisecond Pulsars. *D. J. Nice, J. H. Taylor, & A. S. Fruchter.* 402, L49, 12-E7 (1993)

The Magnetic Fields, Ages, and Original Spin Periods of Millisecond Pulsars. *F. Camilo, S. E. Thorsett, & S. R. Kulkarni.* 421, L15, 21-E1 (1994)

PSR J2019+2425 and PSR J2322+2057 and the Proper Motions of Millisecond Pulsars. *D. J. Nice & J. H. Taylor.* 441, 429, 65-C7 (1995)

Alphanumeric: RX J0002+6246

Discovery of a Candidate Isolated Neutron Star in a New Supernova Remnant near CTB 1. *Charles J. Hailey & William W. Craig.* 455, L151, 334-B12 (1995)

Alphanumeric: RX J0059.2−7138

A New Transient Pulsar in the Small Magellanic Cloud with an Unusual X-Ray Spectrum. *John P. Hughes.* 427, L25, 117-D8 (1994)

Alphanumeric: SMC X-1

Discovery of Orbital Decay in SMC X-1. *A. Levine, S. Rappaport, J. E. Deeter, P. E. Boynton, & F. Nagase.* 410, 328, 116-B8 (1993)

Alphanumeric: SN 1987A

A Search for a Pulsar in the Remnant of SN 1987A with the *Hubble Space Telescope* High-Speed Photometer. *J. W. Percival, P. T. Boyd, J. D. Biggs, J. F. Dolan, R. C. Bless, J. L. Elliot, M. J. Nelson, E. L. Robinson, M. J. Taylor, G. W. van Citters, & K. G. Wolinski.* 446, 832, 167-E4 (1995)

Alphanumeric: 4U 1538−52

The Polar Cap Structure of the X-Ray Pulsar 4U 1538−52. *T. Bulik, P. Mészáros, J. W. Woo, F. Nagase, & K. Makishima.* 395, 564, 149-G9 (1992)

EXOSAT Observations of the X-Ray Binary Pulsar 4U 1538−52. *N. R. Robba, G. Cusumano, M. Orlandini, D. Dal Fiume, & F. Frontera.* 401, 685, 231-A10 (1992)

Properties of a B0 I Stellar Wind and Interstellar Grains Derived from *Ginga* Observations of the Binary X-Ray Pulsar 4U 1538−52. *George W. Clark, Jonathan W. Woo, & Fumiaki Nagase.* 422, 336, 34-C3 (1994)

Geometry and Pulse Profiles of X-Ray Pulsars: Asymmetric Relativistic Fits to 4U 1538−52 and Vela X-1. *T. Bulik, H. Riffert, P. Mészáros, K. Makishima, T. Mihara, & B. Thomas.* 444, 405, 119-B3 (1995)

Alphanumeric: 4U 2206+54

EXOSAT Observations of the Be/X-Ray Binary 4U 2206+54. *Priyamvada Saraswat & Krishna M. V. Apparao.* 401, 678, 231-A1 (1992)

Alphanumeric: V0332+53

Discovery of the Quasi-periodic Oscillations from V0332+53. *Toshiaki Takeshima, Tadayasu Dotani, Kazuhisa Mitsuda, & Fumiaki Nagase.* 436, 871, 277-F7 (1994)

Alphanumeric: X0115+634

The X-Ray Outburst from X0115+634 in 1990 February. *Keisuke Tamura, Hiroshi Tsunemi, Shunji Kitamoto, Kiyoshi Hayashida, & Fumiaki Nagase.* 389, 676, 69-G1 (1992)

STARS: PULSATION

Classical Cepheids with RV Tauri Characteristics? *Pawel Moskalik & J. Robert Buchler.* 366, 300, 4-F12 (1991)

On the Subadiabatic Magnetohydrodynamic Overstability in Background Polytropes. *Yu-Qing Lou.* 367, 367, 16-E9 (1991)

Stellar Evolution and Period Changes in RR Lyrae Stars. *Young-Wook Lee.* 367, 524, 19-G7 (1991)

Resonant Interaction in Common Envelopes. *Noam Soker.* 367, 593, 20-F1 (1991)

Adiabatic Properties of Pulsating DA White Dwarfs. I. The Treatment of the Brunt-Väisälä Frequency and the Region of Period Formation. *P. Brassard, G. Fontaine, F. Wesemael, S. D. Kawaler, & M. Tassoul.* 367, 601, 20-F11 (1991)

Detection of Possible *p*-Mode Oscillations on Procyon. *Timothy M. Brown, Ronald L. Gilliland, Robert W. Noyes, & Lawrence W. Ramsey.* 368, 599, 32-E8 (1991)

Detection of Small-Amplitude Pulsations in HD 34656 (O7 II). *A. W. Fullerton, D. R. Gies, & C. T. Bolton.* 368, L35, 35-C1 (1991)

Asteroseismology of White Dwarf Stars. I. Adiabatic Results. *P. A. Bradley & D. E. Winget.* 75, 463, 7-A13 (1991)

Phase Coherence for TeV/PeV Binary Sources. *D. A. Lewis, R. C. Lamb, & S. D. Biller.* 369, 479, 43-F4 (1991)

The Discovery of an X-Ray Burst and a Study of Aperiodic Variability from SMC X-1. *L. Angelini, L. Stella, & N. E. White.* 371, 332, 64-C1 (1991)

Opacity Tables for Cepheid Variables. *Carlos A. Iglesias & Forrest J. Rogers.* 371, L73, 73-D1 (1991)

Two Double-Mode RR Lyrae Stars in the Field. *Christine M. Clement, T. D. Kinman, & Nicholas B. Suntzeff.* 372, 273, 77-C13 (1991)

Oscillations of Rotating Neutron Stars. *Tod E. Strohmayer.* 372, 573, 82-G5 (1991)

Classical Cepheid Luminosities from Binary Companions. *Nancy Remage Evans.* 372, 597, 83-B1 (1991)

The Oscillations of Rapidly Rotating Newtonian Stellar Models. II. Dissipative Effects. *James R. Ipser & Lee Lindblom.* 373, 213, 88-E12 (1991)

Analysis of Radiation Pressure Effects in Pulsating Stars through Perturbative Limit Cycle Solutions. *A. Costa, D. Gómez, & C. Ferro Fontán.* 373, 237, 88-G13 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

Post-Newtonian Effects on the Modes of Rotating Stars. *Curt Cutler.* 374, 248, 101-C1 (1991)

The Infrared and Optical Pulsations of G29-38. *Joseph Patterson, B. Zuckerman, E. E. Becklin, D. J. Tholen, & T. Hawarden.* 374, 330, 102-C1 (1991)

Hydrodynamic Pulsation Models of Yellow Supergiant Stars in the Post-Asymptotic Giant Branch. *Toshiki Aikawa.* 374, 700, 107-F13 (1991)

The *p*-Mode Oscillation Spectra of an Evolving 1 $M_\odot$ Sun-like Star. *D. B. Guenther.* 375, 352, 115-C8 (1991)

The Shear Modulus of the Neutron Star Crust and Nonradial Oscillations of Neutron Stars. *T. Strohmayer, S. Ogata, H. Iyetomi, S. Ichimaru, & H. M. Van Horn.* 375, 679, 121-B7 (1991)

Detection of Coherent 7.6 Hz Oscillations during a Burst from Aquila X-1. *R. J. Schoelkopf & R. L. Kelley.* 375, 696, 121-D1 (1991)

The RRd Masses Revisited. *Norman R. Simon & Arthur N. Cox.* 376, 717, 135-C1 (1991)

Asteroseismology of the DOV Star PG 1159−035 with the Whole Earth Telescope. *D. E. Winget, R. E. Nather, J. C. Clemens, J. Provencal, S. J. Kleinman, P. A. Bradley, M. A. Wood, C. F. Claver, M. L. Frueh, A. D. Grauer, B. P. Hine, C. J. Hansen, G. Fontaine, N. Achilleos, D. T. Wickramasinghe, T. M. K. Marar, S. Seetha, B. N. Ashoka, D. O'Donoghue, B. Warner, D. W. Kurtz, D. A. Buckley, J. Brickhill, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, J. E. Solheim, A. Kanaan, S. O. Kepler, G. W. Henry, & S. D. Kawaler.* 378, 326, 155-A10 (1991)

Discovery and Seismological Interpretation of Low-Amplitude Modes in the Pulsating DO White Dwarf PG 1707+427 (V817 Herculis). *G. Fontaine, P. Bergeron, G. Vauclair, P. Brassard, F. Wesemael, S. D. Kawaler, A. D. Grauer, & D. E. Winget.* 378, L49, 162-F1 (1991)

On the Adiabatic Pulsations of Accretion Disks and Rotating Stars. *James R. Ipser & Lee Lindblom.* 379, 285, 166-E7 (1991)

Periodic Stellar Pulsations: Stability Analysis and Amplitude Equations. *J. Robert Buchler, Pawel Moskalik, & Géza Kovács.* 380, 185, 178-D1 (1991)

Superfluid Hydrodynamics in Rotating Neutron Stars. I. Nondissipative Equations. *Gregory Mendell.* 380, 515, 184-F1 (1991)

Superfluid Hydrodynamics in Rotating Neutron Stars. II. Dissipative Effects. *Gregory Mendell.* 380, 530, 184-G3 (1991)

Post–Asymptotic Giant Branch Nonradial Instability Strips. *Letizia Stanghellini, Arthur N. Cox, & Sumner Starrfield.* 383, 766, 223-F10 (1991)

The Mode of Pulsation in Mira Variables Determined by the Observed Acceleration Data. *Y. Tuchman.* 383, 779, 223-G11 (1991)

STARS: RADIO RADIATION

AG Pegasi: A Multishell Radio Source. *H. T. Kenny, A. R. Taylor, & E. R. Seaquist.* 366, 549, 9-G7 (1991)

The Proper Motion of the Soft X-Ray–emitting Radio Pulsar PSR 0656+14. *R. J. Thompson, Jr., F. A. Córdova, R. M. Hjellming, & E. B. Fomalont.* 366, L83, 11-E1 (1991)

Nonthermal Radio Emission from the X-Ray–Bright K5 IV Star 1E 1751+7046. *Stephen L. Skinner.* 368, 272, 26-D11 (1991)

Solar and Stellar Radio Spikes: Limits on the Saturation of the Electron-Cyclotron Maser. *Donat G. Wentzel & Markus J. Aschwanden.* 372, 688, 84-C1 (1991)

Direct VLBI Detection of the Magnetosphere Surrounding the Young Star S1 in ρ Ophiuchi. *Philippe André, Robert B. Phillips, Jean-François Lestrade, & Karl-Ludwig Klein.* 376, 630, 134-B12 (1991)

Observations of Stellar Winds from Hot Stars at 1.3 Millimeters. *Claus Leitherer & Carmelle Robert.* 377, 629, 147-E1 (1991)

High-Resolution Radio Continuum Observations of Compact Planetary Nebulae. *O. B. Aaquist & Sun Kwok.* 378, 599, 159-G1 (1991)

An Observational Connection between Circumstellar Disk Mass and Molecular Outflows. *Sylvie Cabrit & Philippe André.* 379, L25, 169-C6 (1991)

A Rich Cluster of Radio Stars in the ρ Ophiuchi Cloud Cores. *James A. Leous, Eric D. Feigelson, Philippe André, & Thierry Montmerle.* 379, 683, 173-B10 (1991)

The 10 Year Radio Light Curves for SN 1979C. *Kurt W. Weiler, Schuyler D. Van Dyk, Nino Panagia, Richard A. Sramek, & Jennifer L. Discenna.* 380, 161, 178-B1 (1991)

Milliarcsecond Radio Structure of Weak-lined T Tauri Stars. *R. B. Phillips, C. J. Lonsdale, & E. D. Feigelson.* 382, 261, 203-D9 (1991)

Are FU Orionis Stars Younger than T Tauri Stars? Submillimeter Constraints on Circumstellar Disks. *David A. Weintraub, Göran Sandell, & William D. Duncan.* 382, 270, 203-E8 (1991)

Direct Evidence for Stellar Wind X-Ray Absorption in O Stars. *Wayne L. Waldron.* 382, 603, 209-A9 (1991)

The Radio "Lobes" of Scorpius X-1 Are Unrelated Background Sources. *E. B. Fomalont & B. J. Geldzahler.* 383, 289, 215-G1 (1991)

STARS: ROTATION

Rotation and Magnetism in White Dwarfs. *Gary D. Schmidt & Jane E. Norsworthy.* 366, 270, 4-D1 (1991)

Evolutionary Models of Halo Stars with Rotation. I. Evidence for Differential Rotation with Depth in Stars. *Marc H. Pinsonneault, Constantine P. Deliyannis, & Pierre Demarque.* 367, 239, 15-A12 (1991)

Models of White Dwarfs under Rapid Uniform or Differential Rotation: Numerical Results. II. *V. S. Geroyannis & A. A. Hadjopoulos.* 75, 499, 7-D11 (1991)

Continuum Polarization by Electron Scattering in Rotationally Distorted, Radiation-driven Stellar Winds: B[e] Supergiants. *Cameron J. Boyd & J. M. Marlborough.* 369, 191, 38-C11 (1991)

Explosion of a Rotating Neutron Star near the Minimum Mass. *Monica Colpi, Stuart L. Shapiro, & Saul A. Teukolsky.* 369, 422, 43-A5 (1991)

Does Accretion Cease When a Star Approaches Breakup? *Robert Popham & Ramesh Narayan.* 370, 604, 56-A6 (1991)

Meridional Circulation and Diffusion in A and Early F Stars. *Paul Charbonneau & Georges Michaud.* 370, 693, 57-A10 (1991)

Spectroscopic Binaries in the Orion OB1 Association. *Nidia Morrell & Hugo Levato.* 75, 965, 15-F5 (1991)

Oscillations of Rotating Neutron Stars. *Tod E. Strohmayer.* 372, 573, 82-G5 (1991)

Rotational Modulation in *IUE* Spectra of Cool Dwarf Chromospheres. I. Data Analysis and Period Search Techniques. *K. L. Hallam, B. Altner, & A. S. Endal.* 372, 610, 83-C1 (1991)

Stationary Accelerators around Keplerian Disks of Aligned Magnetized Collapsed Objects: Pair Production and Gamma-Ray Emission. *K. S. Cheng & M. Ruderman.* 373, 187, 88-C9 (1991)

The Oscillations of Rapidly Rotating Newtonian Stellar Models. II. Dissipative Effects. *James R. Ipser & Lee Lindblom.* 373, 213, 88-E12 (1991)

Structure and Stability of Rotating Relativistic Neutron Stars. *F. Weber, N. K. Glendenning, & M. K. Weigel.* 373, 579, 95-B10 (1991)

The Chromospheric Activity of Low-Mass Stars in the Hyades. *John R. Stauffer, Mark S. Giampapa, William Herbst, James M. Vincent, Lee W. Hartmann, & Robert A. Stern.* 374, 142, 99-G1 (1991)

Post-Newtonian Effects on the Modes of Rotating Stars. *Curt Cutler.* 374, 248, 101-C1 (1991)

The Collapse of Cylindrical Isothermal and Polytropic Clouds with Rotation. *Ian Bonnell & Pierre Bastien.* 374, 610, 106-F5 (1991)

Rotation and Emission Lines in Stars and Accretion Disks. *Keith Horne & Steven H. Saar.* 374, L55, 110-D6 (1991)

V1500 Cygni: A Prediction. *J. I. Katz.* 374, L59, 110-D11 (1991)

The Many Faces of F Stars: A Rotational Modulation Study of Capella, Procyon, and Caph with the *International Ultraviolet Explorer*. *Thomas R. Ayres.* 375, 704, 121-D11 (1991)

Rotational Evolution of Solar-Type Stars. I. Main-Sequence Evolution. *K. B. MacGregor & M. Brenner.* 376, 204, 127-D13 (1991)

Spin Evolution and Magnetic Fields in Cataclysmic Variables. *Andrew R. King & Jean-Pierre Lasota.* 378, 674, 160-G1 (1991)

On the Adiabatic Pulsations of Accretion Disks and Rotating Stars. *James R. Ipser & Lee Lindblom.* 379, 285, 166-E7 (1991)

Spin-up of the White Dwarf in the Intermediate Polar 3A 0729+103. *Jyoti Singh, P. C. Agrawal, K. M. V. Apparao, P. Vivekananda Rao, & M. B. K. Sarma.* 380, 208, 178-E11 (1991)

Metallic Line Profiles of the A0 V Star Vega. *Austin F. Gulliver, Saul J. Adelman, Charles R. Cowley, & J. Murray Fletcher.* 380, 223, 178-G1 (1991)

Superfluid Hydrodynamics in Rotating Neutron Stars. I. Nondissipative Equations. *Gregory Mendell.* 380, 515, 184-F1 (1991)

Superfluid Hydrodynamics in Rotating Neutron Stars. II. Dissipative Effects. *Gregory Mendell.* 380, 530, 184-G3 (1991)

A Connection between Long-Term Luminosity Variations and Orbital Period Changes in Chromospherically Active Binaries. *Douglas S. Hall.* 380, L85, 188-F1 (1991)

Two-dimensional Hydrodynamic Calculations of the Nonlinear Development of the Goldreich-Schubert-Fricke Instability in a Rotating Annulus. *D. G. Korycansky.* 381, 515, 197-B1 (1991)

Rotation Periods for Seven Stars in the Trapezium Cluster. *Gregory N. Mandel & William Herbst.* 383, L75, 226-E11 (1991)

Model Atmospheres for Rotating B Stars. *George W. Collins II, Ryland J. Truax, & Steven R. Cranmer.* 77, 541, 52-B5 (1991)

Line Shapes of Rotating Stars with Application to Alpha Lyrae. *G. H. Elste.* 384, 284, 4-D10 (1992)

Evolutionary Models of Halo Stars with Rotation. II. Effects of Metallicity on Lithium Depletion, and Possible Implications for the Primordial Lithium Abundance. *M. H. Pinsonneault, Constantine P. Deliyannis, & P. Demarque.* 78, 179, 4-B3 (1992)

Post-Newtonian Frequencies for the Pulsations of Rapidly Rotating Neutron Stars. *Curt Cutler & Lee Lindblom.* 385, 630, 21-A1 (1992)

Constraints on the Surface Magnetic Fields of Hot Stars with Winds. *Murugesapillai Maheswaran & Joseph P. Cassinelli.* 386, 695, 33-G13 (1992)

Angular Momentum Transport in Magnetized Stellar Radiative Zones. I. Numerical Solutions to the Core Spin-up Model Problem. *P. Charbonneau & K. B. MacGregor.* 387, 639, 46-E11 (1992)

Carbon, Nitrogen, and Oxygen Abundances in Early B-Type Stars. *Douglas R. Gies & David L. Lambert.* 387, 673, 47-B1 (1992)

Light Curves of Rotating, Oscillating Neutron Stars. *T. E. Strohmayer.* 388, 138, 50-F9 (1992)

Rotational Properties of Strange Stars. *M. Colpi & J. C. Miller.* 388, 513, 56-F1 (1992)

On the Interior Structure of Contact Binaries and the Light-Curve Paradox. *Jean-Louis Tassoul.* 389, 375, 64-E9 (1992)

Rotating Stars: The Angular Momentum Constraints. *Fernando de Felice & Leonardo Di G. Sigalotti.* 389, 386, 64-F7 (1992)

On the Pulsations of Relativistic Accretion Disks and Rotating Stars: The Cowling Approximation. *James R. Ipser & Lee Lindblom.* 389, 392, 64-G1 (1992)

Remarks on Triaxiality, Spin-up, and Magnetic Field Obliquity of Some Millisecond Pulsars. *W. Y. Chau, K. S. Cheng, & J. L. Zhang.* 390, 486, 81-D1 (1992)

Application of the Improved Hartle Method for the Construction of General Relativistic Rotating Neutron Star Models. *F. Weber & N. K. Glendenning.* 390, 541, 82-B1 (1992)

The Rotation of M Dwarfs. *Geoffrey W. Marcy & Grace H. Chen.* 390, 550, 82-B11 (1992)

The Ring around SN 1987A and Rotation of the Progenitor. *Y. Eriguchi, H. Yamaoka, K. Nomoto, & M. Hashimoto.* 392, 243, 104-A1 (1992)

Evidence of Differential Surface Rotation in the Solar-Type Star HD 114710. *Robert A. Donahue & Sallie L. Baliunas.* 393, L63, 127-D1 (1992)

Rotational Parameters of PSR 0540−69 as Measured at Optical Wavelengths. *Christian Gouiffes, John P. Finley, & Hakki Ögelman.* 394, 581, 136-E8 (1992)

Effects of Differential Rotation on Stellar Oscillations: A Second-Order Theory. *W. A. Dziembowski & Philip R. Goode.* 394, 670, 137-G5 (1992)

A Comparative Study of Synchronization and Circularization in Close Binaries. *Jean-Louis Tassoul & Monique Tassoul.* 395, 259, 143-D1 (1992)

On the Efficiency of Ekman Pumping for Synchronization in Close Binaries. *Monique Tassoul & Jean-Louis Tassoul.* 395, 604, 150-E5 (1992)

Field Theoretical Model for Nuclear and Neutron Matter. V. Slowly Rotating Warm Cores in Neutron Stars. *José V. Romero, J. Díaz Alonso, José M^a. Ibáñez, Juan A. Miralles, & Armando Pérez.* 395, 612, 150-F5 (1992)

Effects of Evolving Rotating Equilibrium Configurations on the Cooling and Spin-down of Pulsars. *K. S. Cheng, W. Y. Chau, J. L. Zhang, & H. F. Chau.* 396, 135, 156-G3 (1992)

γ Cephei: Rotation or Planetary Companion? *Gordon A. H. Walker, David A. Bohlender, Andrew R. Walker, Alan W. Irwin, Stephenson L. S. Yang, & Ana Larson.* 396, L91, 167-D1 (1992)

Solar Spin-down with Internal Magnetic Fields. *P. Charbonneau & K. B. MacGregor.* 397, L63, 174-A3 (1992)

Spin-up of a Rapidly Rotating Star by Angular Momentum Loss: Effects of General Relativity. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 398, 203, 184-D1 (1992)

Rotation Periods of T Tauri Stars in the Orion Nebula Cluster: A Bimodal Frequency Distribution. *Joanne M. Attridge & William Herbst.* 398, L61, 188-B1 (1992)

Oscillations and Collapse of Compressible Homogeneous Rotating Spheroids with Electron Degeneracy. *T. T. Chia & S. Y. Pung.* 398, 574, 191-C7 (1992)

Polarization Cancellation in the Two-Component Winds from Wolf-Rayet Stars. *M. Taylor & J. P. Cassinelli.* 401, 311, 224-G5 (1992)

General Relativistic Structure of Star-Toroid Systems. *Shogo Nishida, Yoshiharu Eriguchi, & Antonio Lanza.* 401, 618, 230-C1 (1992)

Rotation and Activity among Solar-Type Stars of the Ursa Major Group. *David R. Soderblom & Michel Mayor.* 402, L5, 6-B9 (1993)

Lithium and Rapid Rotation in Chromospherically Active Single Giants. *Francis C. Fekel & Suchitra Balachandran.* 403, 708, 24-E4 (1993)

Particle Transport and the λ Bootis Phenomenon. I. The Diffusion/Mass-Loss Model Revisited. *P. Charbonneau.* 405, 720, 52-A9 (1993)

Rotation of Young Solar-Type Stars in the Orion Nebula Region. *Douglas K. Duncan.* 406, 172, 57-C1 (1993)

Hydrodynamical Simulations of Rotating Stars. I. A Model for Subgrid-Scale Flow. *Maurice J. Clement.* 406, 651, 66-A3 (1993)

The Boltzmann Equation in General Relativistic Rotating Systems: Cooling of Rotating Neutron Stars. *Juan A. Miralles, Kenneth A. Van Riper, & James M. Lattimer.* 407, 687, 79-B1 (1993)

Rotation and Chromospheric Emission among F, G, and K Dwarfs of the Pleiades. *David R. Soderblom, John R. Stauffer, J. Dan Hudon, & Burton F. Jones.* 85, 315, 11-D13 (1993)

Local Hydrodynamic Instability of Rotating Stars. *Alexander Lifschitz & Norman Lebovitz.* 408, 603, 92-F9 (1993)

Equatorial Disk Formation around Rotating Stars Due to Ram Pressure Confinement by the Stellar Wind. *J. E. Bjorkman & J. P. Cassinelli.* 409, 429, 102-C10 (1993)

The Evolution of Angular Momentum among Zero-Age Main-Sequence Solar-Type Stars. *David R. Soderblom, John R. Stauffer, Keith B. MacGregor, & Burton F. Jones.* 409, 624, 106-F13 (1993)

Doppler Imaging Stars with Moderate Rotation: The Spot Distribution on σ Geminorum. *Artie P. Hatzes.* 410, 777, 123-D7 (1993)

A Study of Carina OB2 Association. I. Observational Data. *Beatriz García.* 87, 197, 29-F3 (1993)

The Effects of Zonal Atmospheric Currents on the Spectra of Rotating Early-Type Stars. *Steven R. Cranmer & George W. Collins II.* 412, 720, 152-F12 (1993)

The Effects of Zonal Atmospheric Currents on the Spectra of Rotating Early-Type Stars. *Steven R. Cranmer & George W. Collins II.* 412, 720, 152-F12 (1993)

Normal Modes of Relativistic Stars in Slow Rotation Limit. *Yasufumi Kojima.* 414, 247, 173-B3 (1993)

An Interpretation of Cycle Periods of Stellar Chromospheric Activity. *W. H. Soon, S. L. Baliunas, & Q. Zhang.* 414, L33, 175-F6 (1993)

Ellipsoidal Figures of Equilibrium: Compressible Models. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 88, 205, 43-A1 (1993)

Self-gravitating Symplectic Systems. *G. Rosensteel.* 416, 291, 204-F7 (1993)

HR 1362: The Evolved 53 Camelopardalis. *K. Stępień.* 416, 368, 205-E11 (1993)

Chromospheric Activity in Galactic Open Clusters. *A. J. Beasley & L. E. Cram.* 417, 157, 219-D1 (1993)

Cooling and Spin-down of Pulsars with Evolving Rotating Equilibrium Configuration. II. Effects of Equations of State. *N. Chong & K. S. Cheng.* 417, 279, 221-A3 (1993)

Angular Momentum Transport in Magnetized Stellar Radiative Zones. II. The Solar Spin-down. *P. Charbonneau & K. B. MacGregor.* 417, 762, 228-G13 (1993)

A Far-Ultraviolet Flare on a Pleiades G Dwarf. *T. R. Ayres, J. R. Stauffer, Theodore Simon, R. A. Stern, S. K. Antiochos, G. S. Basri, J. A. Bookbinder, A. Brown, G. A. Doschek, J. L. Linsky, L. W. Ramsey, & F. M. Walter.* 420, L33, 7-E4 (1994)

Differential Rotation and the Convective Core Mass of Upper Main-Sequence Stars. *Maurice J. Clement.* 420, 797, 12-G3 (1994)

Hydrodynamic Instability and Coalescence of Binary Neutron Stars. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 420, 811, 13-A10 (1994)

An Iterative Technique for Computing Rotating White Dwarf Models. *V. S. Geroyannis & P. J. Papasotiriou.* 90, 501, 9-A9 (1994)

Radiating, Slowly Rotating Bodies in General Relativity. *L. Herrera, A. Melfo, L. A. Núñez, & A. Patiño.* 421, 677, 26-F3 (1994)

Rotation and Magnetic Fields during the Evolution of Massive Stars through B[e] and Wolf-Rayet Phases. *Murugesapillai Maheswaran & Joseph Cassinelli.* 421, 718, 27-B9 (1994)

Rapidly Rotating Polytropes in General Relativity. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 422, 227, 33-A1 (1994)

Rapidly Rotating Neutron Stars in General Relativity: Realistic Equations of State. *Gregory B. Cook, Stuart L. Shapiro, & Saul A. Teukolsky.* 424, 823, 75-A11 (1994)

Neutron Star Moments of Inertia. *D. G. Ravenhall & C. J. Pethick.* 424, 846, 75-C8 (1994)

Detection of Lithium in the Cool Halo Dwarfs Groombridge 1830 and HD 134439: Implications for Internal Stellar Mixing and Cosmology. *Constantine P. Deliyannis, Sean G. Ryan, Timothy C. Beers, & Julie A. Thorburn.* 425, L21, 85-D3 (1994)

Optical Variability in the Unusual K5 V Infrared-Excess Star HD 98800. *Gregory W. Henry & Douglas S. Hall.* 425, L25, 85-D9 (1994)

A Spectroscopic Method to Measure MACHO Proper Motions. *Dan Maoz & Andrew Gould.* 425, L67, 94-C1 (1994)

On the Existence of a Surface Boundary Layer in a Slowly Rotating, Early-Type Star. *Monique Tassoul.* 427, 388, 114-F3 (1994)

Magnetic Braking in Spin Evolution of Magnetized T Tauri Stars. *Insu Yi.* 428, 760, 139-F6 (1994)

The Orbital Evolution of Highly Eccentric Binaries. *Itzhak Goldman & Tsevi Mazeh.* 429, 362, 148-E7 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. I. A Generalized Model. *Frank Shu, Joan Najita, Eve Ostriker, Frank Wilkin, Steven Ruden, & Susana Lizano.* 429, 781, 155-D5 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. II. Formulation of the Dynamical Problem. *Frank H. Shu, Joan Najita, Steven P. Ruden, & Susana Lizano.* 429, 797, 155-E9 (1994)

Magnetocentrifugally Driven Flows from Young Stars and Disks. III. Numerical Solution of the Sub-Alfvénic Region. *Joan R. Najita & Frank H. Shu.* 429, 808, 155-F9 (1994)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. I. Axisymmetric Solutions. *Shantanu Basu & Telemachos Ch. Mouschovias.* 432, 720, 205-A6 (1994)

Ultraviolet Spectral Classification and Stellar Winds in a Sample of Be and Standard Stars. *Arne Slettebak.* 94, 163, 54-A5 (1994)

Waves and Instabilities of a Toroidal Magnetic Flux Tube in a Rotating Star. *A. Ferriz-Mas & M. Schüssler.* 433, 852, 221-F10 (1994)

Numerical Study of Rotating Core Collapse in Supernova Explosions. *Shoichi Yamada & Katsuhiko Sato.* 434, 268, 229-B6 (1994)

Lithium in a Short-Period Tidally Locked Binary of M67: Implications for Stellar Evolution, Galactic Lithium Evolution, and Cosmology. *Constantine P. Deliyannis, Jeremy R. King, Ann M. Boesgaard, & Sean G. Ryan.* 434, L71, 241-G1 (1994)

Upper Limit of the Angular Velocity of Neutron Stars. *Masa-aki Hashimoto, Kazuhiro Oyamatsu, & Yoshiharu Eriguchi.* 436, 257, 264-G1 (1994)

Hydrodynamics of Rotating Stars and Close Binary Interactions: Compressible Ellipsoid Models. *Dong Lai, Frederic A. Rasio, & Stuart L. Shapiro.* 437, 742, 295-G13 (1994)

Critical Angular Velocities of Rotating Neutron Stars. *Lee Lindblom.* 438, 265, 5-B4 (1995)

Chromospheric Variations in Main-Sequence Stars. II. *S. L. Baliunas, R. A. Donahue, W. H. Soon, J. H. Horne, J. Frazer, L. Woodard-Eklund, M. Bradford, L. M. Rao, O. C. Wilson, Q. Zhang, W. Bennett, J. Briggs, S. M. Carroll, D. K. Duncan, D. Figueroa, H. H. Lanning, T. Misch, J. Mueller, R. W. Noyes, D. Poppe, A. C. Porter, C. R. Robinson, J. Russell, J. C. Shelton, T. Soyumer, A. H. Vaughan, & J. H. Whitney.* 438, 269, 5-B12 (1995)

RE 0044+09: A New K Dwarf Rapid Rotator with a White Dwarf Companion? *Barry J. Kellett, Gordon E. Bromage, Alexander Brown, Robin D. Jeffries, David J. James, David Kilkenny, Russell M. Robb, David Wonnacott, Christopher Lloyd, & C. Clayton.* 438, 364, 6-D13 (1995)

HD 93521, ζ Ophiuchi, and the Effects of Rapid Rotation on the Atmospheres and Winds of O9.5 V Stars. *Derck Massa.* 438, 376, 6-F1 (1995)

Gravitational Radiation–driven Secular Instability of Rotating Polytropes. *Shin'ichirou Yoshida & Yoshiharu Eriguchi.* 438, 830, 15-F1 (1995)

Stellar Evolution with Arbitrary Rotation Laws. II. Massive Star Evolution to Core Hydrogen Exhaustion. *Robert G. Deupree.* 439, 357, 26-B1 (1995)

Simple Analysis of Slowly Rotating Semidegenerate Spheroids of Fermions. *M. A. Sabadell, J. Sañudo, & A. F. Pacheco.* 439, 846, 36-C5 (1995)

Classical Rotational Broadening of Spectral Lines. *George W. Collins II & Ryland J. Truax.* 439, 860, 36-E3 (1995)

The Effect of Oblateness and Gravity Darkening on the Radiation Driving in Winds from Rapidly Rotating B Stars. *Steven R. Cranmer & Stanley P. Owocki.* 440, 308, 45-D6 (1995)

Meridional Circulation in Rotating Stars. XI. Single-Cell Pattern versus Double-Cell Pattern. *Monique Tassoul & Jean-Louis Tassoul.* 440, 789, 54-A4 (1995)

Can the Variability of Solar-like Spotted Stars be Detected Polarimetrically? *Geoffrey K. Fox.* 441, 408, 65-A1 (1995)

Detection of the Hot White Dwarf in the Magnetic Nova V1500 Cygni with the *Hubble Space Telescope*. *Gary D. Schmidt, James Liebert, & H. S. Stockman.* 441, 414, 65-A11 (1995)

Stellar Models with Microscopic Diffusion and Rotational Mixing. II. Application to Open Clusters. *Brian Chaboyer, P. Demarque, & M. H. Pinsonneault.* 441, 876, 74-A13 (1995)

The Very Low Mass X-Ray Binary Pulsars: A New Class of Sources? *S. Mereghetti & L. Stella.* 442, L17, 84-F9 (1995)

Magnetized Accretion and Spin Evolution in Classical T Tauri Stars. *Insu Yi.* 442, 768, 90-G2 (1995)

Activity Cycles in Cool Stars. I. Observation and Analysis Methods and Case Studies of Four Well-observed Examples. *Jeffrey C. Hall, G. W. Lockwood, & Erika L. Gibb.* 442, 778, 91-A1 (1995)

Magnetic Moments and Angular Momenta of Stars and Planets. *C. N. Arge, D. J. Mullan, & A. Z. Dolginov.* 443, 795, 108-G1 (1995)

Starspot Evolution, Differential Rotation, and Magnetic Cycles in the Chromospherically Active Binaries λ Andromedae, σ Geminorum, II Pegasi, and V711 Tauri. *Gregory W. Henry, Joel A. Eaton, Jamesia Hamer, & Douglas S. Hall.* 97, 513, 19-C6 (1995)

Comparing Models of Rapidly Rotating Relativistic Stars Constructed by Two Numerical Methods. *Nikolaos Stergioulas & John L. Friedman.* 444, 306, 117-F1 (1995)

On Orbital Circularization in Late-Type Close Binaries. *Jean-Louis Tassoul.* 444, 338, 118-B8 (1995)

Nonaxisymmetric Secular Instabilities Driven by Star/Disk Coupling. *James N. Imamura, Joseph Toman, Richard H. Durisen, Brian K. Pickett, & Shelby Yang.* 444, 363, 118-E4 (1995)

The Minimum Mass Ratio of W Ursae Majoris Binaries. *Frederic A. Rasio.* 444, L41, 121-G1 (1995)

Does Gravitational Radiation Limit the Angular Velocities of Superfluid Neutron Stars? *Lee Lindblom & Gregory Mendell.* 444, 804, 127-E6 (1995)

Hubble Space Telescope High-Resolution Spectroscopy of the Exposed White Dwarf in the Dwarf Nova VW Hydri in Quiescence: A Rapidly Rotating White Dwarf. *Edward M. Sion, Min Huang, Paula Szkody, & Fu-Hua Cheng.* 445, L31, 140-F3 (1995)

Equilibrium in the Oblique Rotating Outer Pulsar Magnetosphere. *Geoffrey Endean.* 445, 762, 145-F7 (1995)

Phase-Transition Theory of Instabilities. II. Fourth-Harmonic Bifurcations and λ-Transitions. *Dimitris M. Christodoulou, Demosthenes Kazanas, Isaac Shlosman, & Joel E. Tohline.* 446, 485, 162-G3 (1995)

Whole Earth Telescope Observations of the DAV White Dwarf G226-29. *S. O. Kepler, O. Giovannini, M. A. Wood, R. E. Nather, D. E. Winget, A. Kanaan, S. J. Kleinman, P. A. Bradley, J. L. Provencal, J. C. Clemens, C. F. Claver, T. K. Watson, K. Yanagida, K. Krisciunas, T. M. K. Marar, S. Seetha, B. N. Ashoka, E. Leibowitz, H. Mendelson, T. Mazeh, P. Moskalik, J. Krzesiński, G. Pajdosz, S. Zoła, J.-E. Solheim, P.-I. Emanuelsen, N. Dolez, G. Vauclair, M. Chevreton, J.-R. Fremy, M. A. Barstow, A. E. Sansom, R. W. Tweedy, D. T. Wickramasinghe, L. Ferrario, D. J. Sullivan, A. J. van der Peet, D. A. H. Buckley, & A.-L. Chen.* 447, 874, 188-A1 (1995)

The Rotational Rates of Blue Stragglers Produced by Physical Stellar Collisions. *Peter J. T. Leonard & Mario Livio.* 447, L121, 191-B11 (1995)

The Relation between Rotational Velocities and Spectral Peculiarities among A-Type Stars. *Helmut A. Abt & Nidia I. Morrell.* 99, 135, 36-A1 (1995)

Study of Spectroscopic Binaries with TODCOR. II. The Highly Eccentric Binary HD 2909. *Tsevi Mazeh, Shay Zucker, Dorit Goldberg, David W. Latham, Robert P. Stefanik, & Bruce W. Carney.* 449, 909, 225-C10 (1995)

On the Torque Exerted by a Magnetically Threaded Accretion Disk. *Y.-M. Wang.* 449, L153, 227-F1 (1995)

Spectral and Temporal Characteristics of X-Ray–bright Stars in the Pleiades. *Marc Gagné, Jean-Pierre Caillault, & John R. Stauffer.* 450, 217, 231-A11 (1995)

Gravitational Radiation from Rotational Collapse of a Supernova Core. *Shoichi Yamada & Katsuhiko Sato.* 450, 245, 231-D4 (1995)

The Structure and Evolution of an Accretion Flow Interacting with the Central Star. *Masayuki Y. Fujimoto.* 450, 262, 231-E13 (1995)

Evidence for Rapid Rotation of the Carbon Star V Hydrae. *Cecilia Barnbaum, Mark Morris, & Claudine Kahane.* 450, 862, 242-G7 (1995)

A 12 Year Photometric Study of Lower Main-Sequence Hyades Stars. *Richard R. Radick, G. W. Lockwood, B. A. Skiff, & D. T. Thompson.* 452, 332, 266-F6 (1995)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. II. A Parameter Study. *Shantanu Basu & Telemachos Ch. Mouschovias.* 452, 386, 267-D7 (1995)

Chemical Evolution of the Orion Association. III. The Lithium Abundance of F and G Stars. *Katia Cunha, Verne V. Smith, & David L. Lambert.* 452, 634, 273-D11 (1995)

Spin-Orbit Interactions in Neutron Star/Main-Sequence Binaries and Implications for Pulsar Timing. *Dong Lai, Lars Bildsten, & Victoria M. Kaspi.* 452, 819, 276-A1 (1995)

Rotation and Oxygen Line Strengths in Blue Horizontal-Branch Stars. *Ruth C. Peterson, Robert T. Rood, & Deborah A. Crocker.* 453, 214, 284-B1 (1995)

Magnetic Braking, Ambipolar Diffusion, and the Formation of Cloud Cores and Protostars. III. Effect of the Initial Mass-to-Flux Ratio. *Shantanu Basu & Telemachos Ch. Mouschovias.* 453, 271, 284-G9 (1995)

Spin-down of Neutron Stars in Massive Radio Pulsar Binaries: The Periastron Passage of PSR B1259−63. *Pranab Ghosh.* 453, 411, 286-F13 (1995)

On the Interaction of Convection and Rotation in Stars. *Pawan Kumar, Ramesh Narayan, & Abraham Loeb.* 453, 480, 287-F6 (1995)

Periodic Variations in Ultraviolet Spectral Lines of the B0.5 Ib Star HD 64760: Evidence for Corotating Wind Streams Rooted in Surface Variations. *Stanley P. Owocki, Steven R. Cranmer, & Alexander W. Fullerton.* 453, L37, 289-G1 (1995)

Lithium in Short-Period Tidally Locked Binaries: A Test of Rotationally Induced Mixing. *Sean G. Ryan & Constantine P. Deliyannis.* 453, 819, 295-B12 (1995)

The 71 Second Oscillation in the Light Curve of the Old Nova DQ Herculis. *E. Zhang, E. L. Robinson, R. F. Stiening, & Keith Horne.* 454, 447, 305-D12 (1995)

Asymmetrical Mass Loss from Rotating Red Giant Variables. *S. M. Asida & Y. Tuchman.* 455, 286, 322-B2 (1995)

STARS: δ SCUTI

Lithium Abundances in δ Scuti Stars and Their Relationship with the Lithium Dip. *Stephen C. Russell.* 451, 747, 257-D13 (1995)

STARS: SEMIREGULAR VARIABLES

Abundances of Tc and Related Elements in Stars of Type M, MS, and S. *Andrew D. Vanture, George Wallerstein, Jeffery A. Brown, & Grant Bazan.* 381, 278, 192-D7 (1991)

STARS: SPECTRA

The Diffuse Interstellar Bands. VIII. New Features between 6000 and 8650 Å. *G. H. Herbig & K. D. Leka.* 382, 193, 202-E12 (1991)

STARS: SPECTRAL CLASSIFICATION

Criteria for the Spectral Classification of B Stars in the Ultraviolet. *Janet Rountree & George Sonneborn.* 369, 515, 44-B5 (1991)

Classical Cepheid Luminosities from Binary Companions. *Nancy Remage Evans.* 372, 597, 83-B1 (1991)

The Evolution and Classification of Postoutburst Novae Spectra. *R. E. Williams, M. Hamuy, M. M. Phillips, S. R. Heathcote, Lisa Wells, & M. Navarrete.* 376, 721, 135-C7 (1991)

A Standard Stellar Spectral Sequence in the Red/Near-Infrared: Classes K5 to M9. *J. Davy Kirkpatrick, Todd J. Henry, & Donald W. McCarthy, Jr.* 77, 417, 50-C5 (1991)

New Low-Resolution Spectrometer Spectra for *IRAS* Sources. *Kevin Volk, Sun Kwok, R. E. Stencel, & E. Brugel.* 77, 607, 53-A1 (1991)

STARS: STATISTICS

Local Distribution of Old Neutron Stars. *Zsolt Frei, Xiaolan Huang, & Bohdan Paczyński.* 384, 105, 2-C10 (1992)

Multiplicity among the Young Stars in Taurus. *M. Simon, W. P. Chen, R. R. Howell, J. A. Benson, & D. Slowik.* 384, 212, 3-E8 (1992)

High Rate for Type Ic Supernovae. *Richard A. Muller, Heidi Jo Marvin Newberg, Carlton R. Pennypacker, Saul Perlmutter, Timothy P. Sasseen, & Craig K. Smith.* 384, L9, 6-B7 (1992)

Fokker-Planck Models and Globular Cluster Evolution: The Problem of M71. *G. A. Drukier, G. G. Fahlman, & H. B. Richer.* 386, 106, 25-D7 (1992)

The Frequencies of Supernovae in Binaries. *Alexander V. Tutukov, Lev R. Yungelson, & Icko Iben, Jr.* 386, 197, 26-E9 (1992)

Constraints on the Age and Evolution of the Galaxy from the White Dwarf Luminosity Function. *M. A. Wood.* 386, 539, 32-B3 (1992)

The Baade-Wesselink Method and the Distances to RR Lyrae Stars. VIII. Comparisons with Other Techniques and Implications for Globular Cluster Distances and Ages. *Bruce W. Carney, Jesper Storm, & Rodney V. Jones.* 386, 663, 33-E5 (1992)

On the Galactic Disk and Halo Models of Gamma-Ray Bursts. *Shude Mao & Bohdan Paczyński.* 389, L13, 66-C1 (1992)

Type I Supernovae and Accretion-induced Collapses from Cataclysmic Variables? *Mario Livio & James W. Truran.* 389, 695, 70-A10 (1992)

Supernova Rates and the Reddening of Wolf-Rayet Stars. *Sidney van den Bergh.* 390, 133, 75-F1 (1992)

The Spatial Distribution of Gamma-Ray Bursts from *Pioneer Venus Orbiter*. *K. W. Chuang, R. S. White, R. W. Klebesadel, & J. G. Laros.* 391, 242, 89-A4 (1992)

Presupernova Evolution in Massive Interacting Binaries. *Ph. Podsiadlowski, P. C. Joss, & J. J. L. Hsu.* 391, 246, 89-A10 (1992)

The Nonexponential Evolution of Pulsar Magnetic Fields. *Shigeto Wakatsuki, Atsushi Hikita, Naohiro Sato, & Naoki Itoh.* 392, 628, 110-A10 (1992)

Multiplicity-corrected Mass Function of Main-Sequence Stars in the Solar Neighborhood. *Sarbani Basu & N. C. Rana.* 393, 373, 118-F10 (1992)

Spectroscopic Binaries in the α Persei Cluster. *Nidia Morrell & Helmut A. Abt.* 393, 666, 124-B1 (1992)

Statistics of Gamma-Ray Bursts: Homogeneous Spherical Models. *Ira Wasserman.* 394, 565, 136-D2 (1992)

Multiplicity among M Dwarfs. *Debra A. Fischer & Geoffrey W. Marcy.* 396, 178, 157-C13 (1992)

The Center of Gravity and Density Profile of 47 Tucanae. *D. Calzetti, G. De Marchi, F. Paresce, & M. Shara.* 402, L1, 6-B1 (1993)

Luminosity Functions for Very Low Mass Stars and Brown Dwarfs. *Gregory Laughlin & Peter Bodenheimer.* 403, 303, 17-E13 (1993)

Can We Observe Accreting, Isolated Neutron Stars? *Omer Blaes & Piero Madau.* 403, 690, 24-C8 (1993)

The Detectability of Brown Dwarfs: Predictions and Uncertainties. *L. Nelson, S. Rappaport, & P. C. Joss.* 404, 723, 38-A1 (1993)

Star Counts Redivivus. I. A New Look at the Galaxy at Faint Magnitudes. *Neill Reid & S. R. Majewski.* 409, 635, 106-G12 (1993)

Reddening Errors and the Post–Main-Sequence Distribution of Stars in the H-R Diagram of the Large Magellanic Cloud. *N. Rathnasree.* 410, L99, 126-B5 (1993)

Inhomogeneous Chemical Evolution of the Galactic Disk. *Guy Malinie, Dieter H. Hartmann, Donald D. Clayton, & Grant J. Mathews.* 413, 633, 164-D1 (1993)

Star Counts from the *Hubble Space Telescope* Snapshot Survey. I. Galactic Models. *A. Gould, J. N. Bahcall, & D. Maoz.* 88, 53, 40-G5 (1993)

Examining Galactic and Extragalactic Gamma-Ray Burst Models Using the Peak Flux Distribution. *Lori M. Lubin & Ralph A. M. J. Wijers.* 418, L9, 238-B6 (1993)

The Formation of Binary and Single Nuclei of Planetary Nebulae. *L. R. Yungelson, A. V. Tutukov, & M. Livio.* 418, 794, 242-D8 (1993)

Are the Observed Frequencies of Double Degenerates and SN Ia Contradictory? *L. R. Yungelson, M. Livio, A. V. Tutukov, & R. A. Saffer.* 420, 336, 5-A13 (1994)

Do Gamma-Ray Bursts Originate from an Extended Galactic Halo of High-Velocity Neutron Stars? *Dieter H. Hartmann, Lawrence E. Brown, Lih-Sin The, Eric V. Linder, Vahe Petrosian, George R. Blumenthal, & Kevin C. Hurley.* 90, 893, 14-G10 (1994)

Chemical Evolution of the Solar Neighborhood with Yields Dependent on Metallicity. *Leticia Carigi.* 424, 181, 64-B12 (1994)

A Coronagraphic Search for Brown Dwarfs around Nearby Stars. *T. Nakajima, S. T. Durrance, D. A. Golimowski, & S. R. Kulkarni.* 428, 797, 140-B11 (1994)

The Galactic Supernova Rate. *G. A. Tammann, W. Löffler, & A. Schröder.* 92, 487, 38-C12 (1994)

Cataclysmic Binaries in Star Clusters. I. A Search for Erupting Dwarf Novae in the Globular Cluster M92. *Michael M. Shara, Louis E. Bergeron, & Anthony F. J. Moffat.* 429, 767, 155-C1 (1994)

Color-Magnitude Diagram Distribution of the Bulge Red Clump Stars: Evidence for the Galactic Bar. *K. Z. Stanek, M. Mateo, A. Udalski, M. Szymański, J. Kałużny, & M. Kubiak.* 429, L73, 158-B9 (1994)

A CCD Survey for Faint High-Latitude Carbon Stars. *Paul J. Green, Bruce Margon, Scott F. Anderson, & Kem H. Cook.* 434, 319, 229-G6 (1994)

The Nonexponential Evolution of Pulsar Magnetic Fields. II. Velocity–Magnetic Field Correlation. *Naoki Itoh & Kentaro Hiraki.* 435, 784, 256-G8 (1994)

On the Massive Star–forming Capacity of Molecular Clouds. *José Franco, Steven N. Shore, & Guillermo Tenorio-Tagle.* 436, 795, 276-E6 (1994)

The Axial Ratio of the Galactic Stellar Halo. *Jeffrey A. Larsen & Roberta M. Humphreys.* 436, L149, 281-D13 (1994)

A Search for T Tauri Stars in High-Latitude Molecular Clouds. II. The *IRAS* Faint Source Survey Catalog. *Loris Magnani, Jean-Pierre Caillault, Ari Buchalter, & C. A. Beichman.* 96, 159, 3-F3 (1995)

Four New Millisecond Pulsars in the Galactic Disk. *D. R. Lorimer, L. Nicastro, A. G. Lyne, M. Bailes, R. N. Manchester, S. Johnston, J. F. Bell, N. D'Amico, & P. A. Harrison.* 439, 933, 37-D13 (1995)

High-Mass X-Ray Binary Populations. I. Galactic Modeling. *William W. Dalton & Craig L. Sarazin.* 440, 280, 45-A11 (1995)

Star Counts from the *HST* Snapshot Survey. II. Wide Binaries. *Andrew Gould, John N. Bahcall, Dan Maoz, & Brian Yanny.* 441, 200, 62-B4 (1995)

Magnitude Offset between Lensed Stars and Observed Stars: A New Probe of the Structure of the Galactic Bar. *K. Z. Stanek.* 441, L29, 66-G3 (1995)

Much Ado about Nothing: Several Large-Area Surveys for Radio Pulsars from Arecibo. *Paul S. Ray, W. T. S. Deich, S. R. Kulkarni, Thomas A. Prince, S. E. Thorsett, Gautam Vasisht, A. Wolszczan, Donald C. Backer, John H. Holliman II, & John Middleditch.* 443, 265, 98-G8 (1995)

On Population III Stars as Gravitational Microlensing Objects in the Galactic Halo. *Masayuki Y. Fujimoto, Kiyoshi Sugiyama, Icko Iben, Jr., & David Hollowell.* 444, 175, 115-F13 (1995)

The Relativistic ISM in M33: Role of the Supernova Remnants. *N. Duric, S. M. Gordon, W. M. Goss, F. Viallefond, & C. Lacey.* 445, 173, 134-G8 (1995)

The Mass Ratios of Cepheid Binaries. *Nancy Remage Evans.* 445, 393, 138-A1 (1995)

Studies of Hot B Subdwarfs. X. The Distribution and Space Density of Hot, Hydrogen-rich Subdwarfs Determined from the Palomar-Green Survey. *B. Villeneuve, F. Wesemael, G. Fontaine, C. Carignan, & R. F. Green.* 446, 646, 165-A13 (1995)

A Model for the Galactic Population of Symbiotic Stars with White Dwarf Accretors. *L. Yungelson, M. Livio, A. Tutukov, & S. J. Kenyon.* 447, 656, 185-B10 (1995)

Binary Models for the Solar Neighborhood and Magellanic Cloud W-R Populations. *William W. Dalton & Craig L. Sarazin.* 448, 369, 197-C6 (1995)

Gamma-Ray Pulsars: Beaming Evolution, Statistics, and Unidentified EGRET Sources. *I.-A. Yadigaroglu & Roger W. Romani.* 449, 211, 213-B1 (1995)

A Model for the Space Density of Dwarf Carbon Stars. *Martijn de Kool & Paul J. Green.* 449, 236, 213-D10 (1995)

Studies of Hot B Subdwarfs. XI. A Redetermination of the Density of Hot, Hydrogen-rich Subdwarfs in the Galactic Plane. *B. Villeneuve, F. Wesemael, & G. Fontaine.* 450, 851, 242-F7 (1995)

A Model of the Galactic X-Ray Binary Population. I. High-Mass X-Ray Binaries. *Icko Iben, Jr., Alexander V. Tutukov, & Lev R. Yungelson.* 100, 217, 49-B1 (1995)

A Model of the Galactic X-Ray Binary Population. II. Low-Mass X-Ray Binaries in the Galactic Disk. *Icko Iben, Jr., Alexander V. Tutukov, & Lev R. Yungelson.* 100, 233, 49-C5 (1995)

Are Galaxies Optically Thin to Their Own Lyman-Continuum Radiation? I. M33. *Kanan Patel & Christine D. Wilson.* 451, 607, 255-E11 (1995)

Are the Nearby and Photometric Stellar Luminosity Functions Different? *Pavel Kroupa.* 453, 350, 286-A2 (1995)

The Nonexponential Evolution of Pulsar Magnetic Fields. III. Comparison with the New Velocity Measurement. *Naoki Itoh, Takemi Kotouda, & Kentaro Hiraki.* 455, 244, 321-D13 (1995)

Spectroscopic Identification of Probable Cataclysmic Variables in the Globular Cluster NGC 6397. *J. E. Grindlay, A. M. Cool, P. J. Callanan, C. D. Bailyn, H. N. Cohn, & P. M. Lugger.* 455, L47, 325-B1 (1995)

STARS: STELLAR DYNAMICS

Hamiltonian Dynamics of Self-gravitating Ellipsoids. *G. Rosensteel & Huy Q. Tran.* 366, 30, 1-D9 (1991)

Multicomponent Models for the Dynamic Evolution of Globular Clusters. *Hyung Mok Lee, Gregory G. Fahlman, & Harvey B. Richer.* 366, 455, 8-E1 (1991)

On the Orbital Period Change of the Binary Pulsar PSR 1913+16. *Thibault Damour & J. H. Taylor.* 366, 501, 9-C1 (1991)

Spectroscopic Binaries in the Orion Nebula Cluster. *Helmut A. Abt, Ruyou Wang, & Octavio Cardona.* 367, 155, 14-A1 (1991)

The Galactic Disk Surface Mass Density and the Galactic Force K_z at $z = 1.1$ Kiloparsecs. *Konrad Kuijken & Gerard Gilmore.* 367, L9, 17-C1 (1991)

Zero Central Density Solutions of the Anisotropic Jeans Equation and Neutrino Dark Matter. *Jes Madsen.* 367, 507, 19-F1 (1991)

A Search for Instability in Two Families of Spherical Stellar Models. *Martin D. Weinberg.* 368, 66, 24-A1 (1991)

Extended Stellar Hydrodynamics for Galactic Disks. *Peter Amendt & Phil Cuddeford.* 368, 79, 24-B1 (1991)

The Ring Instability in Radially Cold Oblate Galaxy Models. *Tim de Zeeuw & Martin Schwarzschild.* 369, 57, 36-F7 (1991)

A Stability Criterion for Any Collisionless Stellar Equilibrium and Some Concrete Applications Thereof. *Henry E. Kandrup.* 370, 312, 51-B6 (1991)

Fokker-Planck Calculations of Star Clusters with Primordial Binaries. *Bin Gao, Jeremy Goodman, Haldan Cohn, & Brian Murphy.* 370, 567, 55-E1 (1991)

Gravity in One Dimension: A Correction for Ensemble Averaging. *Charles J. Reidl, Jr., & Bruce N. Miller.* 371, 260, 63-D1 (1991)

Angular Momentum and Stripping in Tidal Interactions. *Thomas A. McGlynn & Kirk D. Borne.* 372, 31, 74-D7 (1991)

Star Cluster Evolution with Primordial Binaries. II. Detailed Analysis. *Steve McMillan, Piet Hut, & Junichiro Makino.* 372, 111, 75-D5 (1991)

Further Limits on Disklike Dark Matter from K Dwarf Kinematics. *Konrad Kuijken.* 372, 125, 75-E7 (1991)

The Stability of Cold, Flattened, Self-gravitating Disks Obeying Other than Newtonian Force Laws. *Dimitris M. Christodoulou.* 372, 471, 81-F1 (1991)

Vertical Oscillation of the Galactic Disk. *Martin D. Weinberg.* 373, 391, 92-G7 (1991)

Orbital Decay in Aspherical Galaxies. II. Triaxial Systems. *Thomas S. Statler.* 375, 544, 119-E1 (1991)

What Damps Small Perturbations in Stellar Systems? *Eyal Maoz.* 375, 687, 121-C1 (1991)

Stability of Nonrotating Stellar Systems. II. Prolate Shell-Orbit Models. *David Merritt & Lars Hernquist.* 376, 439, 131-G13 (1991)

Modes of Oscillation of a Uniformly Rotating, Homogeneous Spheroid of Stars. *Peter O. Vandervoort.* 377, 49, 138-F1 (1991)

Collisions of Giant Stars with Compact Objects: Hydrodynamical Calculations. *Frederic A. Rasio & Stuart L. Shapiro.* 377, 559, 146-F1 (1991)

Hydrodynamics of Collisions between Binary Stars. *Jeremy Goodman & Lars Hernquist.* 378, 637, 160-C11 (1991)

Absolute Magnitudes and Kinematic Properties of Cepheids. *Teresa D. Wilson, Thomas G. Barnes III, Suzanne L. Hawley, & William H. Jefferys.* 378, 708, 161-B11 (1991)

Population Studies. X. Constraints on the Mass and Extent of the Galaxy's Dark Corona. *John E. Norris & M. R. S. Hawkins.* 380, 104, 177-C11 (1991)

The Secular Instability of Axisymmetric Collisionless Star Clusters. *Henry E. Kandrup.* 380, 511, 184-E9 (1991)

The Statistics of Slow Interstellar Accretion onto Neutron Stars. *O. Blaes & M. Rajagopal.* 381, 210, 191-E10 (1991)

Stellar Encounters Involving Red Giants in Globular Cluster Cores. *M. B. Davies, W. Benz, & J. G. Hills.* 381, 449, 196-C7 (1991)

The Ordered Nature of Elliptical Galaxies: Implications for Their Intrinsic Angular Momenta and Shapes. *Marijn Franx, Garth Illingworth, & Tim de Zeeuw.* 383, 112, 213-D7 (1991)

On Core Collapse. *Junichiro Makino & Piet Hut.* 383, 181, 214-C9 (1991)

The Formation of Primordial Binaries in Globular Clusters by Star-Disk Interactions. *Stephen D. Murray, C. J. Clarke, & J. E. Pringle.* 383, 192, 214-D7 (1991)

On the Effects of Interstellar Gas on the Oscillations and the Stability of Galaxies. *Peter O. Vandervoort.* 383, 498, 220-E1 (1991)

Two High-Velocity Stars Shot Out from the Core of the Globular Cluster 47 Tucanae. *G. Meylan, P. Dubath, & M. Mayor.* 383, 587, 221-E4 (1991)

STARS: STELLAR STATISTICS

Star Formation in Taurus-Auriga: The High-Mass Stars. *Frederick M. Walter & William T. Boyd.* 370, 318, 51-C1 (1991)

On the Explosion in a Common Envelope Scenario for Type Ia Supernovae. *James H. Applegate.* 370, 324, 51-C9 (1991)

Further Limits on Disklike Dark Matter from K Dwarf Kinematics. *Konrad Kuijken.* 372, 125, 75-E7 (1991)

The Structure and Evolution of Rich Star Clusters in the Large Magellanic Cloud. *Rebecca A. W. Elson.* 76, 185, 26-E9 (1991)

Gravitational Microlensing of High-Redshift Supernovae by Compact Objects. *Kevin P. Rauch.* 374, 83, 99-A11 (1991)

Limits on the Space Density of Double Degenerates as Type Ia Supernova Progenitors. *Diana Foss, Richard A. Wade, & Richard F. Green.* 374, 281, 101-E9 (1991)

Detection of a Galactic Color Gradient for Blue Horizontal-Branch Stars of the Halo Field and Implications for the Halo Age and Density Distributions. *George W. Preston, Stephen A. Shectman, & Timothy C. Beers.* 375, 121, 112-E1 (1991)

On the Formation of Globular Clusters. I. Dynamical Limits on Globular Cluster Metallicities. *J. H. Brown, A. Burkert, & James W. Truran.* 376, 115, 126-D1 (1991)

The White Dwarf Mass Distribution in Classical Nova Systems. *Hans Ritter, Michael Politano, Mario Livio, & Ronald F. Webbink.* 376, 177, 127-B10 (1991)

Metallicity and Velocity Distribution of Giants toward the Galactic Poles. *Kavan U. Ratnatunga & Kenneth M. Yoss.* 377, 442, 145-C3 (1991)

Cataclysmic and Close Binaries in Star Clusters. III. Recovery of the Quiescent Nova 1860 A.D. (T Scorpii) in the Core of the Globular Cluster M80. *Michael M. Shara & Laurent Drissen.* 448, 203, 195-A1 (1995)

STARS: S-TYPE

An Interactive Companion to the S Star HD 35155. *Thomas B. Ake III, Hollis R. Johnson, & Mudhaffer M. Ameen.* 383, 842, 224-F7 (1991)

STARS: SUBDWARFS

First Results from the Goddard High-Resolution Spectrograph: Evidence for Photospheric Microturbulence in Early O Stars: Are Surface Gravities Systematically Underestimated? *I. Hubeny, S. R. Heap, & B. Altner.* 377, L33, 143-D11 (1991)

Sodium Abundance Variations in Metal-poor Dwarfs. *William J. Spiesman.* 397, L103, 181-D1 (1992)

The Primordial Lithium Abundance from Extreme Subdwarfs: New Observations. *J. A. Thorburn.* 421, 318, 19-G12 (1994)

Lithium Abundances in the Most Metal-deficient Stars. *John E. Norris, Sean G. Ryan, & Guy S. Stringfellow.* 423, 386, 51-A1 (1994)

Lithium Isotope Ratios in Six Halo Stars. *L. M. Hobbs & J. A. Thorburn.* 428, L25, 134-D8 (1994)

Atmospheric Parameters of Field Subdwarf B Stars. *Rex A. Saffer, P. Bergeron, D. Koester, & James Liebert.* 432, 351, 197-E1 (1994)

Analysis of Helium-rich Subdwarf O Stars. I. NLTE Models, Methods, and Fits for 21 Palomar Green Survey sdO's. *P. Thejll, F. Bauer, R. Saffer, J. Liebert, D. Kunze, & H. L. Shipman.* 433, 819, 221-C12 (1994)

Model Atmospheres for M (Sub)Dwarf Stars. I. The Base Model Grid. *France Allard & Peter H. Hauschildt.* 445, 433, 138-E2 (1995)

UV Spectrophotometry of the Hottest Stars from the Southern HK Survey. *John S. Drilling & Timothy C. Beers.* 446, L27, 160-E7 (1995)

Studies of Hot B Subdwarfs. X. The Distribution and Space Density of Hot, Hydrogen-rich Subdwarfs Determined from the Palomar-Green Survey. *B. Villeneuve, F. Wesemael, G. Fontaine, C. Carignan, & R. F. Green.* 446, 646, 165-A13 (1995)

Studies of Hot B Subdwarfs. XI. A Redetermination of the Density of Hot, Hydrogen-rich Subdwarfs in the Galactic Plane. *B. Villeneuve, F. Wesemael, & G. Fontaine.* 450, 851, 242-F7 (1995)

Evidence of Higher Primordial Lithium from Keck Observations of M92. *Constantine P. Deliyannis, Ann Merchant Boesgaard, & Jeremy R. King.* 452, L13, 269-D10 (1995)

STARS: SUPERGIANTS

Nonthermal X-Ray Emission from Winds of OB Supergiants. *Wan Chen & Richard L. White.* 366, 512, 9-D1 (1991)

Continuum Polarization by Electron Scattering in Rotationally Distorted, Radiation-driven Stellar Winds: B[e] Supergiants. *Cameron J. Boyd & J. M. Marlborough.* 369, 191, 38-C11 (1991)

Multicolor CCD Imaging of Supergiants in the Disk of NGC 253. *T. J. Davidge, O. Le Fèvre, & C. C. Clark.* 370, 559, 55-D7 (1991)

A Windswept Cometary Tail on the Galactic Center Supergiant IRS 7. *F. Yusef-Zadeh & Mark Morris.* 371, L59, 73-B10 (1991)

Blue Loops during Core Helium Burning as the Consequence of Moderate Convective Envelope Overshooting in Stars of Intermediate to High Mass. *Richard B. Stothers & Chao-wen Chin.* 374, 288, 101-F3 (1991)

Hydrodynamic Pulsation Models of Yellow Supergiant Stars in the Post-Asymptotic Giant Branch. *Toshiki Aikawa.* 374, 700, 107-F13 (1991)

UBV Photometry of OB$^+$ Stars in the Southern Milky Way. *J. S. Drilling.* 76, 1033, 39-C11 (1991)

A Gaseous Tail Ablated from the Supergiant IRS 7 near the Galactic Center. *E. Serabyn, J. H. Lacy, & J. M. Achtermann.* 378, 557, 159-C9 (1991)

LMC-2 as the Blowout of a Hot Superbubble. *Qingde Wang & David J. Helfand.* 379, 327, 167-B5 (1991)

On the Sodium Excess in the Atmospheres of Yellow Supergiants. *N. Prantzos, A. Coc, & J. P. Thibaud.* 379, 729, 173-G1 (1991)

High-Mass Stars with Degenerate Neutron Cores. *Garrett T. Biehle.* 380, 167, 178-B9 (1991)

Cocoon Stars in the Large Magellanic Cloud. *Neill Reid.* 382, 143, 202-A4 (1991)

First Ultraviolet Spectropolarimetry of Hot Supergiants. *M. Taylor, A. D. Code, K. H. Nordsieck, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, R. E. Schulte-Ladbeck, & B. A. Whitney.* 382, L85, 211-D5 (1991)

The Bow Shock Structure of IRS 7: Wind-Wind Collision near the Galactic Center. *Farhad Yusef-Zadeh & Fulvio Melia.* 385, L41, 23-B13 (1992)

Carbon, Nitrogen, and Oxygen Abundances in Early B-Type Stars. *Douglas R. Gies & David L. Lambert.* 387, 673, 47-B1 (1992)

The Chemical Composition of Magellanic Cloud Cepheids and Nonvariable Supergiants. *R. Earle Luck & David L. Lambert.* 79, 303, 18-E3 (1992)

Discovery of Bipolar OH Maser Emission from the High-Latitude Supergiant Star HD 101584. *P. te Lintel Hekkert, J. M. Chapman, & A. A. Zijlstra.* 390, L23, 78-D9 (1992)

An Absolute Calibration of Type Ia Supernovae and the Value of H_0. *Michael J. Pierce, Michael E. Ressler, & Mark S. Shure.* 390, L45, 84-D1 (1992)

Hα Observations of Early-Type Stars. *S. Scuderi, G. Bonanno, R. Di Benedetto, D. Spadaro, & N. Panagia.* 392, 201, 103-D7 (1992)

The Nature of Dust around the Post–Asymptotic Giant Branch Objects HD 161796 and HD 179821. *K. Justtanont, M. J. Barlow, C. J. Skinner, & A. G. G. M. Tielens.* 392, L75, 113-D8 (1992)

The Discovery of an Extremely Low Amplitude Cepheid? *R. Paul Butler.* 394, L25, 133-D5 (1992)

OH/IR Stars in the Magellanic Clouds. *P. R. Wood, J. B. Whiteoak, S. M. G. Hughes, M. S. Bessell, F. F. Gardner, & A. R. Hyland.* 397, 552, 177-G5 (1992)

Polarization and the Envelopes of B[e] Supergiants in the Magellanic Clouds. *A. M. Magalhães.* 398, 286, 185-C11 (1992)

The Young Large Magellanic Cloud Cluster NGC 2214 with a Single Supergiant Branch. *Myung Gyoon Lee.* 399, L133, 208-B1 (1992)

Absorption-Line Profiles in a Companion Spectrum of a Mass-losing Cool Supergiant. *Liliya L. Rodrigues & Erika Böhm-Vitense.* 401, 695, 231-B10 (1992)

CCD Observations of the Hα Line in Late G and K Supergiants and Their Interpretation. *Sushma V. Mallik.* 402, 303, 4-G10 (1993)

Stellar Models and the Brightening of P Cygni. *Mounib F. El Eid & Dieter H. Hartmann.* 404, 271, 31-C5 (1993)

Evidence for Processed Material in the Atmospheres of Large Magellanic Cloud B Supergiants. *Edward L. Fitzpatrick & Bruce Bohannan.* 404, 734, 38-B1 (1993)

The Asymmetric Wind of R127. *R. E. Schulte-Ladbeck, C. Leitherer, G. C. Clayton, C. Robert, M. R. Meade, L. Drissen, A. Nota, & W. Schmutz.* 407, 723, 79-E1 (1993)

A New Luminous Blue Variable: R143 in 30 Doradus. *Joel Wm. Parker, Geoffrey C. Clayton, Cláudia Winge, & Peter S. Conti.* 409, 770, 108-F3 (1993)

Reddening Errors and the Post–Main-Sequence Distribution of Stars in the H-R Diagram of the Large Magellanic Cloud. *N. Rathnasree.* 410, L99, 126-B5 (1993)

Detection of O I and Si II Far-Infrared Fine-Structure Emission from α Orionis. *Michael R. Haas & Alfred E. Glassgold.* 410, L111, 126-C9 (1993)

IRC +10420: A Cool Hypergiant near the Top of the H-R Diagram. *Terry Jay Jones, Roberta M. Humphreys, Robert D. Gehrz, Geoffrey F. Lawrence, Franz-Josef Zickgraf, Harvey Moseley, Sean Casey, William J. Glaccum, Carol J. Koch, Robert Pina, Barbara Jones, Kim Venn, Otmar Stahl, & Sumner G. Starrfield.* 411, 323, 131-C6 (1993)

He 3-519: A Peculiar Post-LBV, Pre-WN Star? *Kris Davidson, Roberta M. Humphreys, Arsen Hajian, & Yervant Terzian.* 411, 336, 131-D9 (1993)

Interacting Massive Binaries, H-R Diagram of the Large Magellanic Cloud and SN 1987A. *N. Rathnasree.* 411, 848, 140-D1 (1993)

Iron and Molecular Opacities and the Evolution of Population I Stars. *Richard B. Stothers & Chao-wen Chin.* 412, 294, 145-F13 (1993)

A $UBV\beta$ Data Base for Stephenson-Sanduleak Southern Luminous Stars. *B. Cameron Reed.* 87, 367, 31-F13 (1993)

CNO Abundances and the Evolutionary Status of Three A-Type Supergiants. *Kim A. Venn.* 414, 316, 174-A1 (1993)

A Catalog of Blue and Red Supergiants in M33. *Georgi R. Ivanov, Wendy L. Freedman, & Barry F. Madore.* 89, 85, 50-A9 (1993)

Observational Prospects for Massive Stars with Degenerate Neutron Cores. *Garrett T. Biehle.* 420, 364, 5-D6 (1994)

A New Way to Make Thorne-Żytkow Objects. *Peter J. T. Leonard, Jack G. Hills, & Rachel J. Dewey.* 423, L19, 53-C13 (1994)

Postexplosion Hydrodynamics of Supernovae in Red Supergiants. *Marc Herant & S. E. Woosley.* 425, 814, 91-G12 (1994)

Geometry and Physical Conditions in the Stellar Wind of AG Carinae. *Claus Leitherer, Richard Allen, Bruce Altner, Augusto Damineli, Laurent Drissen, Thais Idiart, Olivia Lupie, Antonella Nota, Carmelle Robert, Werner Schmutz, & Steven N. Shore.* 428, 292, 131-G4 (1994)

GHRS Observations of Cool, Low-Gravity Stars. I. The Far-Ultraviolet Spectrum of α Orionis (M2 Iab). *Kenneth G. Carpenter, Richard D. Robinson, Glenn M. Wahlgren, Jeffrey L. Linsky, & Alexander Brown.* 428, 329, 132-C6 (1994)

The Radio Source around η Carinae. *S. M. White, R. A. Duncan, J. Lim, G. J. Nelson, S. A. Drake, & M. R. Kundu.* 429, 380, 148-G1 (1994)

The Axisymmetric Stellar Wind of AG Carinae. *Regina E. Schulte-Ladbeck, Geoffrey C. Clayton, D. John Hillier, Tim J. Harries, & Ian D. Howarth.* 429, 846, 156-B13 (1994)

The Galactic Open Cluster NGC 7419 and Its Five Red Supergiants. *Alain Beauchamp, Anthony F. J. Moffat, & Laurent Drissen.* 93, 187, 44-D3 (1994)

G25.5+0.2: A Ring Nebula around a Luminous Blue Star. *E. E. Becklin, B. Zuckerman, I. S. McLean, & T. R. Geballe.* 430, 774, 171-E1 (1994)

Galactic Stars Applied to Tests of the Criterion for Convection and Semiconvection in an Inhomgeneous Star. *Richard B. Stothers & Chao-wen Chin.* 431, 797, 188-E6 (1994)

On the Formation and Evolution of Super–Asymptotic Giant Branch Stars with Cores Processed by Carbon Burning. I. Spica to Antares. *Enrique García-Berro & Icko Iben, Jr.* 434, 306, 229-F4 (1994)

Optical Spectroscopy of Carbon-rich Proto–Planetary Nebulae. *Bruce J. Hrivnak.* 438, 341, 6-B10 (1995)

Tests of Two Convection Theories for Red Giant and Red Supergiant Envelopes. *Richard B. Stothers & Chao-wen Chin.* 440, 297, 45-C3 (1995)

Intense Radio Outburst from the Supermassive Star η Carinae. *R. A. Duncan, S. M. White, J. Lim, G. J. Nelson, S. A. Drake, & M. R. Kundu.* 441, L73, 76-A6 (1995)

Mg II *h* and *k* Profiles in High-Luminosity, Late-Type Stars. *R. D. Robinson & K. G. Carpenter.* 442, 328, 81-E12 (1995)

On the Origin of "Dividing Lines" for Late-Type Giants and Supergiants. *R. Rosner, Z. E. Musielak, F. Cattaneo, R. L. Moore, & S. T. Suess.* 442, L25, 84-G11 (1995)

A Spectroscopic Database for Stephenson-Sanduleak Southern Luminous Stars. *B. Cameron Reed & Amy E. Beatty.* 97, 189, 13-D8 (1995)

The Visual and Ultraviolet Polarimetric Data of α Camelopardalis and κ Cassiopeia: Evidence of Shocked Regions. *Geoffrey K. Fox, John C. Brown, & Karen S. Bjorkman.* 447, 889, 188-B8 (1995)

A Circumstellar H_2O Maser Associated with the Circumnuclear Molecular Disk at the Galactic Center? *Deborah A. Levine, Donald F. Figer, Mark Morris, & Ian S. McLean.* 447, L101, 190-G7 (1995)

CNO Abundances and the Evolutionary Status of Galactic, A-Type Supergiants. *Kim A. Venn.* 449, 839, 224-C11 (1995)

Atmospheric Parameters and LTE Abundances for 22 Galactic, A-Type Supergiants. *Kim A. Venn.* 99, 659, 44-A6 (1995)

Discovery of an Extended Nebula around AFGL 2343 (HD 179821) at 10 Microns. *G. W. Hawkins, C. J. Skinner, M. M. Meixner, J. G. Jernigan, J. F. Arens, E. Keto, & J. R. Graham.* 452, 314, 266-D10 (1995)

The Massive Post–Red Supergiants IRC +10420 and HD 179821. *Joel H. Kastner & David A. Weintraub.* 452, 833, 276-B7 (1995)

Terminal Velocities and the Bistability of Stellar Winds. *Henny J. G. L. M. Lamers, Theodore P. Snow, & Douglas M. Lindholm.* 455, 269, 321-G7 (1995)

Stellar Abundances and Winds of A-Type Supergiant Stars in M33: First Results from the Keck HIRES Spectrograph. *James K. McCarthy, Daniel J. Lennon, Kim A. Venn, Rolf-Peter Kudritzki, Joachim Puls, & Francisco Najarro.* 455, L135, 333-G11 (1995)

STARS: SUPERNOVAE

On the [O/Fe] versus [Fe/H] Relationship and the Progenitors of Type I Supernovae. *C. Abia, R. Canal, & J. Isern.* 366, 198, 3-E1 (1991)

Using SN 1987A Light Echoes to Determine Mass Loss from the Progenitor. *Arlin P. S. Crotts & William E. Kunkel.* 366, L73, 11-D1 (1991)

Measurements of the Diameter of the Supernova SN 1987A. *M. Karovska, P. Nisenson, C. Standley, & S. R. Heathcote.* 367, L15, 17-C8 (1991)

Instabilities and Clumping in SN 1987A. I. Early Evolution in Two Dimensions. *Bruce Fryxell, Ewald Müller, & David Arnett.* 367, 619, 21-A5 (1991)

Zero Point of the Supernova Hubble Diagram. *M. Fukugita & C. J. Hogan.* 368, L11, 28-C1 (1991)

The Dynamic Instability of Adiabatic Blast Waves. *Dongsu Ryu & Ethan T. Vishniac.* 368, 411, 30-B12 (1991)

Gamma-Ray Lines from Type I Supernovae. *K. W. Chan & R. E. Lingenfelter.* 368, 515, 31-E1 (1991)

Rayleigh-Taylor Instabilities and Mixing in the Helium Star Models for Type Ib/Ic Supernovae. *Izumi Hachisu, Takuya Matsuda, Ken'ichi Nomoto, & Toshikazu Shigeyama.* 368, L27, 35-B4 (1991)

^{57}Co and ^{44}Ti Production in SN 1987A. *S. E. Woosley & Robert D. Hoffman.* 368, L31, 35-B10 (1991)

Evolution of the Interstellar Medium in Elliptical Galaxies. II. X-Ray Properties. *L. P. David, W. Forman, & C. Jones.* 369, 121, 37-D9 (1991)

First Results from the Faint Object Camera: SN 1987A. *P. Jakobsen, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, R. P. Kirshner, & N. Panagia.* 369, L63, 46-B1 (1991)

Numerical Simulations of Off-Center Detonations in Helium Shells. *Eli Livne & Ami S. Glasner.* 370, 272, 50-E12 (1991)

On the Explosion in a Common Envelope Scenario for Type Ia Supernovae. *James H. Applegate.* 370, 324, 51-C9 (1991)

A Large Supershell H II Region Complex in the Large Magellanic Cloud and the Interstellar Environment of SN 1987A. *Frederick C. Bruhweiler, Michelle A. Fitzurka, & Theodore R. Gull.* 370, 551, 55-C9 (1991)

Helium Star Cataclysmics. *Icko Iben, Jr., & Alexander V. Tutukov.* 370, 615, 56-B5 (1991)

Shock Waves and Nucleosynthesis in Type II Supernovae. *M. B. Aufderheide, E. Baron, & F.-K. Thielemann.* 370, 630, 56-C8 (1991)

Hydrodynamical Instabilities and Mixing in SN 1987A: Two-dimensional Simulations of the First 3 Months. *Marc Herant & Willy Benz.* 370, L81, 59-D6 (1991)

He Stars and He-accreting CO White Dwarfs. *Marco Limongi & Amedeo Tornambè.* 371, 317, 64-A9 (1991)

Premaximum Observations of the Type Ia SN 1990N. *Bruno Leibundgut, Robert P. Kirshner, Alexei V. Filippenko, Joseph C. Shields, Craig B. Foltz, Mark M. Phillips, & George Sonneborn.* 371, L23, 66-D1 (1991)

The Young Supernova Remnants N132D and 1E 0102.2−7219: Limits on the Presence of Rapidly Moving Sulfur. *Barry M. Lasker & David A. Golimowski.* 371, 568, 68-E8 (1991)

The Shock Process and Light-Element Production in Supernova Envelopes. *Lawrence E. Brown, David S. Dearborn, David N. Schramm, Jon T. Larsen, & Shin Kurokawa.* 371, 648, 69-F1 (1991)

s-Process Nucleosynthesis in Massive Stars and the Weak Component. II. Carbon Burning and Galactic Enrichment. *C. M. Raiteri, M. Busso, R. Gallino, & G. Picchio.* 371, 665, 69-G6 (1991)

Aberration and Advection Effects in Expanding Spherically Symmetric Shells. *A. Peraiah.* 371, 673, 70-A1 (1991)

Nuclear Reaction Rates in Dense Carbon-Oxygen Mixtures. *Shuji Ogata, Hiroshi Iyetomi, & Setsuo Ichimaru.* 372, 259, 77-B9 (1991)

Spectra of Two Very Old Supernovae: SN 1986J and SN 1980K. *Bruno Leibundgut, Robert P. Kirshner, Philip A. Pinto, Michael P. Rupen, R. Chris Smith, James E. Gunn, & Donald P. Schneider.* 372, 531, 82-D1 (1991)

The Outcome of Explosive Ignition of ONeMg Cores: Supernovae, Neutron Stars, or "Iron" White Dwarfs? *Jordi Isern, Ramon Canal, & Javier Labay.* 372, L83, 85-D9 (1991)

A New Site for the Astrophysical Gamma-Process. *W. Michael Howard, Bradley S. Meyer, & S. E. Woosley.* 373, L5, 91-B1 (1991)

Hot Gas Metallicity and the History of Supernova Activity in Elliptical Galaxies. *Michael Loewenstein & William G. Mathews.* 373, 445, 93-D11 (1991)

Ionization by High-Energy Particles and the Electron Scattering Opacity in Supernovae. *Douglas A. Swartz.* 373, 604, 95-D11 (1991)

Gravitational Microlensing of High-Redshift Supernovae by Compact Objects. *Kevin P. Rauch.* 374, 83, 99-A11 (1991)

Model Light Curves of Linear Type II Supernovae. *Douglas A. Swartz, J. Craig Wheeler, & Robert P. Harkness.* 374, 266, 101-D7 (1991)

Limits on the Space Density of Double Degenerates as Type Ia Supernova Progenitors. *Diana Foss, Richard A. Wade, & Richard F. Green.* 374, 281, 101-E9 (1991)

Expansion of a Superbubble in a Uniform Magnetic Field. *Katia M. Ferrière, Mordecai-Mark Mac Low, & Ellen G. Zweibel.* 375, 239, 114-A4 (1991)

Analysis of SN 1987A Polarimetry. *David J. Jeffery.* 375, 264, 114-C5 (1991)

Steady Spherical Hypercritical Accretion onto Neutron Stars. *John C. Houck & Roger A. Chevalier.* 376, 234, 127-G6 (1991)

Winds, Outflows, and Inflows in X-Ray Elliptical Galaxies. I. *Luca Ciotti, Annibale D'Ercole, Silvia Pellegrini, & Alvio Renzini.* 376, 380, 131-B12 (1991)

Neutrino-Nucleus Interactions in Core-Collapse Supernovae. *Stephen W. Bruenn & W. C. Haxton.* 376, 678, 134-G1 (1991)

High-Temperature Neutrino-Nucleus Processes in Stellar Collapse. *George M. Fuller & Bradley S. Meyer.* 376, 701, 135-A12 (1991)

Continuum Opacity Produced by Spectral Lines in Supernovae and Similar Expansions. *Robert V. Wagoner, Christopher A. Perez, & Mary Vasu.* 377, 639, 147-E12 (1991)

The Near–Maximum-Light Spectrum of the Type Ic Supernova 1987M. *David J. Jeffery, David Branch, Alexei V. Filippenko, & Ken'ichi Nomoto.* 377, L 39, 150-D10 (1991)

SN 1988A in M58: Departure from ^{56}Co Decay 700 Days after Explosion. *P. Ruiz-Lapuente, M. Kidger, G. Gómez, R. Canal, & R. López.* 378, L41, 162-E1 (1991)

SN 1991T: *Gamma-Ray Observatory*'s First Supernova? *Adam Burrows, Anurag Shankar, & Kenneth A. Van Riper.* 379, L7, 169-B1 (1991)

The Late-Time Light Curve of SN 1984L. *Douglas A. Swartz & J. Craig Wheeler.* 379, L13, 169-B7 (1991)

The Circumstellar Shell of SN 1987A. *Ding Luo & Richard McCray.* 379, 659, 172-G9 (1991)

The Radio Recovery of SN 1970G in M101. *John J. Cowan, W. M. Goss, & R. A. Sramek.* 379, L49, 175-B5 (1991)

The 10 Year Radio Light Curves for SN 1979C. *Kurt W. Weiler, Schuyler D. Van Dyk, Nino Panagia, Richard A. Sramek, & Jennifer L. Discenna.* 380, 161, 178-B1 (1991)

Effects of Aberration and Advection on Line Formation. *A. Peraiah.* 380, 212, 178-F1 (1991)

Properties of the SN 1987A Circumstellar Ring and the Distance to the Large Magellanic Cloud. *N. Panagia, R. Gilmozzi, F. Macchetto, H.-M. Adorf, & R. P. Kirshner.* 380, L23, 181-D1 (1991)

Circumstellar Emission from SN 1987A. *Peter Lundqvist & Claes Fransson.* 380, 575, 185-D1 (1991)

Infrared Hot Spots in the Nucleus of NGC 253. *Duncan A. Forbes, Martin J. Ward, & D. L. DePoy.* 380, L63, 188-C6 (1991)

Diffusion Processes in the Collapse of a Radiating Spherical Body. *R. Chan, L. Herrera, J. A. F. Pacheco, & N. O. Santos.* 382, 255, 203-D1 (1991)

Catalog of SN 1987A Polarimetry Corrected for Interstellar Polarization. *David J. Jeffery.* 77, 405, 50-B5 (1991)

Rayleigh-Taylor Instability in the Asymmetric Supernova Explosion. *Shoichi Yamada & Katsuhiko Sato.* 382, 594, 208-G12 (1991)

Nonthermal Excitation of Helium in Type Ib Supernovae. *L. B. Lucy.* 383, 308, 216-A8 (1991)

The Conversion of Two-Flavor to Three-Flavor Quark Matter in a Supernova Core. *Zigao Dai, Qiuhe Peng, & Tan Lu.* 440, 815, 54-C9 (1995)

STARS: SUPERNOVAE: GENERAL

High Rate for Type Ic Supernovae. *Richard A. Muller, Heidi Jo Marvin Newberg, Carlton R. Pennypacker, Saul Perlmutter, Timothy P. Sasseen, & Craig K. Smith.* 384, L9, 6-B7 (1992)

The Energy Sources Powering the Late-Time Bolometric Evolution of SN 1987A. *Nicholas B. Suntzeff, M. M. Phillips, J. H. Elias, D. L. DePoy, & A. R. Walker.* 384, L33, 11-B6 (1992)

The Frequencies of Supernovae in Binaries. *Alexander V. Tutukov, Lev R. Yungelson, & Icko Iben, Jr.* 386, 197, 26-E9 (1992)

Postexplosion Hydrodynamics of SN 1987A. *Marc Herant & Willy Benz.* 387, 294, 40-E9 (1992)

HEAO 3 Limits on the ^{44}Ti Yield in Galactic Supernovae. *W. A. Mahoney, J. C. Ling, W. A. Wheaton, & J. C. Higdon.* 387, 314, 40-G5 (1992)

Type II-L Supernovae—Standard Bombs. *C. Martin Gaskell.* 389, L17, 66-C6 (1992)

G203.2−12.3: A New Optical Supernova Remnant in Orion. *P. Frank Winkler & Bo Reipurth.* 389, L25, 66-D1 (1992)

Can a Closure Mass Neutrino Help Solve the Supernova Shock Reheating Problem? *George M. Fuller, R. Mayle, Bradley S. Meyer, & James R. Wilson.* 389, 517, 67-G10 (1992)

Type I Supernovae and Accretion-induced Collapses from Cataclysmic Variables? *Mario Livio & James W. Truran.* 389, 695, 70-A10 (1992)

The Luminosity of Supernovae of Type Ia. I. Apparent Magnitudes at Maximum Light. *Sidney van den Bergh & John Pazder.* 390, 34, 74-D13 (1992)

Supernova Rates and the Reddening of Wolf-Rayet Stars. *Sidney van den Bergh.* 390, 133, 75-F1 (1992)

Mixing in Ejecta of Supernovae. I. General Properties of Two-dimensional Rayleigh-Taylor Instabilities and Mixing Width in Ejecta of Supernovae. *Izumi Hachisu, Takuya Matsuda, Ken'ichi Nomoto, & Toshikazu Shigeyama.* 390, 230, 76-G7 (1992)

Detection of an Unresolved Nuclear Radio Source in M31. *Patrick C. Crane, John R. Dickel, & John J. Cowan.* 390, L9, 78-B7 (1992)

Gamma-Ray Deposition and Nonthermal Excitation in Supernovae. *Cecilia Kozma & Claes Fransson.* 390, 602, 82-G1 (1992)

An Absolute Calibration of Type Ia Supernovae and the Value of H_0. *Michael J. Pierce, Michael E. Ressler, & Mark S. Shure.* 390, L45, 84-D1 (1992)

Effect of the Explosion of Supernovae and Superbubbles on the Galactic Dynamo. *Katia Ferrière.* 391, 188, 88-C13 (1992)

Presupernova Evolution in Massive Interacting Binaries. *Ph. Podsiadlowski, P. C. Joss, & J. J. L. Hsu.* 391, 246, 89-A10 (1992)

Evolution of Heavy-Element Abundances as a Constraint on Sites for Neutron-Capture Nucleosynthesis. *G. J. Mathews, G. Bazan, & J. J. Cowan.* 391, 719, 97-A1 (1992)

The Hubble Constant from Nickel Radioactivity in Type Ia Supernovae. *David Branch.* 392, 35, 101-D9 (1992)

Late Detonation Models for the Type Ia Supernovae SN 1991T and SN 1990N. *Hitoshi Yamaoka, Ken'ichi Nomoto, Toshikazu Shigeyama, & Friedrich-Karl Thielemann.* 393, L55, 127-C1 (1992)

Early Expansion and Luminosity Evolution of Supernovae. *Roger A. Chevalier.* 394, 599, 136-G5 (1992)

Interstellar SiC with Unusual Isotopic Compositions: Grains from a Supernova? *Sachiko Amari, Peter Hoppe, Ernst Zinner, & Roy S. Lewis.* 394, L43, 139-C1 (1992)

The α-Process and the *r*-Process. *S. E. Woosley & Robert D. Hoffman.* 395, 202, 142-F7 (1992)

Expanding Photospheres of Type II Supernovae and the Extragalactic Distance Scale. *Brian P. Schmidt, Robert P. Kirshner, & Ronald G. Eastman.* 395, 366, 146-G7 (1992)

Diffusive Acceleration of Electrons in SN 1987A. *Lewis Ball & J. G. Kirk.* 396, L39, 160-G1 (1992)

Are Symbiotic Stars the Precursors of Type Ia Supernovae? *Ulisse Munari & Alvio Renzini.* 397, L87, 181-B1 (1992)

Radiative Equilibrium in Rapidly Expanding Shells. *P. H. Hauschildt.* 398, 224, 184-E9 (1992)

The Quasi-static Evolution of ONeMg Cores: Explosive Ignition Densities and the Collapse/Explosion Alternative. *Ramon Canal, Jordi Isern, & Javier Labay.* 398, L49, 187-G7 (1992)

r-Process Nucleosynthesis in the High-Entropy Supernova Bubble. *B. S. Meyer, G. J. Mathews, W. M. Howard, S. E. Woosley, & R. D. Hoffman.* 399, 656, 206-B1 (1992)

Explosion of a Supernova with a Red Giant Companion. *E. Livne, Y. Tuchman, & J. C. Wheeler.* 399, 665, 206-B11 (1992)

Nebular Spectra of Type Ia Supernovae as Probes for Extragalactic Distances, Reddening, and Nucleosynthesis. *P. Ruiz-Lapuente & L. B. Lucy.* 400, 127, 210-E1 (1992)

A Distance-independent Calibration of the Luminosity of Type Ia Supernovae and the Hubble Constant. *Bruno Leibundgut & Philip A. Pinto.* 401, 49, 221-F1 (1992)

Pycnonuclear Reaction Rates for Binary Ionic Mixtures. *S. Ichimaru, S. Ogata, & H. M. Van Horn.* 401, L35, 227-E7 (1992)

Deposition of Mass, Momentum, and Energy by Massive Stars into the Interstellar Medium. *Claus Leitherer, Carmelle Robert, & Laurent Drissen.* 401, 596, 230-A6 (1992)

Strange Quark Contributions to the Nucleon and Neutrino Nucleosynthesis. *E. Kolbe, K. Langanke, S. Krewald, & F. K. Thielemann.* 401, L89, 233-C1 (1992)

The Cosmic Gamma-Ray Background from Type Ia Supernovae. *Lih-Sin The, Mark D. Leising, & Donald D. Clayton.* 403, 32, 14-D12 (1993)

Isotopic *r*-Process Abundances and Nuclear Structure Far from Stability: Implications for the *r*-Process Mechanism. *Karl-Ludwig Kratz, Jean-Philippe Bitouzet, Friedrich-Karl Thielemann, Peter Möller, & Bernd Pfeiffer.* 403, 216, 16-E13 (1993)

Decrease of Gravitational Mass Due to Neutrino Emission and Shock Revival in Supernovae. *Itzhak Goldman & Shmuel Nussinov.* 403, 706, 24-D13 (1993)

The Full Alpha-Tensor Due to Supernova Explosions and Superbubbles in the Galactic Disk. *Katia Ferrière.* 404, 162, 30-A7 (1993)

Gamma-Ray Bursts from Stellar Mass Accretion Disks around Black Holes. *S. E. Woosley.* 405, 273, 44-E1 (1993)

Type Ia Supernovae as Standard Candles. *David Branch & Douglas L. Miller.* 405, L5, 47-B8 (1993)

Positrons from Supernovae. *Kai-wing Chan & Richard E. Lingenfelter.* 405, 614, 50-G1 (1993)

Type II Supernovae and Boltzmann Neutrino Transport: The Infall Phase. *Anthony Mezzacappa & Stephen W. Bruenn.* 405, 637, 51-B1 (1993)

A Numerical Method for Solving the Neutrino Boltzmann Equation Coupled to Spherically Symmetric Stellar Core Collapse. *Anthony Mezzacappa & Stephen W. Bruenn.* 405, 669, 51-D7 (1993)

Radioactive ^{26}Al from Massive Stars: Production and Distribution in the Galaxy. *N. Prantzos.* 405, L55, 54-C1 (1993)

High-Resolution Imaging of [Fe II 1.64 Microns, Brackett-γ, and H_2 1–0 $S(1)$ Emission in the Starburst Galaxy NGC 253. *Duncan A. Forbes, Martin J. Ward, V. Rotaciuc, M. Blietz, R. Genzel, S. Drapatz, Paul P. van der Werf, & A. Krabbe.* 406, L11, 60-F1 (1993)

Numerical Simulations of the Convective Flame in White Dwarfs. *Eli Livne.* 406, L17, 60-F12 (1993)

The Dispersal of Iron through the Interstellar Medium. *Nicholas P. T. Bateman & Richard B. Larson.* 407, 634, 78-D12 (1993)

On Symbiotic Stars and Type Ia Supernovae. *Scott J. Kenyon, Mario Livio, Joanna Mikołajewska, & Christopher A. Tout.* 407, L81, 82-E9 (1993)

Magnetic Diffusion Due to Supernova Explosions and Superbubbles in the Galactic Disk. *Katia Ferrière.* 409, 248, 100-C1 (1993)

Stellar Core Collapse: A Boltzmann Treatment of Neutrino-Electron Scattering. *Anthony Mezzacappa & Stephen W. Bruenn.* 410, 740, 123-A7 (1993)

Spatial and Temporal Distributed Acceleration of Cosmic Rays by Supernova Remnants: Three-dimensional Simulations. *G. A. Medina Tanco & R. Opher.* 411, 690, 138-C8 (1993)

Convection and Neutrino Emission in the Late Stages of Massive Star Evolution. *Maurice B. Aufderheide.* 411, 813, 140-A1 (1993)

The Evolution of Massive Stars Including Mass Loss: Presupernova Models and Explosion. *S. E. Woosley, Norbert Langer, & Thomas A. Weaver.* 411, 823, 140-A14 (1993)

Does the Coalescence of White Dwarfs Produce Millisecond Pulsars in Globular Clusters? *Kaiyou Chen & Peter J. T. Leonard.* 411, L75, 142-D3 (1993)

Spectrum Formation in Supernovae: Numerical Techniques. *Ronald G. Eastman & Philip A. Pinto.* 412, 731, 152-G12 (1993)

Hot Bubbles in a Magnetic Interstellar Medium: Another Look at the Soft X-Ray Background. *Richard J. Edgar & Donald P. Cox.* 413, 190, 158-D10 (1993)

Anomalous Energy and Momentum Transfer of Intense Neutrinos in Supernova Explosions. *Tzihong Chiueh.* 413, L35, 162-E11 (1993)

The Absolute Magnitudes of Type Ia Supernovae. *M. M. Phillips.* 413, L105, 168-G7 (1993)

Spectropolarimetry of SN 1993J in NGC 3031. *Susan R. Trammell, Dean C. Hines, & J. Craig Wheeler.* 414, L21, 175-E2 (1993)

The QCD Phase Transition and Supernova Core Collapse. *N. A. Gentile, M. B. Aufderheide, G. J. Mathews, F. D. Swesty, & G. M. Fuller.* 414, 701, 180-A3 (1993)

An Analytical Model for the Plateau Stage of Type II Supernovae. *D. V. Popov.* 414, 712, 180-B3 (1993)

Type II Supernovae from 8–10 $M_{\odot}$ Asymptotic Giant Branch Stars. *Masaaki Hashimoto, Kohichi Iwamoto, & Ken'ichi Nomoto.* 414, L105, 186-A1 (1993)

The Hubble Diagram in V for Supernovae of Type Ia and the Value of H_0 Therefrom. *Allan Sandage & G. A. Tammann.* 415, 1, 185-B1 (1993)

Convection above the Neutrinosphere in Type II Supernovae. *D. S. Miller, J. R. Wilson, & R. W. Mayle.* 415, 278, 188-D12 (1993)

The "Type IIb" Supernova 1993J in M81: A Close Relative of Type Ib Supernovae. *Alexei V. Filippenko, Thomas Matheson, & Luis C. Ho.* 415, L103, 200-A8 (1993)

On the Instability of Deflagration Fronts in White Dwarfs. *Eli Livne & David Arnett.* 415, L107, 200-B1 (1993)

Radio and Near-Infrared [Fe II] Emission from Active Galaxies. *Duncan A. Forbes & Martin J. Ward.* 416, 150, 202-G12 (1993)

A Theory of Supernova Explosions. *Adam Burrows & John Goshy.* 416, L75, 216-E1 (1993)

Late Reionization by Supernova-driven Winds. *Max Tegmark, Joseph Silk, & August Evrard.* 417, 54, 217-F10 (1993)

Thermonuclear Reaction Rates for Dense Binary-Ionic Mixtures. *Shuji Ogata, Setsuo Ichimaru, & Hugh M. Van Horn.* 417, 265, 220-F12 (1993)

Gamma-Ray Escape in Type Ia Supernovae: The 847 keV–m_B Diagram. *P. Ruiz-Lapuente, G. G. Lichti, R. Lehoucq, R. Canal, & M. Cassé.* 417, 547, 226-B5 (1993)

Neutron-rich α-rich Freeze-out and the r-Process in the High-Entropy Neutrino-energized Supernova Bubble. *W. M. Howard, S. Goriely, M. Rayet, & M. Arnould.* 417, 713, 228-C5 (1993)

Pions, Supernovae, and the Supranuclear Matter Density Equation of State. *Ronald W. Mayle, Marco Tavani, & James R. Wilson.* 418, 398, 236-A4 (1993)

A Convective Trigger for Supernova Explosions. *Adam Burrows & Burce A. Fryxell.* 418, L33, 238-D11 (1993)

Production and Circulation of Iron in Elliptical Galaxies and Clusters of Galaxies. *Alvio Renzini, Luca Ciotti, Annibale D'Ercole, & Silvia Pellegrini.* 419, 52, 246-F12 (1993)

Preservation of the Supernova Shock. *Hans A. Bethe.* 419, 197, 248-E14 (1993)

Stability of Detonations in Supernovae. *A. M. Khokhlov.* 419, 200, 248-F5 (1993)

Limits on Planets Orbiting Massive Stars from Radio Pulsar Timing. *S. E. Thorsett & R. J. Dewey.* 419, L65, 259-D1 (1993)

Hydrodynamical Models for X-Ray Emissions from SN 1993J in M81. *Tomoharu Suzuki, Shiomi Kumagai, Toshikazu Shigeyama, Ken'ichi Nomoto, Hitoshi Yamaoka, & Hideyuki Saio.* 419, L73, 259-D11 (1993)

Flame Modeling in Supernovae. *A. Khokhlov.* 419, L77, 259-E1 (1993)

The Clumpy Galaxy Markarian 297 and Its Supernova Activity. *Q. F. Yin.* 420, 152, 2-G6 (1994)

Emission from Circumstellar Interaction in Normal Type II Supernovae. *Roger A. Chevalier & Claes Fransson.* 420, 268, 4-C1 (1994)

Are the Observed Frequencies of Double Degenerates and SN Ia Contradictory? *L. R. Yungelson, M. Livio, A. V. Tutukov, & R. A. Saffer.* 420, 336, 5-A13 (1994)

Theoretical Light Curves of Type IIb Supernova 1993J. *Toshikazu Shigeyama, Tomoharu Suzuki, Shiomi Kumagai, Ken'ichi Nomoto, Hideyuki Saio, & Hitoshi Yamaoka.* 420, 341, 5-B5 (1994)

The Conductive Propagation of Nuclear Flames. II. Convectively Bounded Flames in C+O and O+Ne+Mg Cores. *F. X. Timmes, S. E. Woosley, & Ronald E. Taam.* 420, 348, 5-B13 (1994)

The Distance to the Type Ia Supernova 1972E and Its Parent Galaxy NGC 5253: A Prediction. *David Branch, Adam Fisher, Tibor J. Herczeg, Douglas L. Miller, & Peter Nugent.* 421, L87, 29-F3 (1994)

Relativistic Equation of State of Nuclear Matter for the Supernova Explosion and the Birth of Neutron Stars. *K. Sumiyoshi & H. Toki.* 422, 700, 40-E7 (1994)

A New Radiation Hydrodynamics Code and Application to the Calculation of Type Ia Supernovae Light Curves and Continuum Spectra. *Xiao-he Zhang & Peter Sutherland.* 422, 719, 40-G1 (1994)

Sub–Chandrasekhar Mass Models for Type Ia Supernovae. *S. E. Woosley & Thomas A. Weaver.* 423, 371, 50-F10 (1994)

A New Way to Make Thorne-Żytkow Objects. *Peter J. T. Leonard, Jack G. Hills, & Rachel J. Dewey.* 423, L19, 53-C13 (1994)

On the Progenitors of Type Ia Supernovae in Early-Type and Late-Type Galaxies. *Massimo Della Valle & Mario Livio.* 423, L31, 53-E3 (1994)

On the Acceleration of Nuclear Flame Fronts in White Dwarfs. *F. X. Timmes.* 423, L131, 61-B5 (1994)

Gamma-Ray Limits on Galactic ^{60}Fe and ^{44}Ti Nucleosynthesis. *Mark D. Leising & Gerald H. Share.* 424, 200, 64-D7 (1994)

A New Urca Process. *Maurice B. Aufderheide, Ikko Fushiki, George M. Fuller, & Thomas A. Weaver.* 424, 257, 65-B1 (1994)

Search for Important Weak Interaction Nuclei in Presupernova Evolution. *Maurice B. Aufderheide, Ikko Fushiki, Stanford E. Woosley, & Dieter H. Hartmann.* 91, 389, 23-F3 (1994)

SN 1992bc and SN 1992bo: Evidence for Intrinsic Differences in Type Ia Supernova Luminosities. *José Maza, Mario Hamuy, M. M. Phillips, N. B. Suntzeff, & R. Avilés.* 424, L107, 79-C2 (1994)

Supernovae Deflagrations in Three Dimensions. *A. Khokhlov.* 424, L115, 79-D1 (1994)

The Role of the Equation of State in the "Prompt" Phase of Type II Supernovae. *F. Douglas Swesty, James M. Lattimer, & Eric S. Myra.* 425, 195, 82-F3 (1994)

Rediscussion of Extragalactic Supernova Rates Derived from Evans's 1980–1988 Observations. *Sidney van den Bergh & Robert D. McClure.* 425, 205, 82-G1 (1994)

Postexplosion Hydrodynamics of Supernovae in Red Supergiants. *Marc Herant & S. E. Woosley.* 425, 814, 91-G12 (1994)

Formation and Evolution of Luminous Supersoft X-Ray Sources. *S. Rappaport, R. Di Stefano, & J. D. Smith.* 426, 692, 107-A13 (1994)

Evidence for $^{56}\mathrm{Ni} \rightarrow {}^{56}\mathrm{Co} \rightarrow {}^{56}\mathrm{Fe}$ Decay in Type Ia Supernovae. *Marc J. Kuchner, Robert P. Kirshner, Philip A. Pinto, & Bruno Leibundgut.* 426, L89, 109-E13 (1994)

The Delayed-Detonation Model of Type Ia Supernovae I. The Deflagration Phase. *David Arnett & Eli Livne.* 427, 314, 113-G4 (1994)

The Delayed-Detonation Model of Type Ia Supernovae. II. The Detonation Phase. *David Arnett & Eli Livne.* 427, 330, 114-A7 (1994)

A Catalog of Recent Supernovae. *Sidney van den Bergh.* 92, 219, 34-B12 (1994)

Oxygen-burning Hydrodynamics. I. Steady Shell Burning. *David Arnett.* 427, 932, 124-C2 (1994)

Charge Transfer in Helium-rich Supernova Plasma. *Douglas A. Swartz.* 428, 267, 131-D13 (1994)

Magnetic Fields in Young Supernova Remnants. *Yu-Qing Lou.* 428, L21, 134-D2 (1994)

A Search for Astrophysical Sources of Low-Energy Neutrinos Using the IMB Detector. *R. S. Miller, R. Becker-Szendy, C. B. Bratton, J. Breault, D. Casper, S. T. Dye, W. Gajewski, M. Goldhaber, T. J. Haines, P. G. Halverson, D. Kielczewska, W. R. Kropp, J. G. Learned, J. LoSecco, S. Matsuno, J. Matthews, G. McGrath, C. McGrew, L. Price, F. Reines, J. Schultz, D. Sinclair, H. W. Sobel, J. L. Stone, L. R. Sulak, R. Svoboda, & J. C. van der Velde.* 428, 629, 138-B1 (1994)

The Galactic Supernova Rate. *G. A. Tammann, W. Löffler, & A. Schröder.* 92, 487, 38-C12 (1994)

Gamma-Ray Light Curves and Spectra of Models for Type Ia Supernovae. *P. Höflich, A. Khokhlov, & E. Müller.* 92, 501, 38-E1 (1994)

Luminosity–Line-Width Relations and the Extragalactic Distance Scale. II. A Comparison with Types Ia and II Supernovae. *Michael J. Pierce.* 430, 53, 159-F3 (1994)

Theoretical Light Curve of a Type IIp Supernova. *Ronald G. Eastman, S. E. Woosley, Thomas A. Weaver, & Philip A. Pinto.* 430, 300, 162-G8 (1994)

The True Nucleus of NGC 253 Revealed by High-Resolution Near-Infrared Imaging. *Bruce J. Sams III, R. Genzel, A. Eckart, L. Tacconi-Garman, & R. Hofmann.* 430, L33, 165-E5 (1994)

Helium-accreting Degenerate Dwarfs as Presupernovae and Scenarios for the Ultrasoft X-Ray Sources. *Icko Iben, Jr., & A. V. Tutukov.* 431, 264, 179-D6 (1994)

Energy Deposition and K-Shell Ionization of Supernovae. *Lih-Sin The, William T. Bridgman, & Donald D. Clayton.* 93, 531, 50-C3 (1994)

The Distance of Five Type II Supernovae Using the Expanding Photosphere Method and the Value of H_0. *Brian P. Schmidt, Robert P. Kirshner, Ronald G. Eastman, Mark M. Phillips, Nicholas B. Suntzeff, Mario Hamuy, José Maza, & Roberto Avilés.* 432, 42, 193-F8 (1994)

Reaction Rates and Reaction Sequences in the rp-Process. *L. Van Wormer, J. Görres, C. Iliadis, M. Wiescher, & F.-K. Thielemann.* 432, 326, 197-C1 (1994)

SN 1993J: The Early Radio Emission and Evidence for a Changing Presupernova Mass-Loss Rate. *Schuyler D. Van Dyk, Kurt W. Weiler, Richard A. Sramek, Michael P. Rupen, & Nino Panagia.* 432, L115, 207-A9 (1994)

Axisymmetric Neutrino Radiation and the Mechanism of Supernova Explosions. *Tetsuya Shimizu, Shoichi Yamada, & Katsuhiko Sato.* 432, L119, 207-B1 (1994)

A Direct Way to Measure the Distances of Galaxies. *W. B. Sparks.* 433, 19, 208-D7 (1994)

The *r*-Process and Neutrino-heated Supernova Ejecta. *S. E. Woosley, J. R. Wilson, G. J. Mathews, R. D. Hoffman, & B. S. Meyer.* 433, 229, 211-B9 (1994)

Convection, Nucleosynthesis, and Core Collapse. *Grant Bazan & David Arnett.* 433, L41, 215-B9 (1994)

Prompt Convection in Core Collapse Supernovae. *Stephen W. Bruenn & Anthony Mezzacappa.* 433, L45, 215-C1 (1994)

Grain Destruction in Shocks in the Interstellar Medium. *A. P. Jones, A. G. G. M. Tielens, D. J. Hollenbach, & C. F. McKee.* 433, 797, 221-A12 (1994)

Radio Observations of M83 and Its Supernova Remnants. *John J. Cowan, Douglas A. Roberts, & David Branch.* 434, 128, 226-G10 (1994)

Numerical Study of Rotating Core Collapse in Supernova Explosions. *Shoichi Yamada & Katsuhiko Sato.* 434, 268, 229-B6 (1994)

Beta-Decay Rates of *fp* Shell Nuclei with $A > 60$ in Massive Stars at the Presupernova Stage. *K. Kar, A. Ray, & S. Sarkar.* 434, 662, 237-A1 (1994)

Inside the Supernova: A Powerful Convective Engine. *Marc Herant, Willy Benz, W. Raphael Hix, Chris L. Fryer, & Stirling A. Colgate.* 435, 339, 248-B3 (1994)

Nonlinear Instability of Accelerating Shock Waves with Application to Supernovae. *Ding Luo & Roger A. Chevalier.* 435, 815, 257-C9 (1994)

Ensemble-averaged Thermonuclear Reaction Rates for Turbulent Convection in Stellar Interiors. *Lawrence D. Cloutman.* 437, 384, 288-D9 (1994)

Yet Another Model of Soft Gamma Repeaters. *J. I. Katz, H. A. Toole, & S. H. Unruh.* 437, 727, 295-F6 (1994)

The Derived Population of Luminous Supersoft X-Ray Sources. *R. Di Stefano & S. Rappaport.* 437, 733, 295-G1 (1994)

Pycnonuclear Reaction Rates in Stellar Interiors: Thermal Enhancement. *Hikaru Kitamura & Setsuo Ichimaru.* 438, 300, 5-E9 (1995)

Using Type Ia Supernova Light Curve Shapes to Measure the Hubble Constant. *Adam G. Riess, William H. Press, & Robert P. Kirshner.* 438, L17, 9-G8 (1995)

Gamma-Ray Lines from the Orion Complex. *Reuven Ramaty, Benzion Kozlovsky, & Richard E. Lingenfelter.* 438, L21, 10-A1 (1995)

Late-Time Spectra and Type Ia Supernova Models: New Clues from the *Hubble Space Telescope*. *P. Ruiz-Lapuente, R. P. Kirshner, M. M. Phillips, P. M. Challis, B. P. Schmidt, A. V. Filippenko, & J. C. Wheeler.* 439, 60, 22-A9 (1995)

The Blue and Visual Absolute Magnitude Distributions of Type Ia Supernovae. *Thomas E. Vaughan, David Branch, Douglas L. Miller, & Saul Perlmutter.* 439, 558, 32-A11 (1995)

The Sobolev Optical Depth for Time-dependent Relativistic Systems. *David J. Jeffery.* 440, 810, 54-C1 (1995)

The Conversion of Two-Flavor to Three-Flavor Quark Matter in a Supernova Core. *Zigao Dai, Qiuhe Peng, & Tan Lu.* 440, 815, 54-C9 (1995)

A Supernova at $z = 0.458$ and Implications for Measuring the Cosmological Deceleration. *S. Perlmutter, C. R. Pennypacker, G. Goldhaber, A. Goobar, R. A. Muller, H. J. M. Newberg, J. Desai, A. G. Kim, M. Y. Kim, I. A. Small, B. J. Boyle, C. S. Crawford, R. G. McMahon, P. S. Bunclark, D. Carter, M. J. Irwin, R. J. Terlevich, R. S. Ellis, K. Glazebrook, W. J. Couch, J. R. Mould, T. A. Small, & R. G. Abraham.* 440, L41, 57-C1 (1995)

Gravitational Radiation from Rapidly Rotating Nascent Neutron Stars. *Dong Lai & Stuart L. Shapiro.* 442, 259, 80-F11 (1995)

Computing Supernova Collapse to Neutron Stars and Black Holes. *Thomas W. Baumgarte, Stuart L. Shapiro, & Saul A. Teukolsky.* 443, 717, 107-F13 (1995)

The Radio Detection of SN 1968D in NGC 6946. *Scott D. Hyman, Schuyler D. Van Dyk, Kurt W. Weiler, & Richard A. Sramek.* 443, L77, 112-A2 (1995)

Hydrodynamic Instabilities in Supernova Remnants: Early Radiative Cooling. *Roger A. Chevalier & John M. Blondin.* 444, 312, 117-F11 (1995)

Delayed Detonation Models for Normal and Subluminous Type Ia Supernovae: Absolute Brightness, Light Curves, and Molecule Formation. *P. Höflich, A. M. Khokhlov, & J. C. Wheeler.* 444, 831, 128-A1 (1995)

Implicit General Relativistic Hydrodynamic Methods for Modeling the Late-Time Explosion Mechanism in Core Collapse Supernovae. *F. Douglas Swesty.* 445, 811, 146-D4 (1995)

Semianalytic Continuum Spectra of Type II Supernovae. *Marcos J. Montes & Robert V. Wagoner.* 445, 828, 146-E11 (1995)

Determining the Motion of the Local Group Using Type Ia Supernova Light Curve Shapes. *Adam G. Riess, William H. Press, & Robert P. Kirshner.* 445, L91, 150-F3 (1995)

Gamma-Ray Transfer and Energy Deposition in Supernovae. *Douglas A. Swartz, Peter G. Sutherland, & Robert P. Harkness.* 446, 766, 166-F1 (1995)

Massive Supernovae, Orion Gamma Rays, and the Formation of the Solar System. *A. G. W. Cameron, P. Höflich, P. C. Myers, & D. D. Clayton.* 447, L53, 181-D7 (1995)

Carbon and Nitrogen Isotopes in Type II Supernova Diamonds. *Donald D. Clayton, Bradley S. Meyer, Chris I. Sanderson, Sara S. Russell, & C. T. Pillinger.* 447, 894, 188-C2 (1995)

Type Ia Supernova Scenarios and the Hubble Sequence. *P. Ruiz-Lapuente, A. Burkert, & R. Canal.* 447, L69, 190-C1 (1995)

The Minimum Ejection Velocity of Calcium in Type Ia Supernovae and the Value of the Hubble Constant. *Adam Fisher, David Branch, Peter Höflich, & Alexei Khokhlov.* 447, L73, 190-C7 (1995)

Large ^{18}O Excesses in Circumstellar Graphite Grains from the Murchison Meteorite: Indication of a Massive-Star Origin. *Sachiko Amari, Ernst Zinner, & Roy S. Lewis.* 447, L147, 191-F4 (1995)

The Presupernova Evolution and Explosion of Helium Stars That Experience Mass Loss. *S. E. Woosley, Norbert Langer, & Thomas A. Weaver.* 448, 315, 196-E7 (1995)

A Search for Ultra–High-Energy Gamma-Ray Emission from Five Supernova Remnants. *G. E. Allen, D. Berley, S. Biller, R. L. Burman, M. Cavalli-Sforza, C. Y. Chang, M. L. Chen, P. Chumney, D. Coyne, C. L. Dion, D. Dorfan, R. W. Ellsworth, J. A. Goodman, T. J. Haines, C. M. Hoffman, L. Kelley, S. Klein, D. M. Schmidt, R. Schnee, A. Shoup, C. Sinnis, M. J. Stark, D. A. Williams, J.-P. Wu, T. Yang, & G. B. Yodh.* 448, L25, 199-E10 (1995)

The First Second of a Type II Supernova: Convection, Accretion, and Shock Propagation. *H.-Thomas Janka & Ewald Müller.* 448, L109, 209-D9 (1995)

On the Origin of the Clustered Quasi-stellar Object Metal Absorption Lines. *Xiangdong Shi.* 449, 140, 212-B3 (1995)

^{26}Al and ^{60}Fe from Supernova Explosions. *F. X. Timmes, S. E. Woosley, D. H. Hartmann, R. D. Hoffman, T. A. Weaver, & F. Matteucci.* 449, 204, 213-A4 (1995)

Light Curve Studies of SN 1993J and SN 1994I. *Timothy R. Young, E. Baron, & David Branch.* 449, L51, 216-G4 (1995)

Neutrino Reactions on ^4He and the *r*-Process. *Bradley S. Meyer.* 449, L55, 216-G11 (1995)

Limits on the Hubble Constant from the *HST* Distance of M100. *Jeremy Mould, John P. Huchra, Fabio Bresolin, Laura Ferrarese, Holland C. Ford, Wendy L. Freedman, John Graham, Paul Harding, Robert Hill, John G. Hoessel, Shaun M. Hughes, Garth D. Illingworth, Daniel Kelson,*

Robert C. Kennicutt, Jr., Barry F. Madore, Randy Phelps, Peter B. Stetson, & Anne Turner. 449, 413, 218-D8 (1995)

Propagation of Turbulent Flames in Supernovae. *Alexei M. Khokhlov.* 449, 695, 222-D7 (1995)

The Supernova Shock. *Hans A. Bethe.* 449, 714, 222-F2 (1995)

Feasibility of Measuring the Cosmological Constant Λ and Mass Density Ω Using Type Ia Supernovae. *Ariel Goobar & Saul Perlmutter.* 450, 14, 228-C3 (1995)

Supernovae, Globular Clusters, and Galaxy Mergers. *Sidney van den Bergh.* 450, 27, 228-D9 (1995)

Gravitational Radiation from Rotational Collapse of a Supernova Core. *Shoichi Yamada & Katsuhiko Sato.* 450, 245, 231-D4 (1995)

The Peak Brightness of Supernovae in the *U* Band and the Hubble Constant. *Bradley E. Schaefer.* 450, L5, 235-D8 (1995)

The Type Ic Supernova 1994I in M51: Detection of Helium and Spectral Evolution. *Alexei V. Filippenko, Aaron J. Barth, Thomas Matheson, Lee Armus, Michael Brown, Brian R. Espey, Xiao-Ming Fan, Robert W. Goodrich, Luis C. Ho, Vesa T. Junkkarinen, David C. Koo, Matthew D. Lehnert, André R. Martel, Joseph M. Mazzarella, Joseph S. Miller, Graeme H. Smith, David Tytler, & Gregory D. Wirth.* 450, L11, 235-E3 (1995)

Smooth Particle Hydronamics Simulations of Deflagrations in Supernovae. *E. Bravo & D. García-Senz.* 450, L17, 234-E12 (1995)

On the Nature of Core-Collapse Supernova Explosions. *Adam Burrows, John Hayes, & Bruce A. Fryxell.* 450, 830, 242-B9 (1995)

Cooling Flow Models of the X-Ray Emission and Temperature Profiles for a Sample of Elliptical Galaxies. *G. Bertin & T. Toniazzo.* 451, 111, 247-F1 (1995)

Reaction Rates for ^{146}Sm Production in Supernovae. *Thomas Rauscher, Friedrich-Karl Thielemann, & Heinz Oberhummer.* 451, L37, 252-F4 (1995)

Radio Observations of the Type Ia SN 1986G as a Test of a Symbiotic-Star Progenitor. *Christopher R. Eck, John J. Cowan, Douglas A. Roberts, Francesca R. Boffi, & David Branch.* 451, L53, 260-D6 (1995)

The Hubble Diagram for Supernovae of Type Ia. II. The Effect on the Hubble Constant of a Correlation between Absolute Magnitude and Light Decay Rate. *G. A. Tammann & Allan Sandage.* 452, 16, 262-D6 (1995)

Explosions of Sub–Chandrasekhar Mass White Dwarfs in Two Dimensions. *Eli Livne & David Arnett.* 452, 62, 263-A6 (1995)

Turbulent Nuclear Flames in Type Ia Supernovae. *J. C. Niemeyer & W. Hillebrandt.* 452, 769, 275-B13 (1995)

Microscopic Instabilities of Nuclear Flames in Type Ia Supernovae. *J. C. Niemeyer & W. Hillebrandt.* 452, 779, 275-C12 (1995)

Silicon Nitride from Supernovae. *Larry R. Nittler, Peter Hoppe, Conel M. O'D. Alexander, Sachiko Amari, Peter Eberhardt, Xia Gao, Roy S. Lewis, Roger Strebel, Robert M. Walker, & Ernst Zinner.* 453, L25, 289-E9 (1995)

Neutrino Capture and Supernova Nucleosynthesis. *George M. Fuller & Bradley S. Meyer.* 453, 792, 294-G7 (1995)

A New Method for the Determination of the Hubble Parameter. *Sidney van den Bergh.* 453, L55, 298-A1 (1995)

The Evolution and Explosion of Massive Stars. II. Explosive Hydrodynamics and Nucleosynthesis. *S. E. Woosley & Thomas A. Weaver.* 101, 181, 55-B1 (1995)

Dwarf Galaxies and the Origin of the Intracluster Medium. *Biman B. Nath & Masashi Chiba.* 454, 604, 309-G6 (1995)

Type Ia Supernovae: The Flame Is Born. *D. Garcia-Senz & S. E. Woosley.* 454, 895, 314-B7 (1995)

Neutrino Capture on Heavy Nuclei. *Gail C. McLaughlin & George M. Fuller.* 455, 202, 321-A1 (1995)

Evidence for Thermal Absorption inside Cassiopeia A. *N. E. Kassim, R. A. Perley, K. S. Dwarakanath, & W. C. Erickson.* 455, L59, 325-C8 (1995)

Evidence for a Spectroscopic Sequence among Type Ia Supernovae. *Peter Nugent, Mark Phillips, E. Baron, David Branch, & Peter Hauschildt.* 455, L147, 334-B4 (1995)

STARS: SUPERNOVAE: INDIVIDUAL

Name: S Andromedae

The Enigmatic Supernova S Andromedae. *Sidney van den Bergh.* 424, 345, 66-B8 (1994)

Alphanumeric: SN 1572A

Was Tycho's Supernova a Subluminous Supernova of Type Ia? *Sidney van den Bergh.* 413, 67, 157-A1 (1993)

Alphanumeric: SN 1895B

The Distance to the Type Ia Supernova 1972E and Its Parent Galaxy NGC 5253: A Prediction. *David Branch, Adam Fisher, Tibor J. Herczeg, Douglas L. Miller, & Peter Nugent.* 421, L87, 29-F3 (1994)

The Cepheid Distance to NGC 5253: Calibration of M(max) for the Type I Supernovae SN 1972E and SN 1895B. *Allan Sandage, A. Saha, G. A. Tammann, Lukas Labhardt, Hans Schwengler, N. Panagia, & F. D. Macchetto.* 423, L13, 53-C5 (1994)

Discovery of Cepheids in NGC 5253: Absolute Peak Brightness of SN Ia 1895B and SN Ia 1972E and the Value of H_0. *A. Saha, Allan Sandage, Lukas Labhardt, Hans Schwengeler, G. A. Tammann, N. Panagia, & F. D. Macchetto.* 438, 8, 1-C12 (1995)

The Peak Brightness of SN 1895B in NGC 5253 and the Hubble Constant. *Bradley E. Schaefer.* 447, L13, 180-E3 (1995)

Alphanumeric: SN 1937C

An Absolute Calibration of Type Ia Supernovae and the Value of H_0. *Michael J. Pierce, Michael E. Ressler, & Mark S. Shure.* 390, L45, 84-D1 (1992)

The Cepheid Distance to IC 4182: Calibration of M_V(max) for SN Ia 1937C and the Value of H_0. *Allan Sandage, A. Saha, G. A. Tammann, Nino Panagia, & D. Macchetto.* 401, L7, 227-B1 (1992)

The Distance to the Type Ia Supernova 1972E and Its Parent Galaxy NGC 5253: A Prediction. *David Branch, Adam Fisher, Tibor J. Herczeg, Douglas L. Miller, & Peter Nugent.* 421, L87, 29-F3 (1994)

The Peak Brightness of SN 1937C in IC 4182 and the Hubble Constant. *Bradley E. Schaefer.* 426, 493, 104-E1 (1994)

Alphanumeric: SN 1957D

A Rapid Decline in the Optical Emission from SN 1957D in M83. *Knox S. Long, P. Frank Winkler, & William P. Blair.* 395, 632, 151-A5 (1992)

Radio Observations of M83 and Its Supernova Remnants. *John J. Cowan, Douglas A. Roberts, & David Branch.* 434, 128, 226-G10 (1994)

Detection of a Nuclear Radio Source in NGC 7331: A Relatively "Radio-quiet" Liner. *John J. Cowan, W. Romanishin, & David Branch.* 436, L139, 281-C9 (1994)

Alphanumeric: SN 1968D

The Radio Detection of SN 1968D in NGC 6946. *Scott D. Hyman, Schuyler D. Van Dyk, Kurt W. Weiler, & Richard A. Sramek.* 443, L77, 112-A2 (1995)

Alphanumeric: SN 1970G

The Optical Recovery of SN 1970G in M101 (NGC 5457). *Robert A. Fesen.* 413, L109, 168-G13 (1993)

Alphanumeric: SN 1972E

The Distance to the Type Ia Supernova 1972E and Its Parent Galaxy NGC 5253: A Prediction. *David Branch, Adam Fisher, Tibor J. Herczeg, Douglas L. Miller, & Peter Nugent.* 421, L87, 29-F3 (1994)

The Cepheid Distance to NGC 5253: Calibration of M(max) for the Type I Supernovae SN 1972E and SN 1895B. *Allan Sandage, A. Saha, G. A. Tammann, Lukas Labhardt, Hans Schwengler, N. Panagia, & F. D. Macchetto.* 423, L13, 53-C5 (1994)

Discovery of Cepheids in NGC 5253: Absolute Peak Brightness of SN Ia 1895B and SN Ia 1972E and the Value of H_0. *A. Saha, Allan Sandage, Lukas Labhardt, Hans Schwengeler, G. A. Tammann, N. Panagia, & F. D. Macchetto.* 438, 8, 1-C12 (1995)

Alphanumeric: SN 1973E

The Distance to the Type Ia Supernova 1972E and Its Parent Galaxy NGC 5253: A Prediction. *David Branch, Adam Fisher, Tibor J. Herczeg, Douglas L. Miller, & Peter Nugent.* 421, L87, 29-F3 (1994)

Alphanumeric: SN 1978K

SN 1978K: An Extraordinary Supernova in the Nearby Galaxy NGC 1313. *Stuart Ryder, Lister Staveley-Smith, Michael Dopita, Robert Petre, Edward Colbert, David Malin, & Eric Schlegel.* 416, 167, 203-B6 (1993)

Soft X-Ray Emission from the Spiral Galaxy NGC 1313. *Edward J. M. Colbert, Robert Petre, Eric M. Schlegel, & Stuart D. Ryder.* 446, 177, 155-F2 (1995)

Alphanumeric: SN 1979C

Evidence for Periodic Modulation of Presupernova Mass Loss from the Progenitor of SN 1979C. *Kurt W. Weiler, Schuyler D. Van Dyk, James E. Pringle, & Nino Panagia.* 399, 672, 206-C5 (1992)

The Optical Recovery of SN 1979C in NGC 4321 (M100). *Robert A. Fesen & David M. Matonick.* 407, 110, 70-D9 (1993)

Alphanumeric: SN 1980K

Full Evolution of the 6 and 20 Centimeter Radio Emission from SN 1980K. *Kurt W. Weiler, Schuyler D. Van Dyk, Nino Panagia, & Richard A. Sramek.* 398, 248, 184-G9 (1992)

The Late-Time Optical Spectrum of SN 1980K. *Robert A. Fesen & David M. Matonick.* 428, 157, 130-B7 (1994)

Alphanumeric: SN 1981B

Spectrum Synthesis of the Type Ia Supernovae SN 1992A and SN 1981B. *Peter Nugent, E. Baron, Peter H. Hauschildt, & David Branch.* 441, L33, 67-A1 (1995)

The Peak Brightness of SN 1981B in NGC 4536 and the Hubble Constant. *Bradley E. Schaefer.* 449, L9, 216-B2 (1995)

Evidence for a Spectroscopic Sequence among Type Ia Supernovae. *Peter Nugent, Mark Phillips, E. Baron, David Branch, & Peter Hauschildt.* 455, L147, 334-B4 (1995)

Alphanumeric: SN 1981K

The 20 and 6 Centimeter Radio Light Curves for SN 1981K: A Type II Radio Supernova. *Schuyler D. Van Dyk, Kurt W. Weiler, Richard A. Sramek, & Nino Panagia.* 396, 195, 157-E4 (1992)

Alphanumeric: SN 1983N

SN 1994I in M51 and the Nature of Type Ibc Supernovae. *J. C. Wheeler, R. P. Harkness, A. Clocchiatti, S. Benetti, M. S. Brotherton, D. L. DePoy, & J. Elias.* 436, L135, 281-C1 (1994)

Alphanumeric: SN 1984L

On the Stellar Progenitor of the Type Ib Supernova 1984L. *E. Baron, Timothy R. Young, & David Branch.* 409, 417, 102-B10 (1993)

SN 1994I in M51 and the Nature of Type Ibc Supernovae. *J. C. Wheeler, R. P. Harkness, A. Clocchiatti, S. Benetti, M. S. Brotherton, D. L. DePoy, & J. Elias.* 436, L135, 281-C1 (1994)

The Type Ic Supernova 1994I in M51: Detection of Helium and Spectral Evolution. *Alexei V. Filippenko, Aaron J. Barth, Thomas Matheson, Lee Armus, Michael Brown, Brian R. Espey, Xiao-Ming Fan, Robert W. Goodrich, Luis C. Ho, Vesa T. Junkkarinen, David C. Koo, Matthew D. Lehnert, André R. Martel, Joseph M. Mazzarella, Joseph S. Miller, Graeme H. Smith, David Tytler, & Gregory D. Wirth.* 450, L11, 235-E3 (1995)

Alphanumeric: SN 1985F

On the Stellar Progenitor of the Type Ib Supernova 1984L. *E. Baron, Timothy R. Young, & David Branch.* 409, 417, 102-B10 (1993)

Alphanumeric: SN 1985L

Early-Time Spectra of Type Ic Supernovae: Further Evidence for the Presence of Hydrogen. *Alexei V. Filippenko.* 384, L37, 11-B11 (1992)

Alphanumeric: SN 1986G

Nebular Spectra of Type Ia Supernovae as Probes for Extragalactic Distances, Reddening, and Nucleosynthesis. *P. Ruiz-Lapuente & L. B. Lucy.* 400, 127, 210-E1 (1992)

Gamma-Ray Escape in Type Ia Supernovae: The 847 keV–m_B Diagram. *P. Ruiz-Lapuente, G. G. Lichti, R. Lehoucq, R. Canal, & M. Cassé.* 417, 547, 226-B5 (1993)

Radio Observations of the Type Ia SN 1986G as a Test of a Symbiotic-Star Progenitor. *Christopher R. Eck, John J. Cowan, Douglas A. Roberts, Francesca R. Boffi, & David Branch.* 451, L53, 260-D6 (1995)

Evidence for a Spectroscopic Sequence among Type Ia Supernovae. *Peter Nugent, Mark Phillips, E. Baron, David Branch, & Peter Hauschildt.* 455, L147, 334-B4 (1995)

Alphanumeric: SN 1986J

X-Ray Emission from SN 1986J in NGC 891. *Joel N. Bregman & Rachel A. Pildis.* 398, L107, 194-E7 (1992)

X-Rays from SN 1986J: Emission of a Shocked Clumpy Wind. *N. N. Chugai.* 414, L101, 185-G10 (1993)

Alphanumeric: SN 1987A

Hydrogen Recombination at High Optical Depth and the Spectrum of SN 1987A. *Yueming Xu, Richard McCray, Ernesto Oliva, & Sofia Randich.* 386, 181, 26-D3 (1992)

Compton Telescope Observations of Gamma Rays from SN 1987A. *Farid Ait-Ouamer, Alan D. Kerrick, Terrence J. O'Neill, O. Tumay Tumer, Allen D. Zych, & R. Stephen White.* 386, 715, 34-B11 (1992)

The [O I] λλ6300,6364 Doublet of SN 1987A. *Hongwei Li & Richard McCray.* 387, 309, 40-F12 (1992)

Line Fluorescence from the Ring around SN 1987A. *Eli Dwek & James E. Felten.* 387, 551, 45-E1 (1992)

Dust and Gas Contributions to the Energy Output of SN 1987A on Day 1153. *E. Dwek, S. H. Moseley, W. Glaccum, J. R. Graham, R. F. Loewenstein, R. F. Silverberg, & R. K. Smith.* 389, L21, 66-C11 (1992)

Mixing in Ejecta of Supernovae. I. General Properties of Two-dimensional Rayleigh-Taylor Instabilities and Mixing Width in Ejecta of Supernovae. *Izumi Hachisu, Takuya Matsuda, Ken'ichi Nomoto, & Toshikazu Shigeyama.* 390, 230, 76-G7 (1992)

Presupernova Evolution in Massive Interacting Binaries. *Ph. Podsiadlowski, P. C. Joss, & J. J. L. Hsu.* 391, 246, 89-A10 (1992)

The Ring around SN 1987A and Rotation of the Progenitor. *Y. Eriguchi, H. Yamaoka, K. Nomoto, & M. Hashimoto.* 392, 243, 104-A1 (1992)

Shock Breakout in SN 1987A. *Lisa Ensman & Adam Burrows.* 393, 742, 125-A10 (1992)

Early Expansion and Luminosity Evolution of Supernovae. *Roger A. Chevalier.* 394, 599, 136-G5 (1992)

Observations of the Light Echoes from SN 1987A Using the *Astro-1* Ultraviolet Imaging Telescope. *Arlin P. S. Crotts, Wayne B. Landsman, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L25, 144-G7 (1992)

SN 1987A: The Impact of Greater than MeV Gamma-Ray Luminosity Limits on Theories of Particle Acceleration. *R. K. Sood, L. Waldron, G. K. Rochester, T. J. Sumner, G. Frye, T. Jenkins, R. Staubert, E. Kendziorra, P. Ubertini, & A. Bazzano.* 395, 637, 151-B3 (1992)

Postcollapse Hydrodynamics of SN 1987A: Two-dimensional Simulations of the Early Evolution. *Marc Herant, Willy Benz, & Stirling Colgate.* 395, 642, 151-B13 (1992)

Diffusive Acceleration of Electrons in SN 1987A. *Lewis Ball & J. G. Kirk.* 396, L39, 160-G1 (1992)

Carbon Monoxide in SN 1987A. *Weihong Liu, A. Dalgarno, & S. Lepp.* 396, 679, 165-G1 (1992)

A Limit on the ^{57}Co Gamma-Ray Flux from SN 1987A. *S. Gunji, T. Kamae, S. Miyazaki, Y. Sekimoto, T. Takahashi, T. Tamura, M. Tanaka, N. Yamaoka, T. Yamagami, M. Nomachi, H. Murakami, J. Braga, & J. A. Neri.* 397, L83, 181-A8 (1992)

Oriented Scintillation Spectrometer Experiment Observations of ^{57}Co in SN 1987A. *J. D. Kurfess, W. N. Johnson, R. L. Kinzer, R. A. Kroeger, M. S. Strickman, J. E. Grove, M. D. Leising, D. D. Clayton, D. A. Grabelsky, W. R. Purcell, M. P. Ulmer, R. A. Cameron, & G. V. Jung.* 399, L137, 208-B7 (1992)

The ^{57} Co Abundance in SN 1987A. *Donald D. Clayton, Mark D. Leising, Lih-Sin The, W. N. Johnson, & J. D. Kurfess.* 399, L141, 208-C1 (1992)

Observations of SN 1987A with the Gamma-Ray Spectrometer HEXAGONE. *C. G. L. Chapuis, P. Wallyn, Ph. Durouchoux, J. Matteson, M. Pelling, B. Bowman, M. Briggs, D. Gruber, L. Peterson, R. Lingenfelter, C. Cork, D. Landis, P. Luke, N. Madden, D. Malone, R. Pehl, M. Pollard, R. Lin, D. Smith, P. Feffer, K. Hurley, G. Vedrenne, M. Niel, & P. von Ballmoos.* 403, 332, 18-A7 (1993)

Faint Object Camera Observations of the Shape and Expansion of SN 1987A. *P. Jakobsen, F. Macchetto, & N. Panagia.* 403, 736, 24-G10 (1993)

Formation of the Circumstellar Shell around SN 1987A. *John M. Blondin & Peter Lundqvist.* 405, 337, 45-C13 (1993)

The Ca II Emission Lines of SN 1987A. *Hongwei Li & Richard McCray.* 405, 730, 52-B9 (1993)

High-Resolution Mid-Infrared Spectra of Co II, Ni I, and Fe II in SN 1987A. *D. E. Jennings, R. J. Boyle, G. R. Wiedemann, & S. H. Moseley.* 408, 277, 86-E5 (1993)

The Freeze-out Phase of SN 1987A: Implications for the Light Curve. *Claes Fransson & Cecilia Kozma.* 408, L25, 89-A1 (1993)

SN 1987A: An Empirical and Analytic Approach. *Hans A. Bethe.* 412, 192, 144-D11 (1993)

Gamma-Ray Continuum and Line Observations of SN 1987A. *D. M. Palmer, S. M. Schindler, W. R. Cook, J. M. Grunsfeld, W. A. Heindl, T. A. Prince, & E. C. Stone.* 412, 203, 144-E11 (1993)

The Radiative Association of He^+ and He and H^+ and H. *P. C. Stancil, J. F. Babb, & A. Dalgarno.* 414, 672, 179-E8 (1993)

Airborne Spectrophotometry of SN 1987A from 1.7 to 12.6 Microns: Time History of the Dust Continuum and Line Emission. *Diane H. Wooden, David M. Rank, Jesse D. Bregman, Fred C. Witteborn, A. G. G. M. Tielens, Martin Cohen, Philip A. Pinto, & Timothy S. Axelrod.* 88, 477, 46-F9 (1993)

The Distance to the Large Magellanic Cloud from SN 1987A. *Marshall L. McCall.* 417, L75, 230-D1 (1993)

Iron, Cobalt, and Nickel in SN 1987A. *Hongwei Li, Richard McCray, & Rashid A. Sunyaev.* 419, 824, 257-G10 (1993)

Detection of X-Rays from SN 1987A with *ROSAT*. *Paul Gorenstein, John P. Hughes, & Wallace H. Tucker.* 420, L25, 7-D8 (1994)

Analysis of the Early Spectra and Light Curve of SN 1987A. *Peter H. Hauschildt & Lisa M. Ensman.* 424, 905, 76-A10 (1994)

The Ring around Supernova 1987A Revisited. I. Ellipticity of the Ring. *Andrew Gould.* 425, 51, 80-G2 (1994)

Day 640 Infrared Line and Continuum Measurements: Dust Formation in SN 1987A. *Sean W. J. Colgan, Michael R. Haas, Edwin F. Erickson, Steven D. Lord, & David J. Hollenbach.* 427, 874, 123-E3 (1994)

The Oxygen Mass in SN 1987A: Making Use of Fluctuations in the [O I] λλ6300, 6364 Profile. *Nikolai N. Chugai.* 428, L17, 143-C11 (1994)

Silicon Monoxide in SN 1987A. *Weihong Liu & A. Dalgarno.* 428, 769, 139-G5 (1994)

A Review of Recent Results in Gamma-Ray Astronomy Obtained from High-Altitude Balloons. *B. J. Teegarden.* 92, 363, 36-F3 (1994)

Gamma-Ray Constraints on Supernova Nucleosynthesis. *Mark D. Leising.* 92, 495, 38-D7 (1994)

The Impact of SN 1987A with Its Circumstellar Ring. *Ding Luo, Richard McCray, & Jonathan Slavin.* 430, 264, 162-D3 (1994)

Axisymmetric Neutrino Radiation and the Mechanism of Supernova Explosions. *Tetsuya Shimizu, Shoichi Yamada, & Katsuhiko Sato.* 432, L119, 207-B1 (1994)

Observations of SN 1987A with the COSTAR-corrected Faint Object Camera. *P. Jakobsen, R. Jedrzejewski, F. Macchetto, & N. Panagia.* 435, L47, 252-C2 (1994)

Accretion onto and Radiation from the Compact Object Formed in SN 1987A. *G. E. Brown & J. C. Weingartner.* 436, 843, 277-C9 (1994)

The Circumstellar Envelope of SN 1987A. I. The Shape of the Double-lobed Nebula and Its Rings and the Distance to the Large Magellanic Cloud. *Arlin P. S. Crotts, William E. Kunkel, & Stephen R. Heathcote.* 438, 724, 14-B11 (1995)

HST Observations of the Ring around SN 1987A. *Philip C. Plait, Peter Lundqvist, Roger A. Chevalier, & Robert P. Kirshner.* 439, 730, 34-F8 (1995)

Balloon-borne Measurements of the SN 1987A Hard X-Ray Continuum. *Geoffrey N. Pendleton, William S. Paciesas, Gerald J. Fishman, Charles A. Meegan, & Robert B. Wilson.* 439, 963, 37-G13 (1995)

The He I Emission Lines of SN 1987A. *Hongwei Li & Richard McCray.* 441, 821, 73-C6 (1995)

A Model for the Radio Emission from SNR 1987A. *P. Duffy, Lewis Ball, & J. G. Kirk.* 447, 364, 177-D7 (1995)

The Origin of the Rings around SN 1987A: An Evaluation of the Interacting-Winds Model. *Crystal L. Martin & David Arnett.* 447, 378, 177-E11 (1995)

The Supernova Shock. *Hans A. Bethe.* 449, 714, 222-F2 (1995)

A Three-dimensional Study Using Light Echoes of the Structure of the Interstellar Medium in Front of SN 1987A. *Jun Xu, Arlin P. S. Crotts, & William E. Kunkel.* 451, 806, 258-C6 (1995)

The Supernova Ring Revisited. II. Distance to the Large Magellanic Cloud. *Andrew Gould.* 452, 189, 264-E12 (1995)

The Presupernova H II Region around SN 1987A. *Roger A. Chevalier & Vikram V. Dwarkadas.* 452, L45, 270-B8 (1995)

Hubble Space Telescope Observations of the SN 1987A Triple Ring Nebula. *Christopher J. Burrows, John Krist, J. Jeff Hester, Raghvendra Sahai, John T. Trauger, Karl R. Stapelfeldt, John S. Gallagher III, Gilda E. Ballester, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, Richard E. Griffiths, John G. Hoessel, Jon A. Holtzman, Jeremy R. Mould, Paul A. Scowen, Alan M. Watson, & James A. Westphal.* 452, 680, 274-A11 (1995)

Radio Observations of SN 1987A at 843 MHz. *Lewis Ball, D. Campbell-Wilson, D. F. Crawford, & A. J. Turtle.* 453, 864, 295-G8 (1995)

The Oxygen Temperature of SN 1987A. *Weihong Liu & A. Dalgarno.* 454, 472, 305-G1 (1995)

A Gamma-Ray Monte Carlo Study of the Clumpy Debris of SN 1987A. *Adam Burrows & Kenneth A. Van Riper.* 455, 215, 321-B3 (1995)

Hydrogen Molecules in SN 1987A. *Michael Culhane & Richard McCray.* 455, 335, 322-F7 (1995)

Alphanumeric: SN 1987M

Early-Time Spectra of Type Ic Supernovae: Further Evidence for the Presence of Hydrogen. *Alexei V. Filippenko.* 384, L37, 11-B11 (1992)

Spectra of Low-Mass Helium Star Models and the Type Ic Supernova SN 1987M. *Douglas A. Swartz, Alexei V. Filippenko, Ken'ichi Nomoto, & J. Craig Wheeler.* 411, 313, 131-B8 (1993)

SN 1994I in M51 and the Nature of Type Ibc Supernovae. *J. C. Wheeler, R. P. Harkness, A. Clocchiatti, S. Benetti, M. S. Brotherton, D. L. DePoy, & J. Elias.* 436, L135, 281-C1 (1994)

The Type Ic Supernova 1994I in M51: Detection of Helium and Spectral Evolution. *Alexei V. Filippenko, Aaron J. Barth, Thomas Matheson, Lee Armus, Michael Brown, Brian R. Espey, Xiao-Ming Fan, Robert W. Goodrich, Luis C. Ho, Vesa T. Junkkarinen, David C. Koo, Matthew D. Lehnert, André R. Martel, Joseph M. Mazzarella, Joseph S. Miller, Graeme H. Smith, David Tytler, & Gregory D. Wirth.* 450, L11, 235-E3 (1995)

Alphanumeric: SN 1988Z

SN 1988Z: The Most Distant Radio Supernova. *Schuyler D. Van Dyk, Kurt W. Weiler, Richard A. Sramek, & Nino Panagia.* 419, L69, 259-D6 (1993)

Alphanumeric: SN 1989B

Evidence for a Spectroscopic Sequence among Type Ia Supernovae. *Peter Nugent, Mark Phillips, E. Baron, David Branch, & Peter Hauschildt.* 455, L147, 334-B4 (1995)

Alphanumeric: SN 1990B

The Radio Emission from the Type Ic Supernova SN 1990B. *Schuyler D. Van Dyk, Richard A. Sramek, Kurt W. Weiler, & Nino Panagia.* 409, 162, 99-A3 (1993)

Alphanumeric: SN 1990N

Possible Models for the Type Ia Supernova 1990N. *Toshikazu Shigeyama, Ken'ichi Nomoto, Hitoshi Yamaoka, & Friedrich-Karl Thielemann.* 386, L13, 29-C1 (1992)

Late Detonation Models for the Type Ia Supernovae SN 1991T and SN 1990N. *Hitoshi Yamaoka, Ken'ichi Nomoto, Toshikazu Shigeyama, & Friedrich-Karl Thielemann.* 393, L55, 127-C1 (1992)

Analysis of the Photospheric Epoch Spectra of Type Ia Supernovae SN 1990N and SN 1991T. *David J. Jeffery, Bruno Leibundgut, Robert P. Kirshner, Stefano Benetti, David Branch, & George Sonneborn.* 397, 304, 171-F4 (1992)

Evidence for a Spectroscopic Sequence among Type Ia Supernovae. *Peter Nugent, Mark Phillips, E. Baron, David Branch, & Peter Hauschildt.* 455, L147, 334-B4 (1995)

Alphanumeric: SN 1990W

SN 1994I in M51 and the Nature of Type Ibc Supernovae. *J. C. Wheeler, R. P. Harkness, A. Clocchiatti, S. Benetti, M. S. Brotherton, D. L. DePoy, & J. Elias.* 436, L135, 281-C1 (1994)

Alphanumeric: SN 1991T

The Peculiar Type Ia SN 1991T: Detonation of a White Dwarf? *Alexei V. Filippenko, Michael W. Richmond, Thomas Matheson, Joseph C. Shields, E. Margaret Burbidge, Ross D. Cohen, Mark Dickinson, Matthew A. Malkan, Brant Nelson, Jochen Pietz, David Schlegel, Patrick Schmeer, Hyron Spinrad, Charles C. Steidel, Hien D. Tran, & William Wren.* 384, L15, 6-C1 (1992)

Modeling the Iron-dominated Spectra of the Type Ia Supernova SN 1991T at Premaximum. *P. Ruiz-Lapuente, E. Cappellaro, M. Turatto, C. Gouiffes, I. J. Danziger, M. Della Valle, & L. B. Lucy.* 387, L33, 43-D8 (1992)

Late Detonation Models for the Type Ia Supernovae SN 1991T and SN 1990N. *Hitoshi Yamaoka, Ken'ichi Nomoto, Toshikazu Shigeyama, & Friedrich-Karl Thielemann.* 393, L55, 127-C1 (1992)

Analysis of the Photospheric Epoch Spectra of Type Ia Supernovae SN 1990N and SN 1991T. *David J. Jeffery, Bruno Leibundgut, Robert P. Kirshner, Stefano Benetti, David Branch, & George Sonneborn.* 397, 304, 171-F4 (1992)

Gamma-Ray Escape in Type Ia Supernovae: The 847 keV–m_B Diagram. *P. Ruiz-Lapuente, G. G. Lichti, R. Lehoucq, R. Canal, & M. Cassé.* 417, 547, 226-B5 (1993)

Gamma-Ray Constraints on Supernova Nucleosynthesis. *Mark D. Leising.* 92, 495, 38-D7 (1994)

Gamma-Ray Light Curves and Spectra of Models for Type Ia Supernovae. *P. Höflich, A. Khokhlov, & E. Müller.* 92, 501, 38-E1 (1994)

SN 1991T: Reflections of Past Glory. *Brian P. Schmidt, Robert P. Kirshner, Bruno Leibundgut, Lisa A. Wells, Alain C. Porter, Pilar Ruiz-Lapuente, Peter Challis, & Alexei V. Filippenko.* 434, L19, 232-D2 (1994)

Compton Gamma Ray Observatory OSSE Observations of SN 1991T. *M. D. Leising, W. N. Johnson, J. D. Kurfess, D. D. Clayton, D. A. Grabelsky, G. V. Jung, R. L. Kinzer, W. R. Purcell, M. S. Strickman, L.-S. The, & M. P. Ulmer.* 450, 805, 241-G1 (1995)

Evidence for a Spectroscopic Sequence among Type Ia Supernovae. *Peter Nugent, Mark Phillips, E. Baron, David Branch, & Peter Hauschildt.* 455, L147, 334-B4 (1995)

Evidence for a Spectroscopic Sequence among Type Ia Supernovae. *Peter Nugent, Mark Phillips, E. Baron, David Branch, & Peter Hauschildt.* 455, L147, 334-B4 (1995)

Alphanumeric: SN 1992A

A *ROSAT* Upper Limit on X-Ray Emission from SN 1992A. *Eric M. Schlegel & Robert Petre.* 412, L29, 148-D1 (1993)

SN 1992A: Ultraviolet and Optical Studies Based on *HST*, *IUE*, and CTIO Observations. *Robert P. Kirshner, David J. Jeffery, Bruno Leibundgut, Peter M. Challis, George Sonneborn, M. M. Phillips, N. B. Suntzeff, R. Chris Smith, P. Frank Winkler, Cláudia Winge, Mario Hamuy, Deidre A. Hunter, Katherine C. Roth, J. C. Blades, David Branch, Roger A. Chevalier, Claes Fransson, Nino Panagia, Robert V. Wagoner, J. Craig Wheeler, & Robert P. Harkness.* 415, 589, 195-B10 (1993)

Spectrum Synthesis of the Type Ia Supernovae SN 1992A and SN 1981B. *Peter Nugent, E. Baron, Peter H. Hauschildt, & David Branch.* 441, L33, 67-A1 (1995)

Evidence for a Spectroscopic Sequence among Type Ia Supernovae. *Peter Nugent, Mark Phillips, E. Baron, David Branch, & Peter Hauschildt.* 455, L147, 334-B4 (1995)

Alphanumeric: SN 1992bc

SN 1992bc and SN 1992bo: Evidence for Intrinsic Differences in Type Ia Supernova Luminosities. *José Maza, Mario Hamuy, M. M. Phillips, N. B. Suntzeff, & R. Avilés.* 424, L107, 79-C2 (1994)

Alphanumeric: SN 1992bo

SN 1992bc and SN 1992bo: Evidence for Intrinsic Differences in Type Ia Supernova Luminosities. *José Maza, Mario Hamuy, M. M. Phillips, N. B. Suntzeff, & R. Avilés.* 424, L107, 79-C2 (1994)

Alphanumeric: SN 1992bi

A Supernova at $z = 0.458$ and Implications for Measuring the Cosmological Deceleration. *S. Perlmutter, C. R. Pennypacker, G. Goldhaber, A. Goobar, R. A. Muller, H. J. M. Newberg, J. Desai, A. G. Kim, M. Y. Kim, I. A. Small, B. J. Boyle, C. S. Crawford, R. G. McMahon, P. S. Bunclark, D. Carter, M. J. Irwin, R. J. Terlevich, R. S. Ellis, K. Glazebrook, W. J. Couch, J. R. Mould, T. A. Small, & R. G. Abraham.* 440, L41, 57-C1 (1995)

Alphanumeric: SN 1993J

Spectropolarimetry of SN 1993J in NGC 3031. *Susan R. Trammell, Dean C. Hines, & J. Craig Wheeler.* 414, L21, 175-E2 (1993)

Type II Supernovae from 8–10 $M_\odot$ Asymptotic Giant Branch Stars. *Masaaki Hashimoto, Kohichi Iwamoto, & Ken'ichi Nomoto.* 414, L105, 186-A1 (1993)

The "Type IIb" Supernova 1993J in M81: A Close Relative of Type Ib Supernovae. *Alexei V. Filippenko, Thomas Matheson, & Luis C. Ho.* 415, L103, 200-A8 (1993)

Interpretation of the Early Spectra of SN 1993J in M81. *E. Baron, P. H. Hauschildt, D. Branch, R. M. Wagner, S. J. Austin, A. V. Filippenko, & T. Matheson.* 416, L21, 207-D2 (1993)

Early Observations of SN 1993J in M81 at McDonald Observatory. *J. C. Wheeler, E. Barker, R. Benjamin, J. Boisseau, A. Clocchiatti, G. de Vaucouleurs, N. Gaffney, R. P. Harkness, A. M. Khokhlov, D. F. Lester, B. J. Smith, V. V. Smith, & J. Tomkin.* 417, L71, 230-C9 (1993)

Hydrodynamical Models for X-Ray Emissions from SN 1993J in M81. *Tomoharu Suzuki, Shiomi Kumagai, Toshikazu Shigeyama, Ken'ichi Nomoto, Hitoshi Yamaoka, & Hideyuki Saio.* 419, L73, 259-D11 (1993)

Theoretical Light Curves of Type IIb Supernova 1993J. *Toshikazu Shigeyama, Tomoharu Suzuki, Shiomi Kumagai, Ken'ichi Nomoto, Hideyuki Saio, & Hitoshi Yamaoka.* 420, 341, 5-B5 (1994)

A *Hubble Space Telescope* Ultraviolet Spectrum of SN 1993J. *David J. Jeffery, Robert P. Kirshner, Peter M. Challis, Chun S. J. Pun, Alexei V. Filippenko, Thomas Matheson, David Branch, Roger A. Chevalier, Claes Fransson, Nino Panagia, Robert V. Wagoner, J. Craig Wheeler, & Alejandro Clocchiatti.* 421, L27, 21-F9 (1994)

Radio-Size Estimates of SN 1993J. *J. M. Marcaide, A. Alberdi, P. Elósegui, J. C. Guirado, F. Mantovani, E. Pérez, M. I. Ratner, A. Rius, A. E. E. Rogers, B. P. Schmidt, I. I. Shapiro, & A. R. Whitney.* 424, L25, 69-D6 (1994)

Modeling and Interpretation of the Optical and *HST* UV Spectrum of SN 1993J. *E. Baron, P. H. Hauschildt, & D. Branch.* 426, 334, 100-C11 (1994)

SN 1993J: A Type IIb Supernova. *S. E. Woosley, Ronald G. Eastman, Thomas A. Weaver, & Philip A. Pinto.* 429, 300, 147-F13 (1994)

Hard X-Rays from SN 1993J. *M. D. Leising, J. D. Kurfess, D. D. Clayton, D. A. Grabelsky, J. E. Grove, W. N. Johnson, G. V. Jung, R. L. Kinzer, R. A. Kroeger, W. R. Purcell, M. S. Strickman, L.-S. The, & M. P. Ulmer.* 431, L95, 191-F1 (1994)

SN 1993J: The Early Radio Emission and Evidence for a Changing Presupernova Mass-Loss Rate. *Schuyler D. Van Dyk, Kurt W. Weiler, Richard A. Sramek, Michael P. Rupen, & Nino Panagia.* 432, L115, 207-A9 (1994)

SN 1994I in M51 and the Nature of Type Ibc Supernovae. *J. C. Wheeler, R. P. Harkness, A. Clocchiatti, S. Benetti, M. S. Brotherton, D. L. DePoy, & J. Elias.* 436, L135, 281-C1 (1994)

Remarks on the Polarization Observed in SN 1993J. *Peter Höflich.* 440, 821, 54-D4 (1995)

Non-LTE Spectral Analysis and Model Constraints on SN 1993J. *E. Baron, P. H. Hauschildt, D. Branch, S. Austin, P. Garnavich, Hong Bae Ann, R. M. Wagner, A. V. Filippenko, T. Matheson, & James Liebert.* 441, 170, 61-F8 (1995)

Spectrophotometric Study of SN 1993J at First Maximum Light. *A. Clocchiatti, J. C. Wheeler, E. S. Barker, A. V. Filippenko, T. Matheson, & J. W. Liebert.* 446, 167, 155-E3 (1995)

Light Curve Studies of SN 1993J and SN 1994I. *Timothy R. Young, E. Baron, & David Branch.* 449, L51, 216-G4 (1995)

X-Rays from SN 1993J and Structures of Ejecta and Circumstellar Medium. *Tomoharu Suzuki & Ken'ichi Nomoto.* 455, 658, 331-A8 (1995)

Alphanumeric: SN 1994D

Analysis of the Type Ia Supernova SN 1994D. *P. Höflich.* 443, 89, 96-D9 (1995)

Probing the Interstellar Medium along the Lines of Sight to SN 1994D and SN 1994I. *Luis C. Ho & Alexei V. Filippenko.* 444, 165, 115-E13 (1995)

Evidence for a Spectroscopic Sequence among Type Ia Supernovae. *Peter Nugent, Mark Phillips, E. Baron, David Branch, & Peter Hauschildt.* 455, L147, 334-B4 (1995)

Alphanumeric: SN 1994I

SN 1994I in M51 and the Nature of Type Ibc Supernovae. *J. C. Wheeler, R. P. Harkness, A. Clocchiatti, S. Benetti, M. S. Brotherton, D. L. DePoy, & J. Elias.* 436, L135, 281-C1 (1994)

Theoretical Light Curves for the Type Ic Supernova SN 1994I. *Kohichi Iwamoto, Ken'ichi Nomoto, Peter Höflich, Hitoshi Yamaoka, Shiomi Kumagai, & Toshikazu Shigeyama.* 437, L115, 299-C8 (1994)

Probing the Interstellar Medium along the Lines of Sight to SN 1994D and SN 1994I. *Luis C. Ho & Alexei V. Filippenko.* 444, 165, 115-E13 (1995)

Light Curve Studies of SN 1993J and SN 1994I. *Timothy R. Young, E. Baron, & David Branch.* 449, L51, 216-G4 (1995)

The Type Ic Supernova 1994I in M51: Detection of Helium and Spectral Evolution. *Alexei V. Filippenko, Aaron J. Barth, Thomas Matheson, Lee Armus, Michael Brown, Brian R. Espey, Xiao-Ming Fan, Robert W. Goodrich, Luis C. Ho, Vesa T. Junkkarinen, David C. Koo, Matthew D. Lehnert, André R. Martel, Joseph M. Mazzarella, Joseph S. Miller, Graeme H. Smith, David Tytler, & Gregory D. Wirth.* 450, L11, 235-E3 (1995)

STARS: SYMBIOTIC

AG Pegasi: A Multishell Radio Source. *H. T. Kenny, A. R. Taylor, & E. R. Seaquist.* 366, 549, 9-G7 (1991)

Energy Distributions of Symbiotic Novae. *Greg L. Bryan & Sun Kwok.* 368, 252, 26-C1 (1991)

First Results from the Faint Object Camera: Imaging the Core of R Aquarii. *F. Paresce, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, P. Jakobsen, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 369, L67, 46-B7 (1991)

Narrow-Band Imaging of the Inner R Aquarii Nebula: Further Evidence for Shock Excitation. *Denis Burgarella & Francesco Paresce.* 370, 590, 55-G1 (1991)

Observations of the Peculiar Object MWC 560 in Outburst. *A. G. Michalitsianos, S. P. Maran, R. J. Oliversen, B. Bopp, E. Kontizas, A. Dapergolas, & M. Kontizas.* 371, 761, 71-A7 (1991)

The Ultraviolet Spectrum of KX Trianguli Australis. *Walter A. Feibelman.* 375, 335, 115-A12 (1991)

STARS: RV TAURI

Classical Cepheids with RV Tauri Characteristics? *Pawel Moskalik & J. Robert Buchler.* 366, 300, 4-F12 (1991)

Period Changes and Evolution in RV Tauri Stars. *John R. Percy, Dimitar D. Sasselov, Amy Alfred, & Greg Scott.* 375, 691, 121-C7 (1991)

STARS: W URSAE MAJORIS

Analysis and Solution of the Light and Radial Velocity Curves of the Contact Binary TY Bootis. *E. F. Milone, G. Groisman, D. J. I. Fry, & D. H. Bradstreet.* 370, 677, 56-G5 (1991)

The Ultraviolet Light Curves of W Ursae Majoris. *Albert P. Linnell.* 379, 338, 167-C3 (1991)

STARS: VARIABLES

A Search for Periodicities in the X-Ray Emission from Cataclysmic Variables. *Michael Eracleous, Joseph Patterson, & Jules Halpern.* 370, 330, 51-D1 (1991)

Gravitational Microlensing of the Galactic Bulge Stars. *B. Paczyński.* 371, L63, 73-C4 (1991)

Nonlinear Evolution of Accretion Disks Induced by Radiative Feedback Processes. *K. R. Bell, D. N. C. Lin, & Steven P. Ruden.* 372, 633, 83-E7 (1991)

The Extraordinary 1989 December 14/15 Optical Flare Events on V711 Tauri. *Gregory W. Henry & Douglas S. Hall.* 373, L9, 91-B7 (1991)

Gravitational Microlensing by Double Stars and Planetary Systems. *Shude Mao & Bohdan Paczyński.* 374, L37, 110-B11 (1991)

Shot Model Parameters for Cygnus X-1 through Phase Portrait Fitting. *James C. Lochner, J. H. Swank, & A. E. Szymkowiak.* 376, 295, 128-E9 (1991)

A Detection of the Evolutionary Time Scale of the DA White Dwarf G117-B15A with the Whole Earth Telescope. *S. O. Kepler, D. E. Winget, R. E. Nather, P. A. Bradley, A. D. Grauer, G. Fontaine, P. Bergeron, G. Vauclair, C. F. Claver, T. M. K. Marar, S. Seetha, B. N. Ashoka, T. Mazeh, E. Leibowitz, N. Dolez, M. Chevreton, M. A. Barstow, J. C. Clemens, S. J. Kleinman, A. E. Sansom, R. W. Tweedy, A. Kanaan, B. P. Hine, J. L. Provencal, F. Wesemael, M. A. Wood, P. Brassard, J.-E. Solheim, & P.-I. Emanuelsen.* 378, L45, 162-E7 (1991)

Excitation of the Hydroxyl Maser in OH/IR Stars. *Dale F. Dickinson.* 379, L29, 169-C11 (1991)

A Connection between Long-Term Luminosity Variations and Orbital Period Changes in Chromospherically Active Binaries. *Douglas S. Hall.* 380, L85, 188-F1 (1991)

Masses of RR*d* Variables Using Livermore OPAL Opacities. *Arthur N. Cox.* 381, L71, 199-F1 (1991)

High-Speed Multicolor Photometry of V834 Centaurus. *John Middleditch, James N. Imamura, Michael T. Wolff, & Thomas Y. Steiman-Cameron.* 382, 315, 204-B1 (1991)

STARS: VARIABLES: CEPHEIDS

A Magnitude-limited Survey of Cepheid Companions in the Ultraviolet. *Nancy Remage Evans.* 384, 220, 3-F4 (1992)

On the Mass Discrepancy of the Cepheid Stars. *C. Chiosi, P. R. Wood, G. Bertelli, A. Bressan, & M. Mateo.* 385, 205, 14-E1 (1992)

The Luminosity of the Double-Mode Cepheid Y Carinae. *Nancy Remage Evans.* 385, 680, 21-E6 (1992)

Toward a Resolution of the Bump and Beat Cepheid Mass Discrepancies. *Paweł Moskalik, J. Robert Buchler, & Ariel Marom.* 385, 685, 21-E13 (1992)

Luminosity–Line Width Relations and the Extragalactic Distance Scale. I. Absolute Calibration. *Michael J. Pierce & R. Brent Tully.* 387, 47, 37-E8 (1992)

On the Instability Strip of the Cepheid Stars. *C. Chiosi, P. Wood, G. Bertelli, & A. Bressan.* 387, 320, 41-A1 (1992)

New Calibrators for the Cepheid Period-Luminosity Relation. *Nancy Remage Evans.* 389, 657, 69-E8 (1992)

The Chemical Composition of Magellanic Cloud Cepheids and Nonvariable Supergiants. *R. Earle Luck & David L. Lambert.* 79, 303, 18-E3 (1992)

Pulsational Study of BL Herculis Models. I. Radial Velocities. *J. Robert Buchler & Paweł Moskalik.* 391, 736, 97-B6 (1992)

An Opacity Mechanism for the Pulsations of OB Stars. *Arthur N. Cox, Siobahn M. Morgan, Forrest J. Rogers, & Carlos A. Iglesias.* 393, 272, 117-E3 (1992)

The Discovery of an Extremely Low Amplitude Cepheid? *R. Paul Butler.* 394, L25, 133-D5 (1992)

New Cepheid Distances to Nearby Galaxies Based on *BVRI* CCD Photometry. III. NGC 300. *Wendy L. Freedman, Barry F. Madore, S. L. Hawley, Irwin K. Horowitz, Jeremy Mould, Mauricio Navarrete, & Shauna Sallmen.* 396, 80, 156-A13 (1992)

The Cepheid Distance to IC 4182: Calibration of M_V(max) for SN Ia 1937C and the Value of H_0. *Allan Sandage, A. Saha, G. A. Tammann, Nino Panagia, & D. Macchetto.* 401, L7, 227-B1 (1992)

Absorption-Line Profiles in a Companion Spectrum of a Mass-losing Cool Supergiant. *Liliya L. Rodrigues & Erika Böhm-Vitense.* 401, 695, 231-B10 (1992)

A Distance to the Cepheid HV 829 in the Small Magellanic Cloud. *Thomas G. Barnes III, Thomas J. Moffett, & Wolfgang P. Gieren.* 405, L51, 54-B11 (1993)

Pulsational Study of BL Herculis Models. II. Light Curves. *Paweł Moskalik & J. Robert Buchler.* 406, 190, 57-D8 (1993)

A Search for OB Associations near Southern Long-Period Cepheids. IV. XY Carinae, GT Carinae, WZ Sagittarii, and SW Velorum. *David G. Turner, Sidney van den Bergh, P. Frank Younger, T. A. Danks, & Douglas Forbes.* 85, 119, 7-E5 (1993)

Theoretical Models of Cepheid Variables and Their BVI_C Colors and Magnitudes. *C. Chiosi, P. R. Wood, & N. Capitanio.* 86, 541, 21-E11 (1993)

The Distance to the Large Magellanic Cloud: Constraints from Cepheids in Large Magellanic Cloud Star Clusters. *Gianpaolo Bertelli, Alessandro Bressan, Cesare Chiosi, Mario Mateo, & Peter R. Wood.* 412, 160, 144-A13 (1993)

On Cepheids at Maximum and Minimum Light. *Norman R. Simon, Shashi M. Kanbur, & Dimitri Mihalas.* 414, 310, 173-G5 (1993)

Cepheid Velocity Curves from Lines of Different Excitation and Ionization. I. Observations. *R. Paul Butler.* 415, 323, 189-A7 (1993)

Goodbye to Polaris the Cepheid. *J. D. Fernie, Karl W. Kamper, & S. Seager.* 416, 820, 213-F1 (1993)

The Tip of the Red Giant Branch as a Distance Indicator for Resolved Galaxies. *Myung Gyoon Lee, Wendy L. Freedman, & Barry F. Madore.* 417, 553, 226-B13 (1993)

The Cepheid Period-Luminosity Relation from Independent Distances of 100 Galactic Variables. *Wolfgang P. Gieren, Thomas G. Barnes III, & Thomas J. Moffett.* 418, 135, 232-F10 (1993)

Are the Cepheids in IC 4182 Different from Population I Cepheids in the Galaxy? *Norman R. Simon & Christine M. Clement.* 419, L21, 252-D3 (1993)

Emission Lines in the Long-Period Cepheid *l* Carinae. *Erika Böhm-Vitense & Stanley G. Love.* 420, 401, 5-G5 (1994)

Comparative Pulsation Calculations with OP and Opal Opacities. *Shashi M. Kanbur & Norman R. Simon.* 420, 880, 13-G5 (1994)

A New Method of Spectral Analysis of Unevenly Spaced Astrophysical Data. I. The Single-Period Case. *F. Barone, L. Milano, & G. Russo.* 421, 284, 19-E1 (1994)

The Cepheid Distance to NGC 5253: Calibration of M(max) for the Type I Supernovae SN 1972E and SN 1895B. *Allan Sandage, A. Saha, G. A. Tammann, Lukas Labhardt, Hans Schwengler, N. Panagia, & F. D. Macchetto.* 423, L13, 53-C5 (1994)

The He I λ10830 Line in Classical Cepheids. I. Observations. *Dimitar D. Sasselov & John B. Lester.* 423, 777, 58-C11 (1994)

The He I λ10830 Line in Classical Cepheids. II. Mechanism of Formation. *Dimitar D. Sasselov & John B. Lester.* 423, 785, 58-D7 (1994)

The Chromospheric Structure of Classical Cepheids: Constraints from the He I λ10830 Line. *Dimitar D. Sasselov & John B. Lester.* 423, 795, 58-E6 (1994)

Analysis of *Voyager* Spectra of the β Cephei Star ν Eridani. *A. Porri, R. Stalio, B. Ali, R. S. Polidan, & C. Morossi.* 424, 401, 66-G7 (1994)

Discovery of Cepheids in IC 4182: Absolute Peak Brightness of SN Ia 1937C and the Value of H_0. *A. Saha, Lukas Labhardt, Hans Schwengeler, F. D. Macchetto, N. Panagia, Allan Sandage, & G. A. Tammann.* 425, 14, 80-C6 (1994)

The Metallicity Dependence of Inferred Cepheid Distances. *Andrew Gould.* 426, 542, 105-B7 (1994)

The *Hubble Space Telescope* Extragalactic Distance Scale Key Project. I. The Discovery of Cepheids and a New Distance to M81. *Wendy L. Freedman, Shaun M. Hughes, Barry F. Madore, Jeremy R. Mould, Myung Gyoon Lee, Peter Stetson, Robert C. Kennicutt, Anne Turner, Laura Ferrarese, Holland Ford, John A. Graham, Robert Hill, John G. Hoessel, John Huchra, & Garth D. Illingworth.* 427, 628, 120-E4 (1994)

The *Hubble Space Telescope* Extragalactic Distance Scale Key Project. II. Photometry of WFC Images of M81. *Shaun M. G. Hughes, Peter B. Stetson, Anne Turner, Robert C. Kennicutt, Jr., Robert Hill, Myung Gyoon Lee, Wendy L. Freedman, Jeremy R. Mould, Barry F. Madore, Laura Ferrarese, Holland C. Ford, John A. Graham, John G. Hoessel, & Garth D. Illingworth.* 428, 143, 130-A5 (1994)

Opacity, Metallicity, and Cepheid Period Ratios in the Galaxy and Magellanic Clouds. *Norman R. Simon & Shashi M. Kanbur.* 429, 772, 155-C8 (1994)

Color Excesses for Classical Cepheids from *BV* Photometry. *J. D. Fernie.* 429, 844, 156-B9 (1994)

On Cepheid Diameter and Distance Measurement. *Dimitar D. Sasselov & Margarita Karovska.* 432, 367, 197-F6 (1994)

The Distance to the Large Magellanic Cloud Cluster NGC 1866 from Its Cepheid Members. *Wolfgang P. Gieren, Tom Richtler, & Michael Hilker.* 433, L73, 223-F13 (1994)

First *Hubble Space Telescope* Observations of the Brightest Stars in the Virgo Galaxy M100 = NGC 4321. *Wendy L. Freedman, Barry F. Madore, Peter B. Stetson, Shaun M. G. Hughes, Jon A. Holtzman, Jeremy R. Mould, John T. Trauger, John S. Gallagher III, Gilda E. Ballester, Christopher J. Burrows, Stefano Casertano, John T. Clarke, David Crisp, Laura Ferrarese, Holland Ford, J. A. Graham, Richard E. Griffiths, J. Jeff Hester, Robert Hill, John G. Hoessel, John Huchra, Robert C. Kennicutt, Paul A. Scowen, Bill Sparks, Karl R. Stapelfeldt, Alan M. Watson, & Jim Westphal.* 435, L31, 251-G9 (1994)

Classical Cepheids with Terminal Age Main-Sequence Companions: Constraints on Evolution. *Nancy Remage Evans.* 436, 273, 265-A12 (1994)

The Distance to the Pegasus Dwarf Irregular Galaxy: An Open Question. *A. Aparicio.* 437, L27, 291-E6 (1994)

Discovery of Cepheids in NGC 5253: Absolute Peak Brightness of SN Ia 1895B and SN Ia 1972E and the Value of H_0. *A. Saha, Allan Sandage, Lukas Labhardt, Hans Schwengeler, G. A. Tammann, N. Panagia, & F. D. Macchetto.* 438, 8, 1-C12 (1995)

The Mass Ratios of Cepheid Binaries. *Nancy Remage Evans.* 445, 393, 138-A1 (1995)

On the Discrepancy between the Cepheid and RR Lyrae Distance Scales. *Sidney van den Bergh.* 446, 39, 153-F3 (1995)

On Spectral Line Formation and Measurement in Cepheids: Implications to Distance Determination. *C. N. Sabbey, D. D. Sasselov, M. S. Fieldus, J. B. Lester, K. A. Venn, & R. P. Butler.* 446, 250, 156-F2 (1995)

The Location of Stellar Clusters in the Big Dent: An Age Gradient along the Z-Axis. *Jesús Cabrera-Caño, Edmundo Moreno, José Franco, & Emilio J. Alfaro.* 448, 149, 194-B11 (1995)

Long-Period Cepheids: Models and Observations. *Norman R. Simon & Shashi M. Kanbur.* 451, 703, 256-G10 (1995)

Empirical Approach to Cepheid Period-Luminosity-Color and Period-Luminosity Relations by Surface Brightness. *G. P. Di Benedetto.* 452, 195, 264-F7 (1995)

STARS: VARIABLES: OTHER

Maximum Rates of Period Change for DA White Dwarf Models with Carbon and Oxygen Cores. *P. A. Bradley, D. E. Winget, & M. A. Wood.* 391, L33, 92-C1 (1992)

Pulsational Study of BL Herculis Models. I. Radial Velocities. *J. Robert Buchler & Pawel Moskalik.* 391, 736, 97-B6 (1992)

Constraints on the Galactic Bulge Using *IRAS* Variable Point Sources. *Martin D. Weinberg.* 392, L67, 113-C10 (1992)

The Structure of Horizontal-Branch Models. I. The Zero-Age Horizontal Branch. *Ben Dorman.* 80, 701, 33-B5 (1992)

Long-Term Variability in Low-Mass X-Ray Binaries: A Study Using Data from *Vela 5B*. *Alan P. Smale & James C. Lochner.* 395, 582, 150-B13 (1992)

Discovering Planetary Systems through Gravitational Microlenses. *Andrew Gould & Abraham Loeb.* 396, 104, 156-D6 (1992)

X-Ray Variability of Scorpius X-1 during a Multiwavelength Campaign. *P. Hertz, B. Vaughan, K. S. Wood, J. P. Norris, K. Mitsuda, P. F. Michelson, & T. Dotani.* 396, 201, 157-E12 (1992)

S-154 in the Large Magellanic Cloud: Spectral Evolution from a Luminous Fe II Variable to a Symbiotic-like Star. *R. A. Remillard, E. Rosenthal, I. R. Tuohy, D. A. Schwartz, D. A. H. Buckley, & R. J. V. Brissenden.* 396, 668, 165-F1 (1992)

γ Cephei: Rotation or Planetary Companion? *Gordon A. H. Walker, David A. Bohlender, Andrew R. Walker, Alan W. Irwin, Stephenson L. S. Yang, & Ana Larson.* 396, L91, 167-D1 (1992)

Variation in the Near-Infrared Surface Brightness Distribution of the Bipolar Nebula OH 231.8+4.2. *Joel H. Kastner, David A. Weintraub, B. Zuckerman, E. E. Becklin, I. McLean, & I. Gatley.* 398, 552, 191-A8 (1992)

M31: A Unique Laboratory for Gravitational Microlensing. *Arlin P. S. Crotts.* 399, L43, 200-D11 (1992)

Periodic Photometric Variability of the Black Hole Binary V404 Cygni. *R. Mark Wagner, T. J. Kreidl, S. B. Howell, & S. G. Starrfield.* 401, L97, 233-C13 (1992)

Oxygen-rich Semiregular and Irregular Variables. *M. Jura & S. G. Kleinmann.* 83, 329, 62-D5 (1992)

A Model for the Dramatic Decline of FG Sagittae. *Icko Iben, Jr., & Mario Livio.* 406, L15, 60-F8 (1993)

Dynamical Instability as the Cause of the Massive Outbursts in η Carinae and Other Luminous Blue Variables. *Richard B. Stothers & Chao-wen Chin.* 408, L85, 95-C5 (1993)

IRAS Variables as Galactic Structure Tracers: Classification of the Bright Variables. *L. E. Allen, S. G. Kleinmann, & M. D. Weinberg.* 411, 188, 129-D11 (1993)

Pumping of Main Line OH Masers in the Circumstellar Envelopes of Type I Mira Variables. *Alan J. Collison & Gerald E. Nedoluha.* 413, 735, 165-E10 (1993)

Detection, Identification, and Observed Properties of Large Magellanic Cloud Supersoft X-Ray Sources. *A. P. Cowley, P. C. Schmidtke, J. B. Hutchings, D. Crampton, & T. K. McGrath.* 418, L63, 245-B13 (1993)

Modeling Light Curves of Spotted Stars. *Zeki Eker.* 420, 373, 5-E1 (1994)

Luminous Blue Variables at Quiescence: The Zone of Avoidance in the Hertzsprung-Russell Diagram. *Richard B. Stothers & Chao-wen Chin.* 426, L43, 103-E13 (1994)

An Optical Transient Camera for the *INTEGRAL* Mission. *A. Smith, R. A. Gowen, R. Long, B. McBreen, J. M. Mas-Hesse, & C. Miravet.* 92, 333, 36-C3 (1994)

Another Look at the *UBV* Variability of T Tauri Stars. *Pedro N. Safier.* 444, 818, 127-F12 (1995)

Search for an Optical Counterpart of the Source of GRB 911001. *S. Klose.* 446, 357, 158-B6 (1995)

RR Lyrae Variable Stars: Pulsational Constraints Relevant to the Oosterhoff Controversy. *Giuseppe Bono, Filippina Caputo, Vittorio Castellani, & Marcella Marconi.* 448, L115, 209-E3 (1995)

Astronomical Time Series Analysis. I. A Search for Periodicity Using Information Entropy. *Pablo M. Cincotta, Mariano Méndez, & Josué A. Núñez.* 449, 231, 213-D2 (1995)

Gravitational Microlensing by Random Motion of Stars: Analysis of Light Curves. *Joachim Wambsganss & Tomislav Kundić.* 450, 19, 228-C11 (1995)

Discovery of Strong Vibrationally Excited Water Masers at 658 GHz toward Evolved Stars. *Karl M. Menten & Ken Young.* 450, L67, 244-G8 (1995)

A Period-Luminosity Relation for the Slow Variations of Luminous Blue Variables. *Richard B. Stothers & Chao-wen Chin.* 451, L61, 260-E7 (1995)

Are the Luminosities of RR Lyrae Stars Affected by Second Parameter Effects? *Sidney van den Bergh.* 451, L65, 260-F1 (1995)

A New Magnetic Cataclysmic Variable: WGA J1047.1+6335. *K. P. Singh, P. Szkody, P. Barrett, N. E. White, E. Fierce, A. Silber, D. W. Hoard, P. J. Hakala, V. Piirola, & K. Sohl.* 453, L95, 298-F4 (1995)

HD 98800

Optical Variability in the Unusual K5 V Infrared-Excess Star HD 98800. *Gregory W. Henry & Douglas S. Hall.* 425, L25, 85-D9 (1994)

R Coronae Borealis

Observations of R Coronae Borealis Stars in Decline: Empirical Arguments for Dust Formation near the Stellar Surface. *Geoffrey C. Clayton, Barbara A. Whitney, S. Adam Stanford, & John S. Drilling.* 397, 652, 179-B10 (1992)

An Ultraviolet and Visible Spectroscopic Study of a Pulsational Cycle of RY Sagittarii. *Geoffrey C. Clayton, W. A. Lawson, P. L. Cottrell,*

Barbara A. Whitney, S. Adam Stanford, & Frank de Ruyter. 432, 785, 205-F13 (1994)

AM Herculis

RJ 051542+0104.7: A New Magnetic, Eclipsing, Cataclysmic Variable. *Peter M. Garnavich, Paula Szkody, Russell M. Robb, David R. Zurek, & D. W. Hoard.* 435, L141, 260-C11 (1994)

RX J0515.6+0105: An Unusual, Eclipsing, Magnetic Cataclysmic Variable. *A. W. Shafter, K. Reinsch, K. Beuermann, K. A. Misselt, D. A. H. Buckley, V. Burwitz, & A. D. Schwope.* 443, 319, 99-E8 (1995)

BL Herculis

Pulsational Study of BL Herculis Models. II. Light Curves. *Paweł Moskalik & J. Robert Buchler.* 406, 190, 57-D8 (1993)

FU Orionis

Molecular Outflows from FU Orionis Stars. *Neal J. Evans II, Stephen Balkum, Russell M. Levreault, Lee Hartmann, & Scott Kenyon.* 424, 793, 74-F2 (1994)

Using FU Orionis Outbursts to Constrain Self-regulated Protostellar Disk Models. *K. R. Bell & D. N. C. Lin.* 427, 987, 125-A1 (1994)

The FU Orionis Outburst as a Thermal Accretion Event: Observational Constraints for Protostellar Disk Models. *K. R. Bell, D. N. C. Lin, L. W. Hartmann, & S. J. Kenyon.* 444, 376, 118-F8 (1995)

Long-Period Variables

Short- and Intermediate-Period Oxygen-rich Miras. *M. Jura & S. G. Kleinmann.* 79, 105, 14-D3 (1992)

Long-Period Oxygen-rich Optical Miras in the Solar Neighborhood. *M. Jura, A. Yamamoto, & S. G. Kleinmann.* 413, 298, 160-A2 (1993)

The Origin and Evolution of Short-Period Miras in the Solar Neighborhood: Constraints on the Life Cycle of Old Stars. *M. Jura.* 422, 102, 31-C12 (1994)

VLA Positions and Distributions of H_2O Masers Associated with 15 Mira and Semiregular Variables. *P. F. Bowers & K. J. Johnston.* 92, 189, 33-G8 (1994)

Evolution of Hα Emission Profiles in S-Type Mira Stars. *Andrew W. Woodsworth.* 444, 396, 119-A4 (1995)

A CO(3–2) Survey of Nearby Mira Variables. *K. Young.* 445, 872, 147-C1 (1995)

Detection of Ammonia Emission toward Oxygen-rich Evolved Stars. *Karl M. Menten & Javier Alcolea.* 448, 416, 197-G10 (1995)

Luminous Blue Variables

A New Luminous Blue Variable: R143 in 30 Doradus. *Joel Wm. Parker, Geoffrey C. Clayton, Cláudia Winge, & Peter S. Conti.* 409, 770, 108-F3 (1993)

Sudden Luminous Blue Variable–Like Behavior of the Wolf-Rayet Binary System HD 5980 in the Small Magellanic Cloud. *Rodolfo H. Barbá, Virpi S. Niemela, Gustavo Baume, & R. A. Vazquez.* 446, L23, 160-D13 (1995)

Nebulae around Luminous Blue Variables: A Unified Picture. *Antonella Nota, Mario Livio, Mark Clampin, & Regina Schulte-Ladbeck.* 448, 788, 205-E11 (1995)

Ultraviolet Observations of the Eruption in the Small Magellanic Cloud Wolf-Rayet System HD 5980. *Gloria Koenigsberger, Ed Guinan, Lawrence Auer, & Leonid Georgiev.* 452, L107, 279-G11 (1995)

RR Lyrae

A VLA 3.6 Centimeter Survey of N-Type Carbon Stars. *Donald G. Luttermoser & Alexander Brown.* 384, 634, 10-A7 (1992)

The Continuum Eclipse of PSR 1957+20. *A. S. Fruchter & W. M. Goss.* 384, L47, 11-C9 (1992)

Radial Velocities of Carbon Stars: CO versus Optical Measurements. *Cecilia Barnbaum.* 385, 694, 21-F10 (1992)

The Baade-Wesselink Method and the Distances to RR Lyrae Stars. VII. The Field Stars SW Andromedae and DX Delphini and a Comparison of Recent Baade-Wesselink Analyses. *Rodney V. Jones, Bruce W. Carney, Jesper Storm, & David W. Latham.* 386, 646, 33-C14 (1992)

The Baade-Wesselink Method and the Distances to RR Lyrae Stars. VIII. Comparisons with Other Techniques and Implications for Globular Cluster Distances and Ages. *Bruce W. Carney, Jesper Storm, & Rodney V. Jones.* 386, 663, 33-E5 (1992)

Evolution versus Pulsation along the Horizontal Branch of M15. *Norman R. Simon.* 387, 162, 39-A3 (1992)

Hard X-Ray Imaging of the Galactic Black Hole Candidate GX 339−4. *C. E. Covault, J. E. Grindlay, & R. P. Manandhar.* 388, L65, 59-C12 (1992)

1612 MHz OH Maser Emission from Axisymmetric Circumstellar Envelopes: Miras. *Alan J. Collison & John D. Fix.* 390, 191, 76-C13 (1992)

Location of the Dust Formation Region for Mira Variables. *P. F. Bowers.* 390, L27, 78-E1 (1992)

The Absolute Magnitudes of LMC RR Lyrae Variables and the Ages of Galactic Globular Clusters. *Alistair R. Walker.* 390, L81, 85-A7 (1992)

The Discovery of a New DAV Star Using *IUE* Temperature Determination. *A. Kanaan, S. O. Kepler, O. Giovannini, & M. Diaz.* 390, L89, 85-B7 (1992)

Ages of Globular Clusters and Helium Diffusion. *Brian Chaboyer, Ata Sarajedini, & Pierre Demarque.* 394, 515, 135-F12 (1992)

An RR Lyrae Period Shift in Terms of the Fourier Parameter ϕ_{31}. *Christine M. Clement, Michael Jankulak, & Norman R. Simon.* 395, 192, 142-E9 (1992)

On the Absolute Magnitude of RR Lyrae Stars: UU Ceti, RV Phoenicis, and W Tucanae. *C. Cacciari, G. Clementini, & J. A. Fernley.* 396, 219, 157-G5 (1992)

Intensive High-Precision Photometric Monitoring of the Variable WN6 Wolf-Rayet Star HD 191765. *I. I. Antokhin, T. R. Irsmambetova, A. F. J. Moffat, A. M. Cherepashchuk, & S. V. Marchenko.* 82, 395, 54-G9 (1992)

On Nonlinear Radial Oscillations in Convective RR Lyrae Stars. I. The Mathematical Description. *Michael Gehmeyr.* 399, 265, 198-E1 (1992)

On Nonlinear Radial Oscillations in Convective RR Lyrae Stars. II. Comparison of a Radiative and a Convective Model. *Michael Gehmeyr.* 399, 272, 198-E11 (1992)

The Baade-Wesselink Method Applied to RR Lyrae Variables in the Globular Clusters M5 and M92. *J. G. Cohen.* 400, 528, 216-G11 (1992)

The Galactic Globular Cluster System: Empirical Relationship between Light-to-Mass Ratio and Metallicity. *Filippina Caputo & Renato De Santis.* 401, 260, 224-C1 (1992)

Stellar Evolution as a Probe of Neutrino Properties. *V. Castellani & S. Degl'Innocenti.* 402, 574, 9-F7 (1993)

Double-Mode Pulsations in Radiative RR Lyrae Models. *Géza Kovács & J. Robert Buchler.* 404, 765, 38-D9 (1993)

A Provisional RR Lyrae Distance Scale. *Norman R. Simon & Christine M. Clement.* 410, 526, 120-C1 (1993)

The Effect of Livermore Opal Opacities on the Evolutionary Masses of RR Lyrae Stars. *Sukyoung Yi, Young-Wook Lee, & Pierre Demarque.* 411, L25, 133-G8 (1993)

The RR Lyrae Variables in the Globular Cluster M68. *Christine M. Clement, Stephen Ferance, & Norman R. Simon.* 412, 183, 144-C13 (1993)

On Nonlinear Radial Oscillations in Convective RR Lyrae Stars. III. A Full-Amplitude Investigation of the Red Edge. *Michael Gehmeyr.* 412, 341, 146-D1 (1993)

Comparative Pulsation Calculations with OP and Opal Opacities. *Shashi M. Kanbur & Norman R. Simon.* 420, 880, 13-G5 (1994)

Oosterhoff Dichotomy in the Galaxy and Globular Clusters in the Large Magellanic Cloud. *Giuseppe Bono, Filippina Caputo, & Robert F. Stellingwerf.* 423, 294, 49-F8 (1994)

Mass Loss during the RR Lyrae Phase of the Horizontal Branch: Mass Dispersion on the Horizontal Branch and RR Lyrae Period Changes. *Rebecca A. Koopmann, Young-Wook Lee, Pierre Demarque, & Jamie M. Howard.* 423, 380, 50-G7 (1994)

Pulsation and Stability of RR Lyrae Stars. I. Instability Strip. *G. Bono & R. F. Stellingwerf.* 93, 233, 45-A5 (1994)

Summary of ΔS Metallicity Measurements for Bright RR Lyrae Variables Observed at Lick Observatory and KPNO between 1972 and 1987. *Nicholas B. Suntzeff, Robert P. Kraft, & T. D. Kinman.* 93, 271, 45-D2 (1994)

A Pulsational Approach to the Luminosity of RR Lyrae Variables. *V. Castellani & R. De Santis.* 430, 624, 169-E11 (1994)

On the Application of the Baade-Wesselink Method to RR Lyrae Stars. *G. Bono, F. Caputo, & R. F. Stellingwerf.* 432, L51, 199-G7 (1994)

The RR Lyrae Fundamental Red Edge. *G. Bono, F. Caputo, V. Castellani, M. Marconi, L. Staiano, & R. F. Stellingwerf.* 442, 159, 79-D1 (1995)

Transient Phenomena and Modal Stability in RR Lyrae and BL Herculis Variable Stars. *G. Bono, V. Castellani, & R. F. Stellingwerf.* 445, L145, 151-G3 (1995)

Synthetic Mean Colors for RR Lyrae Variables. *Giuseppe Bono, Filippina Caputo, & Robert F. Stellingwerf.* 99, 263, 37-F8 (1995)

RV Tauri

The Chemical Composition of the RV Tauri Variable IW Carinae. *Sunetra Giridhar, N. Kameswara Rao, & David L. Lambert.* 437, 476, 289-F1 (1994)

Semiregular

VLA Positions and Distributions of H_2O Masers Associated with 15 Mira and Semiregular Variables. *P. F. Bowers & K. J. Johnston.* 92, 189, 33-G8 (1994)

STARS: VARIABLES: δ SCUTI

An Opacity Mechanism for the Pulsations of OB Stars. *Arthur N. Cox, Siobahn M. Morgan, Forrest J. Rogers, & Carlos A. Iglesias.* 393, 272, 117-E3 (1992)

τ Pegasi: A Fourier Representation of Line-Profile Variations. *E. J. Kennelly, G. A. H. Walker, & William J. Merryfield.* 400, L71, 220-E8 (1992)

Nightly Variations of Nonradial Oscillations in the Delta Scuti Star v Ursae Majoris. *S. G. Korzennik, R. W. Noyes, T. Brown, P. Nisenson, & S. Horner.* 443, L25, 102-E7 (1995)

Stellar Variability in the Central Populations of 47 Tucanae from WF/PC Observations with the *Hubble Space Telescope*. I. Project Overview, Reduction Techniques, and First Results. *Ronald L. Gilliland, Peter D. Edmonds, Larry Petro, Abhijit Saha, & Michael M. Shara.* 447, 191, 174-G5 (1995)

STARS: VISUAL MULTIPLES

Classical Cepheid Luminosities from Binary Companions. *Nancy Remage Evans.* 372, 597, 83-B1 (1991)

Gravitational Redshift Determinations for White Dwarfs in Common Proper-Motion Binaries. *Gary Wegner & I. Neill Reid.* 375, 674, 121-B1 (1991)

The Chromospheric Emission–Age Relation for Stars of the Lower Main Sequence and Its Implications for the Star Formation Rate. *David R. Soderblom, Douglas K. Duncan, & Dean R. H. Johnson.* 375, 722, 121-F5 (1991)

STARS: WEAK-LINE

Lithium in the Most Extreme Halo Stars; Trends with Metallicity. *Constantine P. Deliyannis & Pierre Demarque.* 370, L89, 59-E5 (1991)

Detection of a Galactic Color Gradient for Blue Horizontal-Branch Stars of the Halo Field and Implications for the Halo Age and Density Distributions. *George W. Preston, Stephen A. Shectman, & Timothy C. Beers.* 375, 121, 112-E1 (1991)

Photoelectric *UBV* Photometry of Stars Selected in the HK Objective-Prism Survey. *George W. Preston, Stephen A. Shectman, & Timothy C. Beers.* 76, 1001, 38-G5 (1991)

First Detection of Beryllium in a Very Metal Poor Star: A Test of the Standard Big Bang Model. *Gerard Gilmore, Bengt Edvardsson, & P. E. Nissen.* 378, 17, 151-C1 (1991)

STARS: WHITE DWARFS

Rotation and Magnetism in White Dwarfs. *Gary D. Schmidt & Jane E. Norsworthy.* 366, 270, 4-D1 (1991)

A Study of the Ultraviolet Evolution of U Geminorum between Outbursts. *Alan L. Kiplinger, Edward M. Sion, & Paula Szkody.* 366, 569, 10-B1 (1991)

Optical and Radio Observations of the Binary Pulsar 1855+09: Evolution of Pulsar Magnetic Fields and Low-Mass White Dwarf Cooling. *S. R. Kulkarni, S. Djorgovski, & A. R. Klemola.* 367, 221, 14-G4 (1991)

Synthetic Spectra and Atmospheric Properties of Cool DA White Dwarfs. *P. Bergeron, F. Wesemael, & G. Fontaine.* 367, 253, 15-C1 (1991)

Ginga Observation of an AM Herculis Type Source H0538+608. *M. Ishida, A. Silber, H. V. Bradt, R. A. Remillard, K. Makishima, & T. Ohashi.* 367, 270, 15-D6 (1991)

Conditions for Accretion-induced Collapse of White Dwarfs. *Ken'ichi Nomoto & Yoji Kondo.* 367, L19, 17-D1 (1991)

Adiabatic Properties of Pulsating DA White Dwarfs. I. The Treatment of the Brunt-Väisälä Frequency and the Region of Period Formation. *P. Brassard, G. Fontaine, F. Wesemael, S. D. Kawaler, & M. Tassoul.* 367, 601, 20-F11 (1991)

Formulae for the Cyclotron Luminosity of Magnetized Plasma Slabs. *G. Chanmugam & Steven H. Langer.* 368, 580, 32-C11 (1991)

Asteroseismology of White Dwarf Stars. I. Adiabatic Results. *P. A. Bradley & D. E. Winget.* 75, 463, 7-A13 (1991)

Models of White Dwarfs under Rapid Uniform or Differential Rotation: Numerical Results. II. *V. S. Geroyannis & A. A. Hadjopoulos.* 75, 499, 7-D11 (1991)

A Spectrophotometric Atlas of White Dwarfs Compiled from the *IUE* Archives. *Gary Wegner & Steven R. Swanson.* 75, 507, 7-E13 (1991)

Thomson Scattering in a Magnetic Field. II. Arbitrary Field Orientation. *Barbara A. Whitney.* 369, 451, 43-C10 (1991)

Theoretical Light Curve for the Recurrent Nova RS Ophiuchi—Determination of the White Dwarf Mass, Composition, and Distance. *Mariko Kato.* 369, 471, 43-E6 (1991)

A Critical Analysis of the Ultraviolet Temperature Scale of the Helium-dominated DB and DBV White Dwarfs. *Peter Thejll, Stéphane Vennes, & Harry L. Shipman.* 370, 355, 51-F5 (1991)

Does Accretion Cease When a Star Approaches Breakup? *Robert Popham & Ramesh Narayan.* 370, 604, 56-A6 (1991)

Helium Star Cataclysmics. *Icko Iben, Jr., & Alexander V. Tutukov.* 370, 615, 56-B5 (1991)

He Stars and He-accreting CO White Dwarfs. *Marco Limongi & Amedeo Tornambè.* 371, 317, 64-A9 (1991)

How Much Hydrogen Is There in a White Dwarf? *James MacDonald & Stéphane Vennes.* 371, 719, 70-E1 (1991)

Thomson Scattering in a Magnetic Field. I. Field along z. *Barbara A. Whitney.* 75, 1293, 22-F1 (1991)

White Dwarf and Neutron Star Interior Solutions in the Nonsymmetric Gravitational Theory. *L. M. Campbell, J. W. Moffat, & P. Savaria.* 372, 241, 77-A1 (1991)

Nuclear Reaction Rates in Dense Carbon-Oxygen Mixtures. *Shuji Ogata, Hiroshi Iyetomi, & Setsuo Ichimaru.* 372, 259, 77-B9 (1991)

The Isolated Massive DA White Dwarf GD 50. *P. Bergeron, K. M. Kidder, J. B. Holberg, James Liebert, F. Wesemael, & Rex A. Saffer.* 372, 267, 77-C5 (1991)

The Binary Feige 24: The Mass, Radius, and Gravitational Redshift of the DA White Dwarf. *Stéphane Vennes, John R. Thorstensen, Peter Thejll, & Harry L. Shipman.* 372, L37, 79-E5 (1991)

Type Ia Supernovae: Constraints on Baryonic Dark Matter. *Tammy A. Smecker & Rosemary F. G. Wyse.* 372, 448, 81-D1 (1991)

The Outcome of Explosive Ignition of ONeMg Cores: Supernovae, Neutron Stars, or "Iron" White Dwarfs? *Jordi Isern, Ramon Canal, & Javier Labay.* 372, L83, 85-D9 (1991)

Single and Binary Star Evolution. *Icko Iben, Jr.* 76, 55, 24-G3 (1991)

Accurate Collision Integrals for the Attractive Static Screened Coulomb Potential with Application to Electrical Conductivity. *James MacDonald.* 76, 369, 29-F3 (1991)

Thermal X-Ray Emission from Classical Novae in Optical Decline. *James MacDonald & Stéphane Vennes.* 373, L51, 97-C4 (1991)

Limits on the Space Density of Double Degenerates as Type Ia Supernova Progenitors. *Diana Foss, Richard A. Wade, & Richard F. Green.* 374, 281, 101-E9 (1991)

The Pulse-timing and Emission-Line Orbits of the White Dwarf in the Cataclysmic Variable AE Aquarii. *Edward L. Robinson, Allen W. Shafter, & S. Balachandran.* 374, 298, 101-G1 (1991)

The Infrared and Optical Pulsations of G29-38. *Joseph Patterson, B. Zuckerman, E. E. Becklin, D. J. Tholen, & T. Hawarden.* 374, 330, 102-C1 (1991)

The Common Envelope Phase in Classical Novae: One-dimensional Models. *Anurag Shankar, Mario Livio, & James W. Truran.* 374, 623, 106-G6 (1991)

Thermonuclear Reactions in Dense Stellar Matter: Electron Screening Revisited. *Setsuo Ichimaru & Shuji Ogata.* 374, 647, 107-B5 (1991)

Inefficient Accretion by the DA2 White Dwarf in V471 Tauri. *D. J. Mullan, H. L. Shipman, E. M. Sion, & J. MacDonald.* 374, 707, 107-G8 (1991)

V1500 Cygni: A Prediction. *J. I. Katz.* 374, L59, 110-D11 (1991)

Diffusion and Mixing in Classical Nova Precursors. *Icko Iben, Jr., Masayuki Y. Fujimoto, & Jim MacDonald.* 375, L27, 117-D1 (1991)

Noise-driven Radiative Shocks: A New Model for the Optical Quasi-periodic Oscillations of the AM Herculis Objects. *Michael T. Wolff, Kent S. Wood, & James N. Imamura.* 375, L31, 117-D6 (1991)

The Formation and Detection of Strongly Magnetic White Dwarf Binaries in Globular Clusters. *G. Chanmugam, A. Ray, & K. P. Singh.* 375, 600, 120-B9 (1991)

Gravitational Redshift Determinations for White Dwarfs in Common Proper-Motion Binaries. *Gary Wegner & I. Neill Reid.* 375, 674, 121-B1 (1991)

The White Dwarf Mass Distribution in Classical Nova Systems. *Hans Ritter, Michael Politano, Mario Livio, & Ronald F. Webbink.* 376, 177, 127-B10 (1991)

Gravitational Redshift for the Pleiad White Dwarf LB 1497. *Gary Wegner, I. Neill Reid, & Robert K. McMahan, Jr.* 376, 186, 127-C6 (1991)

Equation of State in Metals and Cold Stars: Evaluation of Statistical Models. *Dong Lai, Andrew M. Abrahams, & Stuart L. Shapiro.* 377, 612, 147-C10 (1991)

Asteroseismology of the DOV Star PG 1159−035 with the Whole Earth Telescope. *D. E. Winget, R. E. Nather, J. C. Clemens, J. Provencal, S. J. Kleinman, P. A. Bradley, M. A. Wood, C. F. Claver, M. L. Frueh, A. D. Grauer, B. P. Hine, C. J. Hansen, G. Fontaine, N. Achilleos, D. T. Wickramasinghe, T. M. K. Marar, S. Seetha, B. N. Ashoka, D. O'Donoghue, B. Warner, D. W. Kurtz, D. A. Buckley, J. Brickhill, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, J. E. Solheim, A. Kanaan, S. O. Kepler, G. W. Henry, & S. D. Kawaler.* 378, 326, 155-A10 (1991)

The Optical Emission from Oscillating White Dwarf Radiative Shock Waves. *James N. Imamura, Hussain Rashed, & Michael T. Wolff.* 378, 665, 160-F5 (1991)

Spin Evolution and Magnetic Fields in Cataclysmic Variables. *Andrew R. King & Jean-Pierre Lasota.* 378, 674, 160-G1 (1991)

A Detection of the Evolutionary Time Scale of the DA White Dwarf G117-B15A with the Whole Earth Telescope. *S. O. Kepler, D. E. Winget, R. E. Nather, P. A. Bradley, A. D. Grauer, G. Fontaine, P. Bergeron, G. Vauclair, C. F. Claver, T. M. K. Marar, S. Seetha, B. N. Ashoka, T. Mazeh, E. Leibowitz, N. Dolez, M. Chevreton, M. A. Barstow, J. C. Clemens, S. J. Kleinman, A. E. Sansom, R. W. Tweedy, A. Kanaan, B. P. Hine, J. L. Provencal, F. Wesemael, M. A. Wood, P. Brassard, J.-E. Solheim, & P.-I. Emanuelsen.* 378, L45, 162-E7 (1991)

Discovery and Seismological Interpretation of Low-Amplitude Modes in the Pulsating DO White Dwarf PG 1707+427 (V817 Herculis). *G. Fontaine, P. Bergeron, G. Vauclair, P. Brassard, F. Wesemael, S. D. Kawaler, A. D. Grauer, & D. E. Winget.* 378, L49, 162-F1 (1991)

Spin-up of the White Dwarf in the Intermediate Polar 3A 0729+103. *Jyoti Singh, P. C. Agrawal, K. M. V. Apparao, P. Vivekananda Rao, & M. B. K. Sarma.* 380, 208, 178-E11 (1991)

IUE Spectra of the Eclipsing Binary NN Serpentis. *Janet H. Wood & Thomas R. Marsh.* 381, 551, 197-E1 (1991)

Existence of Scattering Atmospheres near Luminous, Magnetized Compact Objects. *Charles D. Dermer & Steven J. Sturner.* 382, L23, 205-C11 (1991)

Effects of Drag Luminosity in the Common Envelope Phase of Slow Novae. *Mariko Kato & Izumi Hachisu.* 383, 761, 223-F3 (1991)

Post–Asymptotic Giant Branch Nonradial Instability Strips. *Letizia Stanghellini, Arthur N. Cox, & Sumner Starrfield.* 383, 766, 223-F10 (1991)

On the Certification of AM Canum Venaticorum as a Cataclysmic Variable. *Joseph Patterson, Emily Sterner, Jules P. Halpern, & John C. Raymond.* 384, 234, 3-G6 (1992)

The Peculiar Type Ia SN 1991T: Detonation of a White Dwarf? *Alexei V. Filippenko, Michael W. Richmond, Thomas Matheson, Joseph C. Shields, E. Margaret Burbidge, Ross D. Cohen, Mark Dickinson, Matthew A. Malkan, Brant Nelson, Jochen Pietz, David Schlegel, Patrick Schmeer, Hyron Spinrad, Charles C. Steidel, Hien D. Tran, & William Wren.* 384, L15, 6-C1 (1992)

Early-Time Spectra of Type Ic Supernovae: Further Evidence for the Presence of Hydrogen. *Alexei V. Filippenko.* 384, L37, 11-B11 (1992)

Companions to White Dwarfs: Very Low Mass Stars and the Brown Dwarf Candidate GD 165B. *B. Zuckerman & E. E. Becklin.* 386, 260, 27-D7 (1992)

Possible Models for the Type Ia Supernova 1990N. *Toshikazu Shigeyama, Ken'ichi Nomoto, Hitoshi Yamaoka, & Friedrich-Karl Thielemann.* 386, L13, 29-C1 (1992)

Constraints on the Age and Evolution of the Galaxy from the White Dwarf Luminosity Function. *M. A. Wood.* 386, 539, 32-B3 (1992)

Spectroscopy and Spectral Types for 387 Stellar Objects from the Large, Bright QSO Survey. *Christopher Berg, Gary Wegner, Craig B. Foltz, Frederic H. Chaffee, Jr., & Paul C. Hewett.* 78, 409, 8-B7 (1992)

On the Influence of the Convective Efficiency on the Determination of the Atmospheric Parameters of DA White Dwarfs. *P. Bergeron, F. Wesemael, & G. Fontaine.* 387, 288, 40-E1 (1992)

Modeling the Iron-dominated Spectra of the Type Ia Supernova SN 1991T at Premaximum. *P. Ruiz-Lapuente, E. Cappellaro, M. Turatto, C. Gouiffes, I. J. Danziger, M. Della Valle, & L. B. Lucy.* 387, L33, 43-D8 (1992)

Effects of Fe/C Phase Separation on the Ages of White Dwarfs. *Z. W. Xu & H. M. Van Horn.* 387, 662, 47-A1 (1992)

Diffusion and Mixing in Accreting White Dwarfs. *Icko Iben, Jr., Masayuki Y. Fujimoto, & Jim MacDonald.* 388, 521, 56-F11 (1992)

Type I Supernovae and Accretion-induced Collapses from Cataclysmic Variables? *Mario Livio & James W. Truran.* 389, 695, 70-A10 (1992)

H0538+608 (= BY Camelopardalis): An Asynchronously Rotating AM Herculis Binary? *A. Silber, H. V. Bradt, M. Ishida, T. Ohashi, & R. A. Remillard.* 389, 704, 70-B7 (1992)

The Constitution of the Atmospheric Layers and the Extreme Ultraviolet Spectrum of Hot Hydrogen-rich White Dwarfs. *Stéphane Vennes.* 390, 590, 82-F1 (1992)

The Discovery of a New DAV Star Using *IUE* Temperature Determination. *A. Kanaan, S. O. Kepler, O. Giovannini, & M. Diaz.* 390, L89, 85-B7 (1992)

On the Thermal Conductivity due to Collisions between Relativistic Degenerate Electrons. *F. X. Timmes.* 390, L107, 85-D9 (1992)

The Collapse of White Dwarfs to Neutron Stars. *S. E. Woosley & E. Baron.* 391, 228, 88-G1 (1992)

The Identification of Highly Ionized Metal Species in the Hot DA1 White Dwarf G191-B2B with the *Hubble Space Telescope* Faint Object Spectrograph. *Edward M. Sion, Ralph C. Bohlin, Richard W. Tweedy, & Gerard P. Vauclair.* 391, L29, 92-B11 (1992)

Maximum Rates of Period Change for DA White Dwarf Models with Carbon and Oxygen Cores. *P. A. Bradley, D. E. Winget, & M. A. Wood.* 391, L33, 92-C1 (1992)

Adiabatic Properties of Pulsating DA White Dwarfs. II. Mode Trapping in Compositionally Stratified Models. *P. Brassard, G. Fontaine, F. Wesemael, & C. J. Hansen.* 80, 369, 27-E3 (1992)

Whole Earth Telescope Observations of V471 Tauri: The Nature of the White Dwarf Variations. *J. C. Clemens, R. E. Nather, D. E. Winget, E. L. Robinson, M. A. Wood, C. F. Claver, J. Provencal, S. J. Kleinman, P. A. Bradley, M. L. Frueh, A. D. Grauer, B. P. Hine, G. Fontaine, N. Achilleos, D. T. Wickramasinghe, T. M. K. Marar, S. Seetha, B. N. Ashoka, D. O'Donoghue, B. Warner, D. W. Kurtz, P. Martinez, G. Vauclair, M. Chevreton, M. A. Barstow, A. Kanaan, S. O. Kepler, T. Augusteijn, J. van Paradijs, & C. J. Hansen.* 391, 773, 97-E8 (1992)

The Hubble Constant from Nickel Radioactivity in Type Ia Supernovae. *David Branch.* 392, 35, 101-D9 (1992)

Rapid Oscillations in Cataclysmic Variables. VIII. YY Draconis (=3A 1148+719. *J. Patterson, D. A. Schwartz, J. P. Pye, W. P. Blair, G. A. Williams, & J.-P. Caillault.* 392, 233, 103-G3 (1992)

The Hopkins Ultraviolet Telescope: Performance and Calibration during the Astro-1 Mission. *Arthur F. Davidsen, Knox S. Long, Samuel T. Durrance, William P. Blair, Charles W. Bowers, Steven J. Conard, Paul D. Feldman, Henry C. Ferguson, Glen H. Fountain, Randy A. Kimble, Gerard A. Kriss, H. Warren Moos, & Kenneth A. Potocki.* 392, 264, 104-C1 (1992)

Axion Cooling of White Dwarfs. *J. Isern, M. Hernanz, & E. Garcia-Berro.* 392, L23, 106-D1 (1992)

Iron Abundance in the Hot DA White Dwarfs Feige 24 and G191 B2B. *Stéphane Vennes, Pierre Chayer, John R. Thorstensen, Stuart Bowyer, & Harry L. Shipman.* 392, L27, 106-D5 (1992)

Adiabatic Properties of Pulsating DA White Dwarfs. III. A Finite-Element Code for Solving Nonradial Pulsation Equations. *P. Brassard, C. Pelletier, G. Fontaine, & F. Wesemael.* 80, 725, 33-D11 (1992)

The Nature of the Recurrent Nova T Coronae Borealis: Ultraviolet Evidence for a White Dwarf Accretor. *Pier Luigi Selvelli, Angelo Cassatella, & Roberto Gilmozzi.* 393, 289, 117-F12 (1992)

Late Detonation Models for the Type Ia Supernovae SN 1991T and SN 1990N. *Hitoshi Yamaoka, Ken'ichi Nomoto, Toshikazu Shigeyama, & Friedrich-Karl Thielemann.* 393, L55, 127-C1 (1992)

A Spectroscopic Determination of the Mass Distribution of DA White Dwarfs. *P. Bergeron, Rex A. Saffer, & James Liebert.* 394, 228, 130-G5 (1992)

The Coolest DA White Dwarfs Detected at Soft X-Ray Wavelengths. *K. M. Kidder, J. B. Holberg, M. A. Barstow, R. W. Tweedy, & F. Wesemael.* 394, 288, 131-E7 (1992)

Models of White Dwarfs Distorted by Differential Rotation and Magnetic Fields. *V. S. Geroyannis & A. A. Hadjopoulos.* 81, 377, 40-B13 (1992)

Two Ultramassive White Dwarfs Found among Candidates for Magnetic Fields. *Gary D. Schmidt, P. Bergeron, James Liebert, & Rex A. Saffer.* 394, 603, 136-G11 (1992)

Prevention of Accretion onto White Dwarfs by Stellar Winds. *James MacDonald.* 394, 619, 137-B8 (1992)

The Binary System L151−81A/B: A Potential Test of Accretion Theory. *M. A. Wood & T. D. Oswalt.* 394, L53, 139-D1 (1992)

The White Dwarf Companion to PSR 0820+02. *D. Koester, G. Chanmugam, & D. Reimers.* 395, L107, 154-C7 (1992)

Adiabatic Properties of Pulsating DA White Dwarfs. IV. An Extensive Survey of the Period Structure of Evolutionary Models. *P. Brassard, G. Fontaine, F. Wesemael, & M. Tassoul.* 81, 747, 45-D3 (1992)

Spectroscopy of the Recurrent Nova U Scorpii. *Helen M. Johnston & Shrinivas R. Kulkarni.* 396, 267, 158-D4 (1992)

Exploring the Peculiar Magnetic Field of Feige 7. *N. Achilleos, D. T. Wickramasinghe, James Liebert, Rex A. Saffer, & A. D. Grauer.* 396, 273, 158-D13 (1992)

The Radial Velocity of the White Dwarf Giclas 29-38. *C. Barnbaum & B. Zuckerman.* 396, L31, 160-F1 (1992)

The Conductive Propagation of Nuclear Flames. I. Degenerate C + O and O + Ne + Mg White Dwarfs. *F. X. Timmes & S. E. Woosley.* 396, 649, 165-D9 (1992)

Hubble Space Telescope FOS Observations of KPD 0005+5106: A Subluminous WN-WC Descendant with Ongoing Mass Outflow? *Edward M. Sion & Ronald A. Downes.* 396, L79, 167-B7 (1992)

Properties of Quasi-periodic Oscillations in Accreting Magnetic White Dwarfs. *Kinwah Wu, G. Chanmugam, & G. Shaviv.* 397, 232, 170-G6 (1992)

Extreme Ultraviolet Spectroscopy of G191-B2B: Direct Observation of Ionization Edges. *Erik Wilkinson, James C. Green, & Webster Cash.* 397, L51, 173-F13 (1992)

The Quasi-static Evolution of ONeMg Cores: Explosive Ignition Densities and the Collapse/Explosion Alternative. *Ramon Canal, Jordi Isern, & Javier Labay.* 398, L49, 187-G7 (1992)

Discovery of a Sub-Megagauss Magnetic White Dwarf through Spectropolarimetry. *Gary D. Schmidt, H. S. Stockman, & Paul S. Smith.* 398, L57, 188-A7 (1992)

Oscillations and Collapse of Compressible Homogeneous Rotating Spheroids with Electron Degeneracy. *T. T. Chia & S. Y. Pung.* 398, 574, 191-C7 (1992)

Noise-driven Radiative Shocks. II. Further Implications for the Quasi-periodic Oscillations of the AM Herculis Objects. *Kent S. Wood, James N. Imamura, & Michael T. Wolff.* 398, 593, 191-E1 (1992)

A Study of Metal Abundance Patterns in Cool White Dwarfs. I. Time-dependent Calculations of Gravitational Settling. *J. Dupuis, G. Fontaine, C. Pelletier, & F. Wesemael.* 82, 505, 56-A7 (1992)

The Case of G226-29: Evidence for a Pulsating DA White Dwarf with a Thick Hydrogen Layer? *G. Fontaine, P. Brassard, P. Bergeron, & F. Wesemael.* 399, L91, 201-C13 (1992)

Two Unusual Cataclysmic Variables at High Galactic Latitude: CP Eridani and AL Comae. *Timothy M. C. Abbott, Edward L. Robinson, Gary J. Hill, & Carole A. Haswell.* 399, 680, 206-D1 (1992)

On the Pulsational Stability of the Pre–White Dwarf Star PG 1707+427. *Albert D. Grauer, Richard F. Green, & James Liebert.* 399, 686, 206-D7 (1992)

Discovery of Two Cool Magnetic White Dwarfs. *P. Bergeron, María-Teresa Ruiz, & S. K. Leggett.* 400, 315, 212-G5 (1992)

An Interpretation of the Spectral Properties of Hot Hydrogen-rich White Dwarfs with Stratified H/He Model Atmospheres. *Stéphane Vennes & Gilles Fontaine.* 401, 288, 224-E7 (1992)

Pycnonuclear Reaction Rates for Binary Ionic Mixtures. *S. Ichimaru, S. Ogata, & H. M. Van Horn.* 401, L35, 227-E7 (1992)

A Study of Metal Abundance Patterns in Cool White Dwarfs. II. Simulations of Accretion Episodes. *J. Dupuis, G. Fontaine, C. Pelletier, & F. Wesemael.* 84, 73, 2-B5 (1993)

Radial Pulsations in DB White Dwarfs? *Steven D. Kawaler.* 404, 294, 31-E3 (1993)

Observations of the White Dwarf in the U Geminorum System with the Hopkins Ultraviolet Telescope. *Knox S. Long, William P. Blair, Charles W. Bowers, Arthur F. Davidsen, Gerard A. Kriss, Edward M. Sion, & Ivan Hubeny.* 405, 327, 45-C1 (1993)

The Strong Magnetic Field in G227-35. *Marshall H. Cohen, Angela Putney, & Robert W. Goodrich.* 405, L67, 54-D5 (1993)

Multiple Hydrogen Flashes on Accreting Low-Mass White Dwarfs: Novae and DAO Stars. *Michael M. Shara, Dina Prialnik, & Attay Kovetz.* 406, 220, 57-G1 (1993)

Spectroscopic Observations of the Detached Binary PG 1413+015. *Michael S. Fulbright, James Liebert, P. Bergeron, & Richard Green.* 406, 240, 58-A11 (1993)

A Model for the Dramatic Decline of FG Sagittae. *Icko Iben, Jr., & Mario Livio.* 406, L15, 60-F8 (1993)

Numerical Simulations of the Convective Flame in White Dwarfs. *Eli Livne.* 406, L17, 60-F12 (1993)

The Potential for Asteroseismology of DB White Dwarf Stars. *P. A. Bradley, D. E. Winget, & M. A. Wood.* 406, 661, 66-B1 (1993)

G62-46: An Unresolved Double Degenerate Binary Containing a Magnetic DA Component. *P. Bergeron, María-Teresa Ruiz, & S. K. Leggett.* 407, 733, 79-E13 (1993)

Metal-Line Blanketing and the Peculiar Hβ Line Profile in the DAO Star Feige 55. *P. Bergeron, F. Wesemael, R. Lamontagne, & P. Chayer.* 407, L85, 82-F1 (1993)

Extreme Ultraviolet Observations of HZ 43 and the Local H/He Ratio with the Hopkins Ultraviolet Telescope. *Randy A. Kimble, Arthur F. Davidsen, Knox S. Long, & Paul D. Feldman.* 408, L41, 89-C1 (1993)

Unstable Degenerates Revisited. *John Faulkner.* 408, 600, 92-F5 (1993)

JHK Photometry of WD 0950+139. *Michael S. Fulbright & James Liebert.* 410, 275, 115-E1 (1993)

High-Frequency Emission of X-Ray Pulsar 1E 2259+586. *V. V. Usov.* 410, 761, 123-C1 (1993)

The Discovery of Variable Polarization over the 13.9 Minute Spin Period of the Intermediate Polar RE 0751+14. *V. Piirola, P. Hakala, & G. V. Coyne, S.J.* 410, L107, 126-C3 (1993)

The First Detection of Ionized Helium in the Local ISM: *EUVE* and *IUE* Spectroscopy of the Hot DA Dwarf GD 246. *Stéphane Vennes, Jean Dupois, Todd Rumph, Jeremy Drake, Stuart Bowyer, Pierre Chayer, & Gilles Fontaine.* 410, L119, 126-D7 (1993)

Does the Coalescence of White Dwarfs Produce Millisecond Pulsars in Globular Clusters? *Kaiyou Chen & Peter J. T. Leonard.* 411, L75, 142-D3 (1993)

The Optical Counterpart of the Bright Nearby Millisecond Pulsar PSR J0437−4715. *Charles D. Bailyn.* 411, L83, 142-E1 (1993)

A Study of Metal Abundance Patterns in Cool White Dwarfs. III. Comparison of the Predictions of the Two-Phase Accretion Model with the Observations. *J. Dupuis, G. Fontaine, & F. Wesemael.* 87, 345, 31-E3 (1993)

Quantum Effects in Dense Coulombic Matter: Application to the Cooling of White Dwarfs. *Gilles Chabrier.* 414, 695, 179-G9 (1993)

On the Instability of Deflagration Fronts in White Dwarfs. *Eli Livne & David Arnett.* 415, L107, 200-B1 (1993)

Two New Extremely Iron-rich Hot DA White Dwarfs and the Nature of the EUV Opacity. *J. B. Holberg, M. A. Barstow, D. A. H. Buckley, A. Chen, S. Dreizler, M. C. Marsh, D. O'Donoghue, E. M. Sion, R. W. Tweedy, G. Vauclair, & K. Werner.* 416, 806, 213-D13 (1993)

Detection of the First Coronal X-Ray Source about a White Dwarf. *Thomas A. Fleming, Klaus Werner, & Martin A. Barstow.* 416, L79, 216-E6 (1993)

Initial White Dwarf Results from the *Extreme Ultraviolet Explorer*. *David S. Finley, Patrick Jelinsky, Jean Dupuis, & Detlev Koester.* 417, 259, 220-F3 (1993)

Thermonuclear Reaction Rates for Dense Binary-Ionic Mixtures. *Shuji Ogata, Setsuo Ichimaru, & Hugh M. Van Horn.* 417, 265, 220-F12 (1993)

Electrical and Thermal Conductivities of Dense Matter in the Crystalline Lattice Phase. III. Inclusion of Lower Densities. *Naoki Itoh, Hiroshi Hayashi, & Yasuharu Kohyama.* 418, 405, 236-A13 (1993)

Discovery of a Magnetic/Nonmagnetic Double-degenerate Binary System. *James Liebert, P. Bergeron, Gary D. Schmidt, & Rex A. Saffer.* 418, 426, 236-C10 (1993)

Nova Herculis 1991: Thermonuclear Runaway on a Massive ONeMg White Dwarf. *Thomas Matheson, Alexei V. Filippenko, & Luis C. Ho.* 418, L29, 238-D6 (1993)

An Improved Numerical Method for Nonadiabatic Nonradial Oscillations: An Application to White Dwarf Stars. *Umin Lee & P. A. Bradley.* 418, 855, 243-C1 (1993)

On the Formation of O-Ne White Dwarfs in Metal-rich Close Binary Systems. *Inma Dominguez, Amedeo Tornambè, & Jordi Isern.* 419, 268, 249-E1 (1993)

The Quasi-periodic Oscillations of VV Puppis. *James N. Imamura, John Middleditch, Jeffrey D. Scargle, Thomas Y. Steiman-Cameron, Laura A. Whitlock, Michael T. Wolff, & Kent S. Wood.* 419, 793, 257-E1 (1993)

Evidence for Accretion Disk Precession in the Cataclysmic Binary AM Canum Venaticorum. *Joseph Patterson, Jules Halpern, & Anouk Shambrook.* 419, 803, 257-E13 (1993)

Far-Ultraviolet Stellar Photometry: A Field in Orion. *Edward G. Schmidt & George R. Carruthers.* 89, 259, 53-B2 (1993)

Are the Observed Frequencies of Double Degenerates and SN Ia Contradictory? *L. R. Yungelson, M. Livio, A. V. Tutukov, & R. A. Saffer.* 420, 336, 5-A13 (1994)

The Conductive Propagation of Nuclear Flames. II. Convectively Bounded Flames in C+O and O+Ne+Mg Cores. *F. X. Timmes, S. E. Woosley, & Ronald E. Taam.* 420, 348, 5-B13 (1994)

The Masses of V838 Herculis (Nova Herculis 1991) and QZ Aurigae. *Paula Szkody & Doug Ingram.* 420, 830, 13-C3 (1994)

Hot or Not? Theoretical Blue Edges for DA and DB White Dwarf Models. *P. A. Bradley & D. E. Winget.* 421, 236, 19-A1 (1994)

Evolutionary Sequences of Very Hot, Low-Mass, Accreting White Dwarfs with Application to Symbiotic Variables and Ultrasoft/Supersoft Low-Luminosity X-Ray Sources. *Edward M. Sion & Sumner G. Starrfield.* 421, 261, 19-C1 (1994)

Low Density of Neutral Hydrogen and Helium in the Local Interstellar Medium: *Extreme Ultraviolet Explorer* Photometry of the Lyman Continuum of the Hot White Dwarfs MCT 0501−2858, MCT 0455−2812, HZ 43, and GD 153. *Stéphane Vennes, Jean Dupuis, Stuart Bowyer, Gilles Fontaine, Alexandria Wiercigroch, Patrick Jelinsky, François Wesemael, & Roger Malina.* 421, L35, 21-G12 (1994)

An Iterative Technique for Computing Rotating White Dwarf Models. *V. S. Geroyannis & P. J. Papasotiriou.* 90, 501, 9-A9 (1994)

Discovery of a Dwarf Carbon Star with a White Dwarf Companion and of a Highly Magnetic Degenerate Star. *James Liebert, Gary D. Schmidt, M. Lesser, J. A. Stepanian, V. A. Lipovetsky, Frederic H. Chaffee, Craig B. Foltz, & P. Bergeron.* 421, 733, 27-C12 (1994)

Double-Core Evolution. V. Three-dimensional Effects in the Merger of a Red Giant with a Dwarf Companion. *James L. Terman, Ronald E. Taam, & Lars Hernquist.* 422, 729, 40-G13 (1994)

GD 323: New Observations and Analysis of the Prototype DAB White Dwarf. *D. Koester, James Liebert, & Rex A. Saffer.* 422, 783, 41-E10 (1994)

Evidence for Particle Acceleration in a Magnetized White Dwarf from Radio and Gamma-Ray Observations. *O. C. De Jager.* 90, 775, 13-D3 (1994)

Radiation-driven Acceleration in Photospheres of Nonaccreting Magnetic White Dwarfs. *Vladimir V. Zheleznyakov & A. V. Serber.* 90, 783, 13-D13 (1994)

Cooling White Dwarfs in Galactic Globulars. *V. Castellani, S. Degl'Innocenti, & M. Romaniello.* 423, 266, 49-D1 (1994)

The Peculiar Cool White Dwarf LHS 1126 Revisited. *P. Bergeron, María-Teresa Ruiz, S. K. Leggett, D. Saumon, & F. Wesemael.* 423, 456, 51-G5 (1994)

The Incidence of Magnetism among White Dwarfs: The First Stars below 100 Kilogauss. *Gary D. Schmidt & Paul S. Smith.* 423, L63, 54-B3 (1994)

On the Acceleration of Nuclear Flame Fronts in White Dwarfs. *F. X. Timmes.* 423, L131, 61-B5 (1994)

Accretion onto a 1.4 $M_{\odot}$ White Dwarf: Classical Nova, Recurrent Nova, or Supernova? *Attay Kovetz & Dina Prialnik.* 424, 319, 65-G1 (1994)

Cooling of the White Dwarf in U Geminorum between Outbursts. *Knox S. Long, Edward M. Sion, Min Huang, & Paula Szkody.* 424, L49, 69-F13 (1994)

A Very Hot, Hydrogen-rich, White Dwarf Planetary Nucleus. *James Liebert, P. Bergeron, & R. W. Tweedy.* 424, 817, 75-A3 (1994)

On the Interpretation and Implications of Nova Abundances: An Abundance of Riches or an Overabundance of Enrichments. *Mario Livio & James W. Truran.* 425, 797, 91-F6 (1994)

The Discovery of Ni v in the Photospheres of the Hot DA White Dwarfs RE 2214−492 and G191-B2B. *J. B. Holberg, I. Hubeny, M. A. Barstow, T. Lanz, E. M. Sion, & R. W. Tweedy.* 425, L105, 94-G5 (1994)

HST Eclipse Mapping of Dwarf Nova OY Carinae in Quiescence: An "Fe II Curtain" with Mach $\simeq$ 6 Velocity Dispersion Veils the White Dwarf. *Keith Horne, T. R. Marsh, F. H. Cheng, Ivan Hubeny, & Thierry Lanz.* 426, 294, 99-G1 (1994)

Precision Asteroseismology of Pulsating PG 1159 Stars. *Steven D. Kawaler & Paul A. Bradley.* 427, 415, 115-A11 (1994)

Glitches in the X-Ray Pulsar 1E 2259+586. *V. V. Usov.* 427, 984, 124-G10 (1994)

Magnetic Fields in Young Supernova Remnants. *Yu-Qing Lou.* 428, L21, 134-D2 (1994)

Red Giant Stragglers and He White Dwarfs in Galactic Globulars. *V. Castellani, V. Luridiana, & M. Romaniello.* 428, 633, 138-B7 (1994)

On the Hydrogen Layer Thickness in Pulsating DA White Dwarfs. *G. Fontaine, P. Brassard, F. Wesemael, & M. Tassoul.* 428, L61, 142-F1 (1994)

The Gamma-Ray Signature of the Disruption of a Neutron Star by a Black Hole. *M. Hernanz, J. Isern, X. Martin, & R. Mochkovitch.* 92, 627, 40-C1 (1994)

Hot Degenerates in the Montreal-Cambridge-Tololo Survey. II. Two New Hybrid White Dwarfs, MCT 0128−3846 and MCT 0453−2933, and the Nature of the DAB Stars. *F. Wesemael, P. Bergeron, R. Lamontagne, G. Fontaine, A. Beauchamp, S. Demers, M. J. Irwin, J. B. Holberg, S. O. Kepler, & S. Vennes.* 429, 369, 148-F2 (1994)

Eclipse Mapping of the Accreting Magnetic White Dwarf in DP Leonis with *HST*. *H. S. Stockman, Gary D. Schmidt, James Liebert, & J. B. Holberg.* 430, 323, 163-B11 (1994)

Continuous Absorption by He_2^+ and H_2^+ in Cool White Dwarfs. *P. C. Stancil.* 430, 360, 163-F3 (1994)

Hubble Space Telescope Goddard High-Resolution Spectrograph Observation of U Geminorum during Quiescence: Evidence for a Slowly Rotating White Dwarf. *Edward M. Sion, Knox S. Long, Paula Szkody, & Min Huang.* 430, L53, 165-G12 (1994)

Dynamo Generation of a Magnetic Field in the White Dwarf GD 358. *J. Andrew Markiel, John H. Thomas, & H. M. Van Horn.* 430, 834, 172-C7 (1994)

Whole Earth Telescope Observations of the DBV White Dwarf GD 358. *D. E. Winget, R. E. Nather, J. C. Clemens, J. L. Provencal, S. J. Kleinman, P. A. Bradley, C. F. Claver, J. S. Dixson, M. H. Montgomery, C. J. Hansen, B. P. Hine, P. Birch, M. Candy, T. M. K. Marar, S. Seetha, B. N. Ashoka, E. M. Leibowitz, D. O'Donoghue, B. Warner, D. A. H. Buckley, P. Tripe, G. Vauclair, N. Dolez, M. Chevreton, T. Serre, R. Garrido, S. O. Kepler, A. Kanaan, T. Augusteijn, M. A. Wood, P. Bergeron, & A. D. Grauer.* 430, 839, 172-D1 (1994)

An Asteroseismological Determination of the Structure of the DBV White Dwarf GD 358. *P. A. Bradley & D. E. Winget.* 430, 850, 172-E2 (1994)

Ionization Nebulae Surrounding Supersoft X-Ray Sources. *S. Rappaport, E. Chiang, T. Kallman, & R. Malina.* 431, 237, 179-B1 (1994)

A Spectroscopic Analysis of DAO and Hot DA White Dwarfs: The Implications of the Presence of Helium and the Nature of DAO Stars. *P. Bergeron, F. Wesemael, A. Beauchamp, M. A. Wood, R. Lamontagne, G. Fontaine, & James Liebert.* 432, 305, 197-A6 (1994)

Relativistic Tidal Interaction of a White Dwarf with a Massive Black Hole. *V. P. Frolov, A. M. Khokhlov, I. D. Novikov, & C. J. Pethick.* 432, 680, 204-D13 (1994)

The Ultraviolet Pulsations of the Cataclysmic Variable AE Aquarii as Observed with the *Hubble Space Telescope*. *Michael Eracleous, Keith Horne, Edward L. Robinson, Er-Ho Zhang, Thomas R. Marsh, & Janet H. Wood.* 433, 313, 212-C1 (1994)

Discovery of a New White Dwarf in a Binary System (EUVE 0720−317) in the *Extreme Ultraviolet Explorer* Survey and Implications for the Late Stages of Stellar Evolution. *Stéphane Vennes & John R. Thorstensen.* 433, L29, 214-G13 (1994)

Two Planetary Nebula Candidates around Hot DA White Dwarfs. *Richard W. Tweedy & Karen B. Kwitter.* 433, L93, 224-B11 (1994)

Cooling Theory of Crystallized White Dwarfs. *L. Segretain, G. Chabrier, M. Hernanz, E. García-Berro, J. Isern, & R. Mochkovitch.* 434, 641, 236-F2 (1994)

The Influence of Crystallization on the Luminosity Function of White Dwarfs. *M. Hernanz, E. García-Berro, J. Isern, R. Mochkovitch, L. Segretain, & G. Chabrier.* 434, 652, 236-G2 (1994)

Observational Limits on Companions to G29-38. *S. J. Kleinman, R. E. Nather, D. E. Winget, J. C. Clemens, P. A. Bradley, A. Kanaan, J. L. Provencal, C. F. Claver, T. K. Watson, K. Yanagida, J. S. Dixson, M. A. Wood, D. J. Sullivan, E. Meištas, E. M. Leibowitz, P. Moskalik, S. Zola, G. Pajdosz, J. Krzesinski, J.-E. Solheim, A. Bruvold, D. O'Donoghue, M. Katz, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, S. O. Kepler, O. Giovannini, C. J. Hansen, & S. D. Kawaler.* 436, 875, 277-G1 (1994)

On the Predicted Abundances of Iron and Nickel Supported by Radiative Levitation in the Atomospheres of Hot DA White Dwarfs. *P. Chayer,*

F. LeBlanc, G. Fontaine, F. Wesemael, G. Michaud, & S. Vennes. 436, L161, 281-F7 (1994)

The Derived Population of Luminous Supersoft X-Ray Sources. *R. Di Stefano & S. Rappaport.* 437, 733, 295-G1 (1994)

The Heating of Nova Ejecta by Radioactive Decays of the β-unstable Nuclei. *Shlomi Pistinner, Giora Shaviv, & Sumner Starrfield.* 437, 794, 296-E4 (1994)

Pycnonuclear Reaction Rates in Stellar Interiors: Thermal Enhancement. *Hikaru Kitamura & Setsuo Ichimaru.* 438, 300, 5-E9 (1995)

RE 0044+09: A New K Dwarf Rapid Rotator with a White Dwarf Companion? *Barry J. Kellett, Gordon E. Bromage, Alexander Brown, Robin D. Jeffries, David J. James, David Kilkenny, Russell M. Robb, David Wonnacott, Christopher Lloyd, & C. Clayton.* 438, 364, 6-D13 (1995)

The Evolutionary Thermal Response of a White Dwarf to Compressional Heating by Periodic Dwarf Nova Accretion Events. *Edward M. Sion.* 438, 876, 16-C1 (1995)

Hydrodynamics of Binary Coalescence. II. Polytropes with $\Gamma = 5/3$. *Frederic A. Rasio & Stuart L. Shapiro.* 438, 887, 16-D1 (1995)

The Pulsation Index, Effective Temperature, and Thickness of the Hydrogen Layer in the Pulsating DA White Dwarf G117-B15A. *E. L. Robinson, T. M. Mailloux, E. Zhang, D. Koester, R. F. Stiening, R. C. Bless, J. W. Percival, M. J. Taylor, & G. W. van Citters.* 438, 908, 16-F1 (1995)

Simple Analysis of Slowly Rotating Semidegenerate Spheroids of Fermions. *M. A. Sabadell, J. Sañudo, & A. F. Pacheco.* 439, 846, 36-C5 (1995)

Non-LTE Line-blanketed Model Atmospheres of Hot Stars. II. Hot, Metal-rich White Dwarfs. *T. Lanz & I. Hubeny.* 439, 905, 37-B1 (1995)

Hubble Space Telescope FOS Spectroscopy of the Ultrashort-Period Dwarf Nova WZ Sagittae: The Underlying Degenerate. *Edward M. Sion, F. H. Cheng, Knox S. Long, Paula Szkody, Ron L. Gilliland, Min Huang, & Ivan Hubeny.* 439, 957, 37-G3 (1995)

Very Low Mass Stars and White Dwarfs in NGC 6397. *Francesco Paresce, Guido De Marchi, & Martino Romaniello.* 440, 216, 44-B13 (1995)

ORFEUS Observations of AM Herculis. *John C. Raymond, Christopher W. Mauche, Stuart Bowyer, & Mark Hurwitz.* 440, 331, 45-F7 (1995)

The Modeling of Energy Distributions and Light Curves of ZZ Ceti Stars. I. Basic Theory and Semianalytic Expressions for the Emergent Flux. *P. Brassard, G. Fontaine, & F. Wesemael.* 96, 545, 9-C12 (1995)

BE Ursae Majoris: Precataclysmic Binary System and Planetary Nucleus. *James Liebert, R. W. Tweedy, R. Napiwotzki, & M. S. Fulbright.* 441, 424, 65-B11 (1995)

A Volume-limited Survey of High Galactic Latitude Planetary Nebulae with the *Extreme Ultraviolet Explorer*. *Antonella Fruscione, Jeremy J. Drake, Kelley McDonald, & Roger F. Malina.* 441, 726, 72-A1 (1995)

Spectroscopic Studies of DB White Dwarfs: Confirmation and Modeling of New Forbidden Components of He I. *A. Beauchamp, F. Wesemael, P. Bergeron, & James Liebert.* 441, L85, 76-C4 (1995)

Accretion Disk Boundary Layers in Cataclysmic Variables. I. Optically Thick Boundary Layers. *Robert Popham & Ramesh Narayan.* 442, 337, 81-F10 (1995)

Magnetic Field Evolution in White Dwarfs: The Hall Effect and Complexity of the Field. *A. G. Muslimov, H. M. Van Horn, & M. A. Wood.* 442, 758, 90-F2 (1995)

On the Nature of the Spectral Features in Peculiar "DQ" White Dwarfs. *Gary D. Schmidt, P. Bergeron, & Bruce Fegley, Jr.* 443, 274, 99-A10 (1995)

Temperatures, Gravities, and Masses for a Sample of Bright DA White Dwarfs and the Initial-to-Final Mass Relation. *Angela Bragaglia, Alvio Renzini, & P. Bergeron.* 443, 735, 108-A7 (1995)

The Circumstellar Nature of the Metallic Features in a Hot DA White Dwarf. *J. B. Holberg, F. C. Bruhweiler, & J. Andersen.* 443, 753, 108-C1 (1995)

New Model Atmospheres for Very Cool White Dwarfs with Mixed H/He and Pure He Compositions. *P. Bergeron, D. Saumon, & F. Wesemael.* 443, 764, 108-D1 (1995)

Masses of DA White Dwarfs with Gravitational Redshift Determinations. *P. Bergeron, James Liebert, & M. S. Fulbright.* 444, 810, 127-F1 (1995)

A *Hubble Space Telescope* Study of the Underlying White Dwarf in the Dwarf Nova VW Hydri during Quiescence. *Edward M. Sion, Paula Szkody, Fu-Hua Cheng, & Min Huang.* 444, L97, 130-G8 (1995)

Signatures of White Dwarf Galaxy Halos. *Stéphane Charlot & Joseph Silk.* 445, 124, 134-A12 (1995)

Hubble Space Telescope High-Resolution Spectroscopy of the Exposed White Dwarf in the Dwarf Nova VW Hydri in Quiescence: A Rapidly Rotating White Dwarf. *Edward M. Sion, Min Huang, Paula Szkody, & Fu-Hua Cheng.* 445, L31, 140-F3 (1995)

Thermal Cyclotron Absorption Coefficients. II. Opacities in the Stokes Formalism. *H. M. Väth & G. Chanmugam.* 98, 295, 26-A9 (1995)

An Extended Grid of Multicycle Nova Evolution Models. *Dina Prialnik & Attay Kovetz.* 445, 789, 146-B3 (1995)

Extreme Ultraviolet Spectroscopy and Photometry of VV Puppis during a High Accretion State. *Stéphane Vennes, Paula Szkody, Edward M. Sion, & Knox S. Long.* 445, 921, 148-A1 (1995)

The Unusual Helium Variable AM Canum Venaticorum. *J. L. Provencal, D. E. Winget, R. E. Nather, E. L. Robinson, J.-E. Solheim, J. C. Clemens, P. A. Bradley, S. J. Kleinman, A. Kanaan, C. F. Claver, C. J. Hansen, T. M. K. Marar, S. Seetha, B. N. Ashoka, E. M. Leibowitz, E. G. Meištas, A. Bruvold, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, A. E. Sansom, R. W. Tweedy, G. Fontaine, P. Bergeron, S. O. Kepler, M. A. Wood, & A. D. Grauer.* 445, 927, 148-A11 (1995)

Thick to Thin: The Evolutionary Connection between PG 1159 Stars and the Thin Helium–enveloped Pulsating White Dwarf GD 358. *Benjamin T. Dehner & Steven D. Kawaler.* 445, L141, 151-F9 (1995)

ORFEUS Observations of G191-B2B: Neutral and Ionized Gas in the Local Interstellar Medium. *M. Hurwitz & S. Bowyer.* 446, 812, 167-C4 (1995)

A Model for the Galactic Population of Symbiotic Stars with White Dwarf Accretors. *L. Yungelson, M. Livio, A. Tutukov, & S. J. Kenyon.* 447, 656, 185-B10 (1995)

The Dynamics of Two-dimensional Local and Finite Perturbations in Envelopes of Rotating White Dwarfs. I. *Patrick Godon & Giora Shaviv.* 447, 797, 187-A3 (1995)

Whole Earth Telescope Observations of the DAV White Dwarf G226-29. *S. O. Kepler, O. Giovannini, M. A. Wood, R. E. Nather, D. E. Winget, A. Kanaan, S. J. Kleinman, P. A. Bradley, J. L. Provencal, J. C. Clemens, C. F. Claver, T. K. Watson, K. Yanagida, K. Krisciunas, T. M. K. Marar, S. Seetha, B. N. Ashoka, E. Leibowitz, H. Mendelson, T. Mazeh, P. Moskalik, J. Krzesiński, G. Pajdosz, S. Zoła, J.-E. Solheim, P.-I. Emanuelsen, N. Dolez, G. Vauclair, M. Chevreton, J.-R. Fremy, M. A. Barstow, A. E. Sansom, R. W. Tweedy, D. T. Wickramasinghe, L. Ferrario, D. J. Sullivan, A. J. van der Peet, D. A. H. Buckley, & A.-L. Chen.* 447, 874, 188-A1 (1995)

Type Ia Supernova Scenarios and the Hubble Sequence. *P. Ruiz-Lapuente, A. Burkert, & R. Canal.* 447, L69, 190-C1 (1995)

A Search for Magnetic Fields among DA White Dwarfs. *Gary D. Schmidt & Paul S. Smith.* 448, 305, 196-D7 (1995)

Radiative Levitation in Hot White Dwarfs: Equilibrium Theory. *P. Chayer, G. Fontaine, & F. Wesemael.* 99, 189, 36-G5 (1995)

Hydrodynamic Studies of Accretion onto Massive White Dwarfs: ONeMg-enriched Nova Outbursts. I. Dependence on White Dwarf Mass. *M. Politano, S. Starrfield, J. W. Truran, A. Weiss, & W. M. Sparks.* 448, 807, 206-A11 (1995)

Optical and Ultraviolet Analyses of ZZ Ceti Stars and Study of the Atmospheric Convective Efficiency in DA White Dwarfs. *P. Bergeron, F. Wesemael, R. Lamontagne, G. Fontaine, R. A. Saffer, & N. F. Allard.* 449, 258, 213-F10 (1995)

Off-centered Dipole Models for Three Isolated Magnetic White Dwarfs. *Angela Putney & Stefan Jordan.* 449, 863, 224-E10 (1995)

From Strange Stars to Strange Dwarfs. *N. K. Glendenning, Ch. Kettner, & F. Weber.* 450, 253, 231-E1 (1995)

The Structure and Evolution of an Accretion Flow Interacting with the Central Star. *Masayuki Y. Fujimoto.* 450, 262, 231-E13 (1995)

Whole Earth Telescope Observations and Seismological Analysis of the Pre–White Dwarf PG 2131+066. *S. D. Kawaler, M. S. O'Brien, J. C. Clemens, R. E. Nather, D. E. Winget, T. K. Watson, K. Yanagida, J. S. Dixson, P. A. Bradley, M. A. Wood, D. J. Sullivan, S. J. Kleinman, E. Meištas, E. M. Leibowitz, P. Moskalik, S. Zoła, G. Pajdosz, J. Krzesiński, J.-E. Solheim, A. Bruvold, D. O'Donoghue, M. Katz, G. Vauclair, N. Dolez, M. Chevreton, M. A. Barstow, A. Kanaan, S. O. Kepler, O. Giovannini, J. L. Provencal, & C. J. Hansen.* 450, 350, 232-G1 (1995)

Smooth Particle Hydronamics Simulations of Deflagrations in Supernovae. *E. Bravo & D. García-Senz.* 450, L17, 234-E12 (1995)

Satellites on Lyman Alpha Due to H-H and H-H^+ Collisions. *John F. Kielkopf & Nicole F. Allard.* 450, L75, 245-A8 (1995)

Discovery of Diffuse X-Ray Emission in 47 Tucanae. *Martin Krockenberger & Jonathan E. Grindlay.* 451, 200, 248-F11 (1995)

Hubble Space Telescope Observations of White Dwarfs in the Globular Cluster M4. *Harvey B. Richer, Gregory G. Fahlman, Rodrigo A. Ibata, Peter B. Stetson, Roger A. Bell, Michael Bolte, Howard E. Bond, William E. Harris, James E. Hesser, Georgi Mandushev, Carlton Pryor, & Don A. VandenBerg.* 451, L17, 252-C11 (1995)

Thermal Instability and Pulsations of the Flame Front in White Dwarfs. *Vitaliy V. Bychkov & Michael A. Liberman.* 451, 711, 257-A7 (1995)

Three New Magnetic White Dwarf Stars. *Angela Putney.* 451, L67, 260-F7 (1995)

Explosions of Sub–Chandrasekhar Mass White Dwarfs in Two Dimensions. *Eli Livne & David Arnett.* 452, 62, 263-A6 (1995)

Optical Observations of the Binary Millisecond Pulsars J2145−0750 and J0034−0534. *J. F. Bell, S. R. Kulkarni, M. Bailes, E. M. Leitch, & A. G. Lyne.* 452, L121, 280-B7 (1995)

The Binary Double-degenerate Nature of the Bright DAO White Dwarf Feige 55. *J. B. Holberg, Rex A. Saffer, R. W. Tweedy, & M. A. Barstow.* 452, L133, 280-D4 (1995)

C IV and O VI Transitions in the Region λλ1100–2000 and Examples Found in *IUE* Spectra of Hot Stars. *Walter A. Feibelman & Sveneric Johansson.* 100, 405, 51-F3 (1995)

The *EUVE* and *IUE* Spectra of the Hot DA White Dwarf GD 659. *J. B. Holberg, M. A. Barstow, F. C. Bruhweiler, & E. M. Sion.* 453, 313, 285-D12 (1995)

Dynamo Generation of Magnetic Fields in White Dwarfs. *John H. Thomas, J. Andrew Markiel, & H. M. Van Horn.* 453, 403, 286-F3 (1995)

A Millisecond Pulsar in a 6 Hour Orbit: PSR J0751+1807. *S. C. Lundgren, A. F. Zepka, & J. M. Cordes.* 453, 419, 286-G10 (1995)

ROSAT Pointed Observations of Cool Magnetic White Dwarfs. *Z. E. Musielak, J. G. Porter, & J. M. Davis.* 453, L33, 289-F8 (1995)

Radiative $He^+(1s) + He(1s^2)$ Processes as the Source of the DB White Dwarf Atmosphere Electromagnetic Continuous Spectra. *A. A. Mihajlov, M. S. Dimitrijević, Lj. M Ignjatović, & Z. Djurić.* 454, 420, 305-B3 (1995)

Improved Calculations of the Equilibrium Abundances of Heavy Elements Supported by Radiative Levitation in the Atmospheres of Hot DA White Dwarfs. *P. Chayer, S. Vennes, A. K. Pradhan, P. Thejll, A. Beauchamp, G. Fontaine, & F. Wesemael.* 454, 429, 305-D4 (1995)

The 71 Second Oscillation in the Light Curve of the Old Nova DQ Herculis. *E. Zhang, E. L. Robinson, R. F. Stiening, & Keith Horne.* 454, 447, 305-D12 (1995)

Spectroscopy of the White Dwarf Companions of PSR 0655+64 and PSR 0820+02. *M. H. van Kerkwijk & S. R. Kulkarni.* 454, L141, 316-E3 (1995)

X-Ray Emission from Magnetic Cataclysmic Variables and White Dwarf Mass Estimates. *Kinwah Wu, G. Chanmugam, & G. Shaviv.* 455, 260, 321-F8 (1995)

Spectroscopic Identification of Probable Cataclysmic Variables in the Globular Cluster NGC 6397. *J. E. Grindlay, A. M. Cool, P. J. Callanan, C. D. Bailyn, H. N. Cohn, & P. M. Lugger.* 455, L47, 325-B1 (1995)

The Softest X-Ray Sources in the *ROSAT* Pointed Catalog: WGACAT. *K. P. Singh, P. Barrett, N. E. White, P. Giommi, & L. Angelini.* 455, 456, 328-C2 (1995)

Hot White Dwarfs in the Local Interstellar Medium: Hydrogen and Helium Interstellar Column Densities and Stellar Effective Temperatures from *Extreme-Ultraviolet Explorer* Spectroscopy. *Jean Dupuis, Stéphane Vennes, Stuart Bowyer, Anil K. Pradhan, & Peter Thejll.* 455, 574, 329-G3 (1995)

The Extremely Low Luminosity White Dwarf ESO 439−26. *María Teresa Ruiz, P. Bergeron, S. K. Leggett, & Claudio Anguita.* 455, L159, 334-C13 (1995)

STARS: WINDS

Nonthermal X-Ray Emission from Winds of OB Supergiants. *Wan Chen & Richard L. White.* 366, 512, 9-D1 (1991)

Infrared Spectroscopy of T Tauri Stars. *C. Giovanardi, S. Gennari, A. Natta, & R. Stanga.* 367, 173, 14-B11 (1991)

NGC 6302: Ionized by a Very Hot Star or by a Wind? *N. J. Lame & G. J. Ferland.* 367, 208, 14-F1 (1991)

On Winds and X-Rays of O-Type Stars. *Tomasz Chlebowski & Catharine D. Garmany.* 368, 241, 26-B1 (1991)

Instabilities in Line-driven Stellar Winds. V. Effect of an Optically Thick Continuum. *S. P. Owocki & G. B. Rybicki.* 368, 261, 26-C11 (1991)

Observation of a Pulsar Wind: CCD Polarimetry of the Crab Nebula. *F. C. Michel, P. A. Scowen, R. J. Dufour, & J. J. Hester.* 368, 463, 30-G1 (1991)

The Effect of Viscosity on Steady Transonic Flow with a Nodal Solution Topology. *S. P. Owocki & G. P. Zank.* 368, 491, 31-C1 (1991)

The Appearance of Highly Relativistic, Spherically Symmetric Stellar Winds. *Marek A. Abramowicz, Igor D. Novikov, & Bohdan Paczyński.* 369, 175, 38-B5 (1991)

Continuum Polarization by Electron Scattering in Rotationally Distorted, Radiation-driven Stellar Winds: B[e] Supergiants. *Cameron J. Boyd & J. M. Marlborough.* 369, 191, 38-C11 (1991)

Bow Shock Models of Ultracompact H II Regions. *Mordecai-Mark Mac Low, Dave Van Buren, Douglas O. S. Wood, & Ed Churchwell.* 369, 395, 42-F1 (1991)

Evolution of the Chromospheres and Winds of Low- and Intermediate-Mass Giant Stars. *P. G. Judge & R. E. Stencel.* 371, 357, 64-E3 (1991)

Enhanced Winds and Tidal Streams in Massive X-Ray Binaries. *John M. Blondin, Ian R. Stevens, & Timothy R. Kallman.* 371, 684, 70-B1 (1991)

Accretion in Wind-driven X-Ray Sources. *Ronald E. Taam, Albert Fu, & B. A. Fryxell.* 371, 696, 70-C1 (1991)

Observations of the Peculiar Object MWC 560 in Outburst. *A. G. Michalitsianos, S. P. Maran, R. J. Oliversen, B. Bopp, E. Kontizas, A. Dapergolas, & M. Kontizas.* 371, 761, 71-A7 (1991)

A Windswept Cometary Tail on the Galactic Center Supergiant IRS 7. *F. Yusef-Zadeh & Mark Morris.* 371, L59, 73-B10 (1991)

Non–LTE Analysis of the Ofpe/WN9 Star HDE 269227 (R84). *Werner Schmutz, Claus Leitherer, Ivan Hubeny, Manfred Vogel, Wolf-Rainer Hamann, & Ulf Wessolowski.* 372, 664, 84-A1 (1991)

Magnetic Confinement, Alfvén Wave Reflection, and the Origins of X-Ray and Mass-Loss "Dividing Lines" for Late-Type Giants and Supergiants. *R. Rosner, C.-H. An, Z. E. Musielak, R. L. Moore, & S. T. Suess.* 372, L91, 85-E5 (1991)

The Formation of Molecules in Protostellar Winds. *A. E. Glassgold, G. A. Mamon, & P. J. Huggins.* 373, 254, 89-B7 (1991)

V1500 Cygni: A Prediction. *J. I. Katz.* 374, L59, 110-D11 (1991)

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. I. AO Cassiopeiae. *Douglas R. Gies & Michael S. Wiggs.* 375, 321, 114-G10 (1991)

From Wind to Superwind: The Evolution of Mass-Loss Rates for Mira Models. *G. H. Bowen & L. A. Willson.* 375, L53, 124-C1 (1991)

On Turbulent Diffusion of Magnetic Fields and the Loss of Magnetic Flux from Stars. *Samuel I. Vainshtein & Robert Rosner.* 376, 199, 127-D7 (1991)

Rotational Evolution of Solar-Type Stars. I. Main-Sequence Evolution. *K. B. MacGregor & M. Brenner.* 376, 204, 127-D13 (1991)

First Results from the Goddard High-Resolution Spectrograph: Spectroscopic Determination of Stellar Parameters of Melnick 42, an O3f Star in the Large Magellanic Cloud. *S. R. Heap, B. Altner, D. Ebbets, I. Hubeny, J. B. Hutchings, R. P. Kudritzki, S. A. Voels, S. Haser, A. Pauldrach, J. Puls, & K. Butler.* 377, L29, 143-D6 (1991)

First Results from the Goddard High-Resolution Spectrograph: Evidence for Photospheric Microturbulence in Early O Stars: Are Surface Gravities Systematically Underestimated? *I. Hubeny, S. R. Heap, & B. Altner.* 377, L33, 143-D11 (1991)

Asymptotic Structure of Hydromagnetically Driven Relativistic Winds. *Tzihong Chiueh, Zhi-yun Li, & Mitchell C. Begelman.* 377, 462, 145-D11 (1991)

Observations of Stellar Winds from Hot Stars at 1.3 Millimeters. *Claus Leitherer & Carmelle Robert.* 377, 629, 147-E1 (1991)

Neutrino-heated Stars and Broad-Line Emission from Active Galactic Nuclei. *James MacDonald, Todor Stanev, & Peter L. Biermann.* 378, 30, 151-D4 (1991)

X-Ray–illuminated Stellar Winds: Optically Thick Wind Models for Massive X-Ray Binaries. *Ian R. Stevens.* 379, 310, 167-A1 (1991)

The Collimation of a Time-dependent Stellar Wind. *S.-H. Kim & A. C. Raga.* 379, 689, 173-C4 (1991)

Magnetically Driven Jets and Winds. *R. V. E. Lovelace, H. L. Berk, & J. Contopoulos.* 379, 696, 173-D1 (1991)

Wind Collision Effects in the Early-Type Close Binaries HD 47129 and AO Cassiopeiae. *Jorge Sahade & Estela Brandi.* 379, 706, 173-E1 (1991)

The Onset of Chromospheric Activity among the A and F Stars. *Theodore Simon & Wayne Landsman.* 380, 200, 178-E3 (1991)

Predicted Extreme-Ultraviolet Line Emission for Nearby Main-Sequence B Stars. *J. J. MacFarlane, J. P. Cassinelli, B. Y. Welsh, P. W. Vedder, J. V. Vallerga, & W. L. Waldron.* 380, 564, 185-C1 (1991)

Inverse-Compton Gamma-Ray Emission from Chaotic, Early-Type Stellar Winds and Its Detectability by *Gamma Ray Observatory*. *Wan Chen & Richard L. White.* 381, L63, 199-E1 (1991)

On the Wind Geometry of the Wolf-Rayet Star EZ Canis Majoris. *R. E. Schulte-Ladbeck, K. H. Nordsieck, M. Taylor, M. A. Nook, K. S. Bjorkman, A. M. Magalhães, & C. M. Anderson.* 382, 301, 204-A1 (1991)

Direct Evidence for Stellar Wind X-Ray Absorption in O Stars. *Wayne L. Waldron.* 382, 603, 209-A9 (1991)

Time-dependent Radio Sources in the Star-forming Region Cepheus A (East). *V. A. Hughes.* 383, 280, 215-F1 (1991)

Infrared Recombination Lines of Hydrogen from Young Objects in the Southern Galactic Plane. *Sara C. Beck, Jacqueline Fischer, & Howard A. Smith.* 383, 336, 216-D1 (1991)

Two New Molecular Outflows in L1551? *Marc W. Pound & John Bally.* 383, 705, 223-A7 (1991)

STARS: WOLF-RAYET

Far-Infrared Observations and the Structure of Wolf-Rayet Ring Nebulae. *A. P. Marston.* 366, 181, 3-C9 (1991)

Instabilities in Line-driven Stellar Winds. V. Effect of an Optically Thick Continuum. *S. P. Owocki & G. B. Rybicki.* 368, 261, 26-C11 (1991)

Wolf-Rayet Stars as Starting Points or as Endpoints of the Evolution of Massive Stars? *H. J. G. L. M. Lamers, A. Maeder, W. Schmutz, & J. P. Cassinelli.* 368, 538, 31-F12 (1991)

HD 50896: Blobs in a Wind with a Collapsed Companion or Rotating Disk with Central Filaments? *Anne B. Underhill & Stephenson Yang.* 368, 588, 32-D9 (1991)

Non–LTE Analysis of the Ofpe/WN9 Star HDE 269227 (R84). *Werner Schmutz, Claus Leitherer, Ivan Hubeny, Manfred Vogel, Wolf-Rainer Hamann, & Ulf Wessolowski.* 372, 664, 84-A1 (1991)

Ultraviolet Variability of the Massive W-R Binary System HDE 311884 = WR 47. *Gloria Koenigsberger, Anthony F. J. Moffat, & Lawrence H. Auer.* 376, 272, 128-C9 (1991)

Wolf-Rayet Galaxies: An Introduction and a Catalog. *Peter S. Conti.* 377, 115, 139-D7 (1991)

IRAS 17380−3031: A New Dusty Late WC-Type Wolf-Rayet Star. *Martin Cohen, K. A. van der Hucht, P. M. Williams, & P. S. Thé.* 378, 302, 154-F7 (1991)

On the Wind Geometry of the Wolf-Rayet Star EZ Canis Majoris. *R. E. Schulte-Ladbeck, K. H. Nordsieck, M. Taylor, M. A. Nook, K. S. Bjorkman, A. M. Magalhães, & C. M. Anderson.* 382, 301, 204-A1 (1991)

About the Stage of Evolution of Wolf-Rayet Stars. *Anne B. Underhill.* 383, 729, 223-C6 (1991)

An Infrared Study of Three Wolf-Rayet Ring Nebulae. *J. S. Mathis, J. P. Cassinelli, K. A. van der Hucht, T. Prusti, P. R. Wesselius, & P. M. Williams.* 384, 197, 3-D5 (1992)

Colliding Winds from Early-Type Stars in Binary Systems. *Ian R. Stevens, John M. Blondin, & A. M. T. Pollock.* 386, 265, 27-E1 (1992)

Polarization Variability among Wolf-Rayet Stars. VII. The Single Stars WR 14, WR 25, and WR 69. *Laurent Drissen, Carmelle Robert, & Anthony F. J. Moffat.* 386, 288, 27-F11 (1992)

Constraints on the Surface Magnetic Fields of Hot Stars with Winds. *Murugesapillai Maheswaran & Joseph P. Cassinelli.* 386, 695, 33-G13 (1992)

Influence of the Large-Scale Star Formation Pattern on the Galactic Distribution of Wolf-Rayet Stars. *Emilio J. Alfaro, Antonio J. Delgado, & Jesús Cabrera-Caño.* 386, L47, 36-C5 (1992)

The Wind Geometry of the Wolf-Rayet Star HD 191765. *R. E. Schulte-Ladbeck, K. H. Nordsieck, M. Taylor, K. S. Bjorkman, A. M. Magalhães, & M. J. Wolff.* 387, 347, 41-C6 (1992)

An Accreting Black Hole Model for Sagittarius A*. *Fulvio Melia.* 387, L25, 43-C10 (1992)

Supernova Rates and the Reddening of Wolf-Rayet Stars. *Sidney van den Bergh.* 390, 133, 75-F1 (1992)

On the Chemodynamics of Wolf-Rayet Ring Nebulae: NGC 6888. *César Esteban & José M. Vílchez.* 390, 536, 82-A7 (1992)

The First Linear Polarization Spectra of Wolf-Rayet Stars in the Ultraviolet: EZ Canis Majoris and θ Muscae. *R. E. Schulte-Ladbeck, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, D. Shepherd, M. Taylor, & B. A. Whitney.* 391, L37, 92-C6 (1992)

Upper Limit to the Mass of Pulsationally Stable Stars with Uniform Chemical Composition. *Richard B. Stothers.* 392, 706, 111-A7 (1992)

The Wolf-Rayet System WR 147: A Binary Radio Source with Thermal and Nonthermal Components. *E. Churchwell, J. H. Bieging, K. A. van der Hucht, P. M. Williams, T. A. Th. Spoelstra, & D. C. Abbott.* 393, 329, 118-C1 (1992)

Ultraviolet and Optical Spectral Morphology of Melnick 42 and Radcliffe 136a in 30 Doradus. *Nolan R. Walborn, Dennis C. Ebbets, Joel Wm. Parker, Joy Nichols-Bohlin, & Richard L. White.* 393, L13, 120-C1 (1992)

Self-consistent Models of Wolf-Rayet Stars as Helium Stars with Optically Thick Winds. *Mariko Kato & Icko Iben, Jr.* 394, 305, 131-F13 (1992)

Detection of WC9 Stars in NCG 1365. *Andrew C. Phillips & Peter S. Conti.* 395, L91, 154-A6 (1992)

Photometry, Polarimetry, Spectroscopy, and Spectropolarimetry of the Enigmatic Wolf-Rayet Star EZ Canis Majoris. *Carmelle Robert, Anthony F. J. Moffat, Laurent Drissen, Robert Lamontagne, Wilhelm Seggewiss, Virpi S. Niemela, Miguel A. Cerruti, Paul Barrett, Jeremy Bailey, Jorge Garcia, & Santiago Tapia.* 397, 277, 171-D1 (1992)

Intensive High-Precision Photometric Monitoring of the Variable WN6 Wolf-Rayet Star HD 191765. *I. I. Antokhin, T. R. Irsmambetova, A. F. J. Moffat, A. M. Cherepashchuk, & S. V. Marchenko.* 82, 395, 54-G9 (1992)

The Spectrum of the Peculiar WC7+OB Star HD 192641. *Anne B. Underhill.* 398, 636, 192-A10 (1992)

Polarization Cancellation in the Two-Component Winds from Wolf-Rayet Stars. *M. Taylor & J. P. Cassinelli.* 401, 311, 224-G5 (1992)

Optical Spectrophotometry of Wolf-Rayet Galaxies. *William D. Vacca & Peter S. Conti.* 401, 543, 229-D1 (1992)

Particle Acceleration and Nonthermal Radio Emission in Binaries of Early-Type Stars. *D. Eichler & V. Usov.* 402, 271, 4-D11 (1993)

Colliding Wind Binary Systems: Monte Carlo Simulations of Line-Profile Variability. *Ian R. Stevens.* 404, 281, 31-D3 (1993)

A Spectroscopic Study of the Short-Period Eclipsing Wolf-Rayet Binary CX Cephei (WN5+O5 V). *David Lewis, Anthony F. J. Moffat, Jaymie M. Matthews, Carmelle Robert, & Sergey V. Marchenko.* 405, 312, 45-A11 (1993)

Multiline Transfer and the Dynamics of Wolf-Rayet Winds. *L. B. Lucy & D. C. Abbott.* 405, 738, 52-C5 (1993)

A New Survey of Nebulae around Galactic Wolf-Rayet Stars in the Northern Sky. *Grant J. Miller & You-Hua Chu.* 85, 137, 7-G9 (1993)

C III Spectra in WC Wolf-Rayet Stars: Does Collisional Excitation Dominate? *S. O. Kastner & A. K. Bhatia.* 406, 708, 66-F6 (1993)

The Optically Thin C III Spectrum: Line and Multiplet Intensities. *A. K. Bhatia & S. O. Kastner.* 408, 744, 94-D7 (1993)

Polarization Eclipse Model of the Wolf-Rayet Binary V444 Cygni with Constraints on the Stellar Radii and an Estimate of the Wolf-Rayet Mass-Loss Rate. *N. St-Louis, A. F. J. Moffat, L. Lapointe, Yu. S. Efimov, N. M. Shakhovskoy, G. K. Fox, & V. Piirola.* 410, 342, 116-C10 (1993)

Mass Loss from Wolf-Rayet Stars Due to Radiation Pressure and Alfvén Waves. *L. C. dos Santos, V. Jatenco-Pereira, & R. Opher.* 410, 732, 122-G11 (1993)

Hubble Space Telescope Spectra of the Phase-modulated Wind in the SMC O+WR Binary R31. *J. B. Hutchings, L. Bianchi, & S. C. Morris.* 410, 803, 123-F10 (1993)

The Evolution of Massive Stars Including Mass Loss: Presupernova Models and Explosion. *S. E. Woosley, Norbert Langer, & Thomas A. Weaver.* 411, 823, 140-A14 (1993)

Spectrophotometry of Wolf-Rayet Stars. I. Continuum Energy Distributions. *Patrick W. Morris, Kenneth R. Brownsberger, Peter S. Conti, Philip Massey, & William D. Vacca.* 412, 324, 146-B10 (1993)

Polarization Variability among Wolf-Rayet Stars. VIII. Emission Lines versus Continuum in WR+O Binaries. *Anthony F. J. Moffat & Vilppu Piirola.* 413, 724, 165-D8 (1993)

The "Baldwin Effect" in Wolf-Rayet Stars. *Patrick Morris, Peter S. Conti, Henny J. G. L. M. Lamers, & Gloria Koenigsberger.* 414, L25, 175-E7 (1993)

The Spectrum of EZ Canis Majoris (HD 50896) to the Lyman Limit with the Hopkins Ultraviolet Telescope. *Stephan R. McCandliss, Richard H. Buss, Jr., William P. Blair, Charles W. Bowers, Arthur F. Davidsen, Paul D. Feldman, & Jeffrey W. Kruk.* 416, 372, 205-F3 (1993)

Clumping and Mass Loss in Hot Star Winds. *Anthony F. J. Moffat & Carmelle Robert.* 421, 310, 19-G1 (1994)

Rotation and Magnetic Fields during the Evolution of Massive Stars through B[e] and Wolf-Rayet Phases. *Murugesapillai Maheswaran & Joseph Cassinelli.* 421, 718, 27-B9 (1994)

The Wolf-Rayet Binary V444 Cygni under the Spectroscopic Microscope. I. Improved Characteristics of the Components and Their Interaction Seen in He I. *Sergey V. Marchenko, Anthony F. J. Moffat, & Gloria Koenigsberger.* 422, 810, 42-A5 (1994)

Cygnus X-3 as a Benchmark for Fundamental Properties of Wolf-Rayet Stars. *Anatol M. Cherepashchuk & Anthony F. J. Moffat.* 424, L53, 69-G6 (1994)

On the Nature of the X-Ray Emission from 1E 1024.0−5732/Wack 2134: The First X-Ray–selected Wolf-Rayet Star. *Sandro Mereghetti, Tomaso Belloni, Michael Shara, & Laurent Drissen.* 424, 943, 76-E1 (1994)

Hubble Space Telescope Fine Guidance Sensor Interferometric Observations of the Core of 30 Doradus. *M. G. Lattanzi, J. L. Hershey, R. Burg, L. G. Taff, S. T. Holfeltz, B. Bucciarelli, I. N. Evans, R. Gilmozzi, J. Pringle, & N. R. Walborn.* 427, L21, 117-D1 (1994)

A Thermal Pulse in Progress in the Nucleus of the Large Magellanic Cloud Planetary Nebula N66. *M. Peña, S. Torres-Peimbert, M. Peimbert, M. T. Ruiz, & J. Maza.* 428, L9, 134-B13 (1994)

Ionization Structure of Cygnus X-3: A Massive Iron-depleted Companion? *Nobuo Terasawa & Hiroshi Nakamura.* 92, 477, 38-B13 (1994)

A Survey of Nebulae around Galactic Wolf-Rayet Stars in the Southern Sky. I. *A. P. Marston, Y.-H. Chu, & G. Garcia-Segura.* 93, 229, 44-G7 (1994)

An Atlas of the Interstellar Environment of Wolf-Rayet Stars in the Magellanic Clouds. *M. A. Dopita, J. F. Bell, Y.-H. Chu, & T. A. Lozinskaya.* 93, 455, 48-G7 (1994)

A Study of the Moderately Wide Wolf-Rayet Spectroscopic Binary HD 190918. *Anne B. Underhill & Grant M. Hill.* 432, 770, 205-E10 (1994)

NGC 3603 and Its Wolf-Rayet Stars: Galactic Clone of R136 at the Core of 30 Doradus, but without the Massive Surrounding Cluster Halo. *Anthony F. J. Moffat, Laurent Drissen, & Michael M. Shara.* 436, 183, 263-F7 (1994)

Remarkable Long-Term Changes in the Small Magellanic Cloud Wolf-Rayet System HD 5980. *G. Koenigsberger, A. F. J. Moffat, N. St-Louis, L. H. Auer, L. Drissen, & W. Seggewiss.* 436, 301, 265-D8 (1994)

A Survey of Nebulae around Galactic Wolf-Rayet Stars in the Southern Sky. II. *A. P. Marston, D. R. Yocum, G. Garcia-Segura, & Y.-H. Chu.* 95, 151, 66-A11 (1994)

An Analytic Solution of the Radiative Transfer Equation for a Gray Scattering Atmosphere in Motion. *Shlomi Pistinner & Giora Shaviv.* 436, 837, 277-B13 (1994)

Line Profile Variations from Atmospheric Eclipses: Constraints on the Wind Structure in Wolf-Rayet Stars. *L. H. Auer & G. Koenigsberger.* 436, 859, 277-E5 (1994)

Violent Star Formation in NGC 2363. *Rosa M. González-Delgado, Enrique Pérez, Guillermo Tenorio-Tagle, José M. Vílchez, Elena Terlevich, Roberto Terlevich, Eduardo Telles, José M. Rodríguez-Espinosa, Miguel Mas-Hesse, María Luisa García-Vargas, Ángeles I. Díaz, Jordi Cepa, & Hector Castañeda.* 437, 239, 286-D10 (1994)

Gamma-Ray Lines from the Orion Complex. *Reuven Ramaty, Benzion Kozlovsky, & Richard E. Lingenfelter.* 438, L21, 10-A1 (1995)

On the Wind-powered Nebula NGC 2359 and the WN Star HD 56925. *Yang Chen, Zhen-ru Wang, & Qin-yue Qu.* 438, 950, 17-C1 (1995)

Near-Infrared Spectra of Compact Stellar Wind Sources at the Galactic Center. *S. Libonate, J. L. Pipher, W. J. Forrest, & M. L. N. Ashby.* 439, 202, 24-A10 (1995)

Radio and *IRAS* Observations of Two Nebulae around WO Stars: G2.4+1.4 in the Galaxy and Sandage H II Region 3 in IC 1613. *W. M. Goss & Tatiana A. Lozinskaya.* 439, 637, 33-B8 (1995)

Discovery of a Possible Wolf-Rayet Star at the Galactic Center. *R. D. Blum, K. Sellgren, & D. L. DePoy.* 440, L17, 48-D1 (1995)

Time-dependent Behavior and Physical Conditions of the LMC Planetary Nebula N66. *M. Peña, M. Peimbert, S. Torres-Peimbert, M. T. Ruiz, & J. Maza.* 441, 343, 64-B1 (1995)

Momentum Deposition in Wolf-Rayet Winds: Nonisotropic Diffusion with Effectively Gray Opacity. *Kenneth G. Gayley, Stanley P. Owocki, & Steven R. Cranmer.* 442, 296, 81-C2 (1995)

Of-Type Stars HD 16691 and HD 190429 Show WN-like Spectra in Infrared *K* Band. *Peter S. Conti, Margaret Murray Hanson, Patrick W. Morris, Allan J. Willis, & Stephen J. Fossey.* 445, L35, 140-F11 (1995)

Sudden Luminous Blue Variable–Like Behavior of the Wolf-Rayet Binary System HD 5980 in the Small Magellanic Cloud. *Rodolfo H. Barbá, Virpi S. Niemela, Gustavo Baume, & R. A. Vazquez.* 446, L23, 160-D13 (1995)

Line-driven Instability Growth Rates in Wolf-Rayet Winds. *Kenneth G. Gayley & Stanely P. Owocki.* 446, 801, 167-B4 (1995)

Two New Wolf-Rayet Stars and a Luminous Blue Variable Star in the Quintuplet (AFGL 2004) near the Galactic Center. *Donald F. Figer, Ian S. McLean, & Mark Morris.* 447, L29, 180-G9 (1995)

The Nuclear Cluster of the Milky Way: Star Formation and Velocity Dispersion in the Central 0.5 Parsec. *A. Krabbe, R. Genzel, A. Eckart, F. Najarro, D. Lutz, M. Cameron, H. Kroker, L. E. Tacconi-Garman, N. Thatte, L. Weitzel, S. Drapatz, T. Geballe, A. Sternberg, & R. Kudritzki.* 447, L95, 190-F7 (1995)

Large ^{18}O Excesses in Circumstellar Graphite Grains from the Murchison Meteorite: Indication of a Massive-Star Origin. *Sachiko Amari, Ernst Zinner, & Roy S. Lewis.* 447, L147, 191-F4 (1995)

Binary Models for the Solar Neighborhood and Magellanic Cloud W-R Populations. *William W. Dalton & Craig L. Sarazin.* 448, 369, 197-C6 (1995)

Atlas of Synthetic Ultraviolet Spectra of Massive Star Populations. *Claus Leitherer, Carmelle Robert, & Timothy M. Heckman.* 99, 173, 36-F1 (1995)

Identification of Emission-Line Stars in 30 Doradus Using *HST* Observations. *Joel Wm. Parker, Sara R. Heap, & Eliot M. Malumuth.* 448, 705, 204-D11 (1995)

A Theory of Winds from Wolf-Rayet Stars. *D. Eichler, A. Bar Shalom, & J. Oreg.* 448, 858, 206-F6 (1995)

Radio Continuum Measurements of Southern Early-Type Stars. *Claus Leitherer, Jessica M. Chapman, & Bärbel Koribalski.* 450, 289, 232-A7 (1995)

Wind-Wind Interaction in the Close Wolf-Rayet Binary CQ Cephei (WN6+O9 II–Ib). *S. V. Marchenko, A. F. J. Moffat, P. R. J. Eenens, G. M. Hill, & A. Grandchamps.* 450, 811, 241-G10 (1995)

An Eight-Year Study of the Radio Emission from the Wolf-Rayet Binary HD 193793 = WR 140. *Richard L. White & Robert H. Becker.* 451, 352, 250-F8 (1995)

Ultraviolet Observations of the Eruption in the Small Magellanic Cloud Wolf-Rayet System HD 5980. *Gloria Koenigsberger, Ed Guinan, Lawrence Auer, & Leonid Georgiev.* 452, L107, 279-G11 (1995)

An *IRAS*-based Search for New Dusty Late-Type WC Wolf-Rayet Stars. *Martin Cohen.* 100, 413, 51-G1 (1995)

Two X-Ray Sources in 30 Doradus: Wolf-Rayet + Black Hole Binaries? *Q. Daniel Wang.* 453, 783, 294-F9 (1995)

The Initial Mass Function and Massive Star Evolution in the OB Associations of the Northern Milky Way. *Philip Massey, Kelsey E. Johnson, & Kathleen DeGioia-Eastwood.* 454, 151, 301-C12 (1995)

Are Wolf-Rayet Stellar Winds Driven by Radiation Forces? *Shlomi Pistinner & David Eichler.* 454, 404, 304-F8 (1995)

An Improved Line-Strength Parameterization in Hot-Star Winds. *Kenneth G. Gayley.* 454, 410, 305-A4 (1995)

The Hopkins Ultraviolet Telescope Far-Ultraviolet Spectral Atlas of Wolf-Rayet Stars. *Regina E. Schulte-Ladbeck, D. John Hillier, & James E. Herald.* 454, L51, 308-C3 (1995)

The Structure of Wolf-Rayet Winds. I. Observation of Ionization Stratification in WR 6 and WR 111. *Regina E. Schulte-Ladbeck, Philippe R. J. Eenens, & Kevin Davis.* 454, 917, 314-D11 (1995)

The Importance of Radiative Braking for the Wind Interaction in the Close WR+O Binary V444 Cygni. *S. P. Owocki & K. G. Gayley.* 454, ! 145, 316-E11 (1995)

Wolf-Rayet Bubbles. I. Analytic Solutions. *Guillermo García-Segura & Mordecai-Mark Mac Low.* 455, 145, 320-B13 (1995)

Wolf-Rayet Bubbles. II. Gasdynamical Situations. *Guillermo García-Segura & Mordecai-Mark Mac Low.* 455, 160, 320-D3 (1995)

STARS: X-RAYS

Nonthermal X-Ray Emission from Winds of OB Supergiants. *Wan Chen & Richard L. White.* 366, 512, 9-D1 (1991)

On Winds and X-Rays of O-Type Stars. *Tomasz Chlebowski & Catharine D. Garmany.* 368, 241, 26-B1 (1991)

Nonthermal Radio Emission from the X-Ray–Bright K5 IV Star 1E 1751+7046. *Stephen L. Skinner.* 368, 272, 26-D11 (1991)

Neutron Star Thermal Evolution. *Kenneth A. Van Riper.* 75, 449, 6-G7 (1991)

Steady State Energy Sources in Neutron Stars. *Kenneth A. Van Riper.* 372, 251, 77-A13 (1991)

On the X-Ray–emitting Boundary Layer of the Dwarf Nova VW Hydri. *Christopher W. Mauche, Richard A. Wade, Ronald S. Polidan, Hans van der Woerd, & Frits B. S. Paerels.* 372, 659, 83-G7 (1991)

Magnetic Confinement, Alfvén Wave Reflection, and the Origins of X-Ray and Mass-Loss "Dividing Lines" for Late-Type Giants and Supergiants. *R. Rosner, C.-H. An, Z. E. Musielak, R. L. Moore, & S. T. Suess.* 372, L91, 85-E5 (1991)

X-Ray Emission from Hybrid-Chromosphere Stars. *Alexander Brown, Stephen A. Drake, Michael E. Van Steenberg, & Jeffrey L. Linsky.* 373, 614, 95-E9 (1991)

Thermal X-Ray Emission from Classical Novae in Optical Decline. *James MacDonald & Stéphane Vennes.* 373, L51, 97-C4 (1991)

The *Einstein Observatory* Extended Medium-Sensitivity Survey. II. The Optical Identifications. *John T. Stocke, Simon L. Morris, I. M. Gioia, T. Maccacaro, R. Schild, A. Wolter, Thomas A. Fleming, & J. Patrick Henry.* 76, 813, 36-B1 (1991)

Digging in the Coronal Graveyard: A *ROSAT* Observation of the Red Giant Arcturus. *Thomas R. Ayres, Thomas A. Fleming, & Juergen H. M. M. Schmitt.* 376, L45, 137-C7 (1991)

The *EXOSAT* High Galactic Latitude Survey. *P. Giommi, G. Tagliaferri, K. Beuermann, G. Branduardi-Raymont, R. Brissenden, U. Graser, K. O. Mason, J. D. P. Mittaz, P. Murdin, G. Pooley, H.-C. Thomas, & I. Tuohy.* 378, 77, 152-A5 (1991)

The Unusual X-Ray Pulse Timing of AE Aquarii. *O. C. de Jager.* 378, 286, 154-E1 (1991)

Very High Energy Gamma-Ray Emission from Accreting X-Ray Pulsars. *K. S. Cheng, K. N. Yu, T. Cheung, & M. M. Lau.* 379, 290, 166-F1 (1991)

Discovery of Periodic Eclipses in the X-Ray Pulsar 1H 0253+193. *Yuichi Kamata, Yuzuru Tawara, & Katsuji Koyama.* 379, L65, 175-C13 (1991)

Numerical Simulations of Flares on M Dwarf Stars. I. Hydrodynamics and Coronal X-Ray Emission. *Chung-Chieh Cheng & Roberto Pallavicini.* 381, 234, 191-G12 (1991)

Soft X-Ray Pulses from Neutron Star Glitches. *Kenneth A. Van Riper, Richard I. Epstein, & Guy S. Miller.* 381, L47, 199-C1 (1991)

X-Ray Spectra of Cataclysmic Variables from the *Einstein Observatory*. *Michael Eracleous, Jules Halpern, & Joseph Patterson.* 382, 290, 203-G1 (1991)

Direct Evidence for Stellar Wind X-Ray Absorption in O Stars. *Wayne L. Waldron.* 382, 603, 209-A9 (1991)

The Coronal Dividing Line in the *ROSAT* X-Ray All-Sky Survey. *Bernhard Haisch, J. H. M. M. Schmitt, & C. Rosso.* 383, L15, 219-C1 (1991)

Surface Temperature of a Magnetized Neutron Star and Interpretation of the *ROSAT* Data. I. Dipolar Fields. *Dany Page.* 442, 273, 81-A1 (1995)

Frictional Heating and Neutron Star Thermal Evolution. *Kenneth A. Van Riper, Bennett Link, & Richard I. Epstein.* 448, 294, 196-C6 (1995)

SUN: ABUNDANCES

The Response of the Adiabatic Exponent Γ_1 to Modifications of Solar Models. *J. Christensen-Dalsgaard & M. J. Thompson.* 367, 666, 21-E4 (1991)

High Sensitivity of *p*-Modes near the Acoustic Cutoff Frequency to Solar Model Parameters. *D. B. Guenther.* 369, 247, 39-A5 (1991)

Solar Abundances from Gamma-Ray Spectroscopy: Comparisons with Energetic Particle, Photospheric, and Coronal Abundances. *R. J. Murphy, R. Ramaty, B. Kozlovsky, & D. V. Reames.* 371, 793, 71-D6 (1991)

The Effects of Mass Flow on the Temperature and Abundance Structure of the Solar Transition Region. *D. Tod Woods & Thomas E. Holzer.* 375, 800, 122-E7 (1991)

Accurate Oscillator Strengths of Astrophysical Interest for Neutral Oxygen. *E. Biémont, A. Hibbert, M. Godefroid, N. Vaeck, & B. C. Fawcett.* 375, 818, 122-G1 (1991)

Our Sun. II. Early Mass Loss of 0.1 $M_\odot$ and the Case of the Missing Lithium. *Arnold I. Boothroyd, I.-Juliana Sackmann, & William A. Fowler.* 377, 318, 141-G11 (1991)

The Depth of the Solar Convection Zone. *J. Christensen-Dalsgaard, D. O. Gough, & M. J. Thompson.* 378, 413, 156-B4 (1991)

The Iron-to-Calcium Abundance Ratio in the 20×10^6 K Plasma of Medium and Large Solar Flares. *K. J. H. Phillips & U. Feldman.* 379, 401, 168-A5 (1991)

Gravitational Settling in Solar Models. *Charles R. Proffitt & Georges Michaud.* 380, 238, 179-A5 (1991)

Relative Abundances in the Lower Solar Transition Region. *G. A. Doschek, K. P. Dere, & P. A. Lund.* 381, 583, 198-A1 (1991)

On the Differences in Element Abundances of Energetic Ions from Corotating Events and from Large Solar Events. *D. V. Reames, I. G. Richardson, & L. M. Barbier.* 382, L43, 205-E7 (1991)

On the Sensitivity of High-Degree *p*-Mode Frequencies to the Solar Convection Zone Helium Abundance. *Joyce A. Guzik & Arthur N. Cox.* 386, 729, 34-D1 (1992)

Variations in the Relative Elemental Abundances of Oxygen, Neon, Magnesium, and Iron in High-Temperature Solar Active-Region and Flare Plasmas. *D. L. McKenzie & U. Feldman.* 389, 764, 70-G7 (1992)

Measurement of the ^{76}Se(n, γ) Capture Cross Section and Phenomenological *s*-Process Studies: The Weak Component. *Hermann Beer, G. Walter, & F. Käppeler.* 389, 784, 71-B1 (1992)

Variable Carbon and Oxygen Abundances in the Solar Wind as Observed in Earth's Magnetosheath by *AMPTE/CCE*. *R. von Steiger, S. P. Christon, G. Gloeckler, & F. M. Ipavich.* 389, 791, 71-B10 (1992)

Composition and Azimuthal Spread of Solar Energetic Particles from Impulsive and Gradual Flares. *M.-B. Kallenrode, E. W. Cliver, & G. Wibberenz.* 391, 370, 90-D12 (1992)

The Fate of ^{7}Be in the Sun. *C. W. Johnson, E. Kolbe, S. E. Koonin, & K. Langanke.* 392, 320, 105-A1 (1992)

Element Abundances and Plasma Properties in a Coronal Polar Plume. *K. G. Widing & U. Feldman.* 392, 715, 111-B5 (1992)

Helium Diffusion in the Sun. *J. N. Bahcall & M. H. Pinsonneault.* 395, L119, 154-D7 (1992)

The He II 1640 Å Multiplet Observed from Solar Prominences. *J. M. Laming & U. Feldman.* 403, 434, 19-B11 (1993)

On the Absolute Abundance of Calcium in Solar Flares. *Alphonse C. Sterling, George A. Doschek, & Uri Feldman.* 404, 394, 32-F7 (1993)

The Abundances of Hydrogen, Helium, Oxygen, and Iron Accelerated in Large Solar Particle Events. *J. E. Mazur, G. M. Mason, B. Klecker, & R. E. McGuire.* 404, 810, 39-A8 (1993)

A Critical List of Voigt-fitted Equivalent Width Measurements Based on the Solar Flux Spectrum. *Thomas Meylan, Ingemar Furenlid, Michael S. Wiggs, & R. L. Kurucz.* 85, 163, 8-D1 (1993)

Elemental Abundances of Flaring Solar Plasma: Enhanced Neon and Sulfur. *J. T. Schmelz.* 408, 373, 87-G5 (1993)

Using Solar *p*-Modes to Determine the Convection Zone Depth and Constrain Diffusion-produced Composition Gradients. *Joyce A. Guzik & Arthur N. Cox.* 411, 394, 132-C4 (1993)

Ion Acceleration and Abundance Enhancements by Electron Beam Instabilities in Impulsive Solar Flares. *James A. Miller & Adolfo F. Viñas.* 412, 386, 146-G12 (1993)

New *f*-Values in C I and the CNO Abundances in the Sun. *E. Biémont, A. Hibbert, M. Godefroid, & N. Vaeck.* 412, 431, 147-D12 (1993)

The Significance of the Interstellar ^{7}Li/^{6}Li Ratio. *Gary Steigman.* 413, L73, 168-C12 (1993)

Elemental Abundances in the Upper Solar Atmosphere of Quiet and Coronal Hole Regions ($T_e \approx 4.3 \times 10^5$ K). *U. Feldman & K. G. Widing.* 414, 381, 174-F9 (1993)

Nonphotospheric Abundances in a Solar Active Region. *K. G. Widing & U. Feldman.* 416, 392, 206-A1 (1993)

Coronal Abundances of Neon and Magnesium Isotopes from Solar Energetic Particles. *R. S. Selesnick, A. C. Cummings, J. R. Cummings, R. A. Leske, R. A. Mewaldt, E. C. Stone, & T. T. von Rosenvinge.* 418, L45, 238-F1 (1993)

Helium-like Argon Line Emission in Solar Flares. *K. J. H. Phillips, L. K. Harra, F. P. Keenan, D. M. Zarro, & M. Wilson.* 419, 426, 251-E3 (1993)

Solar Coronal Abundances of Elements with Low First Ionization Potential: Chromium, Calcium, and Aluminum. *D. L. McKenzie & U. Feldman.* 420, 892, 14-A7 (1994)

On the Derivation of Empirical Limits on the Helium Abundance in Coronal Holes below 1.5 $R_\odot$. *Shadia Rifai Habbal & Ruth Esser.* 421, L59, 22-C5 (1994)

Energetic-Particle Abundances in Impulsive Solar Flare Events. *D. V. Reames, J. P. Meyer, & T. T. von Rosenvinge.* 90, 649, 11-G7 (1994)

Separation of Low First Ionization Potential Ions from High First Ionization Potential Neutrals in the Low Chromosphere. *R. Grant Athay.* 423, 516, 52-E5 (1994)

The Hyades Lithium Problem Revisited. *Fritz J. Swenson, John Faulkner, Forrest J. Rogers, & Carlos A. Iglesias.* 425, 286, 83-G3 (1994)

Heavy-Ion Isotopic Anomalies in ^{3}He-rich Solar Particle Events. *G. M. Mason, J. E. Mazur, & D. C. Hamilton.* 425, 843, 92-C5 (1994)

Effects of Heavy-Element Settling on Solar Neutrino Fluxes and Interior Structures. *Charles R. Proffitt.* 425, 849, 92-C13 (1994)

The Solar Abundance of Helium Determined from a Redshifted Plasma Flow over a Sunspot. *J. M. Laming & U. Feldman.* 426, 414, 101-D3 (1994)

Measuring the Helium Abundance in the Solar Envelope: The Role of the Equation of State. *H. M. Antia & Sarbani Basu.* 426, 801, 108-D9 (1994)

Coupling of the Coronal Helium Abundance to the Solar Wind. *Viggo H. Hansteen, Egil Leer, & Thomas E. Holzer.* 428, 843, 140-G1 (1994)

The Composition of a Coronal Active Region. *K. Waljeski, D. Moses, K. P. Dere, J. L. R. Saba, K. T. Strong, D. F. Webb, & D. M. Zarro.* 429, 909, 157-A5 (1994)

The Possibility of Forming an Inhomogeneous Sun and the Solar Neutrino Deficit. *E. H. Levy & T. V. Ruzmaikina.* 431, 881, 189-F1 (1994)

Iron Kβ Line Emission in Solar Flares Observed by *Yohkoh* and the Solar Abundance of Iron. *K. J. H. Phillips, C. D. Pike, J. Lang, T. Watanabe, & M. Takahashi.* 435, 888, 258-D3 (1994)

The Carbon Isotope Abundance Ratio in Comet Halley. *Marvin Kleine, Susan Wyckoff, Peter A. Wehinger, & Bruce A. Peterson.* 439, 1021, 38-F13 (1995)

A Volcanic Origin for High-FIP Material in the Solar Atmosphere. *N. R. Sheeley, Jr.* 440, 884, 55-C12 (1995)

Stellar Models with Microscopic Diffusion and Rotational Mixing. I. Application to the Sun. *Brian Chaboyer, P. Demarque, & M. H. Pinsonneault.* 441, 865, 73-G13 (1995)

Abundance Ratios of Oxygen, Neon, and Magnesium in Solar Active Regions and Flares: The FIP Effect. *K. G. Widing & U. Feldman.* 442, 446, 83-B3 (1995)

The ^{3}He/^{4}He Ratios for Solar Energetic Particle Events during the *Combined Release and Radiation Effects Satellite* Mission. *Jiasheng Chen, T. Gregory Guzik, & John P. Wefel.* 442, 875, 92-C1 (1995)

Absolute Abundances of Flaring Coronal Plasma Derived from *SMM* Spectral Observations. *A. Fludra & J. T. Schmelz.* 447, 936, 188-G1 (1995)

Early Solar Mass Loss, Element Diffusion, and Solar Oscillation Frequencies. *Joyce A. Guzik & Arthur N. Cox.* 448, 905, 207-D7 (1995)

Solar ^{3}He-rich Events and Ion Acceleration in Two Stages. *T. X. Zhang.* 449, 916, 225-D6 (1995)

Differential Emission Measure and Iron-to-Calcium Abundance in Solar Flare Plasmas. *Ester Antonucci & Renato Martin.* 451, 402, 251-D6 (1995)

Charge State Measurements of Solar Energetic Particles Observed with *SAMPEX*. *G. M. Mason, J. E. Mazur, M. D. Looper, & R. A. Mewaldt.* 452, 901, 277-B7 (1995)

Gamma-Ray Measurements of Flare-to-Flare Variations in Ambient Solar Abundances. *Gerald H. Share & Ronald J. Murphy.* 452, 933, 277-E4 (1995)

New and Alternative Line Identifications in Solar Chromospheric and Photospheric Spectra. *S. O. Kastner.* 100, 473, 52-D13 (1995)

Fractionation of Xe, Kr, and Ar in the Solar Corpuscular Radiation Deduced by Closed System Etching of Lunar Soils. *Rainer Wieler & Heinrich Baur.* 453, 987, 297-E7 (1995)

Solar Atmopheric Abundances and Energy Content in Flare Accelerated Ions from Gamma-Ray Spectroscopy. *Reuven Ramaty, Natalie Mandzhavidze, Benzion Kozlovsky, & Ronald J. Murphy.* 455, L193, 335-A4 (1995)

SUN: ACTIVITY

Solar Cycle Variation of the Interplanetary Magnetic Field Spiral. *Charles W. Smith & John W. Bieber.* 370, 435, 52-F4 (1991)

A Search for the 154 Day Periodicity in the Occurrence Rate of Solar Flares Using Ottawa 2.8 GHz Burst Data, 1955–1990. *J. N. Kile & E. W. Cliver.* 370, 442, 52-F13 (1991)

Solar Radio Microbursts at 1.4 GHz. *T. S. Bastian.* 370, L49, 53-F11 (1991)

Solar-Cycle Modulation of Event Rates in the Chlorine Solar Neutrino Experiment. *John N. Bahcall & William H. Press.* 370, 730, 57-E1 (1991)

The Magnetic Network Location of Explosive Events Observed in the Solar Transition Region. *J. G. Porter & K. P. Dere.* 370, 775, 58-A11 (1991)

Dynamic Magnetic Reconnection at an X-Type Neutral Point. *I. J. D. Craig & A. N. McClymont.* 371, L41, 66-F1 (1991)

Evidence for a 250 Second Brightness Oscillation at 1600 Å in the Solar Temperature Minimum Region. *J. W. Cook & J. A. Ewing.* 371, 804, 71-E5 (1991)

Cosmic-Ray Diurnal Anisotropy, 1936–1988: Implications for Drift and Modulation Theories. *John W. Bieber & Jiasheng Chen.* 372, 301, 77-F4 (1991)

Line-blanketing Variations in the Irradiance Spectrum of the Sun from Maximum to Minimum of the Solar Cycle. *W. E. Mitchell, Jr., & W. C. Livingston.* 372, 336, 78-B6 (1991)

Solar Modulation of Cosmic Electrons: Evidence for Dynamic Regulation. *Evelyn Tuska, Paul Evenson, & Peter Meyer.* 373, L27, 91-D1 (1991)

Short-Term Changes in Solar Oscillation Frequencies and Solar Activity. *M. F. Woodard, J. R. Kuhn, N. Murray, & K. G. Libbrecht.* 373, L81, 97-F12 (1991)

Polar Faculae: 1906–1990. *N. R. Sheeley, Jr.* 374, 386, 102-G11 (1991)

The Stretching of Magnetic Flux Tubes in the Convective Overshoot Region. *George H. Fisher, Alexander N. McClymont, & Dean-Yi Chou.* 374, 766, 108-E10 (1991)

Is There an Acoustic Resonance in the Solar Chromosphere? *M. F. Woodard & K. G. Libbrecht.* 374, L61, 110-E1 (1991)

Magnetic Flux Transport and the Sun's Dipole Moment: New Twists to the Babcock-Leighton Model. *Y.-M. Wang & N. R. Sheeley, Jr.* 375, 761, 122-B5 (1991)

Avalanches and the Distribution of Solar Flares. *Edward T. Lu & Russell J. Hamilton.* 380, L89, 188-F5 (1991)

Nonfacular Solar Luminosity Variations. *J. R. Kuhn & K. G. Libbrecht.* 381, L35, 194-E1 (1991)

Signatures of Cosmic-Ray Interactions on the Solar Surface. *D. Seckel, Todor Stanev, & T. K. Gaisser.* 382, 652, 209-F8 (1991)

A New Solar Cycle Model Including Meridional Circulation. *Y.-M. Wang, N. R. Sheeley, Jr., & A. G. Nash.* 383, 431, 217-F1 (1991)

New Information on Solar Activity, 1779–1818, from Sir William Herschel's Unpublished Notebooks. *Douglas V. Hoyt & Kenneth H. Schatten.* 384, 361, 5-D9 (1992)

Sir William Herschel's Notebooks: Abstracts of Solar Observations. *Douglas V. Hoyt & Kenneth H. Schatten.* 78, 301, 5-G9 (1992)

The Simulated Features of Heliospheric Cosmic-Ray Modulation with a Time-dependent Drift Model. I. General Effects of the Changing Neutral Sheet over the Period 1985–1990. *M. S. Potgieter & J. A. Le Roux.* 386, 336, 28-D4 (1992)

Superevents: Their Origin and Propagation through the Heliosphere from 0.3 to 35 AU. *Wolfgang Dröge, Reinhold Müller-Mellin, & Edward W. Cliver.* 387, L97, 48-E10 (1992)

The 77 Day Periodicity in the Flare Rate of Cycle 22. *T. Bai.* 388, L69, 59-D3 (1992)

Large-Scale Flows and Solar Luminosity Variations. *S. Arendt.* 389, 421, 65-B6 (1992)

Solar Active Regions as a Percolation Phenomenon. *Donat G. Wentzel & Philip E. Seiden.* 390, 280, 77-D10 (1992)

Spatially Extended Measurements of Magnetic Field Strength in Solar Plages. *Douglas Rabin.* 391, 832, 98-C6 (1992)

The Simulated Features of Heliospheric Cosmic-Ray Modulation with a Time-dependent Drift Model. III. General Energy Dependence. *M. S. Potgieter & J. A. Le Roux.* 392, 300, 104-F5 (1992)

On the Differences between Plage and Quiet Sun in the Solar Photosphere. *Alan M. Title, Kenneth P. Topka, Theodore D. Tarbell, Wolfgang Schmidt, Christiaan Balke, & Göran Scharmer.* 393, 782, 125-E1 (1992)

Predicting Wolf's Sunspot Numbers with and without the Assumption of Periodicity. *Patricia B. Cerrito.* 393, 795, 125-G1 (1992)

The *Galileo* and *Pioneer Venus* Ultraviolet Spectrometer Experiments: Solar Lyman-α Latitude Variation at Solar Maximum from Interplanetary Lyman-α Observations. *W. R. Pryor, J. M. Ajello, C. A. Barth, C. W. Hord, A. I. F. Stewart, K. E. Simmons, W. E. McClintock, B. R. Sandel, & D. E. Shemansky.* 394, 363, 132-D11 (1992)

Multiple Periodicities in the Solar Magnetic Field: Possible Origin in a Multiple-Mode Solar Dynamo. *D. W. Boyer & E. H. Levy.* 396, 340, 159-C6 (1992)

Search for Evidence of a Clock Related to the Solar 154 Day Complex of Periodicities. *P. A. Sturrock & T. Bai.* 397, 337, 172-A13 (1992)

Methods of Periodicity Analysis: Relationship between the Rayleigh Analysis and a Maximum Likelihood Method. *T. Bai.* 397, 584, 178-C6 (1992)

The Simulated Features of Heliospheric Cosmic-Ray Modulation with a Time-dependent Drift Model. IV. The Role of Heliospheric Neutral Sheet Deformation. *J. A. Le Roux & M. S. Potgieter.* 397, 686, 179-E11 (1992)

Pervasive Variability in the Quiet Solar Transition Region. *Douglas Rabin & James F. Dowdy, Jr.* 398, 665, 192-D1 (1992)

Three-dimensional Structures of Magnetostatic Atmospheres. IV. Magnetic Structures over a Solar Active Region. *B. C. Low.* 399, 300, 199-A6 (1992)

Solar Activity and Oscillation Frequency Splittings. *M. F. Woodard & K. G. Libbrecht.* 402, L77, 13-B1 (1993)

The Distant Future of Solar Activity: A Case Study of β Hydri. I. Stellar Evolution, Lithium Abundance, and Photospheric Structure. *D. Dravins, L. Lindegren, Å. Nordlund, & D. A. VandenBerg.* 403, 385, 18-E10 (1993)

The Role of Merged Interaction Regions and Drifts in the Heliospheric Modulation of Cosmic Rays beyond 20 AU: A Computer Simulation. *M. S. Potgieter, J. A. Le Roux, L. F. Burlaga, & F. B. McDonald.* 403, 760, 25-C1 (1993)

On the North-South Asymmetry of Solar Activity Cycles. *V. K. Verma.* 403, 797, 25-G1 (1993)

Variability of the Occurrence Frequency of Solar Flares as a Function of Peak Hard X-Ray Rate. *T. Bai.* 404, 805, 39-A1 (1993)

Cosmic-Ray Anisotropies and Gradients in Three Dimensions. *Jiasheng Chen & John W. Bieber.* 405, 375, 45-G3 (1993)

The Origin of Morphological Asymmetries in Bipolar Active Regions. *Y. Fan, G. H. Fisher, & E. E. DeLuca.* 405, 390, 46-A7 (1993)

Normal Incidence X-Ray Telescope Power Spectra of X-Ray Emission from Solar Active Regions. I. Observations. *Daniel O. Gómez, Petrus C. H. Martens, & Leon Golub.* 405, 767, 52-E9 (1993)

Normal Incidence X-Ray Telescope Power Spectra of X-Ray Emission from Solar Active Regions. II. Theory. *Daniel O. Gómez, Petrus C. H. Martens, & Leon Golub.* 405, 773, 52-F3 (1993)

The Morphology of Flare Phenomena, Magnetic Fields, and Electric Currents in Active Regions. I. Introduction and Methods. *Richard C. Canfield, J.-F. de La Beaujardière, Yuhong Fan, K. D. Leka, A. N. McClymont, Thomas R. Metcalf, Donald L. Mickey, Jean-Pierre Wülser, & Bruce W. Lites.* 411, 362, 131-G1 (1993)

The Morphology of Flare Phenomena, Magnetic Fields, and Electric Currents in Active Regions. II. NOAA Active Region 5747 (1989 October). *K. D. Leka, Richard C. Canfield, A. N. McClymont, J.-F. de La Beaujardière, Yuhong Fan, & F. Tang.* 411, 370, 131-G12 (1993)

The Morphology of Flare Phenomena, Magnetic Fields, and Electric Currents in Active Regions. III. NOAA Active Region 6233 (1990 August). *J.-F. de La Beaujardière, Richard C. Canfield, & K. D. Leka.* 411, 378, 132-A10 (1993)

p-Mode Frequency Variation in Relation to Global Solar Activity. *Kurt T. Bachmann & Timothy M. Brown.* 411, L45, 134-C1 (1993)

Do *p*-Mode Frequency Shifts Suggest a Hotter Chromosphere at Solar Maximum? *Rekha Jain & B. Roberts.* 414, 898, 182-D12 (1993)

Understanding the Rotation of Coronal Holes. *Y.-M. Wang & N. R. Sheeley, Jr.* 414, 916, 182-F7 (1993)

The Center-to-Limb Brightness Variation of the Sun at $\lambda = 850$ Microns. *T. S. Bastian, M. W. Ewell, Jr., & H. Zirin.* 415, 364, 189-D13 (1993)

Nonphotospheric Abundances in a Solar Active Region. *K. G. Widing & U. Feldman.* 416, 392, 206-A1 (1993)

Magnetospheres of Solar Active Regions Inferred from Spectral-Polarization Observations with High Spatial Resolution. *K. R. Lang, R. F. Willson, J. N. Kile, J. Lemen, K. T. Strong, V. L. Bogod, G. B. Gelfreikh, B. I. Ryabov, S. R. Hafizov, V. E. Abramov, & S. V. Svetkov.* 419, 398, 251-B7 (1993)

Coronal Temperature, Density, and Magnetic Field Maps of a Solar Active Region Using the Owens Valley Solar Array. *Dale E. Gary & G. J. Hurford.* 420, 903, 14-B6 (1994)

The Correlation of Solar Flare Hard X-Ray Bursts with Doppler Blueshifted Soft X-Ray Flare Emission. *R. D. Bentley, G. A. Doschek, G. M. Simnett, M. L. Rilee, J. T. Mariska, J. L. Culhane, T. Kosugi, & T. Watanabe.* 421, L55, 22-B13 (1994)

Interactions between Nested Sunspots. I. The Formation and Breakup of a Delta-Type Sunspot. *V. Gaizauskas, K. L. Harvey, & M. Proulx.* 422, 883, 42-G6 (1994)

Morphology of Active Region Transient Brightenings with the *Yohkoh* Soft X-Ray Telescope. *Toshifumi Shimizu, Saku Tsuneta, Loren W. Acton, James R. Lemen, Yoshiaki Ogawara, & Yutaka Uchida.* 422, 906, 43-B13 (1994)

Separation of Low First Ionization Potential Ions from High First Ionization Potential Neutrals in the Low Chromosphere. *R. Grant Athay.* 423, 516, 52-E5 (1994)

The Long-Term Heliospheric Modulation of Galactic Cosmic Rays according to a Time-dependent Drift Model with Merged Interaction Regions. *M. S. Potgieter & J. A. Le Roux.* 423, 817, 58-G6 (1994)

Extreme Ultraviolet Spectrum of a Solar Active Region from SERTS. *Roger J. Thomas & Werner M. Neupert.* 91, 461, 24-G4 (1994)

The Inclination of Network Magnetic Fields. *J. Sánchez Almeida & V. Martínez Pillet.* 424, 1014, 77-D7 (1994)

Nonthermal Radio Emission Associated with a Coronal Disconnection Event. *N. Gopalswamy, M. R. Kundu, & O. C. St. Cyr.* 424, L135, 79-F3 (1994)

Comparison between Cool and Hot Plasma Behaviors of Surges. *B. Schmieder, L. Golub, & S. K. Antiochos.* 425, 326, 84-C6 (1994)

VLA Stereoscopy of Solar Active Regions. I. Method and Tests. *Markus J. Aschwanden & T. S. Bastian.* 426, 425, 101-E2 (1994)

VLA Stereoscopy of Solar Active Regions. II. Altitude, Relative Motion, and Center-to-Limb Darkening of 20 Centimeter Emission. *Markus J. Aschwanden & T. S. Bastian.* 426, 434, 101-E13 (1994)

Nonthermal Processes in Flaring X-Ray–bright Points. *M. R. Kundu, K. T. Strong, M. Pick, S. M. White, H. S. Hudson, K. L. Harvey, & S. R. Kane.* 427, L59, 118-A1 (1994)

A Method of Determining Possible Brightness Variations of the Sun in Past Centuries from Observations of Solar-Type Stars. *Q. Zhang, W. H. Soon, S. L. Baliunas, G. W. Lockwood, B. A. Skiff, & R. R. Radick.* 427, L111, 127-D3 (1994)

Electric Currents and Coronal Heating in NOAA Active Region 6952. *T. R. Metcalf, R. C. Canfield, H. S. Hudson, D. L. Mickey, J.-P. Wülser, P. C. H. Martens, & S. Tsuneta.* 428, 860, 141-A10 (1994)

The Composition of a Coronal Active Region. *K. Waljeski, D. Moses, K. P. Dere, J. L. R. Saba, K. T. Strong, D. F. Webb, & D. M. Zarro.* 429, 909, 157-A5 (1994)

The Determination of Electron Densities in the Solar Atmosphere from the 1718.56 Å/1486.51 Å Emission-Line Ratio in N IV. *F. P. Keenan, L. K. Harra, G. A. Doschek, & J. W. Cook.* 432, 806, 206-A10 (1994)

Variation of the Frequencies of Very Low l p-Modes. *C. Régulo, A. Jiménez, P. L. Pallé, F. Pérez Hernández, & T. Roca Cortés.* 434, 384, 230-G4 (1994)

Solar p-Mode Frequencies and Their Dependence on Solar Activity: Recent Results from the BISON Network. *Y. Elsworth, R. Howe, G. R. Isaak, C. P. McLeod, B. A. Miller, R. New, C. C. Speake, & S. J. Wheeler.* 434, 801, 239-A1 (1994)

The Rotation of the Solar Core. *Antonio Jiménez, Fernando Pérez Hernández, Antonio Claret, Pere LLuis Pallé, Clara Régulo, & Teodoro Roca Cortés.* 435, 874, 258-B10 (1994)

Dynamics of Emerging Active Region Flux Loops. *Y. Fan, G. H. Fisher, & A. N. McClymont.* 436, 907, 278-B13 (1994)

Transient Microwave Brightenings in Solar Active Regions: Comparison between VLA and *Yohkoh* Observations. *N. Gopalswamy, T. E. W. Payne, E. J. Schmahl, M. R. Kundu, J. R. Lemen, K. T. Strong, R. C. Canfield, & J. de La Beaujardiere.* 437, 522, 290-C3 (1994)

On the Correlation of Solar Surface Magnetic Flux with Solar Neutrino Capture Rate. *David S. Oakley, Herschel B. Snodgrass, Roger K. Ulrich, & Toni L. VanDeKop.* 437, L63, 292-C7 (1994)

The Role of Photospheric Magnetic Fields in the Variation of Solar Oscillation Eigenfrequencies. *C. S. Rosenthal.* 438, 434, 7-D13 (1995)

Comparisons between Theory and Observation of Active Region Tilts. *G. H. Fisher, Y. Fan, & R. F. Howard.* 438, 463, 8-A1 (1995)

Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. II. The Origin of Enhanced Solar Irradiance. *E. N. Parker.* 440, 415, 47-A1 (1995)

A Volcanic Origin for High-FIP Material in the Solar Atmosphere. *N. R. Sheeley, Jr.* 440, 884, 55-C12 (1995)

A Measurement of the Background Solar Velocity Spectrum. *P. L. Pallé, A. Jiménez, F. Pérez Hernández, C. Régulo, T. Roca Cortés, & L. Sánchez.* 441, 952, 75-A9 (1995)

Abundance Ratios of Oxygen, Neon, and Magnesium in Solar Active Regions and Flares: The FIP Effect. *K. G. Widing & U. Feldman.* 442, 446, 83-B3 (1995)

The Simulation of Complete 11 and 22 Year Modulation Cycles for Cosmic Rays in the Heliosphere Using a Drift Model with Global Merged Interaction Regions. *J. A. le Roux & M. S. Potgieter.* 442, 847, 91-G3 (1995)

An Estimate of the Location of the Modulation Boundary for $E > 70$ MeV Galactic Cosmic Rays Using *Voyager* and *Pioneer* Spacecraft Data. *J. A. Lockwood & W. R. Webber.* 442, 852, 91-G12 (1995)

Uncertainties for Two-dimensional Models of Solar Rotation from Helioseismic Eigenfrequency Splitting. *Christopher R. Genovese, Philip B. Stark, & Michael J. Thompson.* 443, 843, 109-D13 (1995)

Ultraviolet Observations of the Structure and Dynamics of an Active Region at the Limb. *C. M. Korendyke, K. P. Dere, D. G. Socker, G. E. Brueckner, & B. Schmieder.* 443, 869, 109-G10 (1995)

Neural Network Prediction of Solar Activity. *R. A. Calvo, H. A. Ceccatto, & R. D. Piacentini.* 444, 916, 129-A8 (1995)

Optical Diagnostics of Coronal Loop Interactions. *Vladimir S. Airapetian & Raymond N. Smartt.* 445, 489, 139-C6 (1995)

Reduction, Analysis, and Properties of Electric Current Systems in Solar Active Regions. *G. Allen Gary & Pascal Démoulin.* 445, 982, 148-G12 (1995)

The Statistical Physics of Solar Active Regions and the Fundamental Nature of Solar Flares. *Edward T. Lu.* 446, L109, 171-E3 (1995)

Detection of Nonthermal Radio Emission from Coronal X-Ray Jets. *M. R. Kundu, J. P. Raulin, N. Nitta, H. S. Hudson, M. Shimojo, K. Shibata, & A. Raoult.* 447, L135, 191-D7 (1995)

The Radio Properties of Solar Active Region Soft X-Ray Transient Brightenings. *S. M. White, M. R. Kundu, T. Shimizu, K. Shibasaki, & S. Enome.* 450, 435, 234-A5 (1995)

Are Variations in the Length of the Activity Cycle Related to Changes in Brightness in Solar-Type Stars? *Sallie Baliunas & Willie Soon.* 450, 896, 243-C8 (1995)

Coronal Plumes and Their Relationship to Network Activity. *Y.-M. Wang & N. R. Sheeley, Jr.* 452, 457, 268-D1 (1995)

Observed Redshifts in the Solar Transition Region above Active and Quiet Regions. *H. Achour, P. Brekke, O. Kjeldseth-Moe, & P. Maltby.* 453, 945, 297-A9 (1995)

Soft X-Ray Loops and Coronal Heating. *Lisa J. Porter & James A. Klimchuk.* 454, 499, 306-B10 (1995)

Solar Rotation Stereoscopy in Microwaves. *Markus J. Aschwanden, Jeremy Lim, Dale E. Gary, & James A. Klimchuk.* 454, 512, 306-C12 (1995)

New Observations of Subarcsecond Photospheric Bright Points. *T. E. Berger, C. J. Schrijver, R. A. Shine, T. D. Tarbell, A. M. Title, & G. Scharmer.* 454, 531, 306-E11 (1995)

Turbulent and Chaotic Dynamics Underlying Solar Magnetic Variability. *J. K. Lawrence, A. C. Cadavid, & A. A. Ruzmaikin.* 455, 366, 323-B9 (1995)

SUN: ATMOSPHERE

Magnetoatmospheric Oscillations in Sunspot Umbrae. *S. S. Hasan.* 366, 328, 5-B7 (1991)

High Sensitivity of *p*-Modes near the Acoustic Cutoff Frequency to Solar Model Parameters. *D. B. Guenther.* 369, 247, 39-A5 (1991)

Non-Maxwellian Electron Distributions in Models of the Solar Atmosphere. *P. MacNeice, J. Fontenla, & N. N. Ljepojevic.* 369, 544, 44-E1 (1991)

Wavelength Variation of *p*-Mode Intensity Fluctuations. *R. S. Ronan, J. W. Harvey, & T. L. Duvall, Jr.* 369, 549, 44-E9 (1991)

On the Thermal Stability of Slabs, Cylinders, and Spheres. *Miguel H. Ibáñez S., & Florencio P. Plachco M.* 370, 743, 57-F1 (1991)

High-Resolution Studies of the Structure of the Solar Atmosphere Using a New Imaging Algorithm. *Margarita Karovska & Shadia Rifai Habbal.* 371, 402, 65-B1 (1991)

Line-blanketing Variations in the Irradiance Spectrum of the Sun from Maximum to Minimum of the Solar Cycle. *W. E. Mitchell, Jr., & W. C. Livingston.* 372, 336, 78-B6 (1991)

Temperature-dependent Saturation of Hydrogen Lines in Solar Flares. *K. G. Gayley.* 374, 773, 108-F5 (1991)

Energy Balance in the Solar Transition Region. II. Effects of Pressure and Energy Input on Hydrostatic Models. *J. M. Fontenla, E. H. Avrett, & R. Loeser.* 377, 712, 148-E1 (1991)

Multicolor Continuum Analysis of the Solar Granulation in Quiet and Active Regions. *C. U. Keller & S. Koutchmy.* 379, 751, 174-B1 (1991)

Formation of the Infrared Emission Lines of Mg I in the Solar Atmosphere. *E. S. Chang, E. H. Avrett, P. J. Mauas, R. W. Noyes, & R. Loeser.* 379, L79, 175-E1 (1991)

Propagation of Magnetoacoustic Waves in the Solar Atmosphere with Random Inhomogeneities of Density and Magnetic Fields. *M. Ryutova, M. Kaisig, & T. Tajima.* 380, 268, 179-D1 (1991)

Localized Excitation of Solar Oscillations. *Philip R. Goode, Douglas Gough, & Alexander Kosovichev.* 387, 707, 47-E1 (1992)

Alfvén Wave Transmission through the Solar Atmosphere. *Philippe L. Similon & Shahrokh Zargham.* 388, 644, 58-C1 (1992)

On the Differences between Plage and Quiet Sun in the Solar Photosphere. *Alan M. Title, Kenneth P. Topka, Theodore D. Tarbell, Wolfgang Schmidt, Christiaan Balke, & Göran Scharmer.* 393, 782, 125-E1 (1992)

Limb Observations of the 12.32 Micron Solar Emission Line during the 1991 July Total Eclipse. *Drake Deming, Donald E. Jennings, George McCabe, Robert Noyes, Gunter Wiedemann, & Fred Espenak.* 396, L53, 161-A6 (1992)

The Role of Chromospheric Condensations in the Continuum Emission of White-Light Flares. *W. Q. Gan, E. Rieger, H. Q. Zhang, & C. Fang.* 397, 694, 179-F8 (1992)

Siphon Flows in Isolated Magnetic Flux Tubes. V. Radiative Flows with Variable Ionization. *Benjamin Montesinos & John H. Thomas.* 402, 314, 5-A13 (1993)

The Kelvin-Helmholtz Instability in Photospheric Flows: Effects on Coronal Heating and Structure. *Judith T. Karpen, Spiro K. Antiochos, Russell B. Dahlburg, & Daniel S. Spicer.* 403, 769, 25-C13 (1993)

A Numerical Simulation of Two-dimensional Radiative Equilibrium in Magnetostatic Flux Tubes. I. The Model. *V. J. Pizzo, K. B. MacGregor, & P. B. Kunasz.* 404, 788, 38-F10 (1993)

Measurement of *p*-Mode Energy Propagation in the Quiet Solar Photosphere. *J. M. Fontenla, D. Rabin, D. H. Hathaway, & R. L. Moore.* 405, 787, 52-G8 (1993)

A Critical List of Voigt-fitted Equivalent Width Measurements Based on the Solar Flux Spectrum. *Thomas Meylan, Ingemar Furenlid, Michael S. Wiggs, & R. L. Kurucz.* 85, 163, 8-D1 (1993)

Ionization Effects in Three-dimensional Solar Granulation Simulations. *Mark P. Rast, Åke Nordlund, Robert F. Stein, & Juri Toomre.* 408, L53, 89-D11 (1993)

Observation of Impulsive Acoustic Events and the Excitation of Solar Oscillations. *Sergio R. Restaino, Robin T. Stebbins, & Philip R. Goode.* 408, L57, 89-E9 (1993)

Three-dimensional Structures of Magnetostatic Atmospheres. V. Coupled Electric Current Systems. *B. C. Low.* 408, 689, 93-G1 (1993)

Three-dimensional Structures of Magnetostatic Atmospheres. VI. Examples of Coupled Electric Current Systems. *B. C. Low.* 408, 693, 93-G7 (1993)

Is It Justified to Assume that "Everywhere in the Sun's Photosphere-Corona Domain the Electric Conductivity Is High"?; or, What Drives the Solar Upper Atmosphere? *Uri Feldman.* 411, 896, 141-A5 (1993)

The Sunspot Transition Region: Where Are the Bright Plumes and the Downflows? *Joseph B. Gurman.* 412, 865, 154-E13 (1993)

A Numerical Simulation of Two-dimensional Radiative Equilibrium in Magnetostatic Flux Tubes. II. Computational Results. *V. J. Pizzo, K. B. MacGregor, & P. B. Kunasz.* 413, 764, 166-A1 (1993)

Three-dimensional Magnetohydrodynamics of the Emerging Magnetic Flux in the Solar Atmosphere. *R. Matsumoto, T. Tajima, K. Shibata, & M. Kaisig.* 414, 357, 174-D8 (1993)

The White-Light Flare of 1982 June 15: A Midchromospheric Kernel. *Pablo J. D. Mauas.* 414, 928, 182-G10 (1993)

The Source of 5 Minute Period Photospheric Umbral Oscillations. *M. J. Penn & B. J. LaBonte.* 415, 383, 189-F7 (1993)

Limits on Coronal Reflection Using High-Frequency Solar Oscillations. *P. Kumar, M. A. Fardal, S. M. Jefferies, T. L. Duvall, Jr., J. W. Harvey, & M. A. Pomerantz.* 422, L29, 36-E5 (1994)

On Sound Generation by Turbulent Convection: A New Look at Old Results. *Z. E. Musielak, R. Rosner, R. F. Stein, & P. Ulmschneider.* 423, 474, 52-A13 (1994)

The Solar *f*-Mode as an Interfacial Mode at the Chromosphere-Corona Transition. *C. S. Rosenthal & D. O. Gough.* 423, 488, 52-C1 (1994)

Solar Flare Model Atmospheres. *Suzanne L. Hawley & George H. Fisher.* 426, 387, 101-A9 (1994)

Properties of Acoustic Sources in the Sun. *Pawan Kumar.* 428, 827, 140-E7 (1994)

Optical Spectra and Semi-Empirical Model of a White-Light Flare. *M. D. Ding, C. Fang, W. Q. Gan, & T. Okamoto.* 429, 890, 156-F9 (1994)

Atmospheric Heating in Solar Flares by Chromospheric Condensation. *W. Q. Gan & P. J. D. Mauas.* 430, 891, 173-A11 (1994)

New Radiometric Values of the Solar Ultraviolet Continuum Radiation from 1500 to 1700 Å. *P. Brekke & O. Kjeldseth-Moe.* 431, L55, 183-B1 (1994)

Imaging Spectroscopy of the Solar CO Lines at 4.67 Microns. *Han Uitenbroek, R. W. Noyes, & Douglas Rabin.* 432, L67, 200-B5 (1994)

The Determination of Electron Densities in the Solar Atmosphere from the 1718.56 Å/1486.51 Å Emission-Line Ratio in N IV. *F. P. Keenan, L. K. Harra, G. A. Doschek, & J. W. Cook.* 432, 806, 206-A10 (1994)

The Formation of the Solar He II 1640.4 Å Emission Line. *Cathrine Wahlstrøm & Mats Carlsson.* 433, 417, 213-E1 (1994)

Equilibrium Structure of Solar Magnetic Flux Tubes: Energy Transport with Multistream Radiative Transfer. *S. S. Hasan & W. Kalkofen.* 436, 355, 266-B7 (1994)

Near-Infrared Emission-Line and Continuum Observations from the 1991 Eclipse. *M. J. Penn, J. Arnaud, D. L. Mickey, & B. J. LaBonte.* 436, 368, 266-C9 (1994)

On the Temperature and Velocity through the Photosphere of a Sunspot Penumbra. *J. C. del Toro Iniesta, T. D. Tarbell, & B. Ruiz Cobo.* 436, 400, 266-G8 (1994)

A Measurement of the Background Solar Velocity Spectrum. *P. L. Pallé, A. Jiménez, F. Pérez Hernández, C. Régulo, T. Roca Cortés, & L. Sánchez.* 441, 952, 75-A9 (1995)

Modeling of Shallow and Inefficient Convection in the Outer Layers of the Sun Using Realistic Physics. *Yong-Cheol Kim, Peter A. Fox, Sabatino Sofia, & Pierre Demarque.* 442, 422, 82-G1 (1995)

Acoustic Wave Propagation in the Solar Atmosphere. I. Rediscussion of the Linearized Theory Including Nonstationary Solutions. *Zhengzhi Wang, Roger K. Ulrich, & Ferdinand V. Coroniti.* 444, 879, 128-E10 (1995)

Sun Center Observations of the Evershed Effect. *Thomas R. Rimmele.* 445, 511, 139-E11 (1995)

The Possible Ascent of a Closed Magnetic System through the Photosphere. *B. W. Lites, B. C. Low, V. Martínez Pillet, P. Seagraves, A. Skumanich, Z. A. Frank, R. A. Shine, & S. Tsuneta.* 446, 877, 168-B13 (1995)

Vorticity and Divergence in the Solar Photosphere. *Yi Wang, Robert W. Noyes, Theodore D. Tarbell, & Alan M. Title.* 447, 419, 178-C1 (1995)

The Effects on Mass Flows on the Dissipation of Alfvén Waves in the Upper Layers of the Solar Atmosphere. *Margarita P. Ryutova & Shadia R. Habbal.* 451, 381, 251-B7 (1995)

The Influence of a Vertical Magnetic Field on Oscillations in an Isothermal Stratified Atmosphere. II. *Dipankar Banerjee, S. S. Hasan, & J. Christensen-Dalsgaard.* 451, 825, 258-E11 (1995)

New and Alternative Line Identifications in Solar Chromospheric and Photospheric Spectra. *S. O. Kastner.* 100, 473, 52-D13 (1995)

SUN: ATMOSPHERIC MOTIONS

The Magnetic Network Location of Explosive Events Observed in the Solar Transition Region. *J. G. Porter & K. P. Dere.* 370, 775, 58-A11 (1991)

The Source of Solar High-Frequency Acoustic Modes: Theoretical Expectations. *Timothy M. Brown.* 371, 396, 65-A5 (1991)

An Ultraviolet Spectral Atlas of a Sunspot and an Active Region 1190–1730 Å. *P. Brekke, O. Kjeldseth-Moe, J.-D. F. Bartoe, & G. E. Brueckner.* 75, 1337, 23-C1 (1991)

Power Spectra of Solar Convection. *D.-Y. Chou, B. J. LaBonte, D. C. Braun, & T. L. Duvall, Jr.* 372, 314, 77-G5 (1991)

Systematic Radial Flows in the Chromosphere, Transition Region, and Corona of the Quiet Sun. *Donald M. Hassler, Gary J. Rottman, & Frank Q. Orrall.* 372, 710, 84-E1 (1991)

Siphon Flows in Isolated Magnetic Flux Tubes. IV. Critical Flows with Standing Tube Shocks. *John H. Thomas & Benjamin Montesinos.* 375, 404, 115-G11 (1991)

Modeling Mesogranules and Exploders on the Solar Surface. *G. W. Simon, A. M. Title, & N. O. Weiss.* 375, 775, 122-C7 (1991)

The Effects of Mass Flow on the Temperature and Abundance Structure of the Solar Transition Region. *D. Tod Woods & Thomas E. Holzer.* 375, 800, 122-E7 (1991)

Motions, Fields, and Flares in the 1989 March Active Region. *Haimin Wang, Frances Tang, Harold Zirin, & Guoxiang Ai.* 380, 282, 179-E1 (1991)

Velocity Gradients in the Chromosphere-Corona Transition Region. *R. Grant Athay & K. P. Dere.* 381, 323, 193-A6 (1991)

SUN: CHROMOSPHERE

A Study of Solar Flare Energy Transport Based on Coordinated Hα and X-Ray Observations. *Richard C. Canfield, Dominic M. Zarro, Jean-Pierre Wülser, & Brian R. Dennis.* 367, 671, 21-E11 (1991)

Analysis of the Solar O II/O III Multiplets at 834 Å: Implications for the Emission Measure Distribution in the Vicinity of 40,000 K. *R. R. Meier, K. G. Widing, & U. Feldman.* 369, 570, 44-G7 (1991)

The Microwave Brightness Temperature Spectrum of the Quiet Sun. *H. Zirin, B. M. Baumert, & G. J. Hurford.* 370, 779, 58-B12 (1991)

The Sensitivity of Chromospherically Induced *p*- and *f*-Mode Frequency Shifts to the Height of the Magnetic Canopy. *David J. Evans & B. Roberts.* 371, 387, 64-G9 (1991)

Systematic Radial Flows in the Chromosphere, Transition Region, and Corona of the Quiet Sun. *Donald M. Hassler, Gary J. Rottman, & Frank Q. Orrall.* 372, 710, 84-E1 (1991)

Is There an Acoustic Resonance in the Solar Chromosphere? *M. F. Woodard & K. G. Libbrecht.* 374, L61, 110-E1 (1991)

Chromospheric and Transition Region Diagnostics Using Emission-Line Intensities. *R. Grant Athay & K. P. Dere.* 379, 776, 174-D1 (1991)

Inferring Chromospheric Flare Heating from Hydrogen-Line Wings. *K. G. Gayley & R. C. Canfield.* 380, 660, 186-D1 (1991)

Submillimeter Solar Limb Profiles Determined from Observations of the Total Solar Eclipse of 1988 March 18. *T. L. Roellig, E. E. Becklin, J. T. Jefferies, G. A. Kopp, C. A. Lindsey, F. Q. Orrall, & M. W. Werner.* 381, 288, 192-E5 (1991)

Magnetoacoustic Heating of the Solar Chromosphere. *Joseph M. Davila & S. M. Chitre.* 381, L31, 194-D12 (1991)

The Solar Chromospheric Supergranular Network in 850 Micron Radiation. *Charles A. Lindsey & John T. Jefferies.* 383, 443, 217-G1 (1991)

Energetics and Dynamics in a Large Solar Flare of 1989 March. *Jean-Pierre Wülser, Dominic M. Zarro, & Richard C. Canfield.* 384, 341, 5-B13 (1992)

A Burst Model for Line Emission in the Solar Atmosphere. I. XUV Lines of He I and He II in Impulsive Flares. *J. M. Laming & U. Feldman.* 386, 364, 28-F8 (1992)

Chromospheric Dynamics Based on Infrared Solar Brightness Variations. *G. Kopp, C. Lindsey, T. L. Roellig, M. W. Werner, E. E. Becklin, F. Q. Orrall, & J. T. Jefferies.* 388, 203, 51-E1 (1992)

Alfvénically Driven Slow Shocks in the Solar Chromosphere and Corona. *Joseph V. Hollweg.* 389, 731, 70-D10 (1992)

Maximum Principal Quantum Numbers of the Atomic Hydrogen in the Solar Chromosphere and Photosphere. *J. A. Kunc & W. H. Soon.* 396, 364, 159-E11 (1992)

Non-LTE Radiating Acoustic Shocks and Ca II K2V Bright Points. *Mats Carlsson & Robert F. Stein.* 397, L59, 173-G11 (1992)

The Role of Chromospheric Condensations in the Continuum Emission of White-Light Flares. *W. Q. Gan, E. Rieger, H. Q. Zhang, & C. Fang.* 397, 694, 179-F8 (1992)

Kinetic Description of Electron Beams in the Solar Chromosphere. *Daniel O. Gómez & Pablo J. D. Mauas.* 398, 682, 192-E6 (1992)

Coordinated Spectral and Temporal Hα Observations of a Solar Flare. *J.-F. de La Beaujardière, Alan L. Kiplinger, & Richard C. Canfield.* 401, 761, 232-A5 (1992)

O I Lines in the Sun and Stars. I. Understanding the Resonance Lines. *M. Carlsson & P. G. Judge.* 402, 344, 5-D9 (1993)

Submillimeter Observations of the 1991 July 11 Total Solar Eclipse. *M. W. Ewell, Jr., H. Zirin, J. B. Jensen, & T. S. Bastian.* 403, 426, 19-B1 (1993)

Solar Chromospheric and Transition Region Response to Energy Deposition in the Middle and Upper Chromosphere. *Alphonse C. Sterling, Kazunari Shibata, & John T. Mariska.* 407, 778, 80-B9 (1993)

Formation, Levitation, and Stability of Prominences in the Magnetized Solar Atmosphere. *J. F. Drake, Y. Mok, & G. Van Hoven.* 413, 416, 161-D9 (1993)

Chromospheric Heating by Acoustic Shock Waves. *Stuart D. Jordan.* 414, 337, 174-B12 (1993)

Dynamics of the Solar Chromosphere. I. Long-Period Network Oscillations. *B. W. Lites, R. J. Rutten, & W. Kalkofen.* 414, 345, 174-C8 (1993)

Do *p*-Mode Frequency Shifts Suggest a Hotter Chromosphere at Solar Maximum? *Rekha Jain & B. Roberts.* 414, 898, 182-D12 (1993)

The White-Light Flare of 1982 June 15: A Midchromospheric Kernel. *Pablo J. D. Mauas.* 414, 928, 182-G10 (1993)

Discrete High-Frequency *p*-Modes as Probes of Structures in the Chromosphere, Transition Region, and Lower Corona of the Sun. *Yu-Qing Lou.* 414, L141, 186-E1 (1993)

The Center-to-Limb Brightness Variation of the Sun at $\lambda = 850$ Microns. *T. S. Bastian, M. W. Ewell, Jr., & H. Zirin.* 415, 364, 189-D13 (1993)

Semiempirical Flare Models with Chromospheric Condensation. *W. Q. Gan, E. Rieger, & C. Fang.* 416, 886, 214-D10 (1993)

A Study of Solar Prominences near $\lambda = 1$ Millimeter. *T. S. Bastian, M. W. Ewell, Jr., & H. Zirin.* 418, 510, 237-C13 (1993)

Loop Models of Low Coronal Structures Observed by the Normal Incidence X-Ray Telescope (NIXT). *G. Peres, F. Reale, & L. Golub.* 422, 412, 35-B11 (1994)

Impulsive Behavior in Solar Soft X-Radiation. *H. S. Hudson, K. T. Strong, B. R. Dennis, D. Zarro, M. Inda, T. Kosugi, & T. Sakao.* 422, L25, 36-D13 (1994)

Separation of Low First Ionization Potential Ions from High First Ionization Potential Neutrals in the Low Chromosphere. *R. Grant Athay.* 423, 516, 52-E5 (1994)

Dynamical Properties of the Chromosphere In and Out of the Solar Magnetic Network. *Karine Bocchialini, Jean-Claude Vial, & Serge Koutchmy.* 423, L67, 54-B8 (1994)

Multispectral Observations of Chromospheric Evaporation in the 1991 November 15 X-Class Solar Flare. *Jean-Pierre Wülser, Richard C. Canfield, Loren W. Acton, J. Leonard Culhane, Andrew Phillips, Andrzej Fludra, Taro Sakao, Satoshi Masuda, Takeo Kosugi, & Saku Tsuneta.* 424, 459, 67-E4 (1994)

Time Evolution of a Miniflare as Seen in Hα, UV Lines, and X-Rays. *J. Fontenla, B. Schmieder, G. M. Simnett, & E. Tandberg-Hanssen.* 424, 1022, 77-E3 (1994)

Comparison between Cool and Hot Plasma Behaviors of Surges. *B. Schmieder, L. Golub, & S. K. Antiochos.* 425, 326, 84-C6 (1994)

Solar Flare Model Atmospheres. *Suzanne L. Hawley & George H. Fisher.* 426, 387, 101-A9 (1994)

Optical Spectra and Semi-Empirical Model of a White-Light Flare. *M. D. Ding, C. Fang, W. Q. Gan, & T. Okamoto.* 429, 890, 156-F9 (1994)

Atmospheric Heating in Solar Flares by Chromospheric Condensation. *W. Q. Gan & P. J. D. Mauas.* 430, 891, 173-A11 (1994)

The Formation of the Solar He II 1640.4 Å Emission Line. *Cathrine Wahlstrøm & Mats Carlsson.* 433, 417, 213-E1 (1994)

On the Absence of a Relationship between the Properties of the $T_e \geq 10^6$ K and the Properties of the $T_e \leq 7 \times 10^5$ K Solar Plasmas. *U. Feldman & J. M. Laming.* 434, 370, 230-E13 (1994)

The Effects of a Hot Outer Atmosphere on Acoustic-Gravity Waves. *Bradley W. Hindman & Ellen G. Zweibel.* 436, 929, 278-D11 (1994)

Excitation of O I Lines in the Solar Chromosphere. *R. Grant Athay & Philip G. Judge.* 438, 491, 8-D4 (1995)

Chromospheric Evaporation and Decimetric Radio Emission in Solar Flares. *Markus J. Aschwanden & Arnold O. Benz.* 438, 997, 17-G7 (1995)

Is the Solar Chromospheric Magnetic Field Force-free? *Thomas R. Metcalf, Litao Jiao, Alexander N. McClymont, Richard C. Canfield, & Han Uitenbroek.* 439, 474, 27-E11 (1995)

Does a Nonmagnetic Solar Chromosphere Exist? *Mats Carlsson & Robert F. Stein.* 440, L29, 48-E8 (1995)

The Solar Lyα Line Profile. *Thomas N. Woods, Gary J. Rottman, O. R. White, Juan Fontenla, & E. H. Avrett.* 442, 898, 92-E4 (1995)

Heating of the Solar Middle Chromosphere by Large-Scale Electric Currents. *Michael L. Goodman.* 443, 450, 101-C7 (1995)

Ultraviolet Observations of the Structure and Dynamics of an Active Region at the Limb. *C. M. Korendyke, K. P. Dere, D. G. Socker, G. E. Brueckner, & B. Schmieder.* 443, 869, 109-G10 (1995)

Acoustic Wave Propagation in the Solar Atmosphere. I. Rediscussion of the Linearized Theory Including Nonstationary Solutions. *Zhengzhi Wang, Roger K. Ulrich, & Ferdinand V. Coroniti.* 444, 879, 128-E10 (1995)

Reduction, Analysis, and Properties of Electric Current Systems in Solar Active Regions. *G. Allen Gary & Pascal Démoulin.* 445, 982, 148-G12 (1995)

The Neupert Effect and the Chromospheric Evaporation Model for Solar Flares. *Theodore T. Lee, Vahé Petrosian, & James M. McTiernan.* 448, 915, 207-E7 (1995)

High-Resolution Observation of Disk Spicules. I. Evolution and Kinematics of Spicules in the Enhanced Network. *Yoshinori Suematsu, Haimin Wang, & Harold Zirin.* 450, 411, 233-E12 (1995)

The Role of Magnetic Reconnection in Chromospheric Eruptions. *Judith T. Karpen, Spiro K. Antiochos, & C. Richard DeVore.* 450, 422, 233-G3 (1995)

On Thermal Hydrodynamical Models of Solar Flares with a High Initial Coronal Density. *W. Q. Gan, C. C. Cheng, & C. Fang.* 452, 445, 268-B11 (1995)

Observations and Interpretation of Soft X-Ray Limb Absorption Seen by the Normal Incidence X-Ray Telescope. *A. Daw, E. E. DeLuca, & L. Golub.* 453, 929, 296-G1 (1995)

Partial Redistribution in Multilevel Atoms. I. Method and Application to the Solar Hydrogen Line Formation. *I. Hubeny & B. W. Lites.* 455, 376, 323-C8 (1995)

SUN: CORONA

Coronal Loop Heating by Wave-Particle Interactions. *Altair S. de Assis & King H. Tsui.* 366, 324, 5-B1 (1991)

Strong Magnetic Fields and Inhomogeneity in the Solar Corona. *S. M. White, M. R. Kundu, & N. Gopalswamy.* 366, L43, 6-E7 (1991)

Three-dimensional Kinematic Reconnection of Plasmoids. *Yun-Tung Lau & John M. Finn.* 366, 577, 10-B11 (1991)

Rotation of the Sun's Outer White-Light Corona Determined from Solwind Data. *Ana G. Nash.* 366, 592, 10-D1 (1991)

A Study of Solar Flare Energy Transport Based on Coordinated Hα and X-Ray Observations. *Richard C. Canfield, Dominic M. Zarro, Jean-Pierre Wülser, & Brian R. Dennis.* 367, 671, 21-E11 (1991)

On the Transport and Acceleration of Solar Flare Particles in a Coronal Loop. *James M. Ryan & Martin A. Lee.* 368, 316, 26-A7 (1991)

First Interferometric Observations of Solar Microwave Millisecond Spike Bursts. *Dale E. Gary, G. J. Hurford, & D. J. Flees.* 369, 255, 39-B1 (1991)

Non-Maxwellian Electron Distributions in Models of the Solar Atmosphere. *P. MacNeice, J. Fontenla, & N. N. Ljepojevic.* 369, 544, 44-E1 (1991)

Opacity Effects on the Radiative Losses of Coronal Loops. *N. P. M. Kuin & A. I. Poland.* 370, 763, 57-G11 (1991)

The Microwave Brightness Temperature Spectrum of the Quiet Sun. *H. Zirin, B. M. Baumert, & G. J. Hurford.* 370, 779, 58-B12 (1991)

Dynamic Magnetic Reconnection at an X-Type Neutral Point. *I. J. D. Craig & A. N. McClymont.* 371, L41, 66-F1 (1991)

Current Sheet Formation and Rapid Reconnection in the Solar Corona. *A. Bhattacharjee & Xiogang Wang.* 372, 321, 78-A1 (1991)

Stability, Structure, and Evolution of Cool Loops. *P. S. Cally & T. D. Robb.* 372, 329, 78-A11 (1991)

Why Fast Solar Wind Originates from Slowly Expanding Coronal Flux Tubes. *Y.-M. Wang & N. R. Sheeley, Jr.* 372, L45, 79-F1 (1991)

Systematic Radial Flows in the Chromosphere, Transition Region, and Corona of the Quiet Sun. *Donald M. Hassler, Gary J. Rottman, & Frank Q. Orrall.* 372, 710, 84-E1 (1991)

Heating Solar Coronal Holes. *E. N. Parker.* 372, 719, 84-E11 (1991)

Coronal Proton Transport in the Presence of Alfvén Waves and Implications for Gamma-Ray Burst Models. *D. F. Smith & S. H. Brecht.* 373, 289, 89-E9 (1991)

A Catastrophe Mechanism for Coronal Mass Ejections. *T. G. Forbes & P. A. Isenberg.* 373, 294, 89-F1 (1991)

Coronal Magnetic Structures Observing Campaign. I. Simultaneous Microwave and Soft X-Ray Observations of Active Regions at the Solar Limb. *N. Nitta, S. M. White, M. R. Kundu, N. Gopalswamy, G. D. Holman, J. W. Brosius, J. T. Schmelz, J. L. R. Saba, & K. T. Strong.* 374, 374, 102-F11 (1991)

Coronal Dynamics of a Quiescent Active Region. *Julia L. R. Saba & Keith T. Strong.* 375, 789, 122-D9 (1991)

Radio Range Measurements of Coronal Electron Densities at 13 and 3.6 Centimeter Wavelengths during the 1988 Solar Conjunction of *Voyager* 2. *T. P. Krisher, J. D. Anderson, D. D. Morabito, S. W. Asmar, S. E. Borutzki, M. L. Delitsky, A. C. Densmore, P. M. Eshe, G. D. Lewis, M. J. Maurer, D. C. Roth, Y. H. Son, T. R. Spilker, D. N. Sweetnam, A. H. Taylor, G. L. Tyler, D. L. Gresh, & P. A. Rosen.* 375, L57, 124-C6 (1991)

The Phase Mixing of Alfvén Waves, Coordinated Modes, and Coronal Heating. *E. N. Parker.* 376, 355, 129-C11 (1991)

First Observations of Macrospicules at 4.8 GHz at the Solar Limb in Polar Coronal Holes. *Shadia Rifai Habbal & Raymond D. Gonzalez.* 376, L25, 130-D1 (1991)

Numerical Study of Compressible Solar Magnetoconvection with an Open Transitional Boundary. *H. Hanami & T. Tajima.* 377, 694, 148-C6 (1991)

Alfvén Wave Trapping, Network Microflaring, and Heating in Solar Coronal Holes. *R. L. Moore, Z. E. Musielak, S. T. Suess, & C.-H. An.* 378, 347, 155-C5 (1991)

Multi–Wave Band *SMM*–VLA Observations of an M2 Flare and an Associated Coronal Mass Ejection. *Robert F. Willson, Joan T. Schmelz, Raymond D. Gonzalez, Kenneth R. Lang, & Kermit L. Smith.* 378, 360, 155-D6 (1991)

Coronal Mass Ejections and Streamers Associated with the New Cycle Active Regions at Solar Minimum. *S. Kahler.* 378, 398, 155-G9 (1991)

Can Neutron Stars Ablate Their Companions? *Amir Levinson & David Eichler.* 379, 359, 167-E1 (1991)

Large-Scale Features of the Sun at 20 Centimeter Wavelength. *N. Gopalswamy, S. M. White, & M. R. Kundu.* 379, 366, 167-E9 (1991)

The $3s^23p\ ^2P$–$3s3p^2\ ^4P$ Intercombination Lines of Fe XIV in the Sun. *F. P. Keenan, P. L. Dufton, E. S. Conlon, M. B. Boylan, A. E. Kingston, & K. G. Widing.* 379, 406, 168-A11 (1991)

On Solar Emission Lines. *G. P. Malik, L. K. Pande, & Vijaya S. Varma.* 379, 788, 174-E1 (1991)

Three-dimensional Compressible Hydrodynamic Convection in the Sun and Stars. *Murshed Hossain & D. J. Mullan.* 380, 631, 186-A10 (1991)

Avalanches and the Distribution of Solar Flares. *Edward T. Lu & Russell J. Hamilton.* 380, L89, 188-F5 (1991)

On the Spontaneous Formation of Electric Current Sheets above a Flexible Solar Photosphere. *B. C. Low.* 381, 295, 192-F1 (1991)

Neutralized and Unneutralized Current Patterns in the Solar Corona. *D. B. Melrose.* 381, 306, 192-F13 (1991)

Numerical Simulations of Microflare Evolution in the Solar Transition Region and Corona. *Alphonse C. Sterling, John T. Mariska, Kazunari Shibata, & Yoshinori Suematsu.* 381, 313, 192-G8 (1991)

Coronal Current-Sheet Formation: The Effect of Asymmetric and Symmetric Shears. *Judith T. Karpen, Spiro K. Antiochos, & C. Richard DeVore.* 382, 327, 204-C4 (1991)

Nonequilibrium Ionization Effects in Asymmetrically Heated Loops. *D. Spadaro, S. K. Antiochos, & J. T. Mariska.* 382, 338, 204-D1 (1991)

On the Differences in Element Abundances of Energetic Ions from Corotating Events and from Large Solar Events. *D. V. Reames, I. G. Richardson, & L. M. Barbier.* 382, L43, 205-E7 (1991)

The Connection between Coronal Bright Points and the Variability of the Quiet-Sun Extreme-Ultraviolet Emission. *Shadia Rifai Habbal & Edmund Grace.* 382, 667, 209-G11 (1991)

Coronal Evolution Due to Shear Motion. *R. S. Steinolfson.* 382, 677, 210-A13 (1991)

Energy Balance in Coronal Funnels. *Douglas Rabin.* 383, 407, 217-D1 (1991)

Dynamics of Solar Coronal Magnetic Fields. *R. B. Dahlburg, S. K. Antiochos, & T. A. Zang.* 383, 420, 217-E1 (1991)

Quasi-static Evolution of Coronal Magnetic Fields. *D. W. Longcope & R. N. Sudan.* 384, 305, 4-F12 (1992)

The Theory of Magnetohydrodynamic Wave Generation by Localized Sources. III. Efficiency of Plasma Heating by Dissipation of Far-Field Waves. *William Collins.* 384, 319, 5-A1 (1992)

Magnetohydrodynamic Equilibria and Cusp Formation at an X-Type Neutral Line by Footpoint Shearing. *G. E. Vekstein & E. R. Priest.* 384, 333, 5-B3 (1992)

Energetics and Dynamics in a Large Solar Flare of 1989 March. *Jean-Pierre Wülser, Dominic M. Zarro, & Richard C. Canfield.* 384, 341, 5-B13 (1992)

Three-dimensional Force-free Magnetic Fields and Flare Energy Buildup. *J. A. Klimchuk & P. A. Sturrock.* 385, 344, 16-B6 (1992)

Fe XVIII Emission-Line Intensities in the Sun. *D. L. McKenzie, F. P. Keenan, S. M. McCann, K. A. Berrington, A. Hibbert, & M. Mohan.* 385, 378, 16-E5 (1992)

Cylindrically Symmetric Force-free Magnetic Fields. *Lisa J. Porter, James A. Klimchuk, & Peter A. Sturrock.* 385, 738, 22-C6 (1992)

Coronal Magnetic Structures Observing Campaign. IV. Multiwaveband Observations of Sunspot and Plage-associated Coronal Emission. *Jeffrey W. Brosius, Robert F. Willson, Gordon D. Holman, & Joan T. Schmelz.* 386, 347, 28-E1 (1992)

Coronal Density and Temperature Structure from Coordinated Observations Associated with the Total Solar Eclipse of 1988 March 18. *M. Guhathakurta, G. J. Rottman, R. R. Fisher, F. Q. Orrall, & R. C. Altrock.* 388, 633, 58-B1 (1992)

Magnetohydrodynamic Waves in Sharply and Smoothly Bounded Cylinders. *Bonnie Jean Shulman & Ellen G. Zweibel.* 389, 428, 65-C1 (1992)

Alfvénically Driven Slow Shocks in the Solar Chromosphere and Corona. *Joseph V. Hollweg.* 389, 731, 70-D10 (1992)

Variations in the Relative Elemental Abundances of Oxygen, Neon, Magnesium, and Iron in High-Temperature Solar Active-Region and Flare Plasmas. *D. L. McKenzie & U. Feldman.* 389, 764, 70-G7 (1992)

Steady Siphon Flows in Closed Coronal Structures: Comparison with Extreme-Ultraviolet Observations. *G. Peres, D. Spadaro, & G. Noci.* 389, 777, 71-A8 (1992)

A Self-consistent Turbulent Model for Solar Coronal Heating. *J. Heyvaerts & E. R. Priest.* 390, 297, 77-F3 (1992)

Estimation of the Mass of a Coronal Mass Ejection from Radio Observations. *N. Gopalswamy & M. R. Kundu.* 390, L37, 78-F1 (1992)

Stereoscopic Observations of a Solar Flare Hard X-Ray Source in the High Corona. *S. R. Kane, J. McTiernan, J. Loran, E. E. Fenimore, R. W. Klebesadel, & J. G. Laros.* 390, 687, 83-G7 (1992)

Decimetric Solar Type U Bursts: VLA and PHOENIX Observations. *Markus J. Aschwanden, T. S. Bastian, A. O. Benz, & J. W. Brosius.* 391, 380, 90-E13 (1992)

The Production of ^{3}He and Heavy Ion Enrichments in ^{3}He-rich Flares by Electromagnetic Hydrogen Cyclotron Waves. *M. Temerin & I. Roth.* 391, L105, 100-B1 (1992)

On Potential Field Models of the Solar Corona. *Y.-M. Wang & N. R. Sheeley, Jr.* 392, 310, 104-G1 (1992)

On Neutralized Currents in the Solar Corona. *Ladye Kathryn Wilkinson, A. Gordon Emslie, & G. Allen Gary.* 392, L39, 106-E7 (1992)

Self-similar Evolution of Magnetized Plasmas. I. Quasi-static Solution. *Wei-Hong Yang.* 392, 465, 108-B1 (1992)

Element Abundances and Plasma Properties in a Coronal Polar Plume. *K. G. Widing & U. Feldman.* 392, 715, 111-B5 (1992)

A Regularization Method for Extrapolation of Solar Potential Magnetic Fields. *G. Allen Gary & Z. E. Musielak.* 392, 722, 111-C1 (1992)

Evidence for Mass Outflow in the Low Solar Corona over a Large Sunspot. *Werner M. Neupert, Jeffrey W. Brosius, Roger J. Thomas, & William T. Thompson.* 392, L95, 113-F6 (1992)

Coronal Loops: Current-based Heating Processes. *P. Beaufumé, B. Coppi, & L. Golub.* 393, 396, 119-A11 (1992)

Fast Plasmoid Formation in Double Arcades. *J. M. Finn, P. N. Guzdar, & J. Chen.* 393, 800, 125-G7 (1992)

Dissipation of Magnetic Energy in the Solar Corona. *Allen H. Boozer.* 394, 357, 132-D4 (1992)

Development of Magnetohydrodynamic Turbulence in Coronal Loops. *Daniel O. Gómez & Constantino Ferro Fontán.* 394, 662, 137-F8 (1992)

On the Process of Resistive Heating Instability and the Formation of Coronal Loop Structures. *Yu-Qing Lou.* 395, 682, 151-F13 (1992)

Enhanced Damping of Alfvén Waves in the Solar Corona by a Turbulent Wave Spectrum. *Robert G. Kleva & J. F. Drake.* 395, 697, 152-A5 (1992)

Incompressible Disturbances in Nonuniform Media: Formation of Small Scales. *Francesco Malara, Pierluigi Veltri, Claudio Chiuderi, & Giorgio Einaudi.* 396, 297, 158-F13 (1992)

Steady and Nonsteady Siphon Flow in Hot Coronal Loops. *T. D. Robb & P. S. Cally.* 397, 329, 172-A1 (1992)

A New Way to Convert Alfvén Waves into Heat in Solar Coronal Holes: Intermittent Magnetic Levitation. *R. L. Moore, R. Hammer, Z. E. Musielak, S. T. Suess, & C.-H. An.* 397, L55, 173-G5 (1992)

Dielectronic Recombination as a Function of Electric Field Strength. *Daniel B. Reisenfeld.* 398, 386, 186-E9 (1992)

A Burst Model for Line Emission in the Solar Atmosphere. II. Coronal Extreme Ultraviolet Lines. *U. Feldman, J. M. Laming, P. Mandelbaum, W.H. Goldstein, & A. Osterheld.* 398, 692, 192-F3 (1992)

Resonance Scattering of Fe XVII: A Density Diagnostic. *J. T. Schmelz, J. L. R. Saba, & K. T. Strong.* 398, L115, 194-F6 (1992)

Diagnostics of Electron-heated Solar Flare Models. III. Effects of Tapered Loop Geometry and Preheating. *A. Gordon Emslie, Peng Li, & John T. Mariska.* 399, 714, 206-G7 (1992)

Nonlinear Dissipation of Surface Alfvén Waves in the Solar Corona. *M. S. Ruderman.* 399, 724, 207-A5 (1992)

Coronal Magnetic Structures Observing Campaign. II. Magnetic and Plasma Properties of a Solar Active Region. *J. T. Schmelz, G. D. Holman, J. W. Brosius, & R. D. Gonzalez.* 399, 733, 207-B1 (1992)

Forced Reconnection, Current Sheets, and Coronal Heating. *Xiaogang Wang & A. Bhattacharjee.* 401, 371, 225-F1 (1992)

Plasma Emission from Isotropic Langmuir Turbulence: Are Radio Microbursts Structureless? *N. Gopalswamy.* 402, 326, 5-B13 (1993)

Diffusion Effects on the Helium Abundance of the Solar Transition Region and Corona. *Viggo H. Hansteen, Thomas E. Holzer, & Egil Leer.* 402, 334, 5-C10 (1993)

The Distant Future of Solar Activity: A Case Study of β Hydri. III. Transition Region, Corona, and Stellar Wind. *D. Dravins, P. Linde, T. R. Ayres, J. L. Linsky, B. Monsignori-Fossi, T. Simon, & F. Wallinder.* 403, 412, 18-G13 (1993)

The Kelvin-Helmholtz Instability in Photospheric Flows: Effects on Coronal Heating and Structure. *Judith T. Karpen, Spiro K. Antiochos, Russell B. Dahlburg, & Daniel S. Spicer.* 403, 769, 25-C13 (1993)

A Three-dimensional Magnetohydrodynamic Formalism for Coronal Helmet Streamers. *S. Cuperman, C. Bruma, T. Detman, & M. Dryer.* 404, 356, 32-C7 (1993)

A New Class of Exact, Nonlinear Solutions to the Grad-Shafranov Equation. *George Roumeliotis.* 404, 781, 38-F1 (1993)

Coronal Proton Acceleration by Magnetohydrodynamic Waves and Related Proton Transport. *D. F. Smith & S. H. Brecht.* 406, 298, 58-F10 (1993)

Solar Coronal Observations and Formation of the He II 304 Å Line. *S. D. Jordan, W. T. Thompson, R. J. Thomas, & W. M. Neupert.* 406, 346, 59-C8 (1993)

Solar Coronal Structure near the Time of the 1991 July 11 Total Solar Eclipse. *D. G. Sime & J. Streete.* 408, 368, 87-F6 (1993)

On the Thermal Stability of a Radiating Plasma Subject to Nonlocal Thermal Conduction. I. Linear Analysis. *E. Chun & R. Rosner.* 408, 678, 93-F1 (1993)

Observed Redshifts in O V and Downflows in the Solar Transition Region. *P. Brekke.* 408, 735, 94-C11 (1993)

Force-free Magnetic Fields with Singular Current-Density Surfaces. *B. C. Low.* 409, 798, 109-A12 (1993)

Oscillations of a Quiescent Solar Prominence Embedded in a Hot Corona. *R. Oliver, J. L. Ballester, A. W. Hood, & E. R. Priest.* 409, 809, 109-B12 (1993)

The Free Energies of Partially Open Coronal Magnetic Fields. *B. C. Low & D. F. Smith.* 410, 412, 117-B10 (1993)

Flux-Tube Divergence, Coronal Heating, and the Solar Wind. *Y.-M. Wang.* 410, L123, 126-D13 (1993)

Simultaneous Observations of Solar Plage with the Solar Extreme Ultraviolet Rocket Telescope and Spectrograph (SERTS), the VLA, and the Kitt Peak Magnetograph. *Jeffrey W. Brosius, Joseph M. Davila, William T. Thompson, Roger J. Thomas, Gordon D. Holman, N. Gopalswamy, Stephen M. White, Mukul R. Kundu, & Harrison P. Jones.* 411, 410, 132-E4 (1993)

Is It Justified to Assume that "Everywhere in the Sun's Photosphere-Corona Domain the Electric Conductivity Is High"?; or, What Drives the Solar Upper Atmosphere? *Uri Feldman.* 411, 896, 141-A5 (1993)

On the Structure of Solar and Stellar Coronae: Loops and Loop Heat Transport. *Christof Litwin & Robert Rosner.* 412, 375, 146-F13 (1993)

Ion Acceleration and Abundance Enhancements by Electron Beam Instabilities in Impulsive Solar Flares. *James A. Miller & Adolfo F. Viñas.* 412, 386, 146-G12 (1993)

The Distribution of Flare Parameters and Implications for Coronal Heating. *Theodore T. Lee, Vahé Petrosian, & James M. McTiernan.* 412, 401, 147-B1 (1993)

A Doppler Dimming Determination of Coronal Outflow Velocity. *Leonard Strachan, John L. Kohl, Heinz Weiser, George L. Withbroe, & Richard H. Munro.* 412, 410, 147-B13 (1993)

The Magnetic Field in the Corona above Sunspots at the Eclipse of 1991 July 11. *D. E. Gary, Y. Leblanc, G. A. Dulk, & L. Golub.* 412, 421, 147-C13 (1993)

A Model of Solar Coronal Heating by Classical Inverse Bremsstrahlung and Generation of the Solar Wind. *A. H. Øien & G. Alendal.* 412, 827, 154-B6 (1993)

Multiple Wavelength Observations of an Off-Limb Eruptive Solar Flare. *T. A. Kucera, G. A. Dulk, A. L. Kiplinger, R. M. Winglee, T. S. Bastian, & M. Graeter.* 412, 853, 154-D10 (1993)

How Reliable are Coronal Hole Temperatures Deduced from Observations? *S. R. Habbal, R. Esser, & M. B. Arndt.* 413, 435, 161-F6 (1993)

Simulations of the Ca XIX Spectral Emission from a Flaring Solar Coronal Loop. II. Impulsive Heating by Accelerated Electrons. *E. Antonucci, M. A. Dodero, R. Martin, G. Peres, F. Reale, & S. Serio.* 413, 786, 166-B11 (1993)

VLA-BATSE Observations of an Intense Solar Decimetric and Hard X-Ray Burst. *Robert F. Willson.* 413, 798, 166-C11 (1993)

Energy Transport to the Solar Corona by Magnetic Kink Waves. *Arnab Rai Choudhuri, Mausumi Dikpati, & Dipankar Banerjee.* 413, 811, 166-E1 (1993)

Elemental Abundances in the Upper Solar Atmosphere of Quiet and Coronal Hole Regions ($T_e \approx 4.3 \times 10^5$ K). *U. Feldman & K. G. Widing.* 414, 381, 174-F9 (1993)

Long-Term Containment of Energetic Particles in Coronal Loops. *Yun-Tung Lau, Theodore G. Northrop, & John M. Finn.* 414, 908, 182-E10 (1993)

Understanding the Rotation of Coronal Holes. *Y.-M. Wang & N. R. Sheeley, Jr.* 414, 916, 182-F7 (1993)

Discrete High-Frequency *p*-Modes as Probes of Structures in the Chromosphere, Transition Region, and Lower Corona of the Sun. *Yu-Qing Lou.* 414, L141, 186-E1 (1993)

Large-Scale Coronal Temperature and Density Distributions, 1984–1992. *M. Guhathakurta, R. R. Fisher, & R. C. Altrock.* 414, L145, 186-E7 (1993)

Coronal Heating by the Resonant Absorption of Alfvén Waves: Importance of the Global Mode and Scaling Laws. *Richard S. Steinolfson & Joseph M. Davila.* 415, 354, 189-D1 (1993)

A Class of Three-dimensional Isothermal Laminated Equilibria and Their Stability. *Y. P. Chou, B. C. Low, & A. Bhattacharjee.* 416, 379, 205-F12 (1993)

A Linear Solution for Magnetic Reconnection Driven by Converging or Diverging Footpoint Motions. *George Roumeliotis & Ronald L. Moore.* 416, 386, 205-G7 (1993)

Quasi-periodic Particle Injection into Coronal Loops. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Victor Gaizauskas.* 416, 857, 214-B5 (1993)

Catastrophic Evolution of a Force-free Flux Rope: A Model for Eruptive Flares. *P. A. Isenberg, T. G. Forbes, & P. Démoulin.* 417, 368, 222-B7 (1993)

On the Problem of Magnetic Coronal Heating by Turbulent Relaxation. *G. E. Vekstein, E. R. Priest, & C. D. C. Steele.* 417, 781, 229-B6 (1993)

The Timing of Electron Beam Signatures in Hard X-Ray and Radio: Solar Flare Observations by BATSE/*Compton Gamma-Ray Observatory* and PHOENIX. *Markus J. Aschwanden, Arnold O. Benz, & Richard A. Schwartz.* 417, 790, 229-C3 (1993)

The Coronal Structure above Sunspots and Pores. *R. Harmon, R. Rosner, H. Zirin, E. Spiller, & L. Golub.* 417, L83, 230-E1 (1993)

Coronal Heating by Nanoflares: Individual Events and Global Energetics. *R. A. Kopp & G. Poletto.* 418, 496, 237-B10 (1993)

Coronal Abundances of Neon and Magnesium Isotopes from Solar Energetic Particles. *R. S. Selesnick, A. C. Cummings, J. R. Cummings, R. A. Leske, R. A. Mewaldt, E. C. Stone, & T. T. von Rosenvinge.* 418, L45, 238-F1 (1993)

Equilibrium Morphology of Slender Untwisted Flux Loops. *David Garren, James Chen, & Peter Cargill.* 418, 919, 244-A12 (1993)

Energy Requirements for Opening the Solar Corona. *Richard Wolfson.* 419, 382, 251-A1 (1993)

Magnetospheres of Solar Active Regions Inferred from Spectral-Polarization Observations with High Spatial Resolution. *K. R. Lang, R. F. Willson, J. N. Kile, J. Lemen, K. T. Strong, V. L. Bogod, G. B. Gelfreikh, B. I. Ryabov, S. R. Hafizov, V. E. Abramov, & S. V. Svetkov.* 419, 398, 251-B7 (1993)

Current Sheets and Reconnection Driven by Footpoint Motion in Two-dimensional Coronal Loops with *X*-Type Neutral Lines. *Xiaogang Wang & A. Bhattacharjee.* 420, 415, 6-A9 (1994)

A Flare Caused by Interacting Coronal Loops. *Yoichiro Hanaoka.* 420, L37, 7-E9 (1994)

The Magnetic Field of Solar Prominences. *S. K. Antiochos, R. B. Dahlburg, & J. A. Klimchuk.* 420, L41, 7-F1 (1994)

Solar Coronal Abundances of Elements with Low First Ionization Potential: Chromium, Calcium, and Aluminum. *D. L. McKenzie & U. Feldman.* 420, 892, 14-A7 (1994)

Coronal Temperature, Density, and Magnetic Field Maps of a Solar Active Region Using the Owens Valley Solar Array. *Dale E. Gary & G. J. Hurford.* 420, 903, 14-B6 (1994)

Neutral Hydrogen in the Solar Wind Acceleration Region. *Espen Lyngdal Olsen, Egil Leer, & Thomas E. Holzer.* 420, 913, 14-C4 (1994)

Coronal Heating by the Resonant Absorption of Alfvén Waves: The Effect of Viscous Stress Tensor. *L. Ofman, J. M. Davila, & R. S. Steinolfson.* 421, 360, 20-D8 (1994)

The Effects of Kelvin-Helmholtz Instability on Resonance Absorption Layers in Coronal Loops. *Judith T. Karpen, Russell B. Dahlburg, & Joseph M. Davila.* 421, 372, 20-E10 (1994)

On the Derivation of Empirical Limits on the Helium Abundance in Coronal Holes below 1.5 $R_\odot$. *Shadia Rifai Habbal & Ruth Esser.* 421, L59, 22-C5 (1994)

Some Implications of the Nanoflare Concept. *Peter J. Cargill.* 422, 381, 34-G2 (1994)

A Comparison of Nonrelativistic Electron Escape Efficiencies for Solar Flares with and without Coronal Mass Ejections. *S. W. Kahler, E. I. Daibog, V. G. Kurt, & V. G. Stolpovskii.* 422, 394, 35-A1 (1994)

Loop Models of Low Coronal Structures Observed by the Normal Incidence X-Ray Telescope (NIXT). *G. Peres, F. Reale, & L. Golub.* 422, 412, 35-B11 (1994)

Thickness Variations along Coronal Loops Inferred from Vector Magnetograph Data. *A. N. McClymont & Z. Mikić.* 422, 899, 43-B3 (1994)

Morphology of Active Region Transient Brightenings with the *Yohkoh* Soft X-Ray Telescope. *Toshifumi Shimizu, Saku Tsuneta, Loren W. Acton, James R. Lemen, Yoshiaki Ogawara, & Yutaka Uchida.* 422, 906, 43-B13 (1994)

Electron Acceleration at Quasi-parallel Shocks in the Solar Corona and Its Signature in Solar Type II Radio Bursts. *G. Mann & H. Lühr.* 90, 577, 11-A1 (1994)

Pulsed Acceleration in Solar Flares. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Mukul R. Kundu.* 90, 631, 11-E11 (1994)

The Flare of 1989 September 9 09:09 UT: Does Coronal Loop Collision Initiate Efficient Gamma-Ray Emission? *H. Aurass, A. Hofmann, & E. Rieger.* 90, 707, 12-E6 (1994)

Particle Orbits, Trapping, and Acceleration in a Filamentary Current Sheet Model. *Bernhard Kliem.* 90, 719, 12-F6 (1994)

Acceleration and Heating of Two-Fluid Solar Wind by Alfvén Waves. *Ørnulf Sandbæk & Egil Leer.* 423, 500, 52-D1 (1994)

Dynamical Properties of the Chromosphere In and Out of the Solar Magnetic Network. *Karine Bocchialini, Jean-Claude Vial, & Serge Koutchmy.* 423, L67, 54-B8 (1994)

A Numerical Study of the Sudden Eruption of Sheared Magnetic Fields. *George Roumeliotis, Peter A. Sturrock, & Spiro K. Antiochos.* 423, 847, 59-D1 (1994)

Oscillations and Evolution of Curved Current-carrying Loops in the Solar Corona. *Peter J. Cargill, James Chen, & David A. Garren.* 423, 854, 59-D10 (1994)

Solar Tomography. *Joseph M. Davila.* 423, 871, 59-F1 (1994)

Reflection of Alfvén Waves in Stellar Atmospheres: The Case of Open Magnetic Fields. *Yu-Qing Lou & Robert Rosner.* 424, 429, 67-B11 (1994)

Multispectral Observations of Chromospheric Evaporation in the 1991 November 15 X-Class Solar Flare. *Jean-Pierre Wülser, Richard C. Canfield, Loren W. Acton, J. Leonard Culhane, Andrew Phillips, Andrzej Fludra, Taro Sakao, Satoshi Masuda, Takeo Kosugi, & Saku Tsuneta.* 424, 459, 67-E4 (1994)

Nonthermal Radio Emission Associated with a Coronal Disconnection Event. *N. Gopalswamy, M. R. Kundu, & O. C. St. Cyr.* 424, L135, 79-F3 (1994)

Comparison between Cool and Hot Plasma Behaviors of Surges. *B. Schmieder, L. Golub, & S. K. Antiochos.* 425, 326, 84-C6 (1994)

Solar Coronal Temperature Diagnostics Using Emission Lines from Multiple Stages of Ionization of Iron. *Jeffrey W. Brosius, Joseph M. Davila, Roger J. Thomas, & William T. Thompson.* 425, 343, 84-E7 (1994)

Heavy-Ion Isotopic Anomalies in ^{3}He-rich Solar Particle Events. *G. M. Mason, J. E. Mazur, & D. C. Hamilton.* 425, 843, 92-C5 (1994)

The Coronal Electron Density Distribution Determined from Dual-Frequency Ranging Measurements during the 1991 Solar Conjunction of the *Ulysses* Spacecraft. *M. K. Bird, H. Volland, M. Pätzold, P. Edenhofer, S. W. Asmar, & J. P. Brenkle.* 426, 373, 100-G5 (1994)

Solar Flare Model Atmospheres. *Suzanne L. Hawley & George H. Fisher.* 426, 387, 101-A9 (1994)

Angular Scattering of Solar Radio Emission by Coronal Turbulence. *T. S. Bastian.* 426, 774, 108-B3 (1994)

Density Structure inside a Polar Coronal Hole. *M. Guhathakurta & T. E. Holzer.* 426, 782, 108-B13 (1994)

Ion and Electron Suprathermal Tail Strengths in the Transition Region: Support for the Velocity Filtration Model of the Corona. *Jack D. Scudder.* 427, 446, 115-D6 (1994)

Observational Tests for Nonequilibrium Ionization in the Solar Corona. *D. Spadaro, P. Leto, & S. K. Antiochos.* 427, 453, 115-E1 (1994)

A Converging Flux Model of an X-Ray Bright Point and an Associated Canceling Magnetic Feature. *E. R. Priest, C. E. Parnell, & S. F. Martin.* 427, 459, 115-E9 (1994)

Three-dimensional Force-free Looplike Magnetohydrodynamic Equilibria. *John M. Finn, Parvez N. Guzdar, & Daniel Usikov.* 427, 475, 115-G1 (1994)

The Fe XIV Spectrum: Predicted Line Intensities and Solar Identifications. *A. K. Bhatia, S. O. Kastner, F. P. Keenan, E. S. Conlon, & K. G. Widing.* 427, 497, 116-B8 (1994)

Nonlinear Evolution of the Coronal Magnetic Field under Reconnective Relaxation. *R. Wolfson, G. E. Vekstein, & E. R. Priest.* 428, 345, 132-D11 (1994)

Particle Acceleration in an Evolving Active Region by an Ensemble of Shock Waves. *Anastasios Anastasiadis & Loukas Vlahos.* 428, 819, 140-D11 (1994)

Injection Profiles of Solar Energetic Particles as Functions of Coronal Mass Ejection Heights. *S. Kahler.* 428, 837, 140-F5 (1994)

Coupling of the Coronal Helium Abundance to the Solar Wind. *Viggo H. Hansteen, Egil Leer, & Thomas E. Holzer.* 428, 843, 140-G1 (1994)

Exploring the Fine Structure at the Limb in Coronal Holes. *Margarita Karovska, Solon F. Blundell, & Shadia Rifai Habbal.* 428, 854, 141-A1 (1994)

Electric Currents and Coronal Heating in NOAA Active Region 6952. *T. R. Metcalf, R. C. Canfield, H. S. Hudson, D. L. Mickey, J.-P. Wülser, P. C. H. Martens, & S. Tsuneta.* 428, 860, 141-A10 (1994)

Detection of Linear Polarization in the Microwave Emission of Solar Active Regions. *C. E. Alissandrakis & F. Chiuderi-Drago.* 428, L73, 142-G8 (1994)

Generation of Radiation in Solar Corona and Interplanetary Space by Energetic Electrons. *C. S. Wu, Peter H. Yoon, & G. C. Zhou.* 429, 406, 149-B8 (1994)

Magnetostatic Structures of the Solar Corona. I. A Model Based on the Cauchy Boundary Value Problem. *J. R. Hundhausen & B. C. Low.* 429, 876, 156-E7 (1994)

Coronal Electron Density Diagnostic from Fe XII. *J. W. Cook, F. P. Keenan, L. K. Harra, & S. S. Tayal.* 429, 924, 157-B9 (1994)

Stellar Winds with Non-WKB Alfvén Waves. I. Wind Models for Solar Coronal Conditions. *K. B. MacGregor & P. Charbonneau.* 430, 387, 164-A9 (1994)

Imaging Spectroscopy of Solar Microwave Radiation. I. Flaring Emission. *Jeremy Lim, Dale E. Gary, Gordon J. Hurford, & James R. Lemen.* 430, 425, 164-E13 (1994)

Disruption of Coronal Magnetic Field Arcades. *Zoran Mikić & Jon A. Linker.* 430, 898, 173-B6 (1994)

Solar Fine-Scale Structures in the Corona, Transition Region, and Lower Atmosphere. *Dan Moses, J. W. Cook, J.-D. F. Bartoe, G. E. Brueckner, K. P. Dere, D. F. Webb, J. M. Davis, J. W. Harvey, F. Recely, S. F. Martin, & H. Zirin.* 430, 913, 173-C9 (1994)

A Gigantic Coronal Jet Ejected from a Compact Active Region in a Coronal Hole. *K. Shibata, N. Nitta, K. T. Strong, R. Matsumoto, T. Yokoyama, T. Hirayama, H. Hudson, & Y. Ogawara.* 431, L51, 183-A9 (1994)

Dynamical Structure of Extreme Ultraviolet Macrospicules. *Margarita Karovska & Shadia Rifai Habbal.* 431, L59, 183-B7 (1994)

Force-free Fields in Thin Coronal Loops. *A. Gordon Emslie & L. K. Wilkinson.* 431, 873, 189-E5 (1994)

Detection of 17 GHz Radio Emission from X-Ray–bright Points. *M. R. Kundu, K. Shibasaki, S. Enome, & N. Nitta.* 431, L155, 192-E13 (1994)

The Power Density Spectrum Break in an Alfvén Wave–driven Solar Wind. *V. Jatenco-Pereira, R. Opher, & L. C. Yamamoto.* 432, 409, 198-C3 (1994)

The Determination of Electron Densities in the Solar Atmosphere from the 1718.56 Å/1486.51 Å Emission-Line Ratio in N IV. *F. P. Keenan, L. K. Harra, G. A. Doschek, & J. W. Cook.* 432, 806, 206-A10 (1994)

Three-dimensional Simulation Study of the Magnetohydrodynamic Relaxation Process in the Solar Corona. I. Spontaneous Generation of the Taylor-Heyvaerts-Priest State. *K. Kusano, Y. Suzuki, H. Kubo, T. Miyoshi, & K. Nishikawa.* 433, 361, 212-G3 (1994)

A Multisource Limb Flare Observed at Multiple Radio Wavelengths. *T. A. Kucera, G. A. Dulk, D. E. Gary, & T. S. Bastian.* 433, 875, 222-A11 (1994)

Coalescence of Two Current Loops with a Kink Instability Simulated by a Three-dimensional Electromagnetic Particle Code. *Ken-Ichi Nishikawa, Jun-ichi Sakai, Jie Zhao, Torsten Neubert, & Oscar Buneman.* 434, 363, 230-D7 (1994)

On the Absence of a Relationship between the Properties of the $T_e \geq 10^6$ K and the Properties of the $T_e \leq 7 \times 10^5$ K Solar Plasmas. *U. Feldman & J. M. Laming.* 434, 370, 230-E13 (1994)

The Study of Coronal Plasma Structures and Fluctuations with Faraday Rotation Measurements. *Takayuki Sakurai & Steven R. Spangler.* 434, 773, 238-E6 (1994)

Coronal Magnetic Structures Observing Campaign. III. Coronal Plasma and Magnetic Field Diagnostics Derived from Multiwaveband Active Region

Observations. *J. T. Schmelz, G. D. Holman, J. W. Brosius, & R. F. Willson.* 434, 786, 238-F8 (1994)

Ground-based Detection of an Infrared [Si X] Coronal Emission Line and Improved Wavelengths for the Infrared [Fe XIII] Emission Lines. *M. J. Penn & J. R. Kuhn.* 434, 807, 239-A10 (1994)

The Possible Role of MHD Waves in Heating the Solar Corona. *Lisa J. Porter, James A. Klimchuk, & Peter A. Sturrock.* 435, 482, 250-B1 (1994)

The Possible Role of High-Frequency Waves in Heating Solar Coronal Loops. *Lisa J. Porter, James A. Klimchuk, & Peter A. Sturrock.* 435, 502, 250-C10 (1994)

Polar Plumes and the Solar Wind. *Y.-M. Wang.* 435, L153, 260-E4 (1994)

Near-Infrared Emission-Line and Continuum Observations from the 1991 Eclipse. *M. J. Penn, J. Arnaud, D. L. Mickey, & B. J. LaBonte.* 436, 368, 266-C9 (1994)

On the Relation between Coronal Heating, Flux Tube Divergence, and the Solar Wind Proton Flux and Flow Speed. *Ørnulf Sandbæk, Egil Leer, & Viggo H. Hansteen.* 436, 390, 266-F9 (1994)

The Effects of a Hot Outer Atmosphere on Acoustic-Gravity Waves. *Bradley W. Hindman & Ellen G. Zweibel.* 436, 929, 278-D11 (1994)

Evolution and Statistics of Current Sheets in Coronal Magnetic Loops. *D. W. Longcope & R. N. Sudan.* 437, 491, 289-G8 (1994)

Two Types of Slow Solar Wind. *Y.-M. Wang.* 437, L67, 292-D1 (1994)

The Form of Ideal Current Layers in Line-tied Magnetic Fields. *D. W. Longcope & H. R. Strauss.* 437, 851, 297-C10 (1994)

Coulomb Collisions and Coronal Heating by Velocity Filtration. *Stephen W. Anderson.* 437, 860, 297-D8 (1994)

The Solar Corona as a Quadric Surface in Three-dimensional Space. *R. A. Gulyaev.* 437, 867, 297-E4 (1994)

Temperature Dependence of Nonthermal Motions in Solar Flare Plasmas Observed with the Flat Crystal Spectrometer on *SMM*. *Ester Antonucci & Maria Adele Dodero.* 438, 480, 8-C3 (1995)

Disruption of a Helmet Streamer by Photospheric Shear. *Jon A. Linker & Zoran Mikić.* 438, L45, 10-D7 (1995)

Angular Scattering of Radio Waves: Implications for Mode Coupling in the Solar Corona. *T. S. Bastian.* 439, 494, 27-G9 (1995)

Cooling of Solar Flare Plasmas. I. Theoretical Considerations. *Peter J. Cargill, John T. Mariska, & Spiro K. Antiochos.* 439, 1034, 39-A3 (1995)

Nonequilibrium in Sheared Axisymmetric Force-free Magnetic Fields. *J. J. Aly.* 439, L63, 40-F13 (1995)

Solar Coronal Dust Scattering in the Infrared. *R. M. MacQueen & Bradford W. Greeley.* 440, 361, 46-B8 (1995)

Coronal Loop Formation Resulting from Photospheric Convection. *G. Van Hoven, Y. Mok, & Z. Mikić.* 440, L105, 58-D8 (1995)

Gravity Waves in the Lower Solar Corona. *Yu-Qing Lou.* 442, 401, 82-E1 (1995)

Stellar Coronal Abundances. III. The Solar First Ionization Potential Effect Determined from Full-Disk Observation. *J. Martin Laming, Jeremy J. Drake, & Kenneth G. Widing.* 443, 416, 100-G2 (1995)

Shear-induced Opening of the Coronal Magnetic Field. *Richard Wolfson.* 443, 810, 109-A11 (1995)

Magnetostatic Structures of the Solar Corona. II. The Magnetic Topology of Quiescent Prominences. *B. C. Low & J. R. Hundhausen.* 443, 818, 109-B9 (1995)

Ultraviolet Observations of the Structure and Dynamics of an Active Region at the Limb. *C. M. Korendyke, K. P. Dere, D. G. Socker, G. E. Brueckner, & B. Schmieder.* 443, 869, 109-G10 (1995)

New Model of Iron Spectra in the Extreme Ultraviolet and Application to SERTS and *EUVE* Observations: A Solar Active Region and Capella. *N. S. Brickhouse, J. C. Raymond, & B. W. Smith.* 97, 551, 19-F4 (1995)

Coronal Heating by the Resonant Absorption of Alfvén Waves: Wavenumber Scaling Laws. *L. Ofman, J. M. Davila, & R. S. Steinolfson.* 444, 471, 120-B1 (1995)

Metric Type III Bursts from a Flaring X-Ray Bright Point near an Active Region. *M. R. Kundu, J. P. Raulin, M. Pick, & K. T. Strong.* 444, 922, 129-B3 (1995)

Optical Diagnostics of Coronal Loop Interactions. *Vladimir S. Airapetian & Raymond N. Smartt.* 445, 489, 139-C6 (1995)

Coordinated Observation of the Solar Corona Using the Norikura Coronagraph and the *Yohkoh* Soft X-Ray Telescope. *K. Ichimoto, H. Hara, A. Takeda, K. Kumagai, T. Sakurai, T. Shimizu, & H. S. Hudson.* 445, 978, 148-F8 (1995)

Reduction, Analysis, and Properties of Electric Current Systems in Solar Active Regions. *G. Allen Gary & Pascal Démoulin.* 445, 982, 148-G12 (1995)

Radio Interferometer Observations of Solar Wind Turbulence from the Orbit of *Helios* to the Solar Corona. *Steven R. Spangler & Takayuki Sakurai.* 445, 999, 149-B10 (1995)

Photospheric Magnetic Field Evolution and Eruptive Flares. *T. G. Forbes & E. R. Priest.* 446, 377, 158-D10 (1995)

Alfvén Turbulence Dissipation in Proton Injection and Acceleration in Solar Flares. *Dean F. Smith & James A. Miller.* 446, 390, 158-E12 (1995)

The Inclination of the Heliomagnetic Equator and the Presence of an Inclined Relic Field in the Sun. *S. Bravo & G. Stewart.* 446, 431, 159-B9 (1995)

Identification of Low-Latitude Coronal Plumes in Extreme-Ultraviolet Spectroheliograms. *Y.-M. Wang & N. R. Sheeley, Jr.* 446, L51, 161-A8 (1995)

The Possible Ascent of a Closed Magnetic System through the Photosphere. *B. W. Lites, B. C. Low, V. Martínez Pillet, P. Seagraves, A. Skumanich, Z. A. Frank, R. A. Shine, & S. Tsuneta.* 446, 877, 168-B13 (1995)

Constraints on Energy Storage and Release Models for Astrophysical Transients and Solar Flares. *Edward T. Lu.* 447, 416, 178-B8 (1995)

On Solar Emission Lines: Calculation of Relative Line Intensities Based on the Finite-Temperature Schrödinger Equation. *G. P. Malik, Usha Malik, L. K. Pande, & V. S. Varma.* 447, 443, 178-E8 (1995)

The Velocity Differential Emission Measure: Diagnostic of Bulk Plasma Motion in Solar Flares. *E. K. Newton, A. G. Emslie, & J. T. Mariska.* 447, 915, 188-E1 (1995)

Electron Time-of-Flight Differences in Solar Flares. *Markus J. Aschwanden, Richard A. Schwartz, & Daniel M. Alt.* 447, 923, 188-E12 (1995)

Absolute Abundances of Flaring Coronal Plasma Derived from *SMM* Spectral Observations. *A. Fludra & J. T. Schmelz.* 447, 936, 188-G1 (1995)

Detection of Nonthermal Radio Emission from Coronal X-Ray Jets. *M. R. Kundu, J. P. Raulin, N. Nitta, H. S. Hudson, M. Shimojo, K. Shibata, & A. Raoult.* 447, L135, 191-D7 (1995)

Physical Properties of Polar Coronal Rays and Holes as Observed with the SPARTAN 201-01 Coronagraph. *Richard Fisher & Madhulika Guhathakurta.* 447, L139, 191-E1 (1995)

Solar Implications of *Ulysses* Interplanetary Field Measurements. *Y.-M. Wang & N. R. Sheeley, Jr.* 447, L143, 191-E9 (1995)

Magnetohydrodynamic Waves in a Bounded Inhomogeneous Medium with Prominence-Corona Properties. *R. Oliver & J. L. Ballester.* 448, 444, 198-C8 (1995)

The Neupert Effect and the Chromospheric Evaporation Model for Solar Flares. *Theodore T. Lee, Vahé Petrosian, & James M. McTiernan.* 448, 915, 207-E7 (1995)

A Comparison of Active Region Temperatures and Emission Measures Observed in Soft X-Rays and Microwaves and Implications for Coronal Heating. *J. A. Klimchuk & D. E. Gary.* 448, 925, 207-F6 (1995)

Nonlinear Energy Transfer in Solar Magnetic Loops. *Daniel O. Gómez, Edward E. DeLuca, & Alexander N. McClymont.* 448, 954, 208-B8 (1995)

Fine-Scale Filamentary Structure in Coronal Streamers. *Richard Woo, John W. Armstrong, Michael K. Bird, & Martin Pätzold.* 449, L91, 217-E1 (1995)

Empirical Relationship between the Magnetic Field and the Mass and Energy Flux in the Source Regions of the Solar Wind. *Y.-M. Wang.* 449, L157, 227-F8 (1995)

The Radio Properties of Solar Active Region Soft X-Ray Transient Brightenings. *S. M. White, M. R. Kundu, T. Shimizu, K. Shibasaki, & S. Enome.* 450, 435, 234-A5 (1995)

Relationship between Cold and Hot Post–Solar Flare Loops and the Impact on the Reconnection Flare Model. *U. Feldman & J. F. Seely.* 450, 902, 243-D3 (1995)

Current Paths in the Corona and Energy Release in Solar Flares. *D. B. Melrose.* 451, 391, 251-C6 (1995)

Triggered Magnetic Energy Release in Solar Flares. *Y. Q. Hu, X. Li, & G. X. Ai.* 451, 843, 258-G4 (1995)

Klein-Gordon Equation and the Local Critical Frequency for Alfvén Waves Propagating in an Isothermal Atmosphere. *Z. E. Musielak & R. L. Moore.* 452, 434, 268-A11 (1995)

On Thermal Hydrodynamical Models of Solar Flares with a High Initial Coronal Density. *W. Q. Gan, C. C. Cheng, & C. Fang.* 452, 445, 268-B11 (1995)

Coronal Plumes and Their Relationship to Network Activity. *Y.-M. Wang & N. R. Sheeley, Jr.* 452, 457, 268-D1 (1995)

Stochastic Proton Acceleration by Cascading Alfvén Waves in Impulsive Solar Flares. *James A. Miller & D. Aaron Roberts.* 452, 912, 277-C7 (1995)

A Novel Maximum-Likelihood Method for Image Reconstruction with Increased Sampling. *George Roumeliotis.* 452, 944, 277-F5 (1995)

Measurements of the Ionic Charge States of Solar Energetic Particles Using the Geomagnetic Field. *R. A. Leske, J. R. Cummings, R. A. Mewaldt, E. C. Stone, & T. T. von Rosenvinge.* 452, L149, 280-F6 (1995)

Yohkho Soft X-Ray Spectroscopic Observations of the Bright Loop-Top Kernels of Solar Flares. *Josef I. Khan, Louise K. Harra-Murnion, Hugh S. Hudson, James R. Lemen, & Alphonse C. Sterling.* 452, L153, 280-F13 (1995)

Coronal Loop Oscillations Driven by Footpoint Motions: Analytical Results for a Model Problem. *David Berghmans & Peter De Bruyne.* 453, 495, 287-G10 (1995)

Quadrupolar Force-free Magnetic Fields with Singular Current Density Surfaces. *Y. Q. Hu.* 454, 480, 305-G12 (1995)

Coronal Heating and Solar Wind Energy Balance. *Ørnulf Sandbæk & Egil Leer.* 454, 486, 306-A7 (1995)

Soft X-Ray Loops and Coronal Heating. *Lisa J. Porter & James A. Klimchuk.* 454, 499, 306-B10 (1995)

Solar Rotation Stereoscopy in Microwaves. *Markus J. Aschwanden, Jeremy Lim, Dale E. Gary, & James A. Klimchuk.* 454, 512, 306-C12 (1995)

Scaling Law of Solar Coronal Loops Obtained with *Yohkoh*. *Ryouhei Kano & Saku Tsuneta.* 454, 934, 314-F7 (1995)

Quiet-Sun Connection between Intensity, Doppler Shift, and Line Broadening in Solar Ultraviolet Emission Lines. *N. Brynildsen, O. Kjeldseth-Moe, & P. Maltby.* 455, L81, 325-G8 (1995)

The Damping of Compressional Alfvén Waves near Magnetic Cusp Configurations. *R. A. Scheper & A. B. Hassam.* 455, 693, 331-D11 (1995)

Accuracy, Uncertainties, and Delay Distribution of Electron Time-of-Flight Measurements in Solar Flares. *Markus J. Aschwanden & Richard A. Schwartz.* 455, 699, 331-E6 (1995)

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Formation of the Infrared Emission Lines of Mg I in the Solar Atmosphere. *E. S. Chang, E. H. Avrett, P. J. Mauas, R. W. Noyes, & R. Loeser.* 379, L79, 175-E1 (1991)

Submillimeter Solar Limb Profiles Determined from Observations of the Total Solar Eclipse of 1988 March 18. *T. L. Roellig, E. E. Becklin, J. T. Jefferies, G. A. Kopp, C. A. Lindsey, F. Q. Orrall, & M. W. Werner.* 381, 288, 192-E5 (1991)

SUN: EVOLUTION

X-Ray Emission from the Sun in Its Youth and Old Age. *J. D. Dorren, M. Güdel, & E. F. Guinan.* 448, 431, 198-B3 (1995)

Early Solar Mass Loss, Element Diffusion, and Solar Oscillation Frequencies. *Joyce A. Guzik & Arthur N. Cox.* 448, 905, 207-D7 (1995)

SUN: FACULAE

On the Contrast of Facular Hillocks in the Infrared. *Kenneth H. Schatten & Hans G. Mayr.* 372, 728, 84-F7 (1991)

Polar Faculae: 1906–1990. *N. R. Sheeley, Jr.* 374, 386, 102-G11 (1991)

Weak Magnetic Fields and Solar Irradiance Variations. *J. K. Lawrence, G. A. Chapman, & S. R. Walton.* 375, 771, 122-C1 (1991)

Multicolor Continuum Analysis of the Solar Granulation in Quiet and Active Regions. *C. U. Keller & S. Koutchmy.* 379, 751, 174-B1 (1991)

Nonfacular Solar Luminosity Variations. *J. R. Kuhn & K. G. Libbrecht.* 381, L35, 194-E1 (1991)

SUN: FACULAE, FLOCCULI

Coronal Magnetic Structures Observing Campaign. IV. Multiwaveband Observations of Sunspot and Plage-associated Coronal Emission. *Jeffrey W. Brosius, Robert F. Willson, Gordon D. Holman, & Joan T. Schmelz.* 386, 347, 28-E1 (1992)

A True-Field Magnetogram in a Solar Plage Region. *Douglas Rabin.* 390, L103, 85-D1 (1992)

Properties of the Smallest Solar Magnetic Elements. I. Facular Contrast near Sun Center. *K. P. Topka, T. D. Tarbell, & A. M. Title.* 396, 351, 159-D6 (1992)

SUN: FACULAE, PLAGES

Simultaneous Observations of Solar Plage with the Solar Extreme Ultraviolet Rocket Telescope and Spectrograph (SERTS), the VLA, and the Kitt Peak Magnetograph. *Jeffrey W. Brosius, Joseph M. Davila, William T. Thompson, Roger J. Thomas, Gordon D. Holman, N. Gopalswamy, Stephen M. White, Mukul R. Kundu, & Harrison P. Jones.* 411, 410, 132-E4 (1993)

The Center-to-Limb Brightness Variation of the Sun at $\lambda = 850$ Microns. *T. S. Bastian, M. W. Ewell, Jr., & H. Zirin.* 415, 364, 189-D13 (1993)

Effects of Weak-to-Moderate Vertical Magnetic Fields on Solar *f*- and *p*-Modes. *P. S. Cally.* 451, 372, 251-A8 (1995)

New Observations of Subarcsecond Photospheric Bright Points. *T. E. Berger, C. J. Schrijver, R. A. Shine, T. D. Tarbell, A. M. Title, & G. Scharmer.* 454, 531, 306-E11 (1995)

SUN: FLARES

High Coronal Flares and Impulsive Acceleration of Solar Energetic Particles. *E. Cliver & S. Kahler.* 366, L91, 11-E11 (1991)

A Study of Solar Flare Energy Transport Based on Coordinated Hα and X-Ray Observations. *Richard C. Canfield, Dominic M. Zarro, Jean-Pierre Wülser, & Brian R. Dennis.* 367, 671, 21-E11 (1991)

On the Transport and Acceleration of Solar Flare Particles in a Coronal Loop. *James M. Ryan & Martin A. Lee.* 368, 316, 26-A7 (1991)

First Interferometric Observations of Solar Microwave Millisecond Spike Bursts. *Dale E. Gary, G. J. Hurford, & D. J. Flees.* 369, 255, 39-B1 (1991)

Fe XII Line Ratios in Solar Flares. *S. S. Tayal, Ronald J. W. Henry, F. P. Keenan, S. M. McCann, & K. G. Widing.* 369, 567, 44-G1 (1991)

Solar Radio Microbursts at 1.4 GHz. *T. S. Bastian.* 370, L49, 53-F11 (1991)

Opacity Effects on the Radiative Losses of Coronal Loops. *N. P. M. Kuin & A. I. Poland.* 370, 763, 57-G11 (1991)

The Magnetic Network Location of Explosive Events Observed in the Solar Transition Region. *J. G. Porter & K. P. Dere.* 370, 775, 58-A11 (1991)

Dynamic Magnetic Reconnection at an X-Type Neutral Point. *I. J. D. Craig & A. N. McClymont.* 371, L41, 66-F1 (1991)

Solar Abundances from Gamma-Ray Spectroscopy: Comparisons with Energetic Particle, Photospheric, and Coronal Abundances. *R. J. Murphy, R. Ramaty, B. Kozlovsky, & D. V. Reames.* 371, 793, 71-D6 (1991)

Direct Radiation from a Strong DC Electric Field. *Donat G. Wentzel.* 373, 285, 89-E3 (1991)

A Slingshot Model for Solar Flares. *Gregory Benford.* 373, 671, 96-C9 (1991)

Fe XIV Line Ratios in the Sun. *F. P. Keenan, P. L. Dufton, M. B. Boylan, A. E. Kingston, & K. G. Widing.* 373, 695, 96-E13 (1991)

Consequences of Strong Pitch-Angle Diffusion of Particles in Solar Flares. *P. A. Bespalov, V. V. Zaitsev, & A. V. Stepanov.* 374, 369, 102-F5 (1991)

Temperature-dependent Saturation of Hydrogen Lines in Solar Flares. *K. G. Gayley.* 374, 773, 108-F5 (1991)

Interrelation of Soft and Hard X-Ray Emissions during Solar Flares. I. Observations. *R. M. Winglee, A. L. Kiplinger, D. M. Zarro, G. A. Dulk, & J. R. Lemen.* 375, 366, 115-D13 (1991)

Interrelation of Soft and Hard X-Ray Emissions during Solar Flares. II. Simulation Model. *R. M. Winglee, G. A. Dulk, P. L. Bornmann, & J. C. Brown.* 375, 382, 115-F1 (1991)

How Much Energy Can Be Stored in a Three-dimensional Force-free Magnetic Field? *J. J. Aly.* 375, L61, 124-C11 (1991)

Magnetohydrodynamic Turbulence Dissipation and Stochastic Proton Acceleration in Solar Flares. *James A. Miller.* 376, 342, 129-B11 (1991)

The Interaction of Collisionless Shocks in Astrophysical Plasmas. *P. J. Cargill.* 376, 771, 136-A1 (1991)

Particle Injection following Solar Flares on 1980 May 28 and June 8: Evidence for Different Injection Time Histories in Impulsive and Gradual Events? *M.-B. Kallenrode & G. Wibberenz.* 376, 787, 136-B8 (1991)

Flares Observed by the Normal Incidence X-Ray Telescope on 1989 September 11. *M. Herant, F. Pardo, E. Spiller, & L. Golub.* 376, 797, 136-C6 (1991)

Magnetohydrodynamics of an Impulsively Heated, Hard X-Ray Emitting Filament. *George Roumeliotis & A. Gordon Emslie.* 377, 685, 148-B9 (1991)

Alfvén Wave Trapping, Network Microflaring, and Heating in Solar Coronal Holes. *R. L. Moore, Z. E. Musielak, S. T. Suess, & C.-H. An.* 378, 347, 155-C5 (1991)

Multi–Wave Band *SMM*–VLA Observations of an M2 Flare and an Associated Coronal Mass Ejection. *Robert F. Willson, Joan T. Schmelz, Raymond D. Gonzalez, Kenneth R. Lang, & Kermit L. Smith.* 378, 360, 155-D6 (1991)

Center-to-Limb Variations of Characteristics of Solar Flare Hard X-Ray and Gamma-Ray Emission. *James M. McTiernan & Vahé Petrosian.* 379, 381, 167-F11 (1991)

The Iron-to-Calcium Abundance Ratio in the 20 × 10^6 K Plasma of Medium and Large Solar Flares. *K. J. H. Phillips & U. Feldman.* 379, 401, 168-A5 (1991)

The $3s^23p\ ^2P$–$3s3p^2\ ^4P$ Intercombination Lines of Fe XIV in the Sun. *F. P. Keenan, P. L. Dufton, E. S. Conlon, M. B. Boylan, A. E. Kingston, & K. G. Widing.* 379, 406, 168-A11 (1991)

Solar Gamma-Ray-Line Flares, Type II Radio Bursts, and Coronal Mass Ejections. *E. W. Cliver, H. V. Cane, D. J. Forrest, M. J. Koomen, R. A. Howard, & C. S. Wright.* 379, 741, 174-A2 (1991)

Motions, Fields, and Flares in the 1989 March Active Region. *Haimin Wang, Frances Tang, Harold Zirin, & Guoxiang Ai.* 380, 282, 179-E1 (1991)

Multispacecraft Observations of Solar ^{3}He-rich Events. *D. V. Reames, M.-B. Kallenrode, & R. G. Stone.* 380, 287, 179-G1 (1991)

Magnetic Field–aligned Electric Potentials in Nonideal Plasma Flows. *K. Schindler, M. Hesse, & J. Birn.* 380, 293, 179-G9 (1991)

Avalanches and the Distribution of Solar Flares. *Edward T. Lu & Russell J. Hamilton.* 380, L89, 188-F5 (1991)

Neutralized and Unneutralized Current Patterns in the Solar Corona. *D. B. Melrose.* 381, 306, 192-F13 (1991)

Numerical Simulations of Microflare Evolution in the Solar Transition Region and Corona. *Alphonse C. Sterling, John T. Mariska, Kazunari Shibata, & Yoshinori Suematsu.* 381, 313, 192-G8 (1991)

Soft X-Ray Emission from Electron-Beam–heated Solar Flares. *John T. Mariska & Dominic M. Zarro.* 381, 572, 197-F10 (1991)

Subthreshold Stochastic Diffusion with Application to Selective Acceleration of ^{3}He in Solar Flares. *Spilios Riyopoulos.* 381, 578, 197-G5 (1991)

Large Solar Flares: Analysis of the Events Recorded by the Mont Blanc Neutrino Detector. *M. Aglietta, G. Badino, G. Bologna, C. Castagnoli, A. Castellina, V. L. Dadykin, W. Fulgione, P. Galeotti, F. F. Kalchukov, I. V. Korolkova, P. V. Kortchaguin, V. A. Kudryavtsev, A. S. Malguin, L. Periale, V. G. Ryassny, O. G. Ryazhskaya, O. Saavedra, G. Trinchero, S. Vernetto, V. F. Yakushev, & G. T. Zatsepin.* 382, 344, 204-D9 (1991)

Improved Line Ratio Calculations Involving $\Delta n = 1$ (2–3) Transitions in O V and a Reanalysis of *Skylab* Observations of Solar Flares. *F. P. Keenan, P. L. Dufton, L. K. Harra, E. S. Conlon, K. A. Berrington, A. E. Kingston, & K. G. Widing.* 382, 349, 204-E1 (1991)

Interplanetary Transport of Decay Protons from Solar Flare Neutrons. *D. Ruffolo.* 382, 688, 210-B12 (1991)

Energetics and Dynamics in a Large Solar Flare of 1989 March. *Jean-Pierre Wülser, Dominic M. Zarro, & Richard C. Canfield.* 384, 341, 5-B13 (1992)

Multifrequency Observations of a Remarkable Solar Radio Burst. *S. M. White, M. R. Kundu, T. S. Bastian, D. E. Gary, G. J. Hurford, T. Kucera, & J. H. Bieging.* 384, 656, 10-C5 (1992)

The Practical Application of the Magnetic Virial Theorem. *J. A. Klimchuk, R. C. Canfield, & J. E. Rhoads.* 385, 327, 16-A1 (1992)

Three-dimensional Force-free Magnetic Fields and Flare Energy Buildup. *J. A. Klimchuk & P. A. Sturrock.* 385, 344, 16-B6 (1992)

Fluid Flow in a Jet and the Ca XIX Line Profiles Observed during Solar Flares. *P. L. Bornmann & J. R. Lemen.* 385, 363, 16-D1 (1992)

C IV Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, L. K. Harra, V. M. Burke, & K. G. Widing.* 385, 381, 16-E9 (1992)

The Origin of the Far-Ultraviolet Continuum in Solar and Stellar Flares. *K. J. H. Phillips, G. E. Bromage, & J. G. Doyle.* 385, 731, 22-B11 (1992)

Cylindrically Symmetric Force-free Magnetic Fields. *Lisa J. Porter, James A. Klimchuk, & Peter A. Sturrock.* 385, 738, 22-C6 (1992)

Transitions from Metastable Levels Emitted during Short-Duration Bursts: How Valid Are Their Calculated Intensities? *Uri Feldman.* 385, 758, 22-E1 (1992)

A Burst Model for Line Emission in the Solar Atmosphere. I. XUV Lines of He I and He II in Impulsive Flares. *J. M. Laming & U. Feldman.* 386, 364, 28-F8 (1992)

Mg IX Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, L. K. Harra, & K. G. Widing.* 386, 371, 28-G1 (1992)

X-Ray–heated Models of Stellar Flare Atmospheres: Theory and Comparison with Observations. *Suzanne L. Hawley & George H. Fisher.* 78, 565, 10-F1 (1992)

Energy Propagation into a Flare Kernel during a Solar Flare. *D. B. Melrose.* 387, 403, 42-A1 (1992)

The Solar Flare Event on 1990 May 24: Evidence for Two Separate Particle Accelerations. *H. Debrunner, J. A. Lockwood, & J. M. Ryan.* 387, L51, 43-F7 (1992)

Energy Spectra of Ions from Impulsive Solar Flares. *D. V. Reames, I. G. Richardson, & K.-P. Wenzel.* 387, 715, 47-E11 (1992)

The 77 Day Periodicity in the Flare Rate of Cycle 22. *T. Bai.* 388, L69, 59-D3 (1992)

Taylor Relaxation of a Gold-Hoyle Flux Tube. *G. J. Rickard.* 389, 413, 65-A10 (1992)

Ne V Line Ratios in the EUV Spectra of Solar Flares. *F. P. Keenan, E. S. Conlon, L. K. Harra, K. M. Aggarwal, & K. G. Widing.* 389, 440, 65-D1 (1992)

What Caused an Unusually Broad He I 10830 Å Emission Line in a Solar Limb Flare? *J. Q. You & G. K. Oertel.* 389, L33, 66-E1 (1992)

High-Energy Gamma-Ray Emission from Pion Decay in a Solar Flare Magnetic Loop. *Natalie Mandzhavidze & Reuven Ramaty.* 389, 739, 70-E6 (1992)

Characteristics of Hard X-Ray Spectra of Impulsive Solar Flares. *G. A. Dulk, A. L. Kiplinger, & R. M. Winglee.* 389, 756, 70-F11 (1992)

Variations in the Relative Elemental Abundances of Oxygen, Neon, Magnesium, and Iron in High-Temperature Solar Active-Region and Flare Plasmas. *D. L. McKenzie & U. Feldman.* 389, 764, 70-G7 (1992)

Magnetic Reconnection in Incompressible Fluids. *Edward E. DeLuca & Ian J. D. Craig.* 390, 679, 83-F7 (1992)

Stereoscopic Observations of a Solar Flare Hard X-Ray Source in the High Corona. *S. R. Kane, J. McTiernan, J. Loran, E. E. Fenimore, R. W. Klebesadel, & J. G. Laros.* 390, 687, 83-G7 (1992)

Composition and Azimuthal Spread of Solar Energetic Particles from Impulsive and Gradual Flares. *M.-B. Kallenrode, E. W. Cliver, & G. Wibberenz.* 391, 370, 90-D12 (1992)

The Sun as a Star: High Spectral Resolution Solar Data Degraded to Low-Dispersion *IUE* Resolution. *J. G. Doyle & J. W. Cook.* 391, 393, 90-G1 (1992)

A Thermal/Nonthermal Model for Solar Microwave Bursts. *Stephen G. Benka & Gordon D. Holman.* 391, 854, 98-E7 (1992)

Impulsive Phase Fe Kα Emission in a Flare of 1989 March. *D. M. Zarro, B. R. Dennis, & G. L. Slater.* 391, 865, 98-F6 (1992)

The Production of ^{3}He and Heavy Ion Enrichments in ^{3}He-rich Flares by Electromagnetic Hydrogen Cyclotron Waves. *M. Temerin & I. Roth.* 391, L105, 100-B1 (1992)

Stochastic Gyroresonant Electron Acceleration in a Low-Beta Plasma. I. Interaction with Parallel Transverse Cold Plasma Waves. *Jürgen Steinacker & James A. Miller.* 393, 764, 125-C10 (1992)

X-Ray Emission-Line Ratios in Mg XI as Electron Temperature Diagnostics for Solar Flares and Active Regions. *F. P. Keenan, K. J. H. Phillips, L. K. Harra, E. S. Conlon, & A. E. Kingston.* 393, 815, 126-A9 (1992)

Propagation Conditions of Relativistic Electrons in the Inner Heliosphere. *M.-B. Kallenrode, G. Wibberenz, & S. Hucke.* 394, 351, 132-C11 (1992)

Microwave Transition Radiation in Solar Flares and in Astrophysics. *G. D. Fleishman & S. W. Kahler.* 394, 688, 138-A11 (1992)

Observation of Upflows during Soft X-Ray Solar Flares. *J. F. Seely & Uri Feldman.* 394, 697, 138-B9 (1992)

The Thermal and Plasma-physical Evolution of Laminar Current Sheets Formed in the Solar Atmosphere by Emerging Flux. *T. N. LaRosa.* 396, 289, 158-F3 (1992)

Gamma Rays from Pion Decay: Evidence for Long-Term Trappings of Particles in Solar Flares. *Natalie Mandzhavidze & Reuven Ramaty.* 396, L111, 167-F7 (1992)

The Role of Chromospheric Condensations in the Continuum Emission of White-Light Flares. *W. Q. Gan, E. Rieger, H. Q. Zhang, & C. Fang.* 397, 694, 179-F8 (1992)

Stochastic Acceleration of Electrons. I. Effects of Collisions in Solar Flares. *Russell J. Hamilton & Vahé Petrosian.* 398, 350, 186-B5 (1992)

Stochastic Gyroresonant Electron Acceleration in a Low-Beta Plasma. II. Implications of Thermal Effects in a Solar Flare Plasma. *James A. Miller & Jürgen Steinacker.* 399, 284, 198-F12 (1992)

Diagnostics of Electron-heated Solar Flare Models. III. Effects of Tapered Loop Geometry and Preheating. *A. Gordon Emslie, Peng Li, & John T. Mariska.* 399, 714, 206-G7 (1992)

Band Splitting in Solar Type II Radio Bursts. *R. A. Treumann & J. LaBelle.* 399, L167, 208-E7 (1992)

Observation of Solar Neutrons Associated with the Large Flare on 1991 June 4. *Y. Muraki, K. Murakami, M. Miyazaki, K. Mitsui, S. Shibata, S. Sakakibara, T. Sakai, T. Takahashi, T. Yamada, & K. Yamaguchi.* 400, L75, 220-F1 (1992)

A Hybrid Thermal/Nonthermal Model for the Energetic Emissions from Solar Flares. *Gordon D. Holman & Stephen G. Benka.* 400, L79, 220-F8 (1992)

The Energy Spectra of Solar Flare Hydrogen, Helium, Oxygen, and Iron: Evidence for Stochastic Acceleration. *J. E. Mazur, G. M. Mason, B. Klecker, & R. E. McGuire.* 401, 398, 226-A5 (1992)

Extreme Ultraviolet Line Ratios for Ca XV Applicable to Solar Flare Spectra. *F. P. Keenan, E. S. Conlon, V. J. Foster, K. M. Aggarwal, & K. G. Widing.* 401, 411, 226-B5 (1992)

The Coevolution of Decimetric Millisecond Spikes and Hard X-Ray Emission during Solar Flares. *Markus J. Aschwanden & Manuel Güdel.* 401, 736, 231-F1 (1992)

Coordinated Spectral and Temporal Hα Observations of a Solar Flare. *J.-F. de La Beaujardière, Alan L. Kiplinger, & Richard C. Canfield.* 401, 761, 232-A5 (1992)

On the Absolute Abundance of Calcium in Solar Flares. *Alphonse C. Sterling, George A. Doschek, & Uri Feldman.* 404, 394, 32-F7 (1993)

A Burst Model for Line Emission in the Solar Atmosphere. III. A Reassessment of the Assumptions of Constant Pressure and Steady State Coronal Equilibrium in the Solar Transition Region. *U. Feldman & J. M. Laming.* 404, 799, 38-G9 (1993)

Variability of the Occurrence Frequency of Solar Flares as a Function of Peak Hard X-Ray Rate. *T. Bai.* 404, 805, 39-A1 (1993)

The Abundances of Hydrogen, Helium, Oxygen, and Iron Accelerated in Large Solar Particle Events. *J. E. Mazur, G. M. Mason, B. Klecker, & R. E. McGuire.* 404, 810, 39-A8 (1993)

Identification of the Fe XV $3s3p\ ^1P–3p^2\ ^1S$ Line in Solar Flare Spectra and Its Use as an Electron Density Diagnostic. *F. P. Keenan, P. L. Dufton, E. S. Conlon, V. J. Foster, A. E. Kingston, & K. G. Widing.* 405, 798, 53-A7 (1993)

Coronal Proton Acceleration by Magnetohydrodynamic Waves and Related Proton Transport. *D. F. Smith & S. H. Brecht.* 406, 298, 58-F10 (1993)

The Solar White-Light Flare of 1989 March 7: Simultaneous Multiwavelength Observations at High Time Resolution. *Donald F. Neidig, Alan L. Kiplinger, Howard S. Cohl, & Philip H. Wiborg.* 406, 306, 58-G6 (1993)

Theoretical Emission-Line Strengths for Fe XXIII and a Comparison with Solar Observational Data. *F. P. Keenan, E. S. Conlon, G. A. Warren, A. W. Boone, & P. H. Norrington.* 406, 350, 59-D1 (1993)

Flux Emergence and Umbra Formation after the X-9 Flare of 1991 March 22. *Haimin Wang & Frances Tang.* 407, L89, 82-F6 (1993)

Elemental Abundances of Flaring Solar Plasma: Enhanced Neon and Sulfur. *J. T. Schmelz.* 408, 373, 87-G5 (1993)

Lower Hybrid Resonance Acceleration of Electrons and Ions in Solar Flares and the Associated Microwave Emission. *K. G. McClements, R. Bingham, J. J. Su, J. M. Dawson, & D. S. Spicer.* 409, 465, 102-F9 (1993)

Evidence for a Fundamental Period of the Sun and Its Relation to the 154 Day Complex of Periodicities. *T. Bai & P. A. Sturrock.* 409, 476, 102-G8 (1993)

Magnetic Field Power Density Spectra during "Scatter-free" Solar Particle Events. *L. C. Tan & G. M. Mason.* 409, L29, 104-E1 (1993)

Solar Neutron and Proton Production during the 1990 May 24 Cosmic-Ray Flare Increases. *H. Debrunner, J. A. Lockwood, & J. M. Ryan.* 409, 822, 109-D1 (1993)

Evidence for a Spatially Extended Component of Gamma Rays from Solar Flares. *W. Thomas Vestrand & David J. Forrest.* 409, L69, 111-F8 (1993)

The Morphology of Flare Phenomena, Magnetic Fields, and Electric Currents in Active Regions. I. Introduction and Methods. *Richard C. Canfield, J.-F. de La Beaujardière, Yuhong Fan, K. D. Leka, A. N. McClymont, Thomas R. Metcalf, Donald L. Mickey, Jean-Pierre Wülser, & Bruce W. Lites.* 411, 362, 131-G1 (1993)

The Morphology of Flare Phenomena, Magnetic Fields, and Electric Currents in Active Regions. II. NOAA Active Region 5747 (1989 October). *K. D. Leka, Richard C. Canfield, A. N. McClymont, J.-F. de La Beaujardière, Yuhong Fan, & F. Tang.* 411, 370, 131-G12 (1993)

The Morphology of Flare Phenomena, Magnetic Fields, and Electric Currents in Active Regions. III. NOAA Active Region 6233 (1990 August). *J.-F. de La Beaujardière, Richard C. Canfield, & K. D. Leka.* 411, 378, 132-A10 (1993)

Ion Acceleration and Abundance Enhancements by Electron Beam Instabilities in Impulsive Solar Flares. *James A. Miller & Adolfo F. Viñas.* 412, 386, 146-G12 (1993)

The Distribution of Flare Parameters and Implications for Coronal Heating. *Theodore T. Lee, Vahé Petrosian, & James M. McTiernan.* 412, 401, 147-B1 (1993)

Solar Flares and Avalanches in Driven Dissipative Systems. *Edward T. Lu, Russell J. Hamilton, J. M. McTiernan, & Kenneth R. Bromund.* 412, 841, 154-C9 (1993)

Multiple Wavelength Observations of an Off-Limb Eruptive Solar Flare. *T. A. Kucera, G. A. Dulk, A. L. Kiplinger, R. M. Winglee, T. S. Bastian, & M. Graeter.* 412, 853, 154-D10 (1993)

Simulations of the Ca XIX Spectral Emission from a Flaring Solar Coronal Loop. II. Impulsive Heating by Accelerated Electrons. *E. Antonucci, M. A. Dodero, R. Martin, G. Peres, F. Reale, & S. Serio.* 413, 786, 166-B11 (1993)

VLA-BATSE Observations of an Intense Solar Decimetric and Hard X-Ray Burst. *Robert F. Willson.* 413, 798, 166-C11 (1993)

S XI Line Ratios in the Sun. *F. P. Keenan, V. J. Foster, E. S. Conlon, K. M. Aggarwal, & K. G. Widing.* 413, 826, 166-F3 (1993)

Anomalous Resistivity and the Evolution of Magnetic Field Topology. *E. N. Parker.* 414, 389, 174-G5 (1993)

Long-Term Containment of Energetic Particles in Coronal Loops. *Yun-Tung Lau, Theodore G. Northrop, & John M. Finn.* 414, 908, 182-E10 (1993)

The White-Light Flare of 1982 June 15: A Midchromospheric Kernel. *Pablo J. D. Mauas.* 414, 928, 182-G10 (1993)

Ion Acceleration in Impulsive Solar Flares. *Jürgen Steinacker, Uwe Jaekel, & Reinhard Schlickeiser.* 415, 342, 189-C1 (1993)

A Linear Solution for Magnetic Reconnection Driven by Converging or Diverging Footpoint Motions. *George Roumeliotis & Ronald L. Moore.* 416, 386, 205-G7 (1993)

The 1992 January 5 Flare at 13.3 UT: Observations from *Yohkoh*. *G. A. Doschek, K. T. Strong, R. D. Bentley, C. M. Brown, J. L. Culhane, A. Fludra, E. Hiei, J. Lang, J. T. Mariska, K. J. H. Phillips, C. D. Pike, A. C. Sterling, T. Watanabe, L. W. Acton, M. E. Bruner, T. Hirayama, S. Tsuneta, E. Rolli, T. Kosugi, M. Yoshimori, H. S. Hudson, T. R. Metcalf, J.-P. Wuelser, Y. Uchida, & Y. Ogawara.* 416, 845, 214-A1 (1993)

Quasi-periodic Particle Injection into Coronal Loops. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Victor Gaizauskas.* 416, 857, 214-B5 (1993)

Semiempirical Flare Models with Chromospheric Condensation. *W. Q. Gan, E. Rieger, & C. Fang.* 416, 886, 214-D10 (1993)

Temperature and Density Structure of the 1991 November 2 Flare Observed by the *YOHKOH* Soft X-Ray Telescope and Hard X-Ray Telescope. *James M. McTiernan, Sharad R. Kane, Jon M. Loran, James R. Lemen, Loren W. Acton, Hirohisa Hara, Saku Tsuneta, & Takeo Kosugi.* 416, L91, 216-F6 (1993)

Implications of the Soft X-Ray versus Hard X-Ray Temporal Relationship in Solar Flares. *Peng Li, A. Gordon Emslie, & John T. Mariska.* 417, 313, 221-D6 (1993)

Catastrophic Evolution of a Force-free Flux Rope: A Model for Eruptive Flares. *P. A. Isenberg, T. G. Forbes, & P. Démoulin.* 417, 368, 222-B7 (1993)

Two Accelerated Electron Populations in the 1980 June 27 Solar Flare. *R. P. Lin & Christopher M. Johns.* 417, L53, 223-E1 (1993)

The Timing of Electron Beam Signatures in Hard X-Ray and Radio: Solar Flare Observations by BATSE/*Compton Gamma-Ray Observatory* and PHOENIX. *Markus J. Aschwanden, Arnold O. Benz, & Richard A. Schwartz.* 417, 790, 229-C3 (1993)

Particle Acceleration and Flare Triggering in Large-Scale Magnetic Loops Joining Widely Spaced Active Regions. *Robert F. Willson, Kenneth R. Lang, & Dale E. Gary.* 418, 490, 237-B1 (1993)

Coronal Heating by Nanoflares: Individual Events and Global Energetics. *R. A. Kopp & G. Poletto.* 418, 496, 237-B10 (1993)

Coronal Abundances of Neon and Magnesium Isotopes from Solar Energetic Particles. *R. S. Selesnick, A. C. Cummings, J. R. Cummings, R. A. Leske, R. A. Mewaldt, E. C. Stone, & T. T. von Rosenvinge.* 418, L45, 238-F1 (1993)

A Mechanism for Bulk Energization in the Impulsive Phase of Solar Flares: MHD Turbulent Cascade. *T. N. LaRosa & R. L. Moore.* 418, 912, 244-A2 (1993)

Flare Plasma Dynamics Observed with the *Yohkoh* Bragg Crystal Spectrometer. I. Properties of the Ca XIX Resonance Line. *John T. Mariska, G. A. Doschek, & R. D. Bentley.* 419, 418, 251-D7 (1993)

Helium-like Argon Line Emission in Solar Flares. *K. J. H. Phillips, L. K. Harra, F. P. Keenan, D. M. Zarro, & M. Wilson.* 419, 426, 251-E3 (1993)

Temperature and Hard X-Ray Signatures for Energetic Proton Events. *Howard A. Garcia.* 420, 422, 6-B3 (1994)

A Flare Caused by Interacting Coronal Loops. *Yoichiro Hanaoka.* 420, L37, 7-E9 (1994)

Searching for Hard X-Ray Directivity during the Rise, Peak, and Decay Phases of Solar Flares. *Peng Li.* 421, 381, 20-F7 (1994)

The Correlation of Solar Flare Hard X-Ray Bursts with Doppler Blueshifted Soft X-Ray Flare Emission. *R. D. Bentley, G. A. Doschek, G. M. Simnett, M. L. Rilee, J. T. Mariska, J. L. Culhane, T. Kosugi, & T. Watanabe.* 421, L55, 22-B13 (1994)

Very Impulsive Solar Flares Observed with the *Yohkoh* Spacecraft. *U. Feldman, E. Hiei, K. J. H. Phillips, C. M. Brown, & J. Lang.* 421, 843, 28-F7 (1994)

Ne VI Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, G. A. Warren, A. K. Pradhan, H. L. Zhang, D. H. Sampson, & K. G. Widing.* 421, 851, 28-G8 (1994)

Some Implications of the Nanoflare Concept. *Peter J. Cargill.* 422, 381, 34-G2 (1994)

A Comparison of Nonrelativistic Electron Escape Efficiencies for Solar Flares with and without Coronal Mass Ejections. *S. W. Kahler, E. I. Daibog, V. G. Kurt, & V. G. Stolpovskii.* 422, 394, 35-A1 (1994)

Impulsive Behavior in Solar Soft X-Radiation. *H. S. Hudson, K. T. Strong, B. R. Dennis, D. Zarro, M. Inda, T. Kosugi, & T. Sakao.* 422, L25, 36-D13 (1994)

Morphology of Active Region Transient Brightenings with the *Yohkoh* Soft X-Ray Telescope. *Toshifumi Shimizu, Saku Tsuneta, Loren W. Acton, James R. Lemen, Yoshiaki Ogawara, & Yutaka Uchida.* 422, 906, 43-B13 (1994)

Strong Double Layers, Existence Criteria, and Annihilation: An Application to Solar Flares. *Martin Volwerk & Jan Kuijpers.* 90, 589, 11-B2 (1994)

Millimeter, Microwave, Hard X-Ray, and Soft X-Ray Observations of Energetic Electron Populations in Solar Flares. *M. R. Kundu, S. M. White, N. Gopalswamy, & J. Lim.* 90, 599, 11-C1 (1994)

Solar Hard X-Ray and Gamma-Ray Observations from *Granat. N. Vilmer.* 90, 611, 11-D1 (1994)

Turbulent Acceleration in Solar Flares. *D. B. Melrose.* 90, 623, 11-E1 (1994)

Pulsed Acceleration in Solar Flares. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Mukul R. Kundu.* 90, 631, 11-E11 (1994)

Gamma-Ray Spectral Observations with *Yohkoh. M. Yoshimori, K. Suga, K. Morimoto, T. Hiraoka, J. Sato, K. Kawabata, & K. Ohki.* 90, 639, 11-F7 (1994)

Gamma-Ray Precursors of Solar Flares. *E. Rieger.* 90, 645, 11-G1 (1994)

Energetic-Particle Abundances in Impulsive Solar Flare Events. *D. V. Reames, J. P. Meyer, & T. T. von Rosenvinge.* 90, 649, 11-G7 (1994)

Microwave Burst Timescales and Solar Flare Acceleration Processes. *A. Krüger, B. Kliem, J. Hildebrandt, & V. V. Zaitsev.* 90, 683, 12-C3 (1994)

Positron Annihilation Radiation from the 1991 November 15 Flare. *K. Kawabata, M. Yoshimori, K. Suga, K. Morimoto, T. Hiraoka, J. Sato, & K. Ohki.* 90, 701, 12-D13 (1994)

The Flare of 1989 September 9 09:09 UT: Does Coronal Loop Collision Initiate Efficient Gamma-Ray Emission? *H. Aurass, A. Hofmann, & E. Rieger.* 90, 707, 12-E6 (1994)

Efficiency for Electron Acceleration in Solar Energy Release Region as Estimated in the Context of Plasma Mechanism of Radio Emission. *B. N. Levin, V. M. Fridman, & O. A. Sheiner.* 90, 713, 12-E13 (1994)

Particle Orbits, Trapping, and Acceleration in a Filamentary Current Sheet Model. *Bernhard Kliem.* 90, 719, 12-F6 (1994)

Electron-Beam Evolution in Partially Ionized Hydrogenic Plasma with Return Currents. *D. V. Syniavskii & V. V. Zharkova.* 90, 729, 12-G4 (1994)

A Necessary Condition for the Stability of a Class of Three-dimensional Laminated Equilibria. *A. W. Longbottom, J. P. Melville, & A. W. Hood.* 423, 496, 52-C11 (1994)

Evolution of Vector Magnetic Field and White-Light Flares in a Solar Active Region (NOAA 6659) in 1991 June. *Hongqi Zhang, Guoxiang Ai, Xu Yan, Wei Li, & Yang Liu.* 423, 828, 59-A5 (1994)

A Numerical Study of the Sudden Eruption of Sheared Magnetic Fields. *George Roumeliotis, Peter A. Sturrock, & Spiro K. Antiochos.* 423, 847, 59-D1 (1994)

Vector Magnetic Field Changes Associated with X-Class Flares. *Haimin Wang, M. W. Ewell, Jr., H. Zirin, & Guoxiang Ai.* 424, 436, 67-C6 (1994)

The Morphology of the 10^7 K Plasma in Solar Flares. I. Nonimpulsive Flares. *U. Feldman, J. F. Seely, G. A. Doschek, K. T. Strong, L. W. Acton, Y. Uchida, & S. Tsuneta.* 424, 444, 67-D1 (1994)

Multispectral Observations of Chromospheric Evaporation in the 1991 November 15 X-Class Solar Flare. *Jean-Pierre Wülser, Richard C. Canfield, Loren W. Acton, J. Leonard Culhane, Andrew Phillips, Andrzej Fludra, Taro Sakao, Satoshi Masuda, Takeo Kosugi, & Saku Tsuneta.* 424, 459, 67-E4 (1994)

Time Evolution of a Miniflare as Seen in Hα, UV Lines, and X-Rays. *J. Fontenla, B. Schmieder, G. M. Simnett, & E. Tandberg-Hanssen.* 424, 1022, 77-E3 (1994)

Focused Interplanetary Transport of ∼ 1MeV Solar Energetic Protons through Self-generated Alfvén Waves. *C. K. Ng & D. V. Reames.* 424, 1032, 77-F7 (1994)

Nonthermal Radio Emission Associated with a Coronal Disconnection Event. *N. Gopalswamy, M. R. Kundu, & O. C. St. Cyr.* 424, L135, 79-F3 (1994)

A New Path for the Electron Bulk Energization in Solar Flares: Fermi Acceleration by Magnetohydrodynamic Turbulence in Reconnection Outflows. *T. N. LaRosa, R. L. Moore, & S. N. Shore.* 425, 856, 92-D8 (1994)

The Allowed Lines of O IV near 1340 Å in High Electron Density Solar Flares. *J. W. Cook, F. P. Keenan, & A. K. Bhatia.* 425, 861, 92-E1 (1994)

Evidence for Intense Coronal Prompt Gamma-Ray Line Emission from a Solar Flare. *C. Barat, G. Trottet, N. Vilmer, J.-P. Dezalay, R. Talon, R. Sunyaev, O. Terekhov, & A. Kuznetsov.* 425, L109, 94-G10 (1994)

Solar Flare Model Atmospheres. *Suzanne L. Hawley & George H. Fisher.* 426, 387, 101-A9 (1994)

Electron Collisional Excitation Strengths for Fe XVI. *S. S. Tayal.* 426, 449, 101-G3 (1994)

Si XIII Emission Lines in Solar Flare X-Ray Spectra Obtained with the *P78-1* Satellite. *F. P. Keenan, D. L. McKenzie, K. J. H. Phillips, & E. S. Conlon.* 426, 454, 101-G10 (1994)

Directivity of 100–500 keV Solar Flare Hard X-Ray Emission. *P. Li, K. Hurley, C. Barat, M. Niel, R. Talon, & V. Kurt.* 426, 758, 107-G10 (1994)

Are Solar Gamma-Ray–Line Flares Different from Other Large Flares? *E. W. Cliver, N. B. Crosby, & B. R. Dennis.* 426, 767, 108-A8 (1994)

Particle Acceleration in an Evolving Active Region by an Ensemble of Shock Waves. *Anastasios Anastasiadis & Loukas Vlahos.* 428, 819, 140-D11 (1994)

Evidence of Additional Production of High-Energy Neutrons during the Solar Flare on 1991 June 4. *A. Struminsky, M. Matsuoka, & K. Takahashi.* 429, 400, 149-A13 (1994)

Optical Spectra and Semi-Empirical Model of a White-Light Flare. *M. D. Ding, C. Fang, W. Q. Gan, & T. Okamoto.* 429, 890, 156-F9 (1994)

Coronal Electron Density Diagnostic from Fe XII. *J. W. Cook, F. P. Keenan, L. K. Harra, & S. S. Tayal.* 429, 924, 157-B9 (1994)

Imaging Spectroscopy of Solar Microwave Radiation. I. Flaring Emission. *Jeremy Lim, Dale E. Gary, Gordon J. Hurford, & James R. Lemen.* 430, 425, 164-E13 (1994)

Atmospheric Heating in Solar Flares by Chromospheric Condensation. *W. Q. Gan & P. J. D. Mauas.* 430, 891, 173-A11 (1994)

Disruption of Coronal Magnetic Field Arcades. *Zoran Mikić & Jon A. Linker.* 430, 898, 173-B6 (1994)

Coherent-Phase or Random-Phase Acceleration of Electron Beams in Solar Flares. *Markus J. Aschwanden, Arnold O. Benz, & Maria L. Montello.* 431, 432, 181-D7 (1994)

A Gigantic Coronal Jet Ejected from a Compact Active Region in a Coronal Hole. *K. Shibata, N. Nitta, K. T. Strong, R. Matsumoto, T. Yokoyama, T. Hirayama, H. Hudson, & Y. Ogawara.* 431, L51, 183-A9 (1994)

The 1991 November 9 Flare at 03.2 UT: Observations from *Yohkoh. G. A. Doschek, J. T. Mariska, K. T. Strong, R. D. Bentley, C. M. Brown, J. L. Culhane, J. Lang, A. C. Sterling, & T. Watanabe.* 431, 888, 189-F10 (1994)

Fe XVI Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, V. J. Foster, S. S. Tayal, & K. G. Widing.* 432, 809, 206-B1 (1994)

Three-dimensional Simulation Study of the Magnetohydrodynamic Relaxation Process in the Solar Corona. I. Spontaneous Generation of the Taylor-Heyvaerts-Priest State. *K. Kusano, Y. Suzuki, H. Kubo, T. Miyoshi, & K. Nishikawa.* 433, 361, 212-G3 (1994)

Microwave Spectral Imaging, Hα, and Hard X-Ray Observations of a Solar Limb Flare. *H. Wang, D. E. Gary, J. Lim, & R. A. Schwartz.* 433, 379, 213-A9 (1994)

A Multisource Limb Flare Observed at Multiple Radio Wavelengths. *T. A. Kucera, G. A. Dulk, D. E. Gary, & T. S. Bastian.* 433, 875, 222-A11 (1994)

Gamma-Ray Emission and Electron Accleration in Solar Flares. *Vahé Petrosian, James M. McTiernan, & Holger Marschhäuser.* 434, 747, 238-B2 (1994)

Flare Plasma Dynamics Observed with the *Yohkoh* Bragg Crystal Spectrometer. II. Properties of the Fe XXV, Ca XIX, and S XV Resonance Lines. *John T. Mariska.* 434, 756, 238-C1 (1994)

A Thermal/Nonthermal Model for Solar Hard X-Ray Bursts. *Stephen G. Benka & Gordon D. Holman.* 435, 469, 249-G11 (1994)

Iron Kβ Line Emission in Solar Flares Observed by *Yohkoh* and the Solar Abundance of Iron. *K. J. H. Phillips, C. D. Pike, J. Lang, T. Watanabe, & M. Takahashi.* 435, 888, 258-D3 (1994)

Fe XXV Temperatures in Flares from the *Yohkoh* Bragg Crystal Spectrometer. *Alphonse C. Sterling, George A. Doschek, & C. David Pike.* 435, 898, 258-E3 (1994)

Gamma-Ray and Millimeter-Wave Emissions from the 1991 June X-Class Solar Flares. *Reuven Ramaty, Richard A. Schwartz, Shinzo Enome, & Hiroshi Nakajima.* 436, 941, 278-E13 (1994)

What is the Condition for Fast Magnetic Reconnection? *T. Yokoyama & K. Shibata.* 436, L197, 282-E7 (1994)

Simultaneous Ultraviolet and X-Ray Observations of Solar Microflares. *J. G. Porter, J. M. Fontenla, & G. M. Simnett.* 438, 472, 8-B1 (1995)

Temperature Dependence of Nonthermal Motions in Solar Flare Plasmas Observed with the Flat Crystal Spectrometer on *SMM*. *Ester Antonucci & Maria Adele Dodero.* 438, 480, 8-C3 (1995)

The Wall of Reconnection-driven Magnetohydrodynamic Turbulence in a Large Solar Flare. *R. L. Moore, T. N. LaRosa, & L. E. Orwig.* 438, 985, 17-F6 (1995)

Chromospheric Evaporation and Decimetric Radio Emission in Solar Flares. *Markus J. Aschwanden & Arnold O. Benz.* 438, 997, 17-G7 (1995)

Cooling of Solar Flare Plasmas. I. Theoretical Considerations. *Peter J. Cargill, John T. Mariska, & Spiro K. Antiochos.* 439, 1034, 39-A3 (1995)

Nonequilibrium in Sheared Axisymmetric Force-free Magnetic Fields. *J. J. Aly.* 439, L63, 40-F13 (1995)

The Bright Knots at the Tops of Soft X-Ray Loops: Quantitative Results from *Yohkoh*. *G. A. Doschek, K. T. Strong, & S. Tsuneta.* 440, 370, 46-C7 (1995)

The 1991 October 24 Flare: A Challenge for Standard Models. *J.-F. de La Beaujardière, R. C. Canfield, H. S. Hudson, J.-P. Wülser, L. Acton, T. Kosugi, & S. Masuda.* 440, 386, 46-E3 (1995)

Sequences of Correlated Hard X-Ray and Type III Bursts during Solar Flares. *Markus J. Aschwanden, Maria L. Montello, Brian R. Dennis, & Arnold O. Benz.* 440, 394, 46-E14 (1995)

Testing the DC-Electric Field Model in a Solar Flare Observed by *Yohkoh* and the *Compton Gamma-Ray Observatory*. *D. M. Zarro, J. T. Mariska, & B. R. Dennis.* 440, 888, 55-D8 (1995)

The Magnetic Evolution of AR 6555 Which Led to Two Impulsive, Relatively Compact, X-Type Flares. *J. M. Fontenla, A. Ambastha, B. Kalman, & Gy. Csepura.* 440, 894, 55-E4 (1995)

Imaging Spectropolarimetry of the He I 1083 Nanometer Line in a Flaring Solar Active Region. *M. J. Penn & J. R. Kuhn.* 441, L51, 67-D1 (1995)

A Solar Flare Triggering Mechanism Based on the Woltjer-Taylor Minimum Energy Principle. *K. Kusano, Y. Suzuki, & K. Nishikawa.* 441, 942, 74-G9 (1995)

Abundance Ratios of Oxygen, Neon, and Magnesium in Solar Active Regions and Flares: The FIP Effect. *K. G. Widing & U. Feldman.* 442, 446, 83-B3 (1995)

The ^{3}He/^{4}He Ratios for Solar Energetic Particle Events during the *Combined Release and Radiation Effects Satellite* Mission. *Jiasheng Chen, T. Gregory Guzik, & John P. Wefel.* 442, 875, 92-C1 (1995)

Directivity and Its Energy Dependence in Solar Flare Energetic Emission. *Peng Li.* 443, 855, 109-F1 (1995)

Flare Plasma Dynamics Observed with the *Yohkoh* Bragg Crystal Spectrometer. III. Spectral Signatures of Electron-Beam–heated Atmospheres. *John T. Mariska.* 444, 478, 120-B12 (1995)

Metric Type III Bursts from a Flaring X-Ray Bright Point near an Active Region. *M. R. Kundu, J. P. Raulin, M. Pick, & K. T. Strong.* 444, 922, 129-B3 (1995)

PHOBOS-GOES Soft X-Ray Observations of the Sun. *F. Farnik & H. Garcia.* 444, 929, 129-B13 (1995)

The Mean Ionic Charge State of Solar Energetic Fe Ions above 200 MeV per Nucleon. *A. J. Tylka, P. R. Boberg, J. H. Adams, Jr., L. P. Beahm, W. F. Dietrich, & T. Kleis.* 444, L109, 131-B1 (1995)

The Microwave and Hα Sources of the 1992 January 13 Flare. *H. Wang, D. E. Gary, H. Zirin, T. Kosugi, R. A. Schwartz, & G. Linford.* 444, L115, 131-B9 (1995)

The Electrical Current Structure Associated with Solar Flare Electrons Accelerated by Large-Scale Electric Fields. *A. Gordon Emslie & Jean-Claude Hénoux.* 446, 371, 158-D1 (1995)

Photospheric Magnetic Field Evolution and Eruptive Flares. *T. G. Forbes & E. R. Priest.* 446, 377, 158-D10 (1995)

Alfvén Turbulence Dissipation in Proton Injection and Acceleration in Solar Flares. *Dean F. Smith & James A. Miller.* 446, 390, 158-E12 (1995)

Energy Release and Dissipation during Giant Solar Flares. *S. R. Kane, K. Hurley, J. M. McTiernan, M. Sommer, M. Boer, & M. Niel.* 446, L47, 161-A1 (1995)

Morphology and Physical Parameters for Two Long-Duration Solar Flares: Observations from *Yohkoh*. *U. Feldman, J. F. Seely, G. A. Doschek, C. M. Brown, K. J. H. Phillips, & J. Lang.* 446, 860, 168-A4 (1995)

The Statistical Physics of Solar Active Regions and the Fundamental Nature of Solar Flares. *Edward T. Lu.* 446, L109, 171-E3 (1995)

Constraints on Energy Storage and Release Models for Astrophysical Transients and Solar Flares. *Edward T. Lu.* 447, 416, 178-B8 (1995)

The Velocity Differential Emission Measure: Diagnostic of Bulk Plasma Motion in Solar Flares. *E. K. Newton, A. G. Emslie, & J. T. Mariska.* 447, 915, 188-E1 (1995)

Electron Time-of-Flight Differences in Solar Flares. *Markus J. Aschwanden, Richard A. Schwartz, & Daniel M. Alt.* 447, 923, 188-E12 (1995)

Absolute Abundances of Flaring Coronal Plasma Derived from *SMM* Spectral Observations. *A. Fludra & J. T. Schmelz.* 447, 936, 188-G1 (1995)

Detection of Nonthermal Radio Emission from Coronal X-Ray Jets. *M. R. Kundu, J. P. Raulin, N. Nitta, H. S. Hudson, M. Shimojo, K. Shibata, & A. Raoult.* 447, L135, 191-D7 (1995)

Heavy Ion Acceleration beyond 10 MeV per Nucleon in Impulsive Solar Flares. *J. E. Mazur, G. M. Mason, & B. Klecker.* 448, L53, 200-B11 (1995)

The Neupert Effect and the Chromospheric Evaporation Model for Solar Flares. *Theodore T. Lee, Vahé Petrosian, & James M. McTiernan.* 448, 915, 207-E7 (1995)

A Reconciliation of the Discrepancy on the Cosmic-Ray Interplanetary Diffusion Mean Free Path. *L. Dennis Zhang.* 449, 386, 215-D6 (1995)

Solar ^{3}He-rich Events and Ion Acceleration in Two Stages. *T. X. Zhang.* 449, 916, 225-D6 (1995)

Particle Simulation of a Collision between a Plasma Cloud and a Current Loop. *Jie Zhao, Jun-Ichi Sakai, & Ken-Ichi Nishikawa.* 449, L161, 227-G1 (1995)

Relationships between Temperature and Emission Measure in Solar Flares Determined from Highly Ionized Iron Spectra and from Broadband X-Ray Detectors. *U. Feldman, G. A. Doschek, J. T. Mariska, & C. M. Brown.* 450, 441, 234-B1 (1995)

Relationship between Cold and Hot Post–Solar Flare Loops and the Impact on the Reconnection Flare Model. *U. Feldman & J. F. Seely.* 450, 902, 243-D3 (1995)

Current Paths in the Corona and Energy Release in Solar Flares. *D. B. Melrose.* 451, 391, 251-C6 (1995)

Differential Emission Measure and Iron-to-Calcium Abundance in Solar Flare Plasmas. *Ester Antonucci & Renato Martin.* 451, 402, 251-D6 (1995)

Triggered Magnetic Energy Release in Solar Flares. *Y. Q. Hu, X. Li, & G. X. Ai.* 451, 843, 258-G4 (1995)

Hot-Plasma Ejections Associated with Compact-Loop Solar Flares. *K. Shibata, S. Masuda, M. Shimojo, H. Hara, T. Yokoyama, S. Tsuneta, T. Kosugi, & Y. Ogawara.* 451, L83, 261-B2 (1995)

Interpretation of ^{26}Al in Meteoritic Inclusions. *Donald D. Clayton & Liping Jin.* 451, L87, 261-B12 (1995)

On Thermal Hydrodynamical Models of Solar Flares with a High Initial Coronal Density. *W. Q. Gan, C. C. Cheng, & C. Fang.* 452, 445, 268-B11 (1995)

DC Electric Field Acceleration of Ions in Solar Flares. *Gordon D. Holman.* 452, 451, 268-C6 (1995)

Charge State Measurements of Solar Energetic Particles Observed with *SAMPEX*. *G. M. Mason, J. E. Mazur, M. D. Looper, & R. A. Mewaldt.* 452, 901, 277-B7 (1995)

Stochastic Proton Acceleration by Cascading Alfvén Waves in Impulsive Solar Flares. *James A. Miller & D. Aaron Roberts.* 452, 912, 277-C7 (1995)

Gamma-Ray Measurements of Flare-to-Flare Variations in Ambient Solar Abundances. *Gerald H. Share & Ronald J. Murphy.* 452, 933, 277-E4 (1995)

A Novel Maximum-Likelihood Method for Image Reconstruction with Increased Sampling. *George Roumeliotis.* 452, 944, 277-F5 (1995)

Measurements of the Ionic Charge States of Solar Energetic Particles Using the Geomagnetic Field. *R. A. Leske, J. R. Cummings, R. A. Mewaldt, E. C. Stone, & T. T. von Rosenvinge.* 452, L149, 280-F6 (1995)

Yohkho Soft X-Ray Spectroscopic Observations of the Bright Loop-Top Kernels of Solar Flares. *Josef I. Khan, Louise K. Harra-Murnion, Hugh S. Hudson, James R. Lemen, & Alphonse C. Sterling.* 452, L153, 280-F13 (1995)

Coordinated OVRO, BATSE, *Yohkoh*, and BBSO Observations of the 1992 June 25 M1.4 Flare. *H. Wang, D. E. Gary, H. Zirin, R. A. Schwartz, T. Sakao, T. Kosugi, & K. Shibata.* 453, 505, 288-A9 (1995)

Extreme Ultraviolet Emission Lines of Fe XIII in Solar and Stellar Spectra. *F. P. Keenan, V. J. Foster, J. J. Drake, S. S. Tayal, & K. G. Widing.* 453, 906, 296-D9 (1995)

Comparative Studies of Hard X-Ray Spectral Evolution in Solar Flares with High-Energy Proton Events Observed at Earth. *Alan L. Kiplinger.* 453, 973, 297-D4 (1995)

Quadrupolar Force-free Magnetic Fields with Singular Current Density Surfaces. *Y. Q. Hu.* 454, 480, 305-G12 (1995)

Microwave and Hard X-Ray Observations of Footpoint Emission from Solar Flares. *M. R. Kundu, N. Nitta, S. M. White, K. Shibasaki, S. Enome, T. Sakao, T. Kosugi, & T. Sakurai.* 454, 522, 306-D11 (1995)

Solar Electron Beams Detected in Hard X-Rays and Radio Waves. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Richard A. Schwartz.* 455, 347, 322-G12 (1995)

Accuracy, Uncertainties, and Delay Distribution of Electron Time-of-Flight Measurements in Solar Flares. *Markus J. Aschwanden & Richard A. Schwartz.* 455, 699, 331-E6 (1995)

VLA and *Yohkoh* Observations of an M1.5 Flare. *N. Gopalswamy, J.-P. Raulin, M. R. Kundu, N. Nitta, J. R. Lemen, R. Herrmann, D. Zarro, & T. Kosugi.* 455, 715, 331-G1 (1995)

Statistical Studies of *ISEE 3/ICE* Observations of Impulsive Hard X-Ray Solar Flares. *Kenneth R. Bromund, James M. McTiernan, & Sharad R. Kane.* 455, 733, 332-A8 (1995)

Solar Atmopheric Abundances and Energy Content in Flare Accelerated Ions from Gamma-Ray Spectroscopy. *Reuven Ramaty, Natalie Mandzhavidze, Benzion Kozlovsky, & Ronald J. Murphy.* 455, L193, 335-A4 (1995)

SUN: FUNDAMENTAL PARAMETERS

Time Correlation between Solar Structural Parameters: *p*-Mode Frequencies, Radius, and Neutrino Flux. *Ph. Delache, V. Gavryusev, E. Gavryuseva, F. Laclare, C. Régulo, & T. Roca Cortés.* 407, 801, 80-D8 (1993)

Evidence for a Fundamental Period of the Sun and Its Relation to the 154 Day Complex of Periodicities. *T. Bai & P. A. Sturrock.* 409, 476, 102-G8 (1993)

Accurate Measurement of the Geometry for a Full-Disk Solar Image and Estimation of the Observational Point Spread Function. *C. G. Toner & S. M. Jefferies.* 415, 852, 198-E11 (1993)

The Effect of Diffusion on Solar Evolution. *Attay Kovetz & Giora Shaviv.* 426, 787, 108-C7 (1994)

The Solar Diameter and Oblateness Measured by the Solar Disk Sextant on the 1992 September 30 Balloon Flight. *S. Sofia, W. Heaps, & L. W. Twigg.* 427, 1048, 125-F2 (1994)

Observations of Changes in the Bolometric Contrast of Sunspots. *G. A. Chapman, A. M. Cookson, & J. J. Dobias.* 432, 403, 198-B9 (1994)

Fe XXV Temperatures in Flares from the *Yohkoh* Bragg Crystal Spectrometer. *Alphonse C. Sterling, George A. Doschek, & C. David Pike.* 435, 898, 258-E3 (1994)

The Solar Corona as a Quadric Surface in Three-dimensional Space. *R. A. Gulyaev.* 437, 867, 297-E4 (1994)

The Sun as a Probe of Varying *G*. *P. Demarque, Lawrence M. Krauss, D. B Guenther, & Davíd Nydam.* 437, 870, 297-E10 (1994)

SUN: GENERAL

Nonfacular Solar Luminosity Variations. *J. R. Kuhn & K. G. Libbrecht.* 381, L35, 194-E1 (1991)

Do Changes in the Photospheric Magnetic Network Cause the 11 Year Variation of Total Solar Irradiance? *P. Foukal, K. Harvey, & F. Hill.* 383, L89, 226-G1 (1991)

Interior Opacities and the Standard Solar Model. *John Faulkner & Fritz J. Swenson.* 386, L55, 36-D1 (1992)

Large-Scale Flows and Solar Luminosity Variations. *S. Arendt.* 389, 421, 65-B6 (1992)

Preliminary Results of a Balloon Flight of the Solar Disk Sextant. *E. Maier, L. Twigg, & S. Sofia.* 389, 447, 65-D11 (1992)

A New Solar Irradiance Calibration from 3295 Å to 8500 Å Derived from Absolute Spectrophotometry of Vega. *G. W. Lockwood, H. Tüg, & N. M. White.* 390, 668, 83-E9 (1992)

Limb Observations of the 12.32 Micron Solar Emission Line during the 1991 July Total Eclipse. *Drake Deming, Donald E. Jennings, George McCabe, Robert Noyes, Gunter Wiedemann, & Fred Espenak.* 396, L53, 161-A6 (1992)

Radial Velocity Observations of the Sun at Night. *R. S. McMillan, T. L. Moore, M. L. Perry, & P. H. Smith.* 403, 801, 25-G8 (1993)

g-Modes and the Solar Neutrino Problem. *John N. Bahcall & Pawan Kumar.* 409, L73, 111-G1 (1993)

Our Sun. III. Present and Future. *I.-Juliana Sackmann, Arnold I. Boothroyd, & Kathleen E. Kraemer.* 418, 457, 236-F6 (1993)

The Rate of the Proton-Proton Reaction. *Marc Kamionkowski & John N. Bahcall.* 420, 884, 13-G11 (1994)

On the Apparent Velocity of Integrated Sunlight. II. 1983–1992 and Comparisons with Magnetograms. *Drake Deming & Claude Plymate.* 426, 382, 101-A2 (1994)

The Fe XIV Spectrum: Predicted Line Intensities and Solar Identifications. *A. K. Bhatia, S. O. Kastner, F. P. Keenan, E. S. Conlon, & K. G. Widing.* 427, 497, 116-B8 (1994)

The Displacement of the Sun from the Galactic Plane Using *IRAS* and FAUST Source Counts. *Martin Cohen.* 444, 874, 128-E2 (1995)

SUN: GRANULATION

Power Spectra of Solar Convection. *D.-Y. Chou, B. J. LaBonte, D. C. Braun, & T. L. Duvall, Jr.* 372, 314, 77-G5 (1991)

Modeling Mesogranules and Exploders on the Solar Surface. *G. W. Simon, A. M. Title, & N. O. Weiss.* 375, 775, 122-C7 (1991)

Multicolor Continuum Analysis of the Solar Granulation in Quiet and Active Regions. *C. U. Keller & S. Koutchmy.* 379, 751, 174-B1 (1991)

Dynamical Buoyancy of Hydrodynamic Eddies. *E. N. Parker.* 380, 251, 179-B5 (1991)

Compressible Magnetic Convection: Formulation and Two-dimensional Models. *Peter A. Fox, Michael L. Theobald, & Sabatino Sofia.* 383, 860, 225-A1 (1991)

On the Evidence for Mesogranules in Solar Power Spectra. *Gregory P. Ginet & George W. Simon.* 386, 359, 28-F1 (1992)

On the Differences between Plage and Quiet Sun in the Solar Photosphere. *Alan M. Title, Kenneth P. Topka, Theodore D. Tarbell, Wolfgang Schmidt, Christiaan Balke, & Göran Scharmer.* 393, 782, 125-E1 (1992)

Power Spectra of Median- and Small-Scale Solar Convection. *D.-Y. Chou, C.-S. Chen, K.-T. Ou, & C.-C. Wang.* 396, 333, 159-B11 (1992)

Evidence for Transonic Flows in the Solar Granulation. *A. Nesis, T. J. Bogdan, F. Cattaneo, A. Hanslmeier, M. Knölker, & A. Malagoli.* 399, L99, 201-D10 (1992)

Vortex Rings and the Solar Granulation. *Steve Arendt.* 422, 862, 42-E9 (1994)

A High-Resolution Study of the Structure of Sunspot Light Bridges and Abnormal Granulation. *Michal Sobotka, José A. Bonet, & Manuel Vázquez.* 426, 404, 101-C1 (1994)

Downflow Plumes and Entropy Balance in Deep Convection Zones. *Gregory P. Ginet.* 429, 899, 156-G7 (1994)

A Measurement of the Background Solar Velocity Spectrum. *P. L. Pallé, A. Jiménez, F. Pérez Hernández, C. Régulo, T. Roca Cortés, & L. Sánchez.* 441, 952, 75-A9 (1995)

Kinematic Models of Supergranular Diffusion on the Sun. *G. W. Simon, A. M. Title, & N. O. Weiss.* 442, 886, 92-D2 (1995)

Oscillation-Convection Coupling: Cause of Supergranulation? *Charles L. Wolff.* 443, 423, 100-G12 (1995)

On the Nature of "Exploding" Granules and Granule Fragmentation. *Mark Peter Rast.* 443, 863, 109-F12 (1995)

Dark Lanes in Granulation and the Excitation of Solar Oscillations. *Thomas R. Rimmele, Philip R. Goode, Elliotte Harold, & Robin T. Stebbins.* 444, L119, 131-C4 (1995)

Vorticity and Divergence in the Solar Photosphere. *Yi Wang, Robert W. Noyes, Theodore D. Tarbell, & Alan M. Title.* 447, 419, 178-C1 (1995)

High-Resolution Observation of Disk Spicules. I. Evolution and Kinematics of Spicules in the Enhanced Network. *Yoshinori Suematsu, Haimin Wang, & Harold Zirin.* 450, 411, 233-E12 (1995)

Seismology of the Solar *f*-Mode. I. Basic Signatures of Shearing Velocity Fields. *Pranab Ghosh, H. M. Antia, & S. M. Chitre.* 451, 851, 259-A1 (1995)

SUN: INFRARED

On the Apparent Velocity of Integrated Sunlight. II. 1983–1992 and Comparisons with Magnetograms. *Drake Deming & Claude Plymate.* 426, 382, 101-A2 (1994)

Analysis of the $3d^6 4s(^6D)4f$–$5g$ Supermultiplet of Fe I in Laboratory and Solar Infrared Spectra. *S. Johansson, G. Nave, M. Geller, A. J. Sauval, N. Grevesse, W. G. Schoenfeld, E. S. Chang, & C. B. Farmer.* 429, 419, 149-C11 (1994)

Ground-based Detection of an Infrared [Si X] Coronal Emission Line and Improved Wavelengths for the Infrared [Fe XIII] Emission Lines. *M. J. Penn & J. R. Kuhn.* 434, 807, 239-A10 (1994)

Imaging Spectropolarimetry of the He I 1083 Nanometer Line in a Flaring Solar Active Region. *M. J. Penn & J. R. Kuhn.* 441, L51, 67-D1 (1995)

On the Distribution of the Solar Magnetic Fields. *Haosheng Lin.* 446, 421, 159-A7 (1995)

The Sun in Submillimeter and Near-Millimeter Radiation. *C. Lindsey, G. Kopp, T. A. Clark, & G. Watt.* 453, 511, 288-B7 (1995)

SUN: INTERIOR

Nonlinear Behavior of Solar Gravity Modes Driven by ^{3}He in the Core. II. Numerical Simulations. *William J. Merryfield, Juri Toomre, & Douglas Gough.* 367, 658, 21-D8 (1991)

The Response of the Adiabatic Exponent Γ_1 to Modifications of Solar Models. *J. Christensen-Dalsgaard & M. J. Thompson.* 367, 666, 21-E4 (1991)

Window for the Dark Matter Solution to the Solar Neutrino Problem. *David Dearborn, Kim Griest, & Georg Raffelt.* 368, 626, 33-A1 (1991)

Opacities for the Solar Radiative Interior. *C. A. Iglesias & F. J. Rogers.* 371, 408, 65-C1 (1991)

The Stretching of Magnetic Flux Tubes in the Convective Overshoot Region. *George H. Fisher, Alexander N. McClymont, & Dean-Yi Chou.* 374, 766, 108-E10 (1991)

The *p*-Mode Oscillation Spectra of an Evolving 1 $M\odot$ Sun-like Star. *D. B. Guenther.* 375, 352, 115-C8 (1991)

Seismology for the Fine Structure in the Sun's Oscillations Varying with Its Activity Cycle. *W. A. Dziembowski & Philip R. Goode.* 376, 782, 136-B1 (1991)

Our Sun. II. Early Mass Loss of 0.1 $M_\odot$ and the Case of the Missing Lithium. *Arnold I. Boothroyd, I.-Juliana Sackmann, & William A. Fowler.* 377, 318, 141-G11 (1991)

Does the Solar Interior Rotate Rigidly? *Andrew Gould.* 377, 707, 148-D7 (1991)

Neutrino Oscillations and Solar Models. *C.-X. Chen & M. L. Cherry.* 377, L105, 150-F5 (1991)

A Critical Look at Cosmions. *Jean Kaplan, François Martin de Volnay, Charling Tao, & Sylvaine Turck-Chièze.* 378, 315, 154-G11 (1991)

Observational Constraints on Theories of the Solar Differential Rotation. *Bernard R. Durney.* 378, 378, 155-F1 (1991)

The Effect of the Mihalas, Hummer, and Däppen Equation of State and the Molecular Opacity on the Standard Solar Model. *Y.-C. Kim, P. Demarque, & D. B. Guenther.* 378, 407, 156-A10 (1991)

The Depth of the Solar Convection Zone. *J. Christensen-Dalsgaard, D. O. Gough, & M. J. Thompson.* 378, 413, 156-B4 (1991)

Application of the Continuous Orthonormalization and Adjoint Methods to the Computation of Solar Eigenfrequencies and Eigenfrequency Sensitivities. *R. D. Rosenwald & G. F. Rabaey.* 77, 97, 44-G1 (1991)

Gravitational Settling in Solar Models. *Charles R. Proffitt & Georges Michaud.* 380, 238, 179-A5 (1991)

Effects of Opacity and Equation of State on Solar Structure and Oscillations. *Joyce A. Guzik & Arthur N. Cox.* 381, 333, 193-B5 (1991)

Testing Einstein's Theory of Gravity by Analyzing Lunar Laser Ranging Data. *J. Müller, M. Schneider, M. Soffel, & H. Ruder.* 382, L101, 211-E12 (1991)

A New Solar Cycle Model Including Meridional Circulation. *Y.-M. Wang, N. R. Sheeley, Jr., & A. G. Nash.* 383, 431, 217-F1 (1991)

Compressible Magnetic Convection: Formulation and Two-dimensional Models. *Peter A. Fox, Michael L. Theobald, & Sabatino Sofia.* 383, 860, 225-A1 (1991)

Solar Models with Enhanced Energy Transport in the Core. *J. Christensen-Dalsgaard.* 385, 354, 16-C3 (1992)

Tests of the Detection and Mode Classifications of Low-Degree Solar Gravity Modes with 1978 Solar Diameter Observations. *Henry A. Hill.* 78, 283, 5-F1 (1992)

Equilibrium of a Magnetic Flux Tube in a Compressible Flow. *Richard Kerswell & Stephen Childress.* 385, 746, 22-D1 (1992)

The Resolving Power of Current Helioseismic Inversions for the Sun's Internal Rotation. *J. Schou, J. Christensen-Dalsgaard, & M. J. Thompson.* 385, L59, 23-E1 (1992)

On the Sensitivity of High-Degree *p*-Mode Frequencies to the Solar Convection Zone Helium Abundance. *Joyce A. Guzik & Arthur N. Cox.* 386, 729, 34-D1 (1992)

Interior Opacities and the Standard Solar Model. *John Faulkner & Fritz J. Swenson.* 386, L55, 36-D1 (1992)

Standard Solar Model. *D. B. Guenther, P. Demarque, Y.-C. Kim, & M. H. Pinsonneault.* 387, 372, 41-E9 (1992)

Localized Excitation of Solar Oscillations. *Philip R. Goode, Douglas Gough, & Alexander Kosovichev.* 387, 707, 47-E1 (1992)

Cosmological Density of WIMPs from Solar and Terrestrial Annihilations. *Andrew Gould.* 388, 338, 54-E5 (1992)

Large-Scale Flows and Solar Luminosity Variations. *S. Arendt.* 389, 421, 65-B6 (1992)

Further Improvements of a New Model for Turbulent Convection in Stars. *V. M. Canuto & I. Mazzitelli.* 389, 724, 70-D1 (1992)

Standard Solar Model. II. *g*-Modes. *D. B. Guenther, P. Demarque, M. H. Pinsonneault, & Y.-C. Kim.* 392, 328, 105-A10 (1992)

Local Acoustic Diagnostics of the Solar Interior. *D. C. Braun, C. A. Lindsey, Y. Fan, & S. M. Jefferies.* 392, 739, 111-D7 (1992)

Solar Opacities Based on the Ion-Sphere and Ion-Correlation Models. *Balazs F. Rozsnyai.* 393, 409, 119-C1 (1992)

The Effect of an Inclined Magnetic Field on Solar Oscillation Frequencies. *Philip R. Goode & Michael J. Thompson.* 395, 307, 144-A1 (1992)

Helium Diffusion in the Sun. *J. N. Bahcall & M. H. Pinsonneault.* 395, L119, 154-D7 (1992)

Multiple Periodicities in the Solar Magnetic Field: Possible Origin in a Multiple-Mode Solar Dynamo. *D. W. Boyer & E. H. Levy.* 396, 340, 159-C6 (1992)

An Examination of the $m = 1$ Instability in a Low-Mass Protoplanetary Disk. *Hyerim Noh, Ethan T. Vishniac, & William D. Cochran.* 397, 347, 172-B11 (1992)

A Formulation of Convection for Stellar Structure and Evolution Calculations without the Mixing-Length Theory Approximations. I. Application to the Sun. *Thomas Joseph Lydon, Peter A. Fox, & Sabatino Sofia.* 397, 701, 179-G3 (1992)

Helioseismology Data and the Solar Dynamo. *P. R. Wilson.* 399, 294, 198-G11 (1992)

On the Photon Diffusion Time Scale for the Sun. *R. Mitalas & K. R. Sills.* 401, 759, 232-A1 (1992)

Helioseismological Test of a New Model for Stellar Convection. *L. Paternò, R. Ventura, V. M. Canuto, & I. Mazzitelli.* 402, 733, 11-F3 (1993)

Effects of Diffusion on Solar Models and Their Oscillation Frequencies. *J. Christensen-Dalsgaard, C. R. Proffitt, & M. J. Thompson.* 403, L75, 27-E1 (1993)

Improved Solar Models Constructed with a Formulation of Convection for Stellar Structure and Evolution Calculations without the Mixing-Length Theory Approximations. *Thomas Joseph Lydon, Peter A. Fox, & Sabatino Sofia.* 403, L79, 27-E8 (1993)

The Origin of Morphological Asymmetries in Bipolar Active Regions. *Y. Fan, G. H. Fisher, & E. E. DeLuca.* 405, 390, 46-A7 (1993)

On the Solar Differential Rotation: Meridional Motions Associated with a Slowly Varying Angular Velocity. *Bernard R. Durney.* 407, 367, 73-E11 (1993)

Toward a Unified Classical Model of the Sun: On the Sensitivity of Neutrinos and Helioseismology to the Microscopic Physics. *Sylvaine Turck-Chièze & Ilidio Lopes.* 408, 347, 87-D10 (1993)

A Solar Dynamo Surface Wave at the Interface between Convection and Nonuniform Rotation. *E. N. Parker.* 408, 707, 94-A9 (1993)

Evidence for a Fundamental Period of the Sun and Its Relation to the 154 Day Complex of Periodicities. *T. Bai & P. A. Sturrock.* 409, 476, 102-G8 (1993)

g-Modes and the Solar Neutrino Problem. *John N. Bahcall & Pawan Kumar.* 409, L73, 111-G1 (1993)

Using Solar *p*-Modes to Determine the Convection Zone Depth and Constrain Diffusion-produced Composition Gradients. *Joyce A. Guzik & Arthur N. Cox.* 411, 394, 132-C4 (1993)
Nonlinear Inversion for Solar Oscillation Frequencies. *Yeming Gu.* 413, 422, 161-E4 (1993)
Penetration at the Base of Solar Convection Zone. *H. M. Antia & S. M. Chitre.* 413, 778, 166-B1 (1993)
Are the 1986–1988 Changes in Solar Free-Oscillation Frequency Splitting Significant? *Douglas Gough & Philip B. Stark.* 415, 376, 189-E13 (1993)
Angular Momentum Transport in Magnetized Stellar Radiative Zones. II. The Solar Spin-down. *P. Charbonneau & K. B. MacGregor.* 417, 762, 228-G13 (1993)
Our Sun. III. Present and Future. *I.-Juliana Sackmann, Arnold I. Boothroyd, & Kathleen E. Kraemer.* 418, 457, 236-F6 (1993)
The Effects of Helium Diffusion on Solar *p*-Mode Frequencies. *D. B. Guenther, M. H. Pinsonneault, & J. N. Bahcall.* 418, 469, 236-G7 (1993)
The Rate of the Proton-Proton Reaction. *Marc Kamionkowski & John N. Bahcall.* 420, 884, 13-G11 (1994)
Element Diffusion in the Solar Interior. *Anne A. Thoul, John N. Bahcall, & Abraham Loeb.* 421, 828, 28-E3 (1994)
Nonadiabatic Nonradial *p*-Mode Frequencies of the Standard Solar Model, with and without Helium Diffusion. *D. B. Guenther.* 422, 400, 35-A10 (1994)
Excitation of Solar *p*-Modes. *Peter Goldreich, Norman Murray, & Pawan Kumar.* 424, 466, 67-E12 (1994)
The Effects of Scattering on Solar Oscillations. *Peter Goldreich & Norman Murray.* 424, 480, 67-F14 (1994)
Differential Rotation and Turbulent Convection: A New Reynolds Stress Model and Comparison with Solar Data. *V. M. Canuto, F. O. Minotti, & O. Schilling.* 425, 303, 84-A9 (1994)
Effects of Heavy-Element Settling on Solar Neutrino Fluxes and Interior Structures. *Charles R. Proffitt.* 425, 849, 92-C13 (1994)
The Effect of Diffusion on Solar Evolution. *Attay Kovetz & Giora Shaviv.* 426, 787, 108-C7 (1994)
Measuring the Helium Abundance in the Solar Envelope: The Role of the Equation of State. *H. M. Antia & Sarbani Basu.* 426, 801, 108-D9 (1994)
Downflow Plumes and Entropy Balance in Deep Convection Zones. *Gregory P. Ginet.* 429, 899, 156-G7 (1994)
The Possibility of Forming an Inhomogeneous Sun and the Solar Neutrino Deficit. *E. H. Levy & T. V. Ruzmaikina.* 431, 881, 189-F1 (1994)
A Seismic Model of the Sun's Interior. *W. A. Dziembowski, Philip R. Goode, A. A. Pamyatnykh, & R. Sienkiewicz.* 432, 417, 198-C13 (1994)
On Comparing Helioseismic Two-dimensional Inversion Methods. *J. Schou, J. Christensen-Dalsgaard, & M. J. Thompson.* 433, 389, 213-B13 (1994)
Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. I. Emerging Bipolar Magnetic Regions. *E. N. Parker.* 433, 867, 222-A1 (1994)
Variation of the Frequencies of Very Low *l* *p*-Modes. *C. Régulo, A. Jiménez, P. L. Pallé, F. Pérez Hernández, & T. Roca Cortés.* 434, 384, 230-G4 (1994)
Use of Acoustic Wave Travel-Time Measurements to Probe the Near-Surface Layers of the Sun. *S. M. Jefferies, Y. Osaki, H. Shibahashi, T. L. Duvall, Jr., J. W. Harvey, & M. A. Pomerantz.* 434, 795, 238-G6 (1994)
The Rotation of the Solar Core. *Antonio Jiménez, Fernando Pérez Hernández, Antonio Claret, Pere LLuis Pallé, Clara Régulo, & Teodoro Roca Cortés.* 435, 874, 258-B10 (1994)
Solar Neutrinos: Sensitivity to Pre–Main-Sequence Evolution and to the Depth of the Convective Zone. *John N. Bahcall & Ami Glasner.* 437, 485, 289-F13 (1994)
The Sun as a Probe of Varying *G*. *P. Demarque, Lawrence M. Krauss, D. B. Guenther, & David Nydam.* 437, 870, 297-E10 (1994)
Magnetic Merging in Colliding Flux Tubes. *Ellen G. Zweibel & James E. Rhoads.* 440, 407, 46-G3 (1995)
Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. II. The Origin of Enhanced Solar Irradiance. *E. N. Parker.* 440, 415, 47-A1 (1995)
Stellar Models with Microscopic Diffusion and Rotational Mixing. I. Application to the Sun. *Brian Chaboyer, P. Demarque, & M. H. Pinsonneault.* 441, 865, 73-G13 (1995)
Magnetoconvection Dynamics in a Stratified Layer. I. Two-dimensional Simulations and Visualization. *Steven R. Lantz & R. N. Sudan.* 441, 903, 74-D4 (1995)
Magnetoconvection Dynamics in a Stratified Layer. II. A Low-Order Model of the Tilting Instability. *Steven R. Lantz.* 441, 925, 74-F2 (1995)
Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. III. Extended Updrafts. *E. N. Parker.* 442, 405, 82-E8 (1995)
Modeling of Shallow and Inefficient Convection in the Outer Layers of the Sun Using Realistic Physics. *Yong-Cheol Kim, Peter A. Fox, Sabatino Sofia, & Pierre Demarque.* 442, 422, 82-G1 (1995)
Helioseismic Bounds on the Central Temperature of the Sun. *H. M. Antia & S. M. Chitre.* 442, 434, 83-A2 (1995)
Oscillation-Convection Coupling: Cause of Supergranulation? *Charles L. Wolff.* 443, 423, 100-G12 (1995)
Discrepancies between OPAL and OP Opacities at High Densities and Temperatures. *Carlos A. Iglesias & Forrest J. Rogers.* 443, 460, 101-D6 (1995)
Updated Seismic Solar Model. *W. A. Dziembowski, Philip R. Goode, A. A. Pamyatnykh, & R. Sienkiewicz.* 445, 509, 139-E6 (1995)
Rotation, Diffusion, and Overshoot in the Sun: Effects on the Oscillation Frequencies and the Neutrino Flux. *Brian Chaboyer, P. Demarque, D. B. Guenther, & M. H. Pinsonneault.* 446, 435, 159-C3 (1995)
The Screened Nuclear Reaction Rates and the Solar Neutrino Puzzle. *H. Dzitko, S. Turck-Chièze, P. Delbourgo-Salvador, & C. Lagrange.* 447, 428, 178-D2 (1995)
Measurement of the Rotation Rate in the Deep Solar Interior. *S. Tomczyk, J. Schou, & M. J. Thompson.* 448, L57, 200-C5 (1995)
Early Solar Mass Loss, Element Diffusion, and Solar Oscillation Frequencies. *Joyce A. Guzik & Arthur N. Cox.* 448, 905, 207-D7 (1995)
Theoretical Properties of the Ω-Loops in the Convection Zone of the Sun. IV. Stability of Updrafts. *E. N. Parker.* 448, 942, 208-A7 (1995)
"Explosion" and Intensification of Magnetic Flux Tubes. *F. Moreno-Insertis, P. Caligari, & M. Schüssler.* 452, 894, 277-A11 (1995)
On the Interaction of Convection and Rotation in Stars. *Pawan Kumar, Ramesh Narayan, & Abraham Loeb.* 453, 480, 287-F6 (1995)
Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. V. Coriolis Force and the Centrifugal Potential Barrier. *E. N. Parker.* 454, 927, 314-E10 (1995)
Velocity Fields within the Solar Convection Zone: Evidence from Oscillation Ring Diagram Analysis of Mount Wilson Dopplergrams. *J. Patrón, F. Hill, E. J. Rhodes, Jr., S. G. Korzennik, & A. Cacciani.* 455, 746, 332-B10 (1995)
A Method for Incorporating the Effects of Large-Scale Magnetic Fields in the Study of Stellar Structure and Variability. *Thomas Joseph Lydon & Sabatino Sofia.* 101, 357, 58-F11 (1995)

SUN: LIMB DARKENING

Telescope Beam-Profile Diagnostics and the Solar Limb. *Charles A. Lindsey & Thomas L. Roellig.* 375, 414, 116-A9 (1991)
Submillimeter Solar Limb Profiles Determined from Observations of the Total Solar Eclipse of 1988 March 18. *T. L. Roellig, E. E. Becklin, J. T. Jefferies, G. A. Kopp, C. A. Lindsey, F. Q. Orrall, & M. W. Werner.* 381, 288, 192-E5 (1991)

SUN: MAGNETIC FIELDS

Magnetoatmospheric Oscillations in Sunspot Umbrae. *S. S. Hasan.* 366, 328, 5-B7 (1991)
Strong Magnetic Fields and Inhomogeneity in the Solar Corona. *S. M. White, M. R. Kundu, & N. Gopalswamy.* 366, L43, 6-E7 (1991)
Rotation of the Sun's Outer White-Light Corona Determined from Solwind Data. *Ana G. Nash.* 366, 592, 10-D1 (1991)
Scattering of Acoustic Waves from a Magnetic Flux Tube Embedded in a Radiating Fluid. *T. J. Bogdan & M. Knölker.* 369, 219, 38-F1 (1991)
Three-dimensional Structures of Magnetostatic Atmospheres. III. A General Formulation. *B. C. Low.* 370, 427, 52-E8 (1991)
The Magnetic Network Location of Explosive Events Observed in the Solar Transition Region. *J. G. Porter & K. P. Dere.* 370, 775, 58-A11 (1991)
The Sensitivity of Chromospherically Induced *p*- and *f*-Mode Frequency Shifts to the Height of the Magnetic Canopy. *David J. Evans & B. Roberts.* 371, 387, 64-G9 (1991)
The Resonant Absorption of *p*-Modes by Sunspots with Twisted Magnetic Fields. *S. M. Chitre & Joseph M. Davila.* 371, 785, 71-C10 (1991)
Why Fast Solar Wind Originates from Slowly Expanding Coronal Flux Tubes. *Y.-M. Wang & N. R. Sheeley, Jr.* 372, L45, 79-F1 (1991)
On the Inference of Magnetic Field Vectors from Stokes Profiles. *John T. Jefferies & Donald L. Mickey.* 372, 694, 84-C9 (1991)

Latitudinal Dynamics of Steady Solar Wind Flows. *W.-H. Yang & R. W. Schunk.* 372, 703, 84-D5 (1991)

Solar Modulation of Cosmic Electrons: Evidence for Dynamic Regulation. *Evelyn Tuska, Paul Evenson, & Peter Meyer.* 373, L27, 91-D1 (1991)

High-Resolution Spectra of Solar Magnetic Features. II. Magnetic Fields of Umbral Brightenings. *Bruce W. Lites, Thomas A. Bida, A. Johannesson, & G. B. Scharmer.* 373, 683, 96-D11 (1991)

Coronal Magnetic Structures Observing Campaign. I. Simultaneous Microwave and Soft X-Ray Observations of Active Regions at the Solar Limb. *N. Nitta, S. M. White, M. R. Kundu, N. Gopalswamy, G. D. Holman, J. W. Brosius, J. T. Schmelz, J. L. R. Saba, & K. T. Strong.* 374, 374, 102-F11 (1991)

Siphon Flows in Isolated Magnetic Flux Tubes. IV. Critical Flows with Standing Tube Shocks. *John H. Thomas & Benjamin Montesinos.* 375, 404, 115-G11 (1991)

Magnetic Flux Transport and the Sun's Dipole Moment: New Twists to the Babcock-Leighton Model. *Y.-M. Wang & N. R. Sheeley, Jr.* 375, 761, 122-B5 (1991)

Weak Magnetic Fields and Solar Irradiance Variations. *J. K. Lawrence, G. A. Chapman, & S. R. Walton.* 375, 771, 122-C1 (1991)

Modeling Mesogranules and Exploders on the Solar Surface. *G. W. Simon, A. M. Title, & N. O. Weiss.* 375, 775, 122-C7 (1991)

How Much Energy Can Be Stored in a Three-dimensional Force-free Magnetic Field? *J. J. Aly.* 375, L61, 124-C11 (1991)

Seismology for the Fine Structure in the Sun's Oscillations Varying with Its Activity Cycle. *W. A. Dziembowski & Philip R. Goode.* 376, 782, 136-B1 (1991)

Magnetohydrodynamics of an Impulsively Heated, Hard X-Ray Emitting Filament. *George Roumeliotis & A. Gordon Emslie.* 377, 685, 148-B9 (1991)

Large-Scale Features of the Sun at 20 Centimeter Wavelength. *N. Gopalswamy, S. M. White, & M. R. Kundu.* 379, 366, 167-E9 (1991)

Multicolor Continuum Analysis of the Solar Granulation in Quiet and Active Regions. *C. U. Keller & S. Koutchmy.* 379, 751, 174-B1 (1991)

Multiple Scattering of Acoustic Waves by a Pair of Uniformly Magnetized Flux Tubes. *Thomas J. Bogdan & David C. Fox.* 379, 758, 174-B10 (1991)

Chromospheric and Transition Region Diagnostics Using Emission-Line Intensities. *R. Grant Athay & K. P. Dere.* 379, 776, 174-D1 (1991)

Formation of the Infrared Emission Lines of Mg I in the Solar Atmosphere. *E. S. Chang, E. H. Avrett, P. J. Mauas, R. W. Noyes, & R. Loeser.* 379, L79, 175-E1 (1991)

Propagation of Magnetoacoustic Waves in the Solar Atmosphere with Random Inhomogeneities of Density and Magnetic Fields. *M. Ryutova, M. Kaisig, & T. Tajima.* 380, 268, 179-D1 (1991)

Motions, Fields, and Flares in the 1989 March Active Region. *Haimin Wang, Frances Tang, Harold Zirin, & Guoxiang Ai.* 380, 282, 179-E1 (1991)

Maximum Energy of Semi-infinite Magnetic Field Configurations. *P. A. Sturrock.* 380, 655, 186-C8 (1991)

Avalanches and the Distribution of Solar Flares. *Edward T. Lu & Russell J. Hamilton.* 380, L89, 188-F5 (1991)

On the Spontaneous Formation of Electric Current Sheets above a Flexible Solar Photosphere. *B. C. Low.* 381, 295, 192-F1 (1991)

Magnetoacoustic Heating of the Solar Chromosphere. *Joseph M. Davila & S. M. Chitre.* 381, L31, 194-D12 (1991)

Vector Magnetic Fields in Sunspots. I. Stokes Profile Analysis Using the Marshall Space Flight Center Magnetograph. *K. S. Balasubramaniam & E. A. West.* 382, 699, 210-C11 (1991)

Energy Balance in Coronal Funnels. *Douglas Rabin.* 383, 407, 217-D1 (1991)

Dynamics of Solar Coronal Magnetic Fields. *R. B. Dahlburg, S. K. Antiochos, & T. A. Zang.* 383, 420, 217-E1 (1991)

A New Solar Cycle Model Including Meridional Circulation. *Y.-M. Wang, N. R. Sheeley, Jr., & A. G. Nash.* 383, 431, 217-F1 (1991)

Electric Field Strengths from the Solar 12 Micron Lines. *Edward S. Chang & William G. Schoenfeld.* 383, 450, 217-G9 (1991)

Do Changes in the Photospheric Magnetic Network Cause the 11 Year Variation of Total Solar Irradiance? *P. Foukal, K. Harvey, & F. Hill.* 383, L89, 226-G1 (1991)

Quasi-static Evolution of Coronal Magnetic Fields. *D. W. Longcope & R. N. Sudan.* 384, 305, 4-F12 (1992)

The Practical Application of the Magnetic Virial Theorem. *J. A. Klimchuk, R. C. Canfield, & J. E. Rhoads.* 385, 327, 16-A1 (1992)

Three-dimensional Force-free Magnetic Fields and Flare Energy Buildup. *J. A. Klimchuk & P. A. Sturrock.* 385, 344, 16-B6 (1992)

Detection of "Invisible Sunspots." *Harold Zirin & Haimin Wang.* 385, L27, 17-C12 (1992)

Emergence of Magnetic Flux from the Convection Zone into the Solar Atmosphere. I. Linear and Nonlinear Adiabatic Evolution of the Convective-Parker Instability. *S. Nozawa, K. Shibata, R. Matsumoto, A. C. Sterling, T. Tajima, Y. Uchida, A. Ferrari, & R. Rosner.* 78, 267, 5-D5 (1992)

Prominence Sheets Supported by Constant-Current Force-free Fields. II. Imposition of Normal Photospheric Field Component and Prominence Surface Current. *C. Ridgway, T. Amari, & E. R. Priest.* 385, 718, 22-A10 (1992)

Cylindrically Symmetric Force-free Magnetic Fields. *Lisa J. Porter, James A. Klimchuk, & Peter A. Sturrock.* 385, 738, 22-C6 (1992)

Equilibrium of a Magnetic Flux Tube in a Compressible Flow. *Richard Kerswell & Stephen Childress.* 385, 746, 22-D1 (1992)

Structure of Sunspot Penumbrae: Fallen Magnetic Flux Tubes. *Donat G. Wentzel.* 388, 211, 51-E11 (1992)

Taylor Relaxation of a Gold-Hoyle Flux Tube. *G. J. Rickard.* 389, 413, 65-A10 (1992)

On the Density and Field Sensitivities of Dielectronic Recombination. *Daniel B. Reisenfeld, John C. Raymond, Albert R. Young, & John L. Kohl.* 389, L37, 66-E5 (1992)

Solar Active Regions as a Percolation Phenomenon. *Donat G. Wentzel & Philip E. Seiden.* 390, 280, 77-D10 (1992)

Vortex Attraction and the Formation of Sunspots. *E. N. Parker.* 390, 290, 77-E8 (1992)

Self-similar Magnetohydrodynamics. V. Gravitating Spheres and Spheroids. *B. C. Low.* 390, 567, 82-D1 (1992)

Magnetic Reconnection in Incompressible Fluids. *Edward E. DeLuca & Ian J. D. Craig.* 390, 679, 83-F7 (1992)

A True-Field Magnetogram in a Solar Plage Region. *Douglas Rabin.* 390, L103, 85-D1 (1992)

Energy Buildup in Sheared Force-free Magnetic Fields. *Richard Wolfson & Boon Chye Low.* 391, 353, 90-C6 (1992)

Decimetric Solar Type U Bursts: VLA and PHOENIX Observations. *Markus J. Aschwanden, T. S. Bastian, A. O. Benz, & J. W. Brosius.* 391, 380, 90-E13 (1992)

Spatially Extended Measurements of Magnetic Field Strength in Solar Plages. *Douglas Rabin.* 391, 832, 98-C6 (1992)

The Production of ^{3}He and Heavy Ion Enrichments in ^{3}He-rich Flares by Electromagnetic Hydrogen Cyclotron Waves. *M. Temerin & I. Roth.* 391, L105, 100-B1 (1992)

The Conversion of *p*-Modes to Slow Modes and the Absorption of Acoustic Waves by Sunspots. *H. C. Spruit & T. J. Bogdan.* 391, L109, 100-B7 (1992)

On Potential Field Models of the Solar Corona. *Y.-M. Wang & N. R. Sheeley, Jr.* 392, 310, 104-G1 (1992)

On Neutralized Currents in the Solar Corona. *Ladye Kathryn Wilkinson, A. Gordon Emslie, & G. Allen Gary.* 392, L39, 106-E7 (1992)

A Regularization Method for Extrapolation of Solar Potential Magnetic Fields. *G. Allen Gary & Z. E. Musielak.* 392, 722, 111-C1 (1992)

Local Acoustic Diagnostics of the Solar Interior. *D. C. Braun, C. A. Lindsey, Y. Fan, & S. M. Jefferies.* 392, 739, 111-D7 (1992)

Coronal Loops: Current-based Heating Processes. *P. Beaufumé, B. Coppi, & L. Golub.* 393, 396, 119-A11 (1992)

On the Differences between Plage and Quiet Sun in the Solar Photosphere. *Alan M. Title, Kenneth P. Topka, Theodore D. Tarbell, Wolfgang Schmidt, Christiaan Balke, & Göran Scharmer.* 393, 782, 125-E1 (1992)

Localized Sources of Propagating Acoustic Waves in the Solar Photosphere. *Timothy M. Brown, Thomas J. Bogdan, Bruce W. Lites, & John H. Thomas.* 394, L65, 139-E7 (1992)

The Effect of an Inclined Magnetic Field on Solar Oscillation Frequencies. *Philip R. Goode & Michael J. Thompson.* 395, 307, 144-A1 (1992)

The Thermal and Plasma-physical Evolution of Laminar Current Sheets Formed in the Solar Atmosphere by Emerging Flux. *T. N. LaRosa.* 396, 289, 158-F3 (1992)

Multiple Periodicities in the Solar Magnetic Field: Possible Origin in a Multiple-Mode Solar Dynamo. *D. W. Boyer & E. H. Levy.* 396, 340, 159-C6 (1992)

Properties of the Smallest Solar Magnetic Elements. I. Facular Contrast near Sun Center. *K. P. Topka, T. D. Tarbell, & A. M. Title.* 396, 351, 159-D6 (1992)

Inversion of Stokes Profiles. *B. Ruiz Cobo & J. C. del Toro Iniesta.* 398, 375, 186-D11 (1992)

Dielectronic Recombination as a Function of Electric Field Strength. *Daniel B. Reisenfeld.* 398, 386, 186-E9 (1992)

X-Ray Observations of Sunspot Penumbral Structure. *B. J. Sams III, L. Golub, & N. O. Weiss.* 399, 313, 199-B8 (1992)

Nonlinear Dissipation of Surface Alfvén Waves in the Solar Corona. *M. S. Ruderman.* 399, 724, 207-A5 (1992)

Coronal Magnetic Structures Observing Campaign. II. Magnetic and Plasma Properties of a Solar Active Region. *J. T. Schmelz, G. D. Holman, J. W. Brosius, & R. D. Gonzalez.* 399, 733, 207-B1 (1992)

Forced Reconnection, Current Sheets, and Coronal Heating. *Xiaogang Wang & A. Bhattacharjee.* 401, 371, 225-F1 (1992)

A New Determination of the Solar Rotation Rate. *N. R. Sheeley, Jr., Y.-M. Wang, & A. G. Nash.* 401, 378, 225-F9 (1992)

On the Inclination of Photospheric Solar Magnetic Fields. *Norman Murray.* 401, 386, 225-G5 (1992)

Siphon Flows in Isolated Magnetic Flux Tubes. V. Radiative Flows with Variable Ionization. *Benjamin Montesinos & John H. Thomas.* 402, 314, 5-A13 (1993)

Solar p-Modes in a Vertical Magnetic Field: Trapped and Damped π-Modes. *P. S. Cally & T. J. Bogdan.* 402, 721, 11-E3 (1993)

On the Magnetic and Velocity Field Geometry of Simple Sunspots. *Alan M. Title, Zoe A. Frank, Richard A. Shine, Theodore D. Tarbell, Kenneth P. Topka, Göran Scharmer, & Wolfgang Schmidt.* 403, 780, 25-D13 (1993)

The Magnetohydrodynamics of Umbral Flux Tubes. I. Theoretical Model. *Detlev Degenhardt & Bruce W. Lites.* 404, 383, 32-E9 (1993)

A New Class of Exact, Nonlinear Solutions to the Grad-Shafranov Equation. *George Roumeliotis.* 404, 781, 38-F1 (1993)

Cosmic-Ray Anisotropies and Gradients in Three Dimensions. *Jiasheng Chen & John W. Bieber.* 405, 375, 45-G3 (1993)

The Origin of Morphological Asymmetries in Bipolar Active Regions. *Y. Fan, G. H. Fisher, & E. E. DeLuca.* 405, 390, 46-A7 (1993)

A Model of the "Steady" and "Fluctuating" Parts of the Sun's Internal Magnetic Field. *M. H. Gokhale & K. M. Hiremath.* 407, 359, 73-E1 (1993)

Can Equipartition Fields Produce the Tilts of Bipolar Magnetic Regions? *Sydney D'Silva.* 407, 385, 73-G3 (1993)

Flux Emergence and Umbra Formation after the X-9 Flare of 1991 March 22. *Haimin Wang & Frances Tang.* 407, L89, 82-F6 (1993)

Three-dimensional Structures of Magnetostatic Atmospheres. V. Coupled Electric Current Systems. *B. C. Low.* 408, 689, 93-G1 (1993)

Three-dimensional Structures of Magnetostatic Atmospheres. VI. Examples of Coupled Electric Current Systems. *B. C. Low.* 408, 693, 93-G7 (1993)

Solar Magnetic Field Studies Using the 12 Micron Emission Lines. II. Stokes Profiles and Vector Field Samples in Sunspots. *Tilak Hewagama, Drake Deming, Donald E. Jennings, Vladimir Osherovich, Gunter Wiedemann, David Zipoy, Donald L. Mickey, & Howard Garcia.* 86, 313, 18-B7 (1993)

The Free Energies of Partially Open Coronal Magnetic Fields. *B. C. Low & D. F. Smith.* 410, 412, 117-B10 (1993)

Flux-Tube Divergence, Coronal Heating, and the Solar Wind. *Y.-M. Wang.* 410, L123, 126-D13 (1993)

The Dynamics of Magnetic Flux Rings. *E. E. DeLuca, G. H. Fisher, & B. M. Patten.* 411, 383, 132-B4 (1993)

Anomalous Diffusion of Magnetic Elements across the Solar Surface. *J. K. Lawrence & C. J. Schrijver.* 411, 402, 132-D1 (1993)

Observational Evidence for Hotter Transition Region Loops within the Supergranular Network. *James F. Dowdy, Jr.* 411, 406, 132-D8 (1993)

Simultaneous Observations of Solar Plage with the Solar Extreme Ultraviolet Rocket Telescope and Spectrograph (SERTS), the VLA, and the Kitt Peak Magnetograph. *Jeffrey W. Brosius, Joseph M. Davila, William T. Thompson, Roger J. Thomas, Gordon D. Holman, N. Gopalswamy, Stephen M. White, Mukul R. Kundu, & Harrison P. Jones.* 411, 410, 132-E4 (1993)

A Spectroscopic Method for the Solution of the 180° Azimuth Ambiguity in Magnetograms. *Egidio Landi Degl'Innocenti & Véronique Bommier.* 411, L49, 134-C8 (1993)

The Magnetic Field in the Corona above Sunspots at the Eclipse of 1991 July 11. *D. E. Gary, Y. Leblanc, G. A. Dulk, & L. Golub.* 412, 421, 147-C13 (1993)

Solar Flares and Avalanches in Driven Dissipative Systems. *Edward T. Lu, Russell J. Hamilton, J. M. McTiernan, & Kenneth R. Bromund.* 412, 841, 154-C9 (1993)

Formation, Levitation, and Stability of Prominences in the Magnetized Solar Atmosphere. *J. F. Drake, Y. Mok, & G. Van Hoven.* 413, 416, 161-D9 (1993)

Three-dimensional Magnetohydrodynamics of the Emerging Magnetic Flux in the Solar Atmosphere. *R. Matsumoto, T. Tajima, K. Shibata, & M. Kaisig.* 414, 357, 174-D8 (1993)

Understanding the Rotation of Coronal Holes. *Y.-M. Wang & N. R. Sheeley, Jr.* 414, 916, 182-F7 (1993)

Direct Evidence of the Interplanetary Magnetic Field Effect on the Cosmic-Ray Shadow by the Sun. *M. Amenomori, Z. Cao, L. K. Ding, Z. Y. Feng, K. Hibino, N. Hotta, Q. Huang, A. X. Huo, H. G. Jia, G. Z. Jiang, S. Q. Jiao, F. Kajino, K. Kasahara, Labaciren, D. M. Mei, L. Meng, X. R. Meng, Mimaciren, K. Mizutani, J. Mu, H. Nanjo, M. Nishizawa, Nusang, A. Oguro, M. Ohnishi, I. Ohta, T. Ouchi, J. R. Ren, T. Saito, M. Sakata, Z. Z. Shi, M. Shibata, T. Shirai, H. Sugimoto, X. X. Sun, K. Taira, Y. H. Tan, N. Tateyama, S. Torii, H. Wang, C. Z. Wen, Y. Yamamoto, X. Y. Yao, G. C. Yu, P. Yuan, T. Yuda, J. G. Zeng, C. S. Zhang, H. M. Zhang, L. Zhang, Zhasang, Zhaxiciren, & W. D. Zhou (The Tibet ASγ Collaboration).* 415, L147, 200-G1 (1993)

A Linear Solution for Magnetic Reconnection Driven by Converging or Diverging Footpoint Motions. *George Roumeliotis & Ronald L. Moore.* 416, 386, 205-G7 (1993)

The 1992 January 5 Flare at 13.3 UT: Observations from *Yohkoh*. *G. A. Doschek, K. T. Strong, R. D. Bentley, C. M. Brown, J. L. Culhane, A. Fludra, E. Hiei, J. Lang, J. T. Mariska, K. J. H. Phillips, C. D. Pike, A. C. Sterling, T. Watanabe, L. W. Acton, M. E. Bruner, T. Hirayama, S. Tsuneta, E. Rolli, T. Kosugi, M. Yoshimori, H. S. Hudson, T. R. Metcalf, J.-P. Wuelser, Y. Uchida, & Y. Ogawara.* 416, 845, 214-A1 (1993)

Multifractal Measure of the Solar Magnetic Field. *J. K. Lawrence, A. A. Ruzmaikin, & A. C. Cadavid.* 417, 805, 229-D6 (1993)

The Coronal Structure above Sunspots and Pores. *R. Harmon, R. Rosner, H. Zirin, E. Spiller, & L. Golub.* 417, L83, 230-E1 (1993)

Stokes Profile Analysis and Vector Magnetic Fields. VI. Fine Scale Structure of a Sunspot. *B. W. Lites, D. F. Elmore, P. Seagraves, & A. P. Skumanich.* 418, 928, 244-B10 (1993)

The Propagation of Sound Waves in a Randomly Magnetized Medium. I. General Considerations. *M. P. Ryutova & E. R. Priest.* 419, 349, 250-E6 (1993)

The Propagation of Sound Waves in a Randomly Magnetized Medium. II. The Interaction of an Unsteady Wave Packet with an Ensemble of Magnetic Flux Tubes. *M. P. Ryutova & E. R. Priest.* 419, 371, 250-G2 (1993)

Magnetospheres of Solar Active Regions Inferred from Spectral-Polarization Observations with High Spatial Resolution. *K. R. Lang, R. F. Willson, J. N. Kile, J. Lemen, K. T. Strong, V. L. Bogod, G. B. Gelfreikh, B. I. Ryabov, S. R. Hafizov, V. E. Abramov, & S. V. Svetkov.* 419, 398, 251-B7 (1993)

Generation of Electric Currents in Two-dimensional Magnetic Nulls. *Juan M. Fontenla.* 419, 837, 258-A11 (1993)

Current Sheets and Reconnection Driven by Footpoint Motion in Two-dimensional Coronal Loops with X-Type Neutral Lines. *Xiaogang Wang & A. Bhattacharjee.* 420, 415, 6-A9 (1994)

A Flare Caused by Interacting Coronal Loops. *Yoichiro Hanaoka.* 420, L37, 7-E9 (1994)

Coronal Temperature, Density, and Magnetic Field Maps of a Solar Active Region Using the Owens Valley Solar Array. *Dale E. Gary & G. J. Hurford.* 420, 903, 14-B6 (1994)

Interactions between Nested Sunspots. I. The Formation and Breakup of a Delta-Type Sunspot. *V. Gaizauskas, K. L. Harvey, & M. Proulx.* 422, 883, 42-G6 (1994)

Thickness Variations along Coronal Loops Inferred from Vector Magnetograph Data. *A. N. McClymont & Z. Mikić.* 422, 899, 43-B3 (1994)

Evolution of Vector Magnetic Field and White-Light Flares in a Solar Active Region (NOAA 6659) in 1991 June. *Hongqi Zhang, Guoxiang Ai, Xu Yan, Wei Li, & Yang Liu.* 423, 828, 59-A5 (1994)

A Numerical Study of the Sudden Eruption of Sheared Magnetic Fields. *George Roumeliotis, Peter A. Sturrock, & Spiro K. Antiochos.* 423, 847, 59-D1 (1994)

Vector Magnetic Field Changes Associated with X-Class Flares. *Haimin Wang, M. W. Ewell, Jr., H. Zirin, & Guoxiang Ai.* 424, 436, 67-C6 (1994)
The Inclination of Network Magnetic Fields. *J. Sánchez Almeida & V. Martínez Pillet.* 424, 1014, 77-D7 (1994)
Comparison between Cool and Hot Plasma Behaviors of Surges. *B. Schmieder, L. Golub, & S. K. Antiochos.* 425, 326, 84-C6 (1994)
Patterns of Helicity in Solar Active Regions. *Alexei A. Pevtsov, Richard C. Canfield, & Thomas R. Metcalf.* 425, L117, 95-A7 (1994)
Spontaneous Reconnection of Line-tied Flux Tubes. *D. W. Longcope & H. R. Strauss.* 426, 742, 107-F5 (1994)
A Converging Flux Model of an X-Ray Bright Point and an Associated Canceling Magnetic Feature. *E. R. Priest, C. E. Parnell, & S. F. Martin.* 427, 459, 115-E9 (1994)
Three-dimensional Force-free Looplike Magnetohydrodynamic Equilibria. *John M. Finn, Parvez N. Guzdar, & Daniel Usikov.* 427, 475, 115-G1 (1994)
Nonlinear Evolution of the Coronal Magnetic Field under Reconnective Relaxation. *R. Wolfson, G. E. Vekstein, & E. R. Priest.* 428, 345, 132-D11 (1994)
Particle Acceleration in an Evolving Active Region by an Ensemble of Shock Waves. *Anastasios Anastasiadis & Loukas Vlahos.* 428, 819, 140-D11 (1994)
Multifractal Models of Small-Scale Solar Magnetic Fields. *A. C. Cadavid, J. K. Lawrence, A. A. Ruzmaikin, & A. Kayleng-Knight.* 429, 391, 149-A2 (1994)
Magnetostatic Structures of the Solar Corona. I. A Model Based on the Cauchy Boundary Value Problem. *J. R. Hundhausen & B. C. Low.* 429, 876, 156-E7 (1994)
The Rotation of Photospheric Magnetic Fields: A Random Walk Transport Model. *Y.-M. Wang & N. R. Sheeley, Jr.* 430, 399, 164-B9 (1994)
High-Resolution Observations of the Evershed Effect in Sunspots. *R. A. Shine, A. M. Title, T. D. Tarbell, K. Smith, Z. A. Frank, & Göran Scharmer.* 430, 413, 164-C11 (1994)
Disruption of Coronal Magnetic Field Arcades. *Zoran Mikić & Jon A. Linker.* 430, 898, 173-B6 (1994)
Solar Fine-Scale Structures in the Corona, Transition Region, and Lower Atmosphere. *Dan Moses, J. W. Cook, J.-D. F. Bartoe, G. E. Brueckner, K. P. Dere, D. F. Webb, J. M. Davis, J. W. Harvey, F. Recely, S. F. Martin, & H. Zirin.* 430, 913, 173-C9 (1994)
Force-free Fields in Thin Coronal Loops. *A. Gordon Emslie & L. K. Wilkinson.* 431, 873, 189-E5 (1994)
Three-dimensional Simulation Study of the Magnetohydrodynamic Relaxation Process in the Solar Corona. I. Spontaneous Generation of the Taylor-Heyvaerts-Priest State. *K. Kusano, Y. Suzuki, H. Kubo, T. Miyoshi, & K. Nishikawa.* 433, 361, 212-G3 (1994)
Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. I. Emerging Bipolar Magnetic Regions. *E. N. Parker.* 433, 867, 222-A1 (1994)
The Study of Coronal Plasma Structures and Fluctuations with Faraday Rotation Measurements. *Takayuki Sakurai & Steven R. Spangler.* 434, 773, 238-E6 (1994)
Coronal Magnetic Structures Observing Campaign. III. Coronal Plasma and Magnetic Field Diagnostics Derived from Multiwaveband Active Region Observations. *J. T. Schmelz, G. D. Holman, J. W. Brosius, & R. F. Willson.* 434, 786, 238-F8 (1994)
Polar Plumes and the Solar Wind. *Y.-M. Wang.* 435, L153, 260-E4 (1994)
Equilibrium Structure of Solar Magnetic Flux Tubes: Energy Transport with Multistream Radiative Transfer. *S. S. Hasan & W. Kalkofen.* 436, 355, 266-B7 (1994)
Dynamics of Emerging Active Region Flux Loops. *Y. Fan, G. H. Fisher, & A. N. McClymont.* 436, 907, 278-B13 (1994)
Umbral Oscillations in Sunspots: Absorption of *p*-Modes and Active Region Heating by Mode Conversion. *P. S. Cally, T. J. Bogdan, & E. G. Zweibel.* 437, 505, 290-A11 (1994)
Transient Microwave Brightenings in Solar Active Regions: Comparison between VLA and *Yohkoh* Observations. *N. Gopalswamy, T. E. W. Payne, E. J. Schmahl, M. R. Kundu, J. R. Lemen, K. T. Strong, R. C. Canfield, & J. de La Beaujardiere.* 437, 522, 290-C3 (1994)
Two Types of Slow Solar Wind. *Y.-M. Wang.* 437, L67, 292-D1 (1994)
The Form of Ideal Current Layers in Line-tied Magnetic Fields. *D. W. Longcope & H. R. Strauss.* 437, 851, 297-C10 (1994)
The Role of Photospheric Magnetic Fields in the Variation of Solar Oscillation Eigenfrequencies. *C. S. Rosenthal.* 438, 434, 7-D13 (1995)
Disruption of a Helmet Streamer by Photospheric Shear. *Jon A. Linker & Zoran Mikić.* 438, L45, 10-D7 (1995)
Is the Solar Chromospheric Magnetic Field Force-free? *Thomas R. Metcalf, Litao Jiao, Alexander N. McClymont, Richard C. Canfield, & Han Uitenbroek.* 439, 474, 27-E11 (1995)
The Propagation of Solar Energetic Protons: Comparative Studies in Two Cases with Markedly Different Scattering Conditions. *J. F. Valdés-Galicia, W. Wanner, M.-B. Kallenrode, & G. Wibberenz.* 439, 482, 27-F8 (1995)
Nonequilibrium in Sheared Axisymmetric Force-free Magnetic Fields. *J. J. Aly.* 439, L63, 40-F13 (1995)
The Bright Knots at the Tops of Soft X-Ray Loops: Quantitative Results from *Yohkoh*. *G. A. Doschek, K. T. Strong, & S. Tsuneta.* 440, 370, 46-C7 (1995)
Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. II. The Origin of Enhanced Solar Irradiance. *E. N. Parker.* 440, 415, 47-A1 (1995)
A Volcanic Origin for High-FIP Material in the Solar Atmosphere. *N. R. Sheeley, Jr.* 440, 884, 55-C12 (1995)
The Magnetic Evolution of AR 6555 Which Led to Two Impulsive, Relatively Compact, X-Type Flares. *J. M. Fontenla, A. Ambastha, B. Kalman, & Gy. Csepura.* 440, 894, 55-E4 (1995)
Coronal Loop Formation Resulting from Photospheric Convection. *G. Van Hoven, Y. Mok, & Z. Mikić.* 440, L105, 58-D8 (1995)
Latitudinal Variation of Helicity of Photospheric Magnetic Fields. *Alexei A. Pevtsov, Richard C. Canfield, & Thomas R. Metcalf.* 440, L109, 58-E1 (1995)
Imaging Spectropolarimetry of the He I 1083 Nanometer Line in a Flaring Solar Active Region. *M. J. Penn & J. R. Kuhn.* 441, L51, 67-D1 (1995)
Emerging Flux Tubes in the Solar Convection Zone. I. Asymmetry, Tilt, and Emergence Latitude. *P. Caligari, F. Moreno-Insertis, & M. Schüssler.* 441, 886, 74-B12 (1995)
Magnetoconvection Dynamics in a Stratified Layer. I. Two-dimensional Simulations and Visualization. *Steven R. Lantz & R. N. Sudan.* 441, 903, 74-D4 (1995)
Magnetoconvection Dynamics in a Stratified Layer. II. A Low-Order Model of the Tilting Instability. *Steven R. Lantz.* 441, 925, 74-F2 (1995)
A Solar Flare Triggering Mechanism Based on the Woltjer-Taylor Minimum Energy Principle. *K. Kusano, Y. Suzuki, & K. Nishikawa.* 441, 942, 74-G9 (1995)
On the Spatial Distribution of Magnetic Fields on the Solar Surface. *L. Tao, Y. Du, R. Rosner, & F. Cattaneo.* 443, 434, 101-A12 (1995)
Brunt-Väisälä Growth Rate and the Radial Emergence of Equipartition Fields. *Sydney D'Silva.* 443, 444, 101-B11 (1995)
Asymptotic Analysis of Force-free Magnetic Fields of Cylindrical Symmetry. *P. A. Sturrock, S. K. Antiochos, & G. Roumeliotis.* 443, 804, 109-A1 (1995)
Shear-induced Opening of the Coronal Magnetic Field. *Richard Wolfson.* 443, 810, 109-A11 (1995)
Coronal Heating by the Resonant Absorption of Alfvén Waves: Wavenumber Scaling Laws. *L. Ofman, J. M. Davila, & R. S. Steinolfson.* 444, 471, 120-B1 (1995)
Reduction, Analysis, and Properties of Electric Current Systems in Solar Active Regions. *G. Allen Gary & Pascal Démoulin.* 445, 982, 148-G12 (1995)
The Electrical Current Structure Associated with Solar Flare Electrons Accelerated by Large-Scale Electric Fields. *A. Gordon Emslie & Jean-Claude Hénoux.* 446, 371, 158-D1 (1995)
Photospheric Magnetic Field Evolution and Eruptive Flares. *T. G. Forbes & E. R. Priest.* 446, 377, 158-D10 (1995)
On the Distribution of the Solar Magnetic Fields. *Haosheng Lin.* 446, 421, 159-A7 (1995)
The Inclination of the Heliomagnetic Equator and the Presence of an Inclined Relic Field in the Sun. *S. Bravo & G. Stewart.* 446, 431, 159-B9 (1995)
Identification of Low-Latitude Coronal Plumes in Extreme-Ultraviolet Spectroheliograms. *Y.-M. Wang & N. R. Sheeley, Jr.* 446, L51, 161-A8 (1995)
The Possible Ascent of a Closed Magnetic System through the Photosphere. *B. W. Lites, B. C. Low, V. Martínez Pillet, P. Seagraves, A. Skumanich, Z. A. Frank, R. A. Shine, & S. Tsuneta.* 446, 877, 168-B13 (1995)
The Statistical Physics of Solar Active Regions and the Fundamental Nature of Solar Flares. *Edward T. Lu.* 446, L109, 171-E3 (1995)

Solar Implications of *Ulysses* Interplanetary Field Measurements. *Y.-M. Wang & N. R. Sheeley, Jr.* 447, L143, 191-E9 (1995)

"Steady" and "Fluctuating" Parts of the Sun's Internal Magnetic Field: Improved Model. *K. M. Hiremath & M. H. Gokhale.* 448, 437, 198-B12 (1995)

Magnetohydrodynamic Waves in a Bounded Inhomogeneous Medium with Prominence-Corona Properties. *R. Oliver & J. L. Ballester.* 448, 444, 198-C8 (1995)

Flux Retraction and Recycling: Negative Buoyancy–induced Oscillations as an Alternative to Parker's Thermal Relaxation Oscillations. *Sydney D'Silva.* 448, 459, 198-D12 (1995)

Magnetic Buoyancy, Vorticity, and Three-dimensional Flux-Tube Formation. *P. C. Matthews, D. W. Hughes, & M. R. E. Proctor.* 448, 938, 207-G11 (1995)

Nonlinear Energy Transfer in Solar Magnetic Loops. *Daniel O. Gómez, Edward E. DeLuca, & Alexander N. McClymont.* 448, 954, 208-B8 (1995)

Empirical Relationship between the Magnetic Field and the Mass and Energy Flux in the Source Regions of the Solar Wind. *Y.-M. Wang.* 449, L157, 227-F8 (1995)

Particle Simulation of a Collision between a Plasma Cloud and a Current Loop. *Jie Zhao, Jun-Ichi Sakai, & Ken-Ichi Nishikawa.* 449, L161, 227-G1 (1995)

The Role of Magnetic Reconnection in Chromospheric Eruptions. *Judith T. Karpen, Spiro K. Antiochos, & C. Richard DeVore.* 450, 422, 233-G3 (1995)

Effects of Weak-to-Moderate Vertical Magnetic Fields on Solar *f*- and *p*-Modes. *P. S. Cally.* 451, 372, 251-A8 (1995)

Current Paths in the Corona and Energy Release in Solar Flares. *D. B. Melrose.* 451, 391, 251-C6 (1995)

The Dynamics of Flux Tubes in a High-β Plasma. II. Buoyancy in Stars and Accretion Disks. *Ethan T. Vishniac.* 451, 816, 258-D12 (1995)

The Influence of a Vertical Magnetic Field on Oscillations in an Isothermal Stratified Atmosphere. II. *Dipankar Banerjee, S. S. Hasan, & J. Christensen-Dalsgaard.* 451, 825, 258-E11 (1995)

Triggered Magnetic Energy Release in Solar Flares. *Y. Q. Hu, X. Li, & G. X. Ai.* 451, 843, 258-G4 (1995)

Seismology of the Solar *f*-Mode. I. Basic Signatures of Shearing Velocity Fields. *Pranab Ghosh, H. M. Antia, & S. M. Chitre.* 451, 851, 259-A1 (1995)

Coronal Plumes and Their Relationship to Network Activity. *Y.-M. Wang & N. R. Sheeley, Jr.* 452, 457, 268-D1 (1995)

"Explosion" and Intensification of Magnetic Flux Tubes. *F. Moreno-Insertis, P. Caligari, & M. Schüssler.* 452, 894, 277-A11 (1995)

Coordinated OVRO, BATSE, *Yohkoh*, and BBSO Observations of the 1992 June 25 M1.4 Flare. *H. Wang, D. E. Gary, H. Zirin, R. A. Schwartz, T. Sakao, T. Kosugi, & K. Shibata.* 453, 505, 288-A9 (1995)

The Escape of Magnetic Flux from the Sun. *J. W. Bieber & D. M. Rust.* 453, 911, 296-E3 (1995)

Jacket Modes: Solar Acoustic Oscillations Confined to Regions Surrounding Sunspots and Plage. *T. J. Bogdan & P. S. Cally.* 453, 919, 296-F1 (1995)

Quadrupolar Force-free Magnetic Fields with Singular Current Density Surfaces. *Y. Q. Hu.* 454, 480, 305-G12 (1995)

New Observations of Subarcsecond Photospheric Bright Points. *T. E. Berger, C. J. Schrijver, R. A. Shine, T. D. Tarbell, A. M. Title, & G. Scharmer.* 454, 531, 306-E11 (1995)

Theoretical Properties of Ω-Loops in the Convective Zone of the Sun. V. Coriolis Force and the Centrifugal Potential Barrier. *E. N. Parker.* 454, 927, 314-E10 (1995)

Turbulent and Chaotic Dynamics Underlying Solar Magnetic Variability. *J. K. Lawrence, A. C. Cadavid, & A. A. Ruzmaikin.* 455, 366, 323-B9 (1995)

VLA and *Yohkoh* Observations of an M1.5 Flare. *N. Gopalswamy, J.-P. Raulin, M. R. Kundu, N. Nitta, J. R. Lemen, R. Herrmann, D. Zarro, & T. Kosugi.* 455, 715, 331-G1 (1995)

A Method for Incorporating the Effects of Large-Scale Magnetic Fields in the Study of Stellar Structure and Variability. *Thomas Joseph Lydon & Sabatino Sofia.* 101, 357, 58-F11 (1995)

SUN: OSCILLATIONS

Magnetoatmospheric Oscillations in Sunspot Umbrae. *S. S. Hasan.* 366, 328, 5-B7 (1991)

On the Subadiabatic Magnetohydrodynamic Overstability in Background Polytropes. *Yu-Qing Lou.* 367, 367, 16-E9 (1991)

What We Know about the Sun's Internal Rotation from Solar Oscillations. *Philip R. Goode, W. A. Dziembowski, S. G. Korzennik, & E. J. Rhodes, Jr.* 367, 649, 21-C11 (1991)

Nonlinear Behavior of Solar Gravity Modes Driven by ^{3}He in the Core. II. Numerical Simulations. *William J. Merryfield, Juri Toomre, & Douglas Gough.* 367, 658, 21-D8 (1991)

Scattering of Acoustic Waves from a Magnetic Flux Tube Embedded in a Radiating Fluid. *T. J. Bogdan & M. Knölker.* 369, 219, 38-F1 (1991)

Simulation of Effects of Atmospheric Seeing on the Observation of High-Degree Solar Oscillations. *Frank Hill, Douglas Gough, William J. Merryfield, & Juri Toomre.* 369, 237, 38-G7 (1991)

High Sensitivity of *p*-Modes near the Acoustic Cutoff Frequency to Solar Model Parameters. *D. B. Guenther.* 369, 247, 39-A5 (1991)

Wavelength Variation of *p*-Mode Intensity Fluctuations. *R. S. Ronan, J. W. Harvey, & T. L. Duvall, Jr.* 369, 549, 44-E9 (1991)

A Unified Approach to the Helioseismic Forward and Inverse Problems of Differential Rotation. *Michael H. Ritzwoller & Eugene M. Lavely.* 369, 557, 44-F5 (1991)

Implications of Solar *p*-Mode Frequency Shifts. *Peter Goldreich, Norman Murray, Gregory Willette, & Pawan Kumar.* 370, 752, 57-F12 (1991)

The Sensitivity of Chromospherically Induced *p*- and *f*-Mode Frequency Shifts to the Height of the Magnetic Canopy. *David J. Evans & B. Roberts.* 371, 387, 64-G9 (1991)

The Source of Solar High-Frequency Acoustic Modes: Theoretical Expectations. *Timothy M. Brown.* 371, 396, 65-A5 (1991)

The Resonant Absorption of *p*-Modes by Sunspots with Twisted Magnetic Fields. *S. M. Chitre & Joseph M. Davila.* 371, 785, 71-C10 (1991)

Evidence for a 250 Second Brightness Oscillation at 1600 Å in the Solar Temperature Minimum Region. *J. W. Cook & J. A. Ewing.* 371, 804, 71-E5 (1991)

Measurements of High-Frequency Solar Oscillation Modes. *T. L. Duvall, Jr., J. W. Harvey, S. M. Jefferies, & M. A. Pomerantz.* 373, 308, 89-G1 (1991)

Short-Term Changes in Solar Oscillation Frequencies and Solar Activity. *M. F. Woodard, J. R. Kuhn, N. Murray, & K. G. Libbrecht.* 373, L81, 97-F12 (1991)

Thermal and Mechanical Damping of Solar *p*-Modes. *Peter Goldreich & Pawan Kumar.* 374, 366, 102-F1 (1991)

Is There an Acoustic Resonance in the Solar Chromosphere? *M. F. Woodard & K. G. Libbrecht.* 374, L61, 110-E1 (1991)

The *p*-Mode Oscillation Spectra of an Evolving 1 $M\odot$ Sun-like Star. *D. B. Guenther.* 375, 352, 115-C8 (1991)

The Location of the Source of High-Frequency Solar Acoustic Oscillations. *Pawan Kumar & Edward Lu.* 375, L35, 117-D12 (1991)

Seismology for the Fine Structure in the Sun's Oscillations Varying with Its Activity Cycle. *W. A. Dziembowski & Philip R. Goode.* 376, 782, 136-B1 (1991)

Characteristics of Intermediate-Degree Solar *p*-Mode Line Widths. *S. M. Jefferies, T. L. Duvall, Jr., J. W. Harvey, Y. Osaki, & M. A. Pomerantz.* 377, 330, 142-A11 (1991)

Does the Solar Interior Rotate Rigidly? *Andrew Gould.* 377, 707, 148-D7 (1991)

The Effect of the Mihalas, Hummer, and Däppen Equation of State and the Molecular Opacity on the Standard Solar Model. *Y.-C. Kim, P. Demarque, & D. B. Guenther.* 378, 407, 156-A10 (1991)

The Depth of the Solar Convection Zone. *J. Christensen-Dalsgaard, D. O. Gough, & M. J. Thompson.* 378, 413, 156-B4 (1991)

Application of the Continuous Orthonormalization and Adjoint Methods to the Computation of Solar Eigenfrequencies and Eigenfrequency Sensitivities. *R. D. Rosenwald & G. F. Rabaey.* 77, 97, 44-G1 (1991)

Multiple Scattering of Acoustic Waves by a Pair of Uniformly Magnetized Flux Tubes. *Thomas J. Bogdan & David C. Fox.* 379, 758, 174-B10 (1991)

Effects of Opacity and Equation of State on Solar Structure and Oscillations. *Joyce A. Guzik & Arthur N. Cox.* 381, 333, 193-B5 (1991)

Linear Resistive Magnetohydrodynamic Computations of Resonant Absorption of Acoustic Oscillations in Sunspots. *Marcel Goossens & Stefaan Poedts.* 384, 348, 5-C8 (1992)

Solar Models with Enhanced Energy Transport in the Core. *J. Christensen-Dalsgaard.* 385, 354, 16-C3 (1992)

Tests of the Detection and Mode Classifications of Low-Degree Solar Gravity Modes with 1978 Solar Diameter Observations. *Henry A. Hill.* 78, 283, 5-F1 (1992)

The Resolving Power of Current Helioseismic Inversions for the Sun's Internal Rotation. *J. Schou, J. Christensen-Dalsgaard, & M. J. Thompson.* 385, L59, 23-E1 (1992)

On the Sensitivity of High-Degree p-Mode Frequencies to the Solar Convection Zone Helium Abundance. *Joyce A. Guzik & Arthur N. Cox.* 386, 729, 34-D1 (1992)

Interior Opacities and the Standard Solar Model. *John Faulkner & Fritz J. Swenson.* 386, L55, 36-D1 (1992)

Standard Solar Model. *D. B. Guenther, P. Demarque, Y.-C. Kim, & M. H. Pinsonneault.* 387, 372, 41-E9 (1992)

Localized Excitation of Solar Oscillations. *Philip R. Goode, Douglas Gough, & Alexander Kosovichev.* 387, 707, 47-E1 (1992)

On the Ultimate Accuracy of Solar Oscillation Frequency Measurements. *K. G. Libbrecht.* 387, 712, 47-E7 (1992)

Chromospheric Dynamics Based on Infrared Solar Brightness Variations. *G. Kopp, C. Lindsey, T. L. Roellig, M. W. Werner, E. E. Becklin, F. Q. Orrall, & J. T. Jefferies.* 388, 203, 51-E1 (1992)

Application of the Phase-Integral Method to the Trapping of Acoustic Waves in a Gravitating Fluid. I. Planar Polytrope and Turning-Point Behavior. *Gary H. Price.* 391, 845, 98-D10 (1992)

The Conversion of p-Modes to Slow Modes and the Absorption of Acoustic Waves by Sunspots. *H. C. Spruit & T. J. Bogdan.* 391, L109, 100-B7 (1992)

Scattering of p-Modes by a Sunspot. *D. C. Braun, T. L. Duvall, Jr., B. J. LaBonte, S. M. Jefferies, J. W. Harvey, & M. A. Pomerantz.* 391, L113, 100-C1 (1992)

Standard Solar Model. II. g-Modes. *D. B. Guenther, P. Demarque, M. H. Pinsonneault, & Y.-C. Kim.* 392, 328, 105-A10 (1992)

Observations of High-Frequency and High-Wavenumber Solar Oscillations. *D. N. Fernandes, P. H. Scherrer, T. D. Tarbell, & A. M. Title.* 392, 736, 111-D1 (1992)

Local Acoustic Diagnostics of the Solar Interior. *D. C. Braun, C. A. Lindsey, Y. Fan, & S. M. Jefferies.* 392, 739, 111-D7 (1992)

Effects of Differential Rotation on Stellar Oscillations: A Second-Order Theory. *W. A. Dziembowski & Philip R. Goode.* 394, 670, 137-G5 (1992)

Localized Sources of Propagating Acoustic Waves in the Solar Photosphere. *Timothy M. Brown, Thomas J. Bogdan, Bruce W. Lites, & John H. Thomas.* 394, L65, 139-E7 (1992)

The Effect of an Inclined Magnetic Field on Solar Oscillation Frequencies. *Philip R. Goode & Michael J. Thompson.* 395, 307, 144-A1 (1992)

The Influence of a Vertical Magnetic Field on Oscillations in an Isothermal Stratified Atmosphere. *S. S. Hasan & J. Christensen-Dalsgaard.* 396, 311, 159-A1 (1992)

Power Spectra of Median- and Small-Scale Solar Convection. *D.-Y. Chou, C.-S. Chen, K.-T. Ou, & C.-C. Wang.* 396, 333, 159-B11 (1992)

Helioseismology Data and the Solar Dynamo. *P. R. Wilson.* 399, 294, 198-G11 (1992)

New Observations of 5 Minute Oscillations in the Opposite Flanks of Solar Fraunhofer Lines. I. The Effect of Varying the Spectral and Temporal Resolution. *L. Bertello, B. Caccin, P. Francia, & E. Pietropaolo.* 401, 768, 232-B1 (1992)

Solar p-Modes in a Vertical Magnetic Field: Trapped and Damped π-Modes. *P. S. Cally & T. J. Bogdan.* 402, 721, 11-E3 (1993)

Helioseismological Test of a New Model for Stellar Convection. *L. Paternò, R. Ventura, V. M. Canuto, & I. Mazzitelli.* 402, 733, 11-F3 (1993)

Solar Activity and Oscillation Frequency Splittings. *M. F. Woodard & K. G. Libbrecht.* 402, L77, 13-B1 (1993)

Average Effects of Large-Scale Convection on Helioseismic Line Widths and Frequencies. *Eugene M. Lavely & Michael H. Ritzwoller.* 403, 810, 26-A6 (1993)

Effects of Diffusion on Solar Models and Their Oscillation Frequencies. *J. Christensen-Dalsgaard, C. R. Proffitt, & M. J. Thompson.* 403, L75, 27-E1 (1993)

Measurement of p-Mode Energy Propagation in the Quiet Solar Photosphere. *J. M. Fontenla, D. Rabin, D. H. Hathaway, & R. L. Moore.* 405, 787, 52-G8 (1993)

Confirmation of Solar Cycle–dependent Intermediate-Degree p-Mode Frequency Shifts. *Edward J. Rhodes, Jr., Alessandro Cacciani, Sylvain G. Korzennik, & Roger K. Ulrich.* 406, 714, 66-G1 (1993)

The Absorption of p-Modes by Sunspots: Variations with Degree and Order. *Thomas J. Bogdan, Timothy M. Brown, Bruce W. Lites, & John H. Thomas.* 406, 723, 66-G13 (1993)

Time Correlation between Solar Structural Parameters: p-Mode Frequencies, Radius, and Neutrino Flux. *Ph. Delache, V. Gavryusev, E. Gavryuseva, F. Laclare, C. Régulo, & T. Roca Cortés.* 407, 801, 80-D8 (1993)

Observation of Impulsive Acoustic Events and the Excitation of Solar Oscillations. *Sergio R. Restaino, Robin T. Stebbins, & Philip R. Goode.* 408, L57, 89-E9 (1993)

The Cutoff Frequency for Fast-Mode Magnetohydrodynamic Waves in an Isothermal Atmosphere with a Uniform Horizontal Magnetic Field. *B. A. Stark & Z. E. Musielak.* 409, 450, 102-E5 (1993)

Asymptotic Theory of Intermediate- and High-Degree Solar Acoustic Oscillations. *M. Brodsky & S. V. Vorontsov.* 409, 455, 102-E11 (1993)

Oscillations of a Quiescent Solar Prominence Embedded in a Hot Corona. *R. Oliver, J. L. Ballester, A. W. Hood, & E. R. Priest.* 409, 809, 109-B12 (1993)

g-Modes and the Solar Neutrino Problem. *John N. Bahcall & Pawan Kumar.* 409, L73, 111-G1 (1993)

Asymmetries of Solar Oscillation Line Profiles. *T. L. Duvall, Jr., S. M. Jefferies, J. W. Harvey, Y. Osaki, & M. A. Pomerantz.* 410, 829, 124-A13 (1993)

Using Solar p-Modes to Determine the Convection Zone Depth and Constrain Diffusion-produced Composition Gradients. *Joyce A. Guzik & Arthur N. Cox.* 411, 394, 132-C4 (1993)

p-Mode Frequency Variation in Relation to Global Solar Activity. *Kurt T. Bachmann & Timothy M. Brown.* 411, L45, 134-C1 (1993)

Observations of Intermediate Degree Solar Oscillations: 1989 April–June. *Kurt T. Bachmann, Jesper Schou, & Timothy M. Brown.* 412, 870, 154-F8 (1993)

Nonlinear Inversion for Solar Oscillation Frequencies. *Yeming Gu.* 413, 422, 161-E4 (1993)

Dynamics of the Solar Chromosphere. I. Long-Period Network Oscillations. *B. W. Lites, R. J. Rutten, & W. Kalkofen.* 414, 345, 174-C8 (1993)

Equidistribution of Energy and Other Quantities in Oscillating Systems. *Charles L. Wolff.* 414, 892, 182-D4 (1993)

Do p-Mode Frequency Shifts Suggest a Hotter Chromosphere at Solar Maximum? *Rekha Jain & B. Roberts.* 414, 898, 182-D12 (1993)

Discrete High-Frequency p-Modes as Probes of Structures in the Chromosphere, Transition Region, and Lower Corona of the Sun. *Yu-Qing Lou.* 414, L141, 186-E1 (1993)

Are the 1986–1988 Changes in Solar Free-Oscillation Frequency Splitting Significant? *Douglas Gough & Philip B. Stark.* 415, 376, 189-E13 (1993)

The Source of 5 Minute Period Photospheric Umbral Oscillations. *M. J. Penn & B. J. LaBonte.* 415, 383, 189-F7 (1993)

Direct Mapping of Solar Acoustic Power. *C. G. Toner & B. J. LaBonte.* 415, 847, 198-D6 (1993)

Accurate Measurement of the Geometry for a Full-Disk Solar Image and Estimation of the Observational Point Spread Function. *C. G. Toner & S. M. Jefferies.* 415, 852, 198-E11 (1993)

The Effects of Helium Diffusion on Solar p-Mode Frequencies. *D. B. Guenther, M. H. Pinsonneault, & J. N. Bahcall.* 418, 469, 236-G7 (1993)

Helioseismic Line Shape Estimation Given Stochastic Excitation. *John F. Kelly & Michael H. Ritzwoller.* 418, 476, 237-A1 (1993)

A Possible Mechanism for Enhanced Absorption of p-Modes in Sunspot and Plage Regions. *Barry J. LaBonte & Margarita Ryutova.* 419, 388, 251-A9 (1993)

Nonadiabatic Nonradial p-Mode Frequencies of the Standard Solar Model, with and without Helium Diffusion. *D. B. Guenther.* 422, 400, 35-A10 (1994)

Limits on Coronal Reflection Using High-Frequency Solar Oscillations. *P. Kumar, M. A. Fardal, S. M. Jefferies, T. L. Duvall, Jr., J. W. Harvey, & M. A. Pomerantz.* 422, L29, 36-E5 (1994)

The Solar f-Mode as an Interfacial Mode at the Chromosphere-Corona Transition. *C. S. Rosenthal & D. O. Gough.* 423, 488, 52-C1 (1994)

Dynamical Properties of the Chromosphere In and Out of the Solar Magnetic Network. *Karine Bocchialini, Jean-Claude Vial, & Serge Koutchmy.* 423, L67, 54-B8 (1994)

Excitation of Solar p-Modes. *Peter Goldreich, Norman Murray, & Pawan Kumar.* 424, 466, 67-E12 (1994)

The Effects of Scattering on Solar Oscillations. *Peter Goldreich & Norman Murray.* 424, 480, 67-F14 (1994)

Effects of Heavy-Element Settling on Solar Neutrino Fluxes and Interior Structures. *Charles R. Proffitt.* 425, 849, 92-C13 (1994)

Measuring the Helium Abundance in the Solar Envelope: The Role of the Equation of State. *H. M. Antia & Sarbani Basu.* 426, 801, 108-D9 (1994)

Effect of Nonlinear Interactions on *p*-Mode Frequencies and Line Widths. *Pawan Kumar, Peter Goldreich, & Richard Kerswell.* 427, 483, 116-A5 (1994)

Properties of Acoustic Sources in the Sun. *Pawan Kumar.* 428, 827, 140-E7 (1994)

High-Resolution Observations of the Evershed Effect in Sunspots. *R. A. Shine, A. M. Title, T. D. Tarbell, K. Smith, Z. A. Frank, & Göran Scharmer.* 430, 413, 164-C11 (1994)

A Seismic Model of the Sun's Interior. *W. A. Dziembowski, Philip R. Goode, A. A. Pamyatnykh, & R. Sienkiewicz.* 432, 417, 198-C13 (1994)

Imaging Spectroscopy of the Solar CO Lines at 4.67 Microns. *Han Uitenbroek, R. W. Noyes, & Douglas Rabin.* 432, L67, 200-B5 (1994)

On Comparing Helioseismic Two-dimensional Inversion Methods. *J. Schou, J. Christensen-Dalsgaard, & M. J. Thompson.* 433, 389, 213-B13 (1994)

Waves and Instabilities of a Toroidal Magnetic Flux Tube in a Rotating Star. *A. Ferriz-Mas & M. Schüssler.* 433, 852, 221-F10 (1994)

On the Rotation Rate in the Solar Convection Zone. *Jesper Schou & Timothy M. Brown.* 434, 378, 230-F9 (1994)

Variation of the Frequencies of Very Low *l* *p*-Modes. *C. Régulo, A. Jiménez, P. L. Pallé, F. Pérez Hernández, & T. Roca Cortés.* 434, 384, 230-G4 (1994)

Use of Acoustic Wave Travel-Time Measurements to Probe the Near-Surface Layers of the Sun. *S. M. Jefferies, Y. Osaki, H. Shibahashi, T. L. Duvall, Jr., J. W. Harvey, & M. A. Pomerantz.* 434, 795, 238-G6 (1994)

Solar *p*-Mode Frequencies and Their Dependence on Solar Activity: Recent Results from the BISON Network. *Y. Elsworth, R. Howe, G. R. Isaak, C. P. McLeod, B. A. Miller, R. New, C. C. Speake, & S. J. Wheeler.* 434, 801, 239-A1 (1994)

The Rotation of the Solar Core. *Antonio Jiménez, Fernando Pérez Hernández, Antonio Claret, Pere LLuis Pallé, Clara Régulo, & Teodoro Roca Cortés.* 435, 874, 258-B10 (1994)

Acoustic Mode Mixing in Sunspots. *Sydney D'Silva.* 435, 881, 258-C6 (1994)

Multiple Scattering and Resonant Absorption of *p*-Modes by Fibril Sunspots. *R. Keppens, T. J. Bogdan, & M. Goossens.* 436, 372, 266-E2 (1994)

The Effects of a Hot Outer Atmosphere on Acoustic-Gravity Waves. *Bradley W. Hindman & Ellen G. Zweibel.* 436, 929, 278-D11 (1994)

Solar Neutrinos: Sensitivity to Pre–Main-Sequence Evolution and to the Depth of the Convective Zone. *John N. Bahcall & Ami Glasner.* 437, 485, 289-F13 (1994)

Umbral Oscillations in Sunspots: Absorption of *p*-Modes and Active Region Heating by Mode Conversion. *P. S. Cally, T. J. Bogdan, & E. G. Zweibel.* 437, 505, 290-A11 (1994)

The Sun as a Probe of Varying *G*. *P. Demarque, Lawrence M. Krauss, D. B. Guenther, & David Nydam.* 437, 870, 297-E10 (1994)

The Role of Photospheric Magnetic Fields in the Variation of Solar Oscillation Eigenfrequencies. *C. S. Rosenthal.* 438, 434, 7-D13 (1995)

Forward Analysis of the BBSO Frequency-splitting Coefficients for 1986. *P. R. Wilson & D. Burtonclay.* 438, 445, 7-F1 (1995)

Time-Distance Helioseismology in the Vicinity of Sunspots. *Sydney D'Silva & Thomas L. Duvall, Jr.* 438, 454, 7-G1 (1995)

A Measurement of the Background Solar Velocity Spectrum. *P. L. Pallé, A. Jiménez, F. Pérez Hernández, C. Régulo, T. Roca Cortés, & L. Sánchez.* 441, 952, 75-A9 (1995)

Helioseismic Bounds on the Central Temperature of the Sun. *H. M. Antia & S. M. Chitre.* 442, 434, 83-A2 (1995)

Oscillation-Convection Coupling: Cause of Supergranulation? *Charles L. Wolff.* 443, 423, 100-G12 (1995)

Measurement of High-Degree Solar Oscillation Frequencies. *K. T. Bachmann, T. L. Duvall, Jr., J. W. Harvey, & F. Hill.* 443, 837, 109-D3 (1995)

Uncertainties for Two-dimensional Models of Solar Rotation from Helioseismic Eigenfrequency Splitting. *Christopher R. Genovese, Philip B. Stark, & Michael J. Thompson.* 443, 843, 109-D13 (1995)

A Numerical Study of Resonant Absorption in a Magnetohydrodynamic Cavity Driven by a Broadband Spectrum. *Andrew N. Wright & Graham J. Rickard.* 444, 458, 119-G13 (1995)

Acoustic Wave Propagation in the Solar Atmosphere. I. Rediscussion of the Linearized Theory Including Nonstationary Solutions. *Zhengzhi Wang, Roger K. Ulrich, & Ferdinand V. Coroniti.* 444, 879, 128-E10 (1995)

Dark Lanes in Granulation and the Excitation of Solar Oscillations. *Thomas R. Rimmele, Philip R. Goode, Elliotte Harold, & Robin T. Stebbins.* 444, L119, 131-C4 (1995)

Sensitivity of Solar *g*-Modes to Varying *G* Cosmologies. *D. B. Guenther, Ken Sills, Pierre Demarque, & Lawrence M. Krauss.* 445, 148, 134-D4 (1995)

Updated Seismic Solar Model. *W. A. Dziembowski, Philip R. Goode, A. A. Pamyatnykh, & R. Sienkiewicz.* 445, 509, 139-E6 (1995)

Rotation, Diffusion, and Overshoot in the Sun: Effects on the Oscillation Frequencies and the Neutrino Flux. *Brian Chaboyer, P. Demarque, D. B. Guenther, & M. H. Pinsonneault.* 446, 435, 159-C3 (1995)

Magnetohydrodynamic Waves in a Bounded Inhomogeneous Medium with Prominence-Corona Properties. *R. Oliver & J. L. Ballester.* 448, 444, 198-C8 (1995)

Measurement of the Rotation Rate in the Deep Solar Interior. *S. Tomczyk, J. Schou, & M. J. Thompson.* 448, L57, 200-C5 (1995)

Early Solar Mass Loss, Element Diffusion, and Solar Oscillation Frequencies. *Joyce A. Guzik & Arthur N. Cox.* 448, 905, 207-D7 (1995)

Effects of Weak-to-Moderate Vertical Magnetic Fields on Solar *f*- and *p*-Modes. *P. S. Cally.* 451, 372, 251-A8 (1995)

The Influence of a Vertical Magnetic Field on Oscillations in an Isothermal Stratified Atmosphere. II. *Dipankar Banerjee, S. S. Hasan, & J. Christensen-Dalsgaard.* 451, 825, 258-E11 (1995)

Seismology of the Solar *f*-Mode. I. Basic Signatures of Shearing Velocity Fields. *Pranab Ghosh, H. M. Antia, & S. M. Chitre.* 451, 851, 259-A1 (1995)

Scattering of *p*-Modes by Sunspots. I. Observations. *D. C. Braun.* 451, 859, 259-A12 (1995)

Scattering of *p*-Modes by Sunspots. II. Calculations of Phase Shifts from a Phenomenological Model. *Y. Fan, D. C. Braun, & D.-Y. Chou.* 451, 877, 259-C6 (1995)

Jacket Modes: Solar Acoustic Oscillations Confined to Regions Surrounding Sunspots and Plage. *T. J. Bogdan & P. S. Cally.* 453, 919, 296-F1 (1995)

The Damping of Compressional Alfvén Waves near Magnetic Cusp Configurations. *R. A. Scheper & A. B. Hassam.* 455, 693, 331-D11 (1995)

Velocity Fields within the Solar Convection Zone: Evidence from Oscillation Ring Diagram Analysis of Mount Wilson Dopplergrams. *J. Patrón, F. Hill, E. J. Rhodes, Jr., S. G. Korzennik, & A. Cacciani.* 455, 746, 332-B10 (1995)

SUN: PARTICLE EMISSION

High Coronal Flares and Impulsive Acceleration of Solar Energetic Particles. *E. Cliver & S. Kahler.* 366, L91, 11-E11 (1991)

Solar Abundances from Gamma-Ray Spectroscopy: Comparisons with Energetic Particle, Photospheric, and Coronal Abundances. *R. J. Murphy, R. Ramaty, B. Kozlovsky, & D. V. Reames.* 371, 793, 71-D6 (1991)

Coronal Proton Transport in the Presence of Alfvén Waves and Implications for Gamma-Ray Burst Models. *D. F. Smith & S. H. Brecht.* 373, 289, 89-E9 (1991)

A Catastrophe Mechanism for Coronal Mass Ejections. *T. G. Forbes & P. A. Isenberg.* 373, 294, 89-F1 (1991)

Solar Particle Abundances at Energies Greater than 1 MeV per Nucleon and the Role of Interplanetary Shocks. *H. V. Cane, D. V. Reames, & T. T. von Rosenvinge.* 373, 675, 96-D1 (1991)

Magnetohydrodynamic Turbulence Dissipation and Stochastic Proton Acceleration in Solar Flares. *James A. Miller.* 376, 342, 129-B11 (1991)

Particle Injection following Solar Flares on 1980 May 28 and June 8: Evidence for Different Injection Time-Histories in Impulsive and Gradual Events? *M.-B. Kallenrode & G. Wibberenz.* 376, 787, 136-B8 (1991)

Coronal Mass Ejections and Streamers Associated with the New Cycle Active Regions at Solar Minimum. *S. Kahler.* 378, 398, 155-G9 (1991)

Solar Gamma-Ray-Line Flares, Type II Radio Bursts, and Coronal Mass Ejections. *E. W. Cliver, H. V. Cane, D. J. Forrest, M. J. Koomen, R. A. Howard, & C. S. Wright.* 379, 741, 174-A2 (1991)

Multispacecraft Observations of Solar ^{3}He-rich Events. *D. V. Reames, M.-B. Kallenrode, & R. G. Stone.* 380, 287, 179-G1 (1991)

Maximum Energy of Semi-infinite Magnetic Field Configurations. *P. A. Sturrock.* 380, 655, 186-C8 (1991)

Statistical Properties of Shock-accelerated Ions in the Outer Heliosphere. *L. J. Lanzerotti, R. E. Gold, D. J. Thomson, R. E. Decker, C. G. Maclennan, & S. M. Krimigis.* 380, L93, 188-F10 (1991)

Parametric Study of the Formation of Magnetohydrodynamic Shocks. III. Fast and Slow Shocks. *Y. C. Whang.* 381, 559, 197-E10 (1991)

Large Solar Flares: Analysis of the Events Recorded by the Mont Blanc Neutrino Detector. *M. Aglietta, G. Badino, G. Bologna, C. Castagnoli, A. Castellina, V. L. Dadykin, W. Fulgione, P. Galeotti, F. F. Kalchukov, I. V. Korolkova, P. V. Kortchaguin, V. A. Kudryavtsev, A. S. Malguin,*

L. Periale, V. G. Ryassny, O. G. Ryazhskaya, O. Saavedra, G. Trinchero, S. Vernetto, V. F. Yakushev, & G. T. Zatsepin. 382, 344, 204-D9 (1991)

Interplanetary Transport of Decay Protons from Solar Flare Neutrons. *D. Ruffolo.* 382, 688, 210-B12 (1991)

Energy Spectra of Ions from Impulsive Solar Flares. *D. V. Reames, I. G. Richardson, & K.-P. Wenzel.* 387, 715, 47-E11 (1992)

Superevents: Their Origin and Propagation through the Heliosphere from 0.3 to 35 AU. *Wolfgang Dröge, Reinhold Müller-Mellin, & Edward W. Cliver.* 387, L97, 48-E10 (1992)

High-Energy Gamma-Ray Emission from Pion Decay in a Solar Flare Magnetic Loop. *Natalie Mandzhavidze & Reuven Ramaty.* 389, 739, 70-E6 (1992)

The Simulated Features of Heliospheric Cosmic-Ray Modulation with a Time-dependent Drift Model. II. On the Energy Dependence of the Onset of New Modulation in 1987. *J. A. Le Roux & M. S. Potgieter.* 390, 661, 83-E1 (1992)

The Influence of the Large-Scale Interplanetary Shock Structure on a Low-Energy Particle Event. *A. M. Heras, B. Sanahuja, Z. K. Smith, T. Detman, & M. Dryer.* 391, 359, 90-C13 (1992)

Composition and Azimuthal Spread of Solar Energetic Particles from Impulsive and Gradual Flares. *M.-B. Kallenrode, E. W. Cliver, & G. Wibberenz.* 391, 370, 90-D12 (1992)

The Production of ^{3}He and Heavy Ion Enrichments in ^{3}He-rich Flares by Electromagnetic Hydrogen Cyclotron Waves. *M. Temerin & I. Roth.* 391, L105, 100-B1 (1992)

Probing the Heliosphere with Energetic Hydrogen Atoms. *K. C. Hsieh, K. L. Shih, J. R. Jokipii, & S. Grzedzielski.* 393, 756, 125-C1 (1992)

Stochastic Gyroresonant Electron Acceleration in a Low-Beta Plasma. I. Interaction with Parallel Transverse Cold Plasma Waves. *Jürgen Steinacker & James A. Miller.* 393, 764, 125-C10 (1992)

Propagation Conditions of Relativistic Electrons in the Inner Heliosphere. *M.-B. Kallenrode, G. Wibberenz, & S. Hucke.* 394, 351, 132-C11 (1992)

Ion Injection and Fermi Acceleration at Earth's Bow Shock: The 1984 September 12 Event Revisited. *M. Scholer, K. J. Trattner, & H. Kucharek.* 395, 675, 151-F1 (1992)

Gamma Rays from Pion Decay: Evidence for Long-Term Trappings of Particles in Solar Flares. *Natalie Mandzhavidze & Reuven Ramaty.* 396, L111, 167-F7 (1992)

Kinetic Description of Electron Beams in the Solar Chromosphere. *Daniel O. Gómez & Pablo J. D. Mauas.* 398, 682, 192-E6 (1992)

Stochastic Gyroresonant Electron Acceleration in a Low-Beta Plasma. II. Implications of Thermal Effects in a Solar Flare Plasma. *James A. Miller & Jürgen Steinacker.* 399, 284, 198-F12 (1992)

Observation of Solar Neutrons Associated with the Large Flare on 1991 June 4. *Y. Muraki, K. Murakami, M. Miyazaki, K. Mitsui, S. Shibata, S. Sakakibara, T. Sakai, T. Takahashi, T. Yamada, & K. Yamaguchi.* 400, L75, 220-F1 (1992)

The Energy Spectra of Solar Flare Hydrogen, Helium, Oxygen, and Iron: Evidence for Stochastic Acceleration. *J. E. Mazur, G. M. Mason, B. Klecker, & R. E. McGuire.* 401, 398, 226-A5 (1992)

The Abundances of Hydrogen, Helium, Oxygen, and Iron Accelerated in Large Solar Particle Events. *J. E. Mazur, G. M. Mason, B. Klecker, & R. E. McGuire.* 404, 810, 39-A8 (1993)

Coronal Proton Acceleration by Magnetohydrodynamic Waves and Related Proton Transport. *D. F. Smith & S. H. Brecht.* 406, 298, 58-F10 (1993)

Quasi-linear Theory and the Phenomenology of Interplanetary Solar Particle Transport. *Wolfgang Dröge, Ulrich Achatz, Wolfgang Wanner, Reinhard Schlickeiser, & Gerd Wibberenz.* 407, L95, 82-G1 (1993)

Bidirectional $\sim$ 1 MeV amu^{-1} Ion Intervals in 1973–1991 Observed by the Goddard Space Flight Center Instruments on *IMP 8* and *ISEE 3/ICE*. *I. G. Richardson & D. V. Reames.* 85, 411, 12-G7 (1993)

Lower Hybrid Resonance Acceleration of Electrons and Ions in Solar Flares and the Associated Microwave Emission. *K. G. McClements, R. Bingham, J. J. Su, J. M. Dawson, & D. S. Spicer.* 409, 465, 102-F9 (1993)

Magnetic Field Power Density Spectra during "Scatter-free" Solar Particle Events. *L. C. Tan & G. M. Mason.* 409, L29, 104-E1 (1993)

Solar Neutron and Proton Production during the 1990 May 24 Cosmic-Ray Flare Increases. *H. Debrunner, J. A. Lockwood, & J. M. Ryan.* 409, 822, 109-D1 (1993)

The Free Energies of Partially Open Coronal Magnetic Fields. *B. C. Low & D. F. Smith.* 410, 412, 117-B10 (1993)

Ion Acceleration and Abundance Enhancements by Electron Beam Instabilities in Impulsive Solar Flares. *James A. Miller & Adolfo F. Viñas.* 412, 386, 146-G12 (1993)

A Doppler Dimming Determination of Coronal Outflow Velocity. *Leonard Strachan, John L. Kohl, Heinz Weiser, George L. Withbroe, & Richard H. Munro.* 412, 410, 147-B13 (1993)

Simulations of the Ca XIX Spectral Emission from a Flaring Solar Coronal Loop. II. Impulsive Heating by Accelerated Electrons. *E. Antonucci, M. A. Dodero, R. Martin, G. Peres, F. Reale, & S. Serio.* 413, 786, 166-B11 (1993)

Ion Acceleration in Impulsive Solar Flares. *Jürgen Steinacker, Uwe Jaekel, & Reinhard Schlickeiser.* 415, 342, 189-C1 (1993)

Quasi-periodic Particle Injection into Coronal Loops. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Victor Gaizauskas.* 416, 857, 214-B5 (1993)

The Timing of Electron Beam Signatures in Hard X-Ray and Radio: Solar Flare Observations by BATSE/*Compton Gamma-Ray Observatory* and PHOENIX. *Markus J. Aschwanden, Arnold O. Benz, & Richard A. Schwartz.* 417, 790, 229-C3 (1993)

Energy Requirements for Opening the Solar Corona. *Richard Wolfson.* 419, 382, 251-A1 (1993)

Temperature and Hard X-Ray Signatures for Energetic Proton Events. *Howard A. Garcia.* 420, 422, 6-B3 (1994)

Neutral Hydrogen in the Solar Wind Acceleration Region. *Espen Lyngdal Olsen, Egil Leer, & Thomas E. Holzer.* 420, 913, 14-C4 (1994)

A Survey of Bidirectional $\geq$ 1 MeV Ion Flows during the *Helios 1* and *Helios* 2 Missions: Observations from the Goddard Space Flight Center Instruments. *I. G. Richardson.* 420, 926, 14-D5 (1994)

A Comparison of Nonrelativistic Electron Escape Efficiencies for Solar Flares with and without Coronal Mass Ejections. *S. W. Kahler, E. I. Daibog, V. G. Kurt, & V. G. Stolpovskii.* 422, 394, 35-A1 (1994)

Transport of Solar Energetic Particles. *Wolfgang Dröge.* 90, 567, 10-G3 (1994)

Energetic-Particle Abundances in Impulsive Solar Flare Events. *D. V. Reames, J. P. Meyer, & T. T. von Rosenvinge.* 90, 649, 11-G7 (1994)

Focused Interplanetary Transport of $\sim$ 1MeV Solar Energetic Protons through Self-generated Alfvén Waves. *C. K. Ng & D. V. Reames.* 424, 1032, 77-F7 (1994)

New Description of Charged Particle Propagation in Random Magnetic Fields. *James A. Earl.* 425, 331, 84-D7 (1994)

Injection Profiles of Solar Energetic Particles as Functions of Coronal Mass Ejection Heights. *S. Kahler.* 428, 837, 140-F5 (1994)

Evidence of Additional Production of High-Energy Neutrons during the Solar Flare on 1991 June 4. *A. Struminsky, M. Matsuoka, & K. Takahashi.* 429, 400, 149-A13 (1994)

On the Correlation of Solar Surface Magnetic Flux with Solar Neutrino Capture Rate. *David S. Oakley, Herschel B. Snodgrass, Roger K. Ulrich, & Toni L. VanDeKop.* 437, L63, 292-C7 (1994)

A Dynamical Model of Magnetic Clouds. *Tyan Yeh.* 438, 975, 17-E7 (1995)

The Propagation of Solar Energetic Protons: Comparative Studies in Two Cases with Markedly Different Scattering Conditions. *J. F. Valdés-Galicia, W. Wanner, M.-B. Kallenrode, & G. Wibberenz.* 439, 482, 27-F8 (1995)

Effect of Adiabatic Deceleration on the Focused Transport of Solar Cosmic Rays. *D. Ruffolo.* 442, 861, 92-A12 (1995)

The ^{3}He/^{4}He Ratios for Solar Energetic Particle Events during the *Combined Release and Radiation Effects Satellite* Mission. *Jiasheng Chen, T. Gregory Guzik, & John P. Wefel.* 442, 875, 92-C1 (1995)

Shear-induced Opening of the Coronal Magnetic Field. *Richard Wolfson.* 443, 810, 109-A11 (1995)

Flare Plasma Dynamics Observed with the *Yohkoh* Bragg Crystal Spectrometer. III. Spectral Signatures of Electron-Beam–heated Atmospheres. *John T. Mariska.* 444, 478, 120-B12 (1995)

The Mean Ionic Charge State of Solar Energetic Fe Ions above 200 MeV per Nucleon. *A. J. Tylka, P. R. Boberg, J. H. Adams, Jr., L. P. Beahm, W. F. Dietrich, & T. Kleis.* 444, L109, 131-B1 (1995)

Three Low-Energy Particle Events: Modeling the Influence of the Parent Interplanetary Shock. *A. M. Heras, B. Sanahuja, D. Lario, Z. K. Smith, T. Detman, & M. Dryer.* 445, 497, 139-D4 (1995)

Alfvén Turbulence Dissipation in Proton Injection and Acceleration in Solar Flares. *Dean F. Smith & James A. Miller.* 446, 390, 158-E12 (1995)

Derivation of Analytical Particle Spectra from the Solution of the Transport Equation by the WKBJ Method. *A. Gallegos-Cruz & J. Pérez-Peraza.* 446, 400, 158-F11 (1995)

The Velocity Differential Emission Measure: Diagnostic of Bulk Plasma Motion in Solar Flares. *E. K. Newton, A. G. Emslie, & J. T. Mariska.* 447, 915, 188-E1 (1995)

Electron Time-of-Flight Differences in Solar Flares. *Markus J. Aschwanden, Richard A. Schwartz, & Daniel M. Alt.* 447, 923, 188-E12 (1995)

Heavy Ion Acceleration beyond 10 MeV per Nucleon in Impulsive Solar Flares. *J. E. Mazur, G. M. Mason, & B. Klecker.* 448, L53, 200-B11 (1995)

A Reconciliation of the Discrepancy on the Cosmic-Ray Interplanetary Diffusion Mean Free Path. *L. Dennis Zhang.* 449, 386, 215-D6 (1995)

Solar ^{3}He-rich Events and Ion Acceleration in Two Stages. *T. X. Zhang.* 449, 916, 225-D6 (1995)

Charge State Measurements of Solar Energetic Particles Observed with *SAMPEX*. *G. M. Mason, J. E. Mazur, M. D. Looper, & R. A. Mewaldt.* 452, 901, 277-B7 (1995)

Stochastic Proton Acceleration by Cascading Alfvén Waves in Impulsive Solar Flares. *James A. Miller & D. Aaron Roberts.* 452, 912, 277-C7 (1995)

Gamma-Ray Measurements of Flare-to-Flare Variations in Ambient Solar Abundances. *Gerald H. Share & Ronald J. Murphy.* 452, 933, 277-E4 (1995)

Pitch Angle Diffusion Coefficient in an Extended Quasi-linear Theory. *C. K. Ng & D. V. Reames.* 453, 890, 296-C3 (1995)

The Escape of Magnetic Flux from the Sun. *J. W. Bieber & D. M. Rust.* 453, 911, 296-E3 (1995)

Fractionation of Xe, Kr, and Ar in the Solar Corpuscular Radiation Deduced by Closed System Etching of Lunar Soils. *Rainer Wieler & Heinrich Baur.* 453, 987, 297-E7 (1995)

Coronal Heating and Solar Wind Energy Balance. *Ørnulf Sandbæk & Egil Leer.* 454, 486, 306-A7 (1995)

Solar Electron Beams Detected in Hard X-Rays and Radio Waves. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Richard A. Schwartz.* 455, 347, 322-G12 (1995)

Accuracy, Uncertainties, and Delay Distribution of Electron Time-of-Flight Measurements in Solar Flares. *Markus J. Aschwanden & Richard A. Schwartz.* 455, 699, 331-E6 (1995)

SUN: PHOTOSPHERE

Localized Sources of Propagating Acoustic Waves in the Solar Photosphere. *Timothy M. Brown, Thomas J. Bogdan, Bruce W. Lites, & John H. Thomas.* 394, L65, 139-E7 (1992)

Electric Currents and Coronal Heating in NOAA Active Region 6952. *T. R. Metcalf, R. C. Canfield, H. S. Hudson, D. L. Mickey, J.-P. Wülser, P. C. H. Martens, & S. Tsuneta.* 428, 860, 141-A10 (1994)

Dark Lanes in Granulation and the Excitation of Solar Oscillations. *Thomas R. Rimmele, Philip R. Goode, Elliotte Harold, & Robin T. Stebbins.* 444, L119, 131-C4 (1995)

On the Dynamics of Bright Features in Sunspot Umbrae. *Michal Sobotka, Jos/'e A. Bonet, Manuel V/'azquez, & Arnold Hanslmeier.* 447, L133, 191-D1 (1995)

SUN: PLAGES

Weak Magnetic Fields and Solar Irradiance Variations. *J. K. Lawrence, G. A. Chapman, & S. R. Walton.* 375, 771, 122-C1 (1991)

Large-Scale Features of the Sun at 20 Centimeter Wavelength. *N. Gopalswamy, S. M. White, & M. R. Kundu.* 379, 366, 167-E9 (1991)

Multicolor Continuum Analysis of the Solar Granulation in Quiet and Active Regions. *C. U. Keller & S. Koutchmy.* 379, 751, 174-B1 (1991)

SUN: PROMINENCES

A Twisted Flux-Tube Model for Solar Prominences. III. Magnetic Support. *C. Ridgway, E. R. Priest, & T. Amari.* 367, 321, 16-A10 (1991)

Opacity Effects on the Radiative Losses of Coronal Loops. *N. P. M. Kuin & A. I. Poland.* 370, 763, 57-G11 (1991)

Evolution to Nonequilibrium in Simple Models of Prominence Filaments. *Ellen G. Zweibel.* 376, 761, 135-G1 (1991)

A Model for the Formation of Solar Prominences. *S. K. Antiochos & J. A. Klimchuk.* 378, 372, 155-E6 (1991)

Prominence Sheets Supported by Constant-Current Force-free Fields. I. Imposition of Normal Magnetic Field Components at the Current Sheet and the Photosphere. *C. Ridgway, T. Amari, & E. R. Priest.* 378, 773, 162-A1 (1991)

Large-Scale Features of the Sun at 20 Centimeter Wavelength. *N. Gopalswamy, S. M. White, & M. R. Kundu.* 379, 366, 167-E9 (1991)

Prominence Sheets Supported by Constant-Current Force-free Fields. II. Imposition of Normal Photospheric Field Component and Prominence Surface Current. *C. Ridgway, T. Amari, & E. R. Priest.* 385, 718, 22-A10 (1992)

Weighted Current Sheets Supported in Normal and Inverse Configurations: A Model for Prominence Observations. *P. Démoulin & T. G. Forbes.* 387, 394, 41-G5 (1992)

The Effect of Line Tying on Parker's Instability. *Ellen G. Zweibel & David L. Bruhwiler.* 399, 318, 199-C11 (1992)

Magnetohydrodynamic Waves in a Solar Prominence. *R. Oliver, J. L. Ballester, A. W. Hood, & E. R. Priest.* 400, 369, 213-E1 (1992)

The He II 1640 Å Multiplet Observed from Solar Prominences. *J. M. Laming & U. Feldman.* 403, 434, 19-B11 (1993)

Three-dimensional Structures of Magnetostatic Atmospheres. VI. Examples of Coupled Electric Current Systems. *B. C. Low.* 408, 693, 93-G7 (1993)

Force-free Magnetic Fields with Singular Current-Density Surfaces. *B. C. Low.* 409, 798, 109-A12 (1993)

Oscillations of a Quiescent Solar Prominence Embedded in a Hot Corona. *R. Oliver, J. L. Ballester, A. W. Hood, & E. R. Priest.* 409, 809, 109-B12 (1993)

Formation, Levitation, and Stability of Prominences in the Magnetized Solar Atmosphere. *J. F. Drake, Y. Mok, & G. Van Hoven.* 413, 416, 161-D9 (1993)

Catastrophic Evolution of a Force-free Flux Rope: A Model for Eruptive Flares. *P. A. Isenberg, T. G. Forbes, & P. Démoulin.* 417, 368, 222-B7 (1993)

A Study of Solar Prominences near $\lambda = 1$ Millimeter. *T. S. Bastian, M. W. Ewell, Jr., & H. Zirin.* 418, 510, 237-C13 (1993)

The Magnetic Field of Solar Prominences. *S. K. Antiochos, R. B. Dahlburg, & J. A. Klimchuk.* 420, L41, 7-F1 (1994)

A Necessary Condition for the Stability of a Class of Three-dimensional Laminated Equilibria. *A. W. Longbottom, J. P. Melville, & A. W. Hood.* 423, 496, 52-C11 (1994)

Stability Criteria for Massive Current Sheets in Two-dimensional Potential Magnetic Fields. *J. J. Aly, S. Colombi, & T. Lepeltier.* 432, 793, 205-G9 (1994)

Abundance Ratios of Oxygen, Neon, and Magnesium in Solar Active Regions and Flares: The FIP Effect. *K. G. Widing & U. Feldman.* 442, 446, 83-B3 (1995)

Magnetostatic Structures of the Solar Corona. II. The Magnetic Topology of Quiescent Prominences. *B. C. Low & J. R. Hundhausen.* 443, 818, 109-B9 (1995)

The Possible Ascent of a Closed Magnetic System through the Photosphere. *B. W. Lites, B. C. Low, V. Martínez Pillet, P. Seagraves, A. Skumanich, Z. A. Frank, R. A. Shine, & S. Tsuneta.* 446, 877, 168-B13 (1995)

Magnetohydrodynamic Waves in a Bounded Inhomogeneous Medium with Prominence-Corona Properties. *R. Oliver & J. L. Ballester.* 448, 444, 198-C8 (1995)

SUN: RADIO RADIATION

Strong Magnetic Fields and Inhomogeneity in the Solar Corona. *S. M. White, M. R. Kundu, & N. Gopalswamy.* 366, L43, 6-E7 (1991)

First Interferometric Observations of Solar Microwave Millisecond Spike Bursts. *Dale E. Gary, G. J. Hurford, & D. J. Flees.* 369, 255, 39-B1 (1991)

A Search for the 154 Day Periodicity in the Occurrence Rate of Solar Flares Using Ottawa 2.8 GHz Burst Data, 1955–1990. *J. N. Kile & E. W. Cliver.* 370, 442, 52-F13 (1991)

Solar Radio Microbursts at 1.4 GHz. *T. S. Bastian.* 370, L49, 53-F11 (1991)

The Microwave Brightness Temperature Spectrum of the Quiet Sun. *H. Zirin, B. M. Baumert, & G. J. Hurford.* 370, 779, 58-B12 (1991)

Solar and Stellar Radio Spikes: Limits on the Saturation of the Electron-Cyclotron Maser. *Donat G. Wentzel & Markus J. Aschwanden.* 372, 688, 84-C1 (1991)

Direct Radiation from a Strong DC Electric Field. *Donat G. Wentzel.* 373, 285, 89-E3 (1991)

Coronal Magnetic Structures Observing Campaign. I. Simultaneous Microwave and Soft X-Ray Observations of Active Regions at the Solar Limb. *N. Nitta, S. M. White, M. R. Kundu, N. Gopalswamy, G. D. Holman, J. W. Brosius, J. T. Schmelz, J. L. R. Saba, & K. T. Strong.* 374, 374, 102-F11 (1991)

Telescope Beam-Profile Diagnostics and the Solar Limb. *Charles A. Lindsey & Thomas L. Roellig.* 375, 414, 116-A9 (1991)

First Observations of Macrospicules at 4.8 GHz at the Solar Limb in Polar Coronal Holes. *Shadia Rifai Habbal & Raymond D. Gonzalez.* 376, L25, 130-D1 (1991)

Multi–Wave Band *SMM*–VLA Observations of an M2 Flare and an Associated Coronal Mass Ejection. *Robert F. Willson, Joan T. Schmelz, Raymond D. Gonzalez, Kenneth R. Lang, & Kermit L. Smith.* 378, 360, 155-D6 (1991)

Large-Scale Features of the Sun at 20 Centimeter Wavelength. *N. Gopalswamy, S. M. White, & M. R. Kundu.* 379, 366, 167-E9 (1991)

Solar Gamma-Ray-Line Flares, Type II Radio Bursts, and Coronal Mass Ejections. *E. W. Cliver, H. V. Cane, D. J. Forrest, M. J. Koomen, R. A. Howard, & C. S. Wright.* 379, 741, 174-A2 (1991)

Emission at Cyclotron Harmonics Due to Coalescence of z-Mode Waves. *D. B. Melrose.* 380, 256, 179-C1 (1991)

Multispacecraft Observations of Solar ^{3}He-rich Events. *D. V. Reames, M.-B. Kallenrode, & R. G. Stone.* 380, 287, 179-G1 (1991)

The Solar Chromospheric Supergranular Network in 850 Micron Radiation. *Charles A. Lindsey & John T. Jefferies.* 383, 443, 217-G1 (1991)

Multifrequency Observations of a Remarkable Solar Radio Burst. *S. M. White, M. R. Kundu, T. S. Bastian, D. E. Gary, G. J. Hurford, T. Kucera, & J. H. Bieging.* 384, 656, 10-C5 (1992)

Coronal Magnetic Structures Observing Campaign. IV. Multiwaveband Observations of Sunspot and Plage-associated Coronal Emission. *Jeffrey W. Brosius, Robert F. Willson, Gordon D. Holman, & Joan T. Schmelz.* 386, 347, 28-E1 (1992)

High Dynamic Range Multifrequency Radio Observations of a Solar Active Region. *S. M. White, M. R. Kundu, & N. Gopalswamy.* 78, 599, 11-A13 (1992)

Connection between Ambient Density Fluctuations and Clumpy Langmuir Waves in Type III Radio Sources. *P. A. Robinson, I. H. Cairns, & D. A. Gurnett.* 387, L101, 48-F1 (1992)

Estimation of the Mass of a Coronal Mass Ejection from Radio Observations. *N. Gopalswamy & M. R. Kundu.* 390, L37, 78-F1 (1992)

Decimetric Solar Type U Bursts: VLA and PHOENIX Observations. *Markus J. Aschwanden, T. S. Bastian, A. O. Benz, & J. W. Brosius.* 391, 380, 90-E13 (1992)

A Thermal/Nonthermal Model for Solar Microwave Bursts. *Stephen G. Benka & Gordon D. Holman.* 391, 854, 98-E7 (1992)

Coronal Magnetic Structures Observing Campaign. II. Magnetic and Plasma Properties of a Solar Active Region. *J. T. Schmelz, G. D. Holman, J. W. Brosius, & R. D. Gonzalez.* 399, 733, 207-B1 (1992)

Band Splitting in Solar Type II Radio Bursts. *R. A. Treumann & J. LaBelle.* 399, L167, 208-E7 (1992)

Measurement of the Solar Limb Brightness Profile at 3 Millimeters during the Total Eclipse of 1991 July 11. *L. Belkora, G. J. Hurford, Dale E. Gary, & D. P. Woody.* 400, 692, 219-B1 (1992)

The Coevolution of Decimetric Millisecond Spikes and Hard X-Ray Emission during Solar Flares. *Markus J. Aschwanden & Manuel Güdel.* 401, 736, 231-F1 (1992)

Plasma Emission from Isotropic Langmuir Turbulence: Are Radio Microbursts Structureless? *N. Gopalswamy.* 402, 326, 5-B13 (1993)

Submillimeter Observations of the 1991 July 11 Total Solar Eclipse. *M. W. Ewell, Jr., H. Zirin, J. B. Jensen, & T. S. Bastian.* 403, 426, 19-B1 (1993)

A New Explanation of Solar Radio Millisecond "Spikes." *Donat G. Wentzel.* 407, 380, 73-F11 (1993)

Clumpy Langmuir Waves in Type III Radio Sources: Comparison of Stochastic-Growth Theory with Observations. *P. A. Robinson, I. H. Cairns, & D. A. Gurnett.* 407, 790, 80-C9 (1993)

Dynamics of Langmuir and Ion-Sound Waves in Type III Solar Radio Sources. *P. A. Robinson, A. J. Willes, & I. H. Cairns.* 408, 720, 94-B9 (1993)

Lower Hybrid Resonance Acceleration of Electrons and Ions in Solar Flares and the Associated Microwave Emission. *K. G. McClements, R. Bingham, J. J. Su, J. M. Dawson, & D. S. Spicer.* 409, 465, 102-F9 (1993)

Simultaneous Observations of Solar Plage with the Solar Extreme Ultraviolet Rocket Telescope and Spectrograph (SERTS), the VLA, and the Kitt Peak Magnetograph. *Jeffrey W. Brosius, Joseph M. Davila, William T. Thompson, Roger J. Thomas, Gordon D. Holman, N. Gopalswamy, Stephen M. White, Mukul R. Kundu, & Harrison P. Jones.* 411, 410, 132-E4 (1993)

Multiple Wavelength Observations of an Off-Limb Eruptive Solar Flare. *T. A. Kucera, G. A. Dulk, A. L. Kiplinger, R. M. Winglee, T. S. Bastian, & M. Graeter.* 412, 853, 154-D10 (1993)

VLA-BATSE Observations of an Intense Solar Decimetric and Hard X-Ray Burst. *Robert F. Willson.* 413, 798, 166-C11 (1993)

The Center-to-Limb Brightness Variation of the Sun at $\lambda = 850$ Microns. *T. S. Bastian, M. W. Ewell, Jr., & H. Zirin.* 415, 364, 189-D13 (1993)

Evaluation of Emission Mechanisms at ω_{pe} Using *Ulysses* Observations of Type III Bursts. *G. Thejappa, D. Lengyel-Frey, R. G. Stone, & M. L. Goldstein.* 416, 831, 213-G1 (1993)

Quasi-periodic Particle Injection into Coronal Loops. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Victor Gaizauskas.* 416, 857, 214-B5 (1993)

The Timing of Electron Beam Signatures in Hard X-Ray and Radio: Solar Flare Observations by BATSE/*Compton Gamma-Ray Observatory* and PHOENIX. *Markus J. Aschwanden, Arnold O. Benz, & Richard A. Schwartz.* 417, 790, 229-C3 (1993)

Particle Acceleration and Flare Triggering in Large-Scale Magnetic Loops Joining Widely Spaced Active Regions. *Robert F. Willson, Kenneth R. Lang, & Dale E. Gary.* 418, 490, 237-B1 (1993)

Stochastic Growth Theory of Type III Solar Radio Emission. *P. A. Robinson & I. H. Cairns.* 418, 506, 237-C8 (1993)

A Study of Solar Prominences near $\lambda = 1$ Millimeter. *T. S. Bastian, M. W. Ewell, Jr., & H. Zirin.* 418, 510, 237-C13 (1993)

Magnetospheres of Solar Active Regions Inferred from Spectral-Polarization Observations with High Spatial Resolution. *K. R. Lang, R. F. Willson, J. N. Kile, J. Lemen, K. T. Strong, V. L. Bogod, G. B. Gelfreikh, B. I. Ryabov, S. R. Hafizov, V. E. Abramov, & S. V. Svetkov.* 419, 398, 251-B7 (1993)

Coronal Temperature, Density, and Magnetic Field Maps of a Solar Active Region Using the Owens Valley Solar Array. *Dale E. Gary & G. J. Hurford.* 420, 903, 14-B6 (1994)

Dynamics and Efficiency of Type III Solar Radio Emission. *P. A. Robinson, I. H. Cairns, & A. J. Willes.* 422, 870, 42-F5 (1994)

Electron Acceleration at Quasi-parallel Shocks in the Solar Corona and Its Signature in Solar Type II Radio Bursts. *G. Mann & H. Lühr.* 90, 577, 11-A1 (1994)

Strong Double Layers, Existence Criteria, and Annihilation: An Application to Solar Flares. *Martin Volwerk & Jan Kuijpers.* 90, 589, 11-B2 (1994)

Millimeter, Microwave, Hard X-Ray, and Soft X-Ray Observations of Energetic Electron Populations in Solar Flares. *M. R. Kundu, S. M. White, N. Gopalswamy, & J. Lim.* 90, 599, 11-C1 (1994)

Solar Hard X-Ray and Gamma-Ray Observations from *Granat*. *N. Vilmer.* 90, 611, 11-D1 (1994)

Pulsed Acceleration in Solar Flares. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Mukul R. Kundu.* 90, 631, 11-E11 (1994)

Microwave Burst Timescales and Solar Flare Acceleration Processes. *A. Krüger, B. Kliem, J. Hildebrandt, & V. V. Zaitsev.* 90, 683, 12-C3 (1994)

Microwave Type III-RS Bursts. *Hanumant S. Sawant, Francisco C. R. Fernandes, & José Ângelo C. F. Neri.* 90, 689, 12-C11 (1994)

Solar Simple Bursts Observed with High Spectral Resolution in the 18–23 GHz Range. *H. S. Sawant, R. R. Rosa, J. R. Cecatto, & N. Gopalswamy.* 90, 693, 12-D2 (1994)

Another Clue About Particle Acceleration in Impulsive Hard X-Ray/Microwave Bursts. *David Batchelor.* 90, 697, 12-D7 (1994)

Efficiency for Electron Acceleration in Solar Energy Release Region as Estimated in the Context of Plasma Mechanism of Radio Emission. *B. N. Levin, V. M. Fridman, & O. A. Sheiner.* 90, 713, 12-E13 (1994)

Nonthermal Radio Emission Associated with a Coronal Disconnection Event. *N. Gopalswamy, M. R. Kundu, & O. C. St. Cyr.* 424, L135, 79-F3 (1994)

The Coronal Electron Density Distribution Determined from Dual-Frequency Ranging Measurements during the 1991 Solar Conjunction of the *Ulysses* Spacecraft. *M. K. Bird, H. Volland, M. Pätzold, P. Edenhofer, S. W. Asmar, & J. P. Brenkle.* 426, 373, 100-G5 (1994)

VLA Stereoscopy of Solar Active Regions. I. Method and Tests. *Markus J. Aschwanden & T. S. Bastian.* 426, 425, 101-E2 (1994)

VLA Stereoscopy of Solar Active Regions. II. Altitude, Relative Motion, and Center-to-Limb Darkening of 20 Centimeter Emission. *Markus J. Aschwanden & T. S. Bastian.* 426, 434, 101-E13 (1994)

Angular Scattering of Solar Radio Emission by Coronal Turbulence. *T. S. Bastian.* 426, 774, 108-B3 (1994)

Nonthermal Processes in Flaring X-Ray–bright Points. *M. R. Kundu, K. T. Strong, M. Pick, S. M. White, H. S. Hudson, K. L. Harvey, & S. R. Kane.* 427, L59, 118-A1 (1994)

Detection of Linear Polarization in the Microwave Emission of Solar Active Regions. *C. E. Alissandrakis & F. Chiuderi-Drago.* 428, L73, 142-G8 (1994)

Imaging Spectroscopy of Solar Microwave Radiation. I. Flaring Emission. *Jeremy Lim, Dale E. Gary, Gordon J. Hurford, & James R. Lemen.* 430, 425, 164-E13 (1994)

Coherent-Phase or Random-Phase Acceleration of Electron Beams in Solar Flares. *Markus J. Aschwanden, Arnold O. Benz, & Maria L. Montello.* 431, 432, 181-D7 (1994)

Detection of 17 GHz Radio Emission from X-Ray–bright Points. *M. R. Kundu, K. Shibasaki, S. Enome, & N. Nitta.* 431, L155, 192-E13 (1994)

Microwave Spectral Imaging, Hα, and Hard X-Ray Observations of a Solar Limb Flare. *H. Wang, D. E. Gary, J. Lim, & R. A. Schwartz.* 433, 379, 213-A9 (1994)

A Multisource Limb Flare Observed at Multiple Radio Wavelengths. *T. A. Kucera, G. A. Dulk, D. E. Gary, & T. S. Bastian.* 433, 875, 222-A11 (1994)

Coalescence of Two Current Loops with a Kink Instability Simulated by a Three-dimensional Electromagnetic Particle Code. *Ken-Ichi Nishikawa, Jun-ichi Sakai, Jie Zhao, Torsten Neubert, & Oscar Buneman.* 434, 363, 230-D7 (1994)

Transition to Turbulence in Solar Surges. *Russell B. Dahlburg & Judith T. Karpen.* 434, 766, 238-D1 (1994)

Coronal Magnetic Structures Observing Campaign. III. Coronal Plasma and Magnetic Field Diagnostics Derived from Multiwaveband Active Region Observations. *J. T. Schmelz, G. D. Holman, J. W. Brosius, & R. F. Willson.* 434, 786, 238-F8 (1994)

Gamma-Ray and Millimeter-Wave Emissions from the 1991 June X-Class Solar Flares. *Reuven Ramaty, Richard A. Schwartz, Shinzo Enome, & Hiroshi Nakajima.* 436, 941, 278-E13 (1994)

Chromospheric Evaporation and Decimetric Radio Emission in Solar Flares. *Markus J. Aschwanden & Arnold O. Benz.* 438, 997, 17-G7 (1995)

Angular Scattering of Radio Waves: Implications for Mode Coupling in the Solar Corona. *T. S. Bastian.* 439, 494, 27-G9 (1995)

The 1991 October 24 Flare: A Challenge for Standard Models. *J.-F. de La Beaujardière, R. C. Canfield, H. S. Hudson, J.-P. Wülser, L. Acton, T. Kosugi, & S. Masuda.* 440, 386, 46-E3 (1995)

Sequences of Correlated Hard X-Ray and Type III Bursts during Solar Flares. *Markus J. Aschwanden, Maria L. Montello, Brian R. Dennis, & Arnold O. Benz.* 440, 394, 46-E14 (1995)

Metric Type III Bursts from a Flaring X-Ray Bright Point near an Active Region. *M. R. Kundu, J. P. Raulin, M. Pick, & K. T. Strong.* 444, 922, 129-B3 (1995)

The Microwave and Hα Sources of the 1992 January 13 Flare. *H. Wang, D. E. Gary, H. Zirin, T. Kosugi, R. A. Schwartz, & G. Linford.* 444, L115, 131-B9 (1995)

Radio Interferometer Observations of Solar Wind Turbulence from the Orbit of *Helios* to the Solar Corona. *Steven R. Spangler & Takayuki Sakurai.* 445, 999, 149-B10 (1995)

Detection of Nonthermal Radio Emission from Coronal X-Ray Jets. *M. R. Kundu, J. P. Raulin, N. Nitta, H. S. Hudson, M. Shimojo, K. Shibata, & A. Raoult.* 447, L135, 191-D7 (1995)

A Comparison of Active Region Temperatures and Emission Measures Observed in Soft X-Rays and Microwaves and Implications for Coronal Heating. *J. A. Klimchuk & D. E. Gary.* 448, 925, 207-F6 (1995)

Detectability of Electrostatic Decay Products in *Ulysses* and *Galileo* Observations of Type III Solar Radio Sources. *Iver H. Cairns.* 449, L95, 217-E8 (1995)

The Radio Properties of Solar Active Region Soft X-Ray Transient Brightenings. *S. M. White, M. R. Kundu, T. Shimizu, K. Shibasaki, & S. Enome.* 450, 435, 234-A5 (1995)

Coordinated OVRO, BATSE, *Yohkoh*, and BBSO Observations of the 1992 June 25 M1.4 Flare. *H. Wang, D. E. Gary, H. Zirin, R. A. Schwartz, T. Sakao, T. Kosugi, & K. Shibata.* 453, 505, 288-A9 (1995)

The Sun in Submillimeter and Near-Millimeter Radiation. *C. Lindsey, G. Kopp, T. A. Clark, & G. Watt.* 453, 511, 288-B7 (1995)

Submillimeter Radiometry of Sunspots. *C. Lindsey & G. Kopp.* 453, 517, 288-C9 (1995)

Ion Acoustic Wave Frequencies and Onset Times during Type III Solar Radio Bursts. *Iver H. Cairns & P. A. Robinson.* 453, 959, 297-C1 (1995)

Solar Rotation Stereoscopy in Microwaves. *Markus J. Aschwanden, Jeremy Lim, Dale E. Gary, & James A. Klimchuk.* 454, 512, 306-C12 (1995)

Microwave and Hard X-Ray Observations of Footpoint Emission from Solar Flares. *M. R. Kundu, N. Nitta, S. M. White, K. Shibasaki, S. Enome, T. Sakao, T. Kosugi, & T. Sakurai.* 454, 522, 306-D11 (1995)

Solar Electron Beams Detected in Hard X-Rays and Radio Waves. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Richard A. Schwartz.* 455, 347, 322-G12 (1995)

VLA and *Yohkoh* Observations of an M1.5 Flare. *N. Gopalswamy, J.-P. Raulin, M. R. Kundu, N. Nitta, J. R. Lemen, R. Herrmann, D. Zarro, & T. Kosugi.* 455, 715, 331-G1 (1995)

SUN: ROTATION

Rotation of the Sun's Outer White-Light Corona Determined from Solwind Data. *Ana G. Nash.* 366, 592, 10-D1 (1991)

What We Know about the Sun's Internal Rotation from Solar Oscillations. *Philip R. Goode, W. A. Dziembowski, S. G. Korzennik, & E. J. Rhodes, Jr.* 367, 649, 21-C11 (1991)

A Unified Approach to the Helioseismic Forward and Inverse Problems of Differential Rotation. *Michael H. Ritzwoller & Eugene M. Lavely.* 369, 557, 44-F5 (1991)

Magnetic Flux Transport and the Sun's Dipole Moment: New Twists to the Babcock-Leighton Model. *Y.-M. Wang & N. R. Sheeley, Jr.* 375, 761, 122-B5 (1991)

Does the Solar Interior Rotate Rigidly? *Andrew Gould.* 377, 707, 148-D7 (1991)

Observational Constraints on Theories of the Solar Differential Rotation. *Bernard R. Durney.* 378, 378, 155-F1 (1991)

A New Solar Cycle Model Including Meridional Circulation. *Y.-M. Wang, N. R. Sheeley, Jr., & A. G. Nash.* 383, 431, 217-F1 (1991)

A Torsional Oscillation in the Rotation of the Solar Magnetic Field. *Herschel B. Snodgrass.* 383, L85, 226-F10 (1991)

Tests of the Detection and Mode Classifications of Low-Degree Solar Gravity Modes with 1978 Solar Diameter Observations. *Henry A. Hill.* 78, 283, 5-F1 (1992)

The Resolving Power of Current Helioseismic Inversions for the Sun's Internal Rotation. *J. Schou, J. Christensen-Dalsgaard, & M. J. Thompson.* 385, L59, 23-E1 (1992)

Search for Evidence of a Clock Related to the Solar 154 Day Complex of Periodicities. *P. A. Sturrock & T. Bai.* 397, 337, 172-A13 (1992)

An Examination of the $m = 1$ Instability in a Low-Mass Protoplanetary Disk. *Hyerim Noh, Ethan T. Vishniac, & William D. Cochran.* 397, 347, 172-B11 (1992)

Helioseismology Data and the Solar Dynamo. *P. R. Wilson.* 399, 294, 198-G11 (1992)

A New Determination of the Solar Rotation Rate. *N. R. Sheeley, Jr., Y.-M. Wang, & A. G. Nash.* 401, 378, 225-F9 (1992)

Solar Activity and Oscillation Frequency Splittings. *M. F. Woodard & K. G. Libbrecht.* 402, L77, 13-B1 (1993)

A Model of the "Steady" and "Fluctuating" Parts of the Sun's Internal Magnetic Field. *M. H. Gokhale & K. M. Hiremath.* 407, 359, 73-E1 (1993)

On the Solar Differential Rotation: Meridional Motions Associated with a Slowly Varying Angular Velocity. *Bernard R. Durney.* 407, 367, 73-E11 (1993)

Can Equipartition Fields Produce the Tilts of Bipolar Magnetic Regions? *Sydney D'Silva.* 407, 385, 73-G3 (1993)

A Solar Dynamo Surface Wave at the Interface between Convection and Nonuniform Rotation. *E. N. Parker.* 408, 707, 94-A9 (1993)

Understanding the Rotation of Coronal Holes. *Y.-M. Wang & N. R. Sheeley, Jr.* 414, 916, 182-F7 (1993)

Are the 1986–1988 Changes in Solar Free-Oscillation Frequency Splitting Significant? *Douglas Gough & Philip B. Stark.* 415, 376, 189-E13 (1993)

Differential Rotation and Turbulent Convection: A New Reynolds Stress Model and Comparison with Solar Data. *V. M. Canuto, F. O. Minotti, & O. Schilling.* 425, 303, 84-A9 (1994)

The Rotation of Photospheric Magnetic Fields: A Random Walk Transport Model. *Y.-M. Wang & N. R. Sheeley, Jr.* 430, 399, 164-B9 (1994)

On Comparing Helioseismic Two-dimensional Inversion Methods. *J. Schou, J. Christensen-Dalsgaard, & M. J. Thompson.* 433, 389, 213-B13 (1994)

On the Rotation Rate in the Solar Convection Zone. *Jesper Schou & Timothy M. Brown.* 434, 378, 230-F9 (1994)

The Rotation of the Solar Core. *Antonio Jiménez, Fernando Pérez Hernández, Antonio Claret, Pere LLuis Pallé, Clara Régulo, & Teodoro Roca Cortés.* 435, 874, 258-B10 (1994)

Dynamics of Emerging Active Region Flux Loops. *Y. Fan, G. H. Fisher, & A. N. McClymont.* 436, 907, 278-B13 (1994)

Forward Analysis of the BBSO Frequency-splitting Coefficients for 1986. *P. R. Wilson & D. Burtonclay.* 438, 445, 7-F1 (1995)

Stellar Models with Microscopic Diffusion and Rotational Mixing. I. Application to the Sun. *Brian Chaboyer, P. Demarque, & M. H. Pinsonneault.* 441, 865, 73-G13 (1995)

Uncertainties for Two-dimensional Models of Solar Rotation from Helioseismic Eigenfrequency Splitting. *Christopher R. Genovese, Philip B. Stark, & Michael J. Thompson.* 443, 843, 109-D13 (1995)

Rotation, Diffusion, and Overshoot in the Sun: Effects on the Oscillation Frequencies and the Neutrino Flux. *Brian Chaboyer, P. Demarque, D. B. Guenther, & M. H. Pinsonneault.* 446, 435, 159-C3 (1995)

"Steady" and "Fluctuating" Parts of the Sun's Internal Magnetic Field: Improved Model. *K. M. Hiremath & M. H. Gokhale.* 448, 437, 198-B12 (1995)

Measurement of the Rotation Rate in the Deep Solar Interior. *S. Tomczyk, J. Schou, & M. J. Thompson.* 448, L57, 200-C5 (1995)

On the Interaction of Convection and Rotation in Stars. *Pawan Kumar, Ramesh Narayan, & Abraham Loeb.* 453, 480, 287-F6 (1995)

Solar Rotation Stereoscopy in Microwaves. *Markus J. Aschwanden, Jeremy Lim, Dale E. Gary, & James A. Klimchuk.* 454, 512, 306-C12 (1995)

SUN: SOLAR-TERRESTRIAL RELATIONS

Direct Evidence of the Interplanetary Magnetic Field Effect on the Cosmic-Ray Shadow by the Sun. *M. Amenomori, Z. Cao, L. K. Ding, Z. Y. Feng, K. Hibino, N. Hotta, Q. Huang, A. X. Huo, H. G. Jia, G. Z. Jiang, S. Q. Jiao, F. Kajino, K. Kasahara, Labaciren, D. M. Mei, L. Meng, X. R. Meng, Mimaciren, K. Mizutani, J. Mu, H. Nanjo, M. Nishizawa, Nusang, A. Oguro, M. Ohnishi, I. Ohta, T. Ouchi, J. R. Ren, T. Saito, M. Sakata, Z. Z. Shi, M. Shibata, T. Shirai, H. Sugimoto, X. X. Sun, K. Taira, Y. H. Tan, N. Tateyama, S. Torii, H. Wang, C. Z. Wen, Y. Yamamoto, X. Y. Yao, G. C. Yu, P. Yuan, T. Yuda, J. G. Zeng, C. S. Zhang, H. M. Zhang, L. Zhang, Zhasang, Zhaxiciren, & W. D. Zhou (The Tibet ASγ Collaboration).* 415, L147, 200-G1 (1993)

Nonthermal Radio Emission Associated with a Coronal Disconnection Event. *N. Gopalswamy, M. R. Kundu, & O. C. St. Cyr.* 424, L135, 79-F3 (1994)

A Method of Determining Possible Brightness Variations of the Sun in Past Centuries from Observations of Solar-Type Stars. *Q. Zhang, W. H. Soon, S. L. Baliunas, G. W. Lockwood, B. A. Skiff, & R. R. Radick.* 427, L111, 127-D3 (1994)

Cross-Correlation of Point Series Using a New Method. *Richard B. Stothers.* 429, 415, 149-C5 (1994)

Comparative Studies of Hard X-Ray Spectral Evolution in Solar Flares with High-Energy Proton Events Observed at Earth. *Alan L. Kiplinger.* 453, 973, 297-D4 (1995)

SUN: SOLAR WIND

Densities and Abundances of Hot Cometary Ions in the Coma of P/Halley. *M. Neugebauer, R. Goldstein, B. E. Goldstein, S. A. Fuselier, H. Balsiger, & W.-H. Ip.* 372, 291, 77-E6 (1991)

Why Fast Solar Wind Originates from Slowly Expanding Coronal Flux Tubes. *Y.-M. Wang & N. R. Sheeley, Jr.* 372, L45, 79-F1 (1991)

Latitudinal Dynamics of Steady Solar Wind Flows. *W.-H. Yang & R. W. Schunk.* 372, 703, 84-D5 (1991)

Heating Solar Coronal Holes. *E. N. Parker.* 372, 719, 84-E11 (1991)

The Influence of the Interface between the Heliosphere and the Local Interstellar Medium on the Penetration of the H Atoms to the Solar System. *V. B. Baranov, M. G. Lebedev, & Yu. G. Malama.* 375, 347, 115-C1 (1991)

Radio Range Measurements of Coronal Electron Densities at 13 and 3.6 Centimeter Wavelengths during the 1988 Solar Conjunction of *Voyager 2*. *T. P. Krisher, J. D. Anderson, D. D. Morabito, S. W. Asmar, S. E. Borutzki, M. L. Delitsky, A. C. Densmore, P. M. Eshe, G. D. Lewis, M. J. Maurer, D. C. Roth, Y. H. Son, T. R. Spilker, D. N. Sweetnam, A. H. Taylor, G. L. Tyler, D. L. Gresh, & P. A. Rosen.* 375, L57, 124-C6 (1991)

The Phase Mixing of Alfvén Waves, Coordinated Modes, and Coronal Heating. *E. N. Parker.* 376, 355, 129-C11 (1991)

The Interaction of Collisionless Shocks in Astrophysical Plasmas. *P. J. Cargill.* 376, 771, 136-A1 (1991)

Can Neutron Stars Ablate Their Companions? *Amir Levinson & David Eichler.* 379, 359, 167-E1 (1991)

Observations of Solar Wind Ion Charge Exchange in the Comet Halley Coma. *S. A. Fuselier, E. G. Shelley, B. E. Goldstein, R. Goldstein, M. Neugebauer, W.-H. Ip, H. Balsiger, & H. Rème.* 379, 734, 173-G8 (1991)

Parametric Study of the Formation of Magnetohydrodynamic Shocks. III. Fast and Slow Shocks. *Y. C. Whang.* 381, 559, 197-E10 (1991)

On the Differences in Element Abundances of Energetic Ions from Corotating Events and from Large Solar Events. *D. V. Reames, I. G. Richardson, & L. M. Barbier.* 382, L43, 205-E7 (1991)

Connection between Ambient Density Fluctuations and Clumpy Langmuir Waves in Type III Radio Sources. *P. A. Robinson, I. H. Cairns, & D. A. Gurnett.* 387, L101, 48-F1 (1992)

Variable Carbon and Oxygen Abundances in the Solar Wind as Observed in Earth's Magnetosheath by *AMPTE/CCE*. *R. von Steiger, S. P. Christon, G. Gloeckler, & F. M. Ipavich.* 389, 791, 71-B10 (1992)

Evidence for Mass Outflow in the Low Solar Corona over a Large Sunspot. *Werner M. Neupert, Jeffrey W. Brosius, Roger J. Thomas, & William T. Thompson.* 392, L95, 113-F6 (1992)

Constraints on the Acceleration of Anomalous Cosmic Rays. *J. R. Jokipii.* 393, L41, 120-F8 (1992)

Ion Injection and Fermi Acceleration at Earth's Bow Shock: The 1984 September 12 Event Revisited. *M. Scholer, K. J. Trattner, & H. Kucharek.* 395, 675, 151-F1 (1992)

A New Way to Convert Alfvén Waves into Heat in Solar Coronal Holes: Intermittent Magnetic Levitation. *R. L. Moore, R. Hammer, Z. E. Musielak, S. T. Suess, & C.-H. An.* 397, L55, 173-G5 (1992)

Why All Stars Should Possess Circumstellar Temperature Inversions. *Jack D. Scudder.* 398, 319, 185-F11 (1992)

A Parameter Study of the Two-Fluid Solar Wind. *Ørnulf Sandbæk, Egil Leer, & Thomas E. Holzer.* 400, 362, 213-D8 (1992)

The Gradient of Galactic Cosmic Rays at the Solar-Wind Termination Shock. *J. R. Jokipii, J. Kóta, & E. Merényi.* 405, 782, 52-G1 (1993)

Clumpy Langmuir Waves in Type III Radio Sources: Comparison of Stochastic-Growth Theory with Observations. *P. A. Robinson, I. H. Cairns, & D. A. Gurnett.* 407, 790, 80-C9 (1993)

Quasi-linear Theory and the Phenomenology of Interplanetary Solar Particle Transport. *Wolfgang Dröge, Ulrich Achatz, Wolfgang Wanner, Reinhard Schlickeiser, & Gerd Wibberenz.* 407, L95, 82-G1 (1993)

Bidirectional ~ 1 MeV amu^{-1} Ion Intervals in 1973–1991 Observed by the Goddard Space Flight Center Instruments on *IMP 8* and *ISEE 3/ICE*. *I. G. Richardson & D. V. Reames.* 85, 411, 12-G7 (1993)

Dynamics of Langmuir and Ion-Sound Waves in Type III Solar Radio Sources. *P. A. Robinson, A. J. Willes, & I. H. Cairns.* 408, 720, 94-B9 (1993)

Flux-Tube Divergence, Coronal Heating, and the Solar Wind. *Y.-M. Wang.* 410, L123, 126-D13 (1993)

A Doppler Dimming Determination of Coronal Outflow Velocity. *Leonard Strachan, John L. Kohl, Heinz Weiser, George L. Withbroe, & Richard H. Munro.* 412, 410, 147-B13 (1993)

A Model of Solar Coronal Heating by Classical Inverse Bremsstrahlung and Generation of the Solar Wind. *A. H. Øien & G. Alendal.* 412, 827, 154-B6 (1993)

How Reliable are Coronal Hole Temperatures Deduced from Observations? *S. R. Habbal, R. Esser, & M. B. Arndt.* 413, 435, 161-F6 (1993)

A Two-Region Model of the Solar Wind with Collisionless Electron Heat Flux. *P. Alexander.* 414, 372, 174-E11 (1993)

Elemental Abundances in the Upper Solar Atmosphere of Quiet and Coronal Hole Regions ($T_e \approx 4.3 \times 10^5$ K). *U. Feldman & K. G. Widing.* 414, 381, 174-F9 (1993)

Direct Evidence of the Interplanetary Magnetic Field Effect on the Cosmic-Ray Shadow by the Sun. *M. Amenomori, Z. Cao, L. K. Ding, Z. Y. Feng, K. Hibino, N. Hotta, Q. Huang, A. X. Huo, H. G. Jia, G. Z. Jiang, S. Q. Jiao, F. Kajino, K. Kasahara, Labaciren, D. M. Mei, L. Meng, X. R. Meng, Mimaciren, K. Mizutani, J. Mu, H. Nanjo, M. Nishizawa, Nusang, A. Oguro, M. Ohnishi, I. Ohta, T. Ouchi, J. R. Ren, T. Saito, M. Sakata, Z. Z. Shi, M. Shibata, T. Shirai, H. Sugimoto, X. X. Sun, K. Taira, Y. H. Tan, N. Tateyama, S. Torii, H. Wang, C. Z. Wen, Y. Yamamoto, X. Y. Yao, G. C. Yu, P. Yuan, T. Yuda, J. G. Zeng, C. S. Zhang, H. M. Zhang, L. Zhang, Zhasang, Zhaxiciren, & W. D. Zhou (The Tibet ASγ Collaboration).* 415, L147, 200-G1 (1993)

Evaluation of Emission Mechanisms at ω_{p_e} Using *Ulysses* Observations of Type III Bursts. *G. Thejappa, D. Lengyel-Frey, R. G. Stone, & M. L. Goldstein.* 416, 831, 213-G1 (1993)

Stochastic Growth Theory of Type III Solar Radio Emission. *P. A. Robinson & I. H. Cairns.* 418, 506, 237-C8 (1993)

Neutral Hydrogen in the Solar Wind Acceleration Region. *Espen Lyngdal Olsen, Egil Leer, & Thomas E. Holzer.* 420, 913, 14-C4 (1994)

A Survey of Bidirectional $\geq$ 1 MeV Ion Flows during the *Helios 1* and *Helios 2* Missions: Observations from the Goddard Space Flight Center Instruments. *I. G. Richardson.* 420, 926, 14-D5 (1994)

On the Derivation of Empirical Limits on the Helium Abundance in Coronal Holes below 1.5 $R_{\odot}$. *Shadia Rifai Habbal & Ruth Esser.* 421, L59, 22-C5 (1994)

Dynamics and Efficiency of Type III Solar Radio Emission. *P. A. Robinson, I. H. Cairns, & A. J. Willes.* 422, 870, 42-F5 (1994)

Evidence for Particle Acceleration during Magnetospheric Substorms. *Ramon E. Lopez & Daniel N. Baker.* 90, 531, 10-C13 (1994)

Transport of Solar Energetic Particles. *Wolfgang Dröge.* 90, 567, 10-G3 (1994)

On the Asymmetry of the Distribution of the Anomalous Cosmic-Ray Component in the Heliosphere. *Horst Fichtner, S. Ranga Sreenivasan, Hans-Jörg Fahr, Daniel Rucinski, & Stanislaw Grzedzielski.* 90, 595, 11-B9 (1994)

Acceleration and Heating of Two-Fluid Solar Wind by Alfvén Waves. *Ørnulf Sandbæk & Egil Leer.* 423, 500, 52-D1 (1994)

A Model of the Proton Heat Flux Appropriate for Collisionless Plasmas. *L. L. Williams.* 424, L143, 79-G3 (1994)

The Coronal Electron Density Distribution Determined from Dual-Frequency Ranging Measurements during the 1991 Solar Conjunction of the *Ulysses* Spacecraft. *M. K. Bird, H. Volland, M. Pätzold, P. Edenhofer, S. W. Asmar, & J. P. Brenkle.* 426, 373, 100-G5 (1994)

Angular Scattering of Solar Radio Emission by Coronal Turbulence. *T. S. Bastian.* 426, 774, 108-B3 (1994)

Ion and Electron Suprathermal Tail Strengths in the Transition Region: Support for the Velocity Filtration Model of the Corona. *Jack D. Scudder.* 427, 446, 115-D6 (1994)

Injection Profiles of Solar Energetic Particles as Functions of Coronal Mass Ejection Heights. *S. Kahler.* 428, 837, 140-F5 (1994)

Coupling of the Coronal Helium Abundance to the Solar Wind. *Viggo H. Hansteen, Egil Leer, & Thomas E. Holzer.* 428, 843, 140-G1 (1994)

Diffusive Shock Acceleration in the Presence of Current Sheets. *J. Kóta & J. R. Jokipii.* 429, 385, 148-G8 (1994)

The Power Density Spectrum Break in an Alfvén Wave–driven Solar Wind. *V. Jatenco-Pereira, R. Opher, & L. C. Yamamoto.* 432, 409, 198-C3 (1994)

From Supersonic Winds to Accretion: Comments on the Stability of Stellar Winds and Related Flows. *M. Velli.* 432, L55, 199-G13 (1994)

On a Thermodynamic Origin of the Cometary Ion Rays. *W.-H. Ip.* 432, L143, 207-D11 (1994)

The Study of Coronal Plasma Structures and Fluctuations with Faraday Rotation Measurements. *Takayuki Sakurai & Steven R. Spangler.* 434, 773, 238-E6 (1994)

Polar Plumes and the Solar Wind. *Y.-M. Wang.* 435, L153, 260-E4 (1994)

On the Relation between Coronal Heating, Flux Tube Divergence, and the Solar Wind Proton Flux and Flow Speed. *Ørnulf Sandbæk, Egil Leer, & Viggo H. Hansteen.* 436, 390, 266-F9 (1994)

Two Types of Slow Solar Wind. *Y.-M. Wang.* 437, L67, 292-D1 (1994)

Galactic Cosmic-Ray Mediation of a Spherical Solar Wind Flow. I. The Steady State Cold Gas Hydrodynamical Approximation. *J. A. le Roux & V. S. Ptuskin.* 438, 427, 7-D2 (1995)

Disruption of a Helmet Streamer by Photospheric Shear. *Jon A. Linker & Zoran Mikić.* 438, L45, 10-D7 (1995)

The Propagation of Solar Energetic Protons: Comparative Studies in Two Cases with Markedly Different Scattering Conditions. *J. F. Valdés-Galicia, W. Wanner, M.-B. Kallenrode, & G. Wibberenz.* 439, 482, 27-F8 (1995)

Contact and Pressure Balance Structures in Two-Fluid Cosmic-Ray Hydrodynamics. *G. M. Webb, M. Brio, G. P. Zank, & T. Story.* 442, 822, 91-E2 (1995)

Effect of Adiabatic Deceleration on the Focused Transport of Solar Cosmic Rays. *D. Ruffolo.* 442, 861, 92-A12 (1995)

Charge State of Anomalous Cosmic-Ray Nitrogen, Oxygen, and Neon: *SAMPEX* Observations. *B. Klecker, M. C. McNab, J. B. Blake, D. C. Hamilton, D. Hovestadt, H. Kästle, M. D. Looper, G. M. Mason, J. E. Mazur, & M. Scholer.* 442, L69, 94-F9 (1995)

The Mean Ionic Charge State of Solar Energetic Fe Ions above 200 MeV per Nucleon. *A. J. Tylka, P. R. Boberg, J. H. Adams, Jr., L. P. Beahm, W. F. Dietrich, & T. Kleis.* 444, L109, 131-B1 (1995)

Radio Interferometer Observations of Solar Wind Turbulence from the Orbit of *Helios* to the Solar Corona. *Steven R. Spangler & Takayuki Sakurai.* 445, 999, 149-B10 (1995)

Identification of Low-Latitude Coronal Plumes in Extreme-Ultraviolet Spectroheliograms. *Y.-M. Wang & N. R. Sheeley, Jr.* 446, L51, 161-A8 (1995)

Solar Implications of *Ulysses* Interplanetary Field Measurements. *Y.-M. Wang & N. R. Sheeley, Jr.* 447, L143, 191-E9 (1995)

HST/GHRS Observations of the Interplanetary Medium Downwind and in the Inner Solar System. *John T. Clarke, Rosine Lallement, Jean-Loup Bertaux, & Eric Quemerais.* 448, 893, 207-C5 (1995)

Early Solar Mass Loss, Element Diffusion, and Solar Oscillation Frequencies. *Joyce A. Guzik & Arthur N. Cox.* 448, 905, 207-D7 (1995)

Fine-Scale Filamentary Structure in Coronal Streamers. *Richard Woo, John W. Armstrong, Michael K. Bird, & Martin Pätzold.* 449, L91, 217-E1 (1995)

Detectability of Electrostatic Decay Products in *Ulysses* and *Galileo* Observations of Type III Solar Radio Sources. *Iver H. Cairns.* 449, L95, 217-E8 (1995)

Empirical Relationship between the Magnetic Field and the Mass and Energy Flux in the Source Regions of the Solar Wind. *Y.-M. Wang.* 449, L157, 227-F8 (1995)

Galactic Cosmic-Ray Mediation of a Spherical Solar Wind Flow. II. The Steady State Hydromagnetic Approximation. *J. A. le Roux & V. S. Ptuskin.* 452, 423, 267-G11 (1995)

Coronal Plumes and Their Relationship to Network Activity. *Y.-M. Wang & N. R. Sheeley, Jr.* 452, 457, 268-D1 (1995)

Heat Flux and Viscosity of Protons in the Collisionless Solar Wind. *L. L. Williams.* 453, 953, 297-B6 (1995)

Ion Acoustic Wave Frequencies and Onset Times during Type III Solar Radio Bursts. *Iver H. Cairns & P. A. Robinson.* 453, 959, 297-C1 (1995)

Fractionation of Xe, Kr, and Ar in the Solar Corpuscular Radiation Deduced by Closed System Etching of Lunar Soils. *Rainer Wieler & Heinrich Baur.* 453, 987, 297-E7 (1995)

Coronal Heating and Solar Wind Energy Balance. *Ørnulf Sandbæk & Egil Leer.* 454, 486, 306-A7 (1995)

SUN: SPECTRA

Fe XII Line Ratios in Solar Flares. *S. S. Tayal, Ronald J. W. Henry, F. P. Keenan, S. M. McCann, & K. G. Widing.* 369, 567, 44-G1 (1991)

Analysis of the Solar O II/O III Multiplets at 834 Å: Implications for the Emission Measure Distribution in the Vicinity of 40,000 K. *R. R. Meier, K. G. Widing, & U. Feldman.* 369, 570, 44-G7 (1991)

The Solar Spectrum between 914 and 1177 Å. *U. Feldman & G. A. Doschek.* 75, 925, 14-B13 (1991)

High-Resolution Studies of the Structure of the Solar Atmosphere Using a New Imaging Algorithm. *Margarita Karovska & Shadia Rifai Habbal.* 371, 402, 65-B1 (1991)

An Ultraviolet Spectral Atlas of a Sunspot and an Active Region 1190–1730 Å. *P. Brekke, O. Kjeldseth-Moe, J.-D. F. Bartoe, & G. E. Brueckner.* 75, 1337, 23-C1 (1991)

Line-blanketing Variations in the Irradiance Spectrum of the Sun from Maximum to Minimum of the Solar Cycle. *W. E. Mitchell, Jr., & W. C. Livingston.* 372, 336, 78-B6 (1991)

On the Inference of Magnetic Field Vectors from Stokes Profiles. *John T. Jefferies & Donald L. Mickey.* 372, 694, 84-C9 (1991)

Fe XIV Line Ratios in the Sun. *F. P. Keenan, P. L. Dufton, M. B. Boylan, A. E. Kingston, & K. G. Widing.* 373, 695, 96-E13 (1991)

Solar Gravitational Redshift from the Infrared Oxygen Triplet. *James C. LoPresto, Charles Schrader, & A. Keith Pierce.* 376, 757, 135-F11 (1991)

Characteristics of Intermediate-Degree Solar *p*-Mode Line Widths. *S. M. Jefferies, T. L. Duvall, Jr., J. W. Harvey, Y. Osaki, & M. A. Pomerantz.* 377, 330, 142-A11 (1991)

The Solar Mg I Spectrum from ATMOS. I. Identification and Preliminary Discussion. *John T. Jefferies.* 377, 337, 142-B5 (1991)

The O VII Soft X-Ray Spectrum and Its Application to Hot Plasmas in Astrophysics. *A. H. Gabriel, F. Bely-Dubau, P. Faucher, & L. W. Acton.* 378, 438, 156-D1 (1991)

The $3s^2 3p\ ^2P$–$3s 3p^2\ ^4P$ Intercombination Lines of Fe XIV in the Sun. *F. P. Keenan, P. L. Dufton, E. S. Conlon, M. B. Boylan, A. E. Kingston, & K. G. Widing.* 379, 406, 168-A11 (1991)

Chromospheric and Transition Region Diagnostics Using Emission-Line Intensities. *R. Grant Athay & K. P. Dere.* 379, 776, 174-D1 (1991)

On Solar Emission Lines. *G. P. Malik, L. K. Pande, & Vijaya S. Varma.* 379, 788, 174-E1 (1991)

Velocity Gradients in the Chromosphere-Corona Transition Region. *R. Grant Athay & K. P. Dere.* 381, 323, 193-A6 (1991)

Improved Line Ratio Calculations Involving $\Delta n = 1$ (2–3) Transitions in O V and a Reanalysis of *Skylab* Observations of Solar Flares. *F. P. Keenan, P. L. Dufton, L. K. Harra, E. S. Conlon, K. A. Berrington, A. E. Kingston, & K. G. Widing.* 382, 349, 204-E1 (1991)

Electric Field Strengths from the Solar 12 Micron Lines. *Edward S. Chang & William G. Schoenfeld.* 383, 450, 217-G9 (1991)

SUN: SUNSPOTS

Strong Magnetic Fields and Inhomogeneity in the Solar Corona. *S. M. White, M. R. Kundu, & N. Gopalswamy.* 366, L43, 6-E7 (1991)

On the Subadiabatic Magnetohydrodynamic Overstability in Background Polytropes. *Yu-Qing Lou.* 367, 367, 16-E9 (1991)

Can the Starpatch on ξ Bootis A Be Explained by Using Tangential Flows? *Clifford G. Toner & Barry J. LaBonte.* 368, 633, 33-A10 (1991)

Scattering of Acoustic Waves from a Magnetic Flux Tube Embedded in a Radiating Fluid. *T. J. Bogdan & M. Knölker.* 369, 219, 38-F1 (1991)

The Resonant Absorption of *p*-Modes by Sunspots with Twisted Magnetic Fields. *S. M. Chitre & Joseph M. Davila.* 371, 785, 71-C10 (1991)

An Ultraviolet Spectral Atlas of a Sunspot and an Active Region 1190–1730 Å. *P. Brekke, O. Kjeldseth-Moe, J.-D. F. Bartoe, & G. E. Brueckner.* 75, 1337, 23-C1 (1991)

High-Resolution Spectra of Solar Magnetic Features. II. Magnetic Fields of Umbral Brightenings. *Bruce W. Lites, Thomas A. Bida, A. Johannesson, & G. B. Scharmer.* 373, 683, 96-D11 (1991)

Siphon Flows in Isolated Magnetic Flux Tubes. IV. Critical Flows with Standing Tube Shocks. *John H. Thomas & Benjamin Montesinos.* 375, 404, 115-G11 (1991)

Linear and Circular Digital Spectral Analysis of Serial Data. *Richard B. Stothers.* 375, 423, 116-B6 (1991)

Large-Scale Features of the Sun at 20 Centimeter Wavelength. *N. Gopalswamy, S. M. White, & M. R. Kundu.* 379, 366, 167-E9 (1991)

Multiple Scattering of Acoustic Waves by a Pair of Uniformly Magnetized Flux Tubes. *Thomas J. Bogdan & David C. Fox.* 379, 758, 174-B10 (1991)

Relative Abundances in the Lower Solar Transition Region. *G. A. Doschek, K. P. Dere, & P. A. Lund.* 381, 583, 198-A1 (1991)

Vector Magnetic Fields in Sunspots. I. Stokes Profile Analysis Using the Marshall Space Flight Center Magnetograph. *K. S. Balasubramaniam & E. A. West.* 382, 699, 210-C11 (1991)

Linear Resistive Magnetohydrodynamic Computations of Resonant Absorption of Acoustic Oscillations in Sunspots. *Marcel Goossens & Stefaan Poedts.* 384, 348, 5-C8 (1992)

New Information on Solar Activity, 1779–1818, from Sir William Herschel's Unpublished Notebooks. *Douglas V. Hoyt & Kenneth H. Schatten.* 384, 361, 5-D9 (1992)

Detection of "Invisible Sunspots." *Harold Zirin & Haimin Wang.* 385, L27, 17-C12 (1992)

Sir William Herschel's Notebooks: Abstracts of Solar Observations. *Douglas V. Hoyt & Kenneth H. Schatten.* 78, 301, 5-G9 (1992)

Coronal Magnetic Structures Observing Campaign. IV. Multiwaveband Observations of Sunspot and Plage-associated Coronal Emission. *Jeffrey W. Brosius, Robert F. Willson, Gordon D. Holman, & Joan T. Schmelz.* 386, 347, 28-E1 (1992)

High Dynamic Range Multifrequency Radio Observations of a Solar Active Region. *S. M. White, M. R. Kundu, & N. Gopalswamy.* 78, 599, 11-A13 (1992)

Solar Si II Line Ratios from the High-Resolution Telescope and Spectrograph. *F. P. Keenan, J. W. Cook, P. L. Dufton, & A. E. Kingston.* 387, 726, 47-F9 (1992)

Structure of Sunspot Penumbrae: Fallen Magnetic Flux Tubes. *Donat G. Wentzel.* 388, 211, 51-E11 (1992)

Vortex Attraction and the Formation of Sunspots. *E. N. Parker.* 390, 290, 77-E8 (1992)

The Conversion of *p*-Modes to Slow Modes and the Absorption of Acoustic Waves by Sunspots. *H. C. Spruit & T. J. Bogdan.* 391, L109, 100-B7 (1992)

Scattering of *p*-Modes by a Sunspot. *D. C. Braun, T. L. Duvall, Jr., B. J. LaBonte, S. M. Jefferies, J. W. Harvey, & M. A. Pomerantz.* 391, L113, 100-C1 (1992)

On Neutralized Currents in the Solar Corona. *Ladye Kathryn Wilkinson, A. Gordon Emslie, & G. Allen Gary.* 392, L39, 106-E7 (1992)

Evidence for Mass Outflow in the Low Solar Corona over a Large Sunspot. *Werner M. Neupert, Jeffrey W. Brosius, Roger J. Thomas, & William T. Thompson.* 392, L95, 113-F6 (1992)

Predicting Wolf's Sunspot Numbers with and without the Assumption of Periodicity. *Patricia B. Cerrito.* 393, 795, 125-G1 (1992)

Search for Evidence of a Clock Related to the Solar 154 Day Complex of Periodicities. *P. A. Sturrock & T. Bai.* 397, 337, 172-A13 (1992)

Observation and Interpretation of the Asymmetric Stokes *Q*, *U*, and *V* Line Profiles in Sunspots. *J. Sánchez Almeida & B. W. Lites.* 398, 359, 186-C1 (1992)

Three-dimensional Structures of Magnetostatic Atmospheres. IV. Magnetic Structures over a Solar Active Region. *B. C. Low.* 399, 300, 199-A6 (1992)

X-Ray Observations of Sunspot Penumbral Structure. *B. J. Sams III, L. Golub, & N. O. Weiss.* 399, 313, 199-B8 (1992)

Solar *p*-Modes in a Vertical Magnetic Field: Trapped and Damped π-Modes. *P. S. Cally & T. J. Bogdan.* 402, 721, 11-E3 (1993)

On the Magnetic and Velocity Field Geometry of Simple Sunspots. *Alan M. Title, Zoe A. Frank, Richard A. Shine, Theodore D. Tarbell, Kenneth P. Topka, Göran Scharmer, & Wolfgang Schmidt.* 403, 780, 25-D13 (1993)

On the North-South Asymmetry of Solar Activity Cycles. *V. K. Verma.* 403, 797, 25-G1 (1993)

Wave Generation in a Sunspot. *Jeongwoo W. Lee.* 404, 372, 32-D11 (1993)

The Magnetohydrodynamics of Umbral Flux Tubes. I. Theoretical Model. *Detlev Degenhardt & Bruce W. Lites.* 404, 383, 32-E9 (1993)

A Numerical Simulation of Two-dimensional Radiative Equilibrium in Magnetostatic Flux Tubes. I. The Model. *V. J. Pizzo, K. B. MacGregor, & P. B. Kunasz.* 404, 788, 38-F10 (1993)

The Absorption of *p*-Modes by Sunspots: Variations with Degree and Order. *Thomas J. Bogdan, Timothy M. Brown, Bruce W. Lites, & John H. Thomas.* 406, 723, 66-G13 (1993)

Can Equipartition Fields Produce the Tilts of Bipolar Magnetic Regions? *Sydney D'Silva.* 407, 385, 73-G3 (1993)

A Siphon-Flow Model of the Photospheric Evershed Flow in a Sunspot. *John H. Thomas & Benjamin Montesinos.* 407, 398, 74-A3 (1993)

Visibility of Sunspots. *Bradley E. Schaefer.* 411, 909, 141-B8 (1993)

The Magnetic Field in the Corona above Sunspots at the Eclipse of 1991 July 11. *D. E. Gary, Y. Leblanc, G. A. Dulk, & L. Golub.* 412, 421, 147-C13 (1993)

The Sunspot Transition Region: Where Are the Bright Plumes and the Downflows? *Joseph B. Gurman.* 412, 865, 154-E13 (1993)

The Source of 5 Minute Period Photospheric Umbral Oscillations. *M. J. Penn & B. J. LaBonte.* 415, 383, 189-F7 (1993)

A High-Resolution Study of Inhomogeneities in Sunspot Umbrae. *Michal Sobotka, José A. Bonet, & Manuel Vázquez.* 415, 832, 198-B13 (1993)

The Magnetohydrodynamics of Umbral Flux Tubes. II. Spectroscopic Properties. *Detlev Degenhardt & Bruce W. Lites.* 416, 875, 214-C11 (1993)

Stokes Profile Analysis and Vector Magnetic Fields. VI. Fine Scale Structure of a Sunspot. *B. W. Lites, D. F. Elmore, P. Seagraves, & A. P. Skumanich.* 418, 928, 244-B10 (1993)

A Possible Mechanism for Enhanced Absorption of *p*-Modes in Sunspot and Plage Regions. *Barry J. LaBonte & Margarita Ryutova.* 419, 388, 251-A9 (1993)

Interactions between Nested Sunspots. I. The Formation and Breakup of a Delta-Type Sunspot. *V. Gaizauskas, K. L. Harvey, & M. Proulx.* 422, 883, 42-G6 (1994)

Separation of Low First Ionization Potential Ions from High First Ionization Potential Neutrals in the Low Chromosphere. *R. Grant Athay.* 423, 516, 52-E5 (1994)

Evidence for Supersonic Downflows in the Photosphere of a Delta Sunspot. *V. Martínez Pillet, B. W. Lites, A. Skumanich, & D. Degenhardt.* 425, L113, 95-A1 (1994)

Patterns of Helicity in Solar Active Regions. *Alexei A. Pevtsov, Richard C. Canfield, & Thomas R. Metcalf.* 425, L117, 95-A7 (1994)

A High-Resolution Study of the Structure of Sunspot Light Bridges and Abnormal Granulation. *Michal Sobotka, José A. Bonet, & Manuel Vázquez.* 426, 404, 101-C1 (1994)

The Solar Abundance of Helium Determined from a Redshifted Plasma Flow over a Sunspot. *J. M. Laming & U. Feldman.* 426, 414, 101-D3 (1994)

High-Resolution Observations of the Evershed Effect in Sunspots. *R. A. Shine, A. M. Title, T. D. Tarbell, K. Smith, Z. A. Frank, & Göran Scharmer.* 430, 413, 164-C11 (1994)

Observations of Changes in the Bolometric Contrast of Sunspots. *G. A. Chapman, A. M. Cookson, & J. J. Dobias.* 432, 403, 198-B9 (1994)

Acoustic Mode Mixing in Sunspots. *Sydney D'Silva.* 435, 881, 258-C6 (1994)

Multiple Scattering and Resonant Absorption of *p*-Modes by Fibril Sunspots. *R. Keppens, T. J. Bogdan, & M. Goossens.* 436, 372, 266-E2 (1994)

On the Temperature and Velocity through the Photosphere of a Sunspot Penumbra. *J. C. del Toro Iniesta, T. D. Tarbell, & B. Ruiz Cobo.* 436, 400, 266-G8 (1994)

Umbral Oscillations in Sunspots: Absorption of *p*-Modes and Active Region Heating by Mode Conversion. *P. S. Cally, T. J. Bogdan, & E. G. Zweibel.* 437, 505, 290-A11 (1994)

Transient Microwave Brightenings in Solar Active Regions: Comparison between VLA and *Yohkoh* Observations. *N. Gopalswamy, T. E. W. Payne, E. J. Schmahl, M. R. Kundu, J. R. Lemen, K. T. Strong, R. C. Canfield, & J. de La Beaujardiere.* 437, 522, 290-C3 (1994)

Time-Distance Helioseismology in the Vicinity of Sunspots. *Sydney D'Silva & Thomas L. Duvall, Jr.* 438, 454, 7-G1 (1995)

Comparisons between Theory and Observation of Active Region Tilts. *G. H. Fisher, Y. Fan, & R. F. Howard.* 438, 463, 8-A1 (1995)

The Propagation of Solar Energetic Protons: Comparative Studies in Two Cases with Markedly Different Scattering Conditions. *J. F. Valdés-Galicia, W. Wanner, M.-B. Kallenrode, & G. Wibberenz.* 439, 482, 27-F8 (1995)

A Volcanic Origin for High-FIP Material in the Solar Atmosphere. *N. R. Sheeley, Jr.* 440, 884, 55-C12 (1995)

Latitudinal Variation of Helicity of Photospheric Magnetic Fields. *Alexei A. Pevtsov, Richard C. Canfield, & Thomas R. Metcalf.* 440, L109, 58-E1 (1995)

Brunt-Väisälä Growth Rate and the Radial Emergence of Equipartition Fields. *Sydney D'Silva.* 443, 444, 101-B11 (1995)

Neural Network Prediction of Solar Activity. *R. A. Calvo, H. A. Ceccatto, & R. D. Piacentini.* 444, 916, 129-A8 (1995)

Sun Center Observations of the Evershed Effect. *Thomas R. Rimmele.* 445, 511, 139-E11 (1995)

The Possible Ascent of a Closed Magnetic System through the Photosphere. *B. W. Lites, B. C. Low, V. Martínez Pillet, P. Seagraves, A. Skumanich, Z. A. Frank, R. A. Shine, & S. Tsuneta.* 446, 877, 168-B13 (1995)

On the Dynamics of Bright Features in Sunspot Umbrae. *Michal Sobotka, Jos/'e A. Bonet, Manuel V/'azquez, & Arnold Hanslmeier.* 447, L133, 191-D1 (1995)

Flux Retraction and Recycling: Negative Buoyancy–induced Oscillations as an Alternative to Parker's Thermal Relaxation Oscillations. *Sydney D'Silva.* 448, 459, 198-D12 (1995)

Magnetic Buoyancy, Vorticity, and Three-dimensional Flux-Tube Formation. *P. C. Matthews, D. W. Hughes, & M. R. E. Proctor.* 448, 938, 207-G11 (1995)

Are Variations in the Length of the Activity Cycle Related to Changes in Brightness in Solar-Type Stars? *Sallie Baliunas & Willie Soon.* 450, 896, 243-C8 (1995)

Scattering of *p*-Modes by Sunspots. I. Observations. *D. C. Braun.* 451, 859, 259-A12 (1995)

Scattering of *p*-Modes by Sunspots. II. Calculations of Phase Shifts from a Phenomenological Model. *Y. Fan, D. C. Braun, & D.-Y. Chou.* 451, 877, 259-C6 (1995)

The Sun in Submillimeter and Near-Millimeter Radiation. *C. Lindsey, G. Kopp, T. A Clark, & G. Watt.* 453, 511, 288-B7 (1995)

Submillimeter Radiometry of Sunspots. *C. Lindsey & G. Kopp.* 453, 517, 288-C9 (1995)

Jacket Modes: Solar Acoustic Oscillations Confined to Regions Surrounding Sunspots and Plage. *T. J. Bogdan & P. S. Cally.* 453, 919, 296-F1 (1995)

Turbulent and Chaotic Dynamics Underlying Solar Magnetic Variability. *J. K. Lawrence, A. C. Cadavid, & A. A. Ruzmaikin.* 455, 366, 323-B9 (1995)

SUN: TRANSITION REGION

Non-Maxwellian Electron Distributions in Models of the Solar Atmosphere. *P. MacNeice, J. Fontenla, & N. N. Ljepojevic.* 369, 544, 44-E1 (1991)

The Magnetic Network Location of Explosive Events Observed in the Solar Transition Region. *J. G. Porter & K. P. Dere.* 370, 775, 58-A11 (1991)

The Microwave Brightness Temperature Spectrum of the Quiet Sun. *H. Zirin, B. M. Baumert, & G. J. Hurford.* 370, 779, 58-B12 (1991)

Stability, Structure, and Evolution of Cool Loops. *P. S. Cally & T. D. Robb.* 372, 329, 78-A11 (1991)

Systematic Radial Flows in the Chromosphere, Transition Region, and Corona of the Quiet Sun. *Donald M. Hassler, Gary J. Rottman, & Frank Q. Orrall.* 372, 710, 84-E1 (1991)

The Effects of Mass Flow on the Temperature and Abundance Structure of the Solar Transition Region. *D. Tod Woods & Thomas E. Holzer.* 375, 800, 122-E7 (1991)

Energy Balance in the Solar Transition Region. II. Effects of Pressure and Energy Input on Hydrostatic Models. *J. M. Fontenla, E. H. Avrett, & R. Loeser.* 377, 712, 148-E1 (1991)

Joule Heating as an Explanation for the Differential Emission Measure Structure and Systematic Redshifts in the Sun's Lower Transition Region. *George Roumeliotis.* 379, 392, 167-G9 (1991)

Chromospheric and Transition Region Diagnostics Using Emission-Line Intensities. *R. Grant Athay & K. P. Dere.* 379, 776, 174-D1 (1991)

Numerical Simulations of Microflare Evolution in the Solar Transition Region and Corona. *Alphonse C. Sterling, John T. Mariska, Kazunari Shibata, & Yoshinori Suematsu.* 381, 313, 192-G8 (1991)

Velocity Gradients in the Chromosphere-Corona Transition Region. *R. Grant Athay & K. P. Dere.* 381, 323, 193-A6 (1991)

Relative Abundances in the Lower Solar Transition Region. *G. A. Doschek, K. P. Dere, & P. A. Lund.* 381, 583, 198-A1 (1991)

Nonequilibrium Ionization Effects in Asymmetrically Heated Loops. *D. Spadaro, S. K. Antiochos, & J. T. Mariska.* 382, 338, 204-D1 (1991)

Energy Balance in Coronal Funnels. *Douglas Rabin.* 383, 407, 217-D1 (1991)

Solar Si II Line Ratios from the High-Resolution Telescope and Spectrograph. *F. P. Keenan, J. W. Cook, P. L. Dufton, & A. E. Kingston.* 387, 726, 47-F9 (1992)

On the Density and Field Sensitivities of Dielectronic Recombination. *Daniel B. Reisenfeld, John C. Raymond, Albert R. Young, & John L. Kohl.* 389, L37, 66-E5 (1992)

Steady Siphon Flows in Closed Coronal Structures: Comparison with Extreme-Ultraviolet Observations. *G. Peres, D. Spadaro, & G. Noci.* 389, 777, 71-A8 (1992)

Pervasive Variability in the Quiet Solar Transition Region. *Douglas Rabin & James F. Dowdy, Jr.* 398, 665, 192-D1 (1992)

Solar Doppler-Shift Measurements in the Ne VII 465 Å Emission Line. *John T. Mariska & James F. Dowdy, Jr.* 401, 754, 231-G8 (1992)

Diffusion Effects on the Helium Abundance of the Solar Transition Region and Corona. *Viggo H. Hansteen, Thomas E. Holzer, & Egil Leer.* 402, 334, 5-C10 (1993)

A New Interpretation of the Redshift Observed in Optically Thin Transition Region Lines. *Viggo Hansteen.* 402, 741, 11-G1 (1993)

A Burst Model for Line Emission in the Solar Atmosphere. III. A Reassessment of the Assumptions of Constant Pressure and Steady State Coronal Equilibrium in the Solar Transition Region. *U. Feldman & J. M. Laming.* 404, 799, 38-G9 (1993)

Energy Balance in the Solar Transition Region. III. Helium Emission in Hydrostatic, Constant-Abundance Models with Diffusion. *J. M. Fontenla, E. H. Avrett, & R. Loeser.* 406, 319, 59-A7 (1993)

Solar Chromospheric and Transition Region Response to Energy Deposition in the Middle and Upper Chromosphere. *Alphonse C. Sterling, Kazunari Shibata, & John T. Mariska.* 407, 778, 80-B9 (1993)

Electric Field Effects on Dielectronic Recombination in a Collisional-Radiative Model. *N. R. Badnell, M. S. Pindzola, W. J. Dickson, H. P. Summers, D. C. Griffin, & J. Lang.* 407, L91, 82-F11 (1993)

Observed Redshifts in O V and Downflows in the Solar Transition Region. *P. Brekke.* 408, 735, 94-C11 (1993)

Observational Evidence for Hotter Transition Region Loops within the Supergranular Network. *James F. Dowdy, Jr.* 411, 406, 132-D8 (1993)

The Sunspot Transition Region: Where Are the Bright Plumes and the Downflows? *Joseph B. Gurman.* 412, 865, 154-E13 (1993)

Discrete High-Frequency *p*-Modes as Probes of Structures in the Chromosphere, Transition Region, and Lower Corona of the Sun. *Yu-Qing Lou.* 414, L141, 186-E1 (1993)

The Solar *f*-Mode as an Interfacial Mode at the Chromosphere-Corona Transition. *C. S. Rosenthal & D. O. Gough.* 423, 488, 52-C1 (1994)

Ion and Electron Suprathermal Tail Strengths in the Transition Region: Support for the Velocity Filtration Model of the Corona. *Jack D. Scudder.* 427, 446, 115-D6 (1994)

Observational Tests for Nonequilibrium Ionization in the Solar Corona. *D. Spadaro, P. Leto, & S. K. Antiochos.* 427, 453, 115-E1 (1994)

Coupling of the Coronal Helium Abundance to the Solar Wind. *Viggo H. Hansteen, Egil Leer, & Thomas E. Holzer.* 428, 843, 140-G1 (1994)

Solar Fine-Scale Structures in the Corona, Transition Region, and Lower Atmosphere. *Dan Moses, J. W. Cook, J.-D. F. Bartoe, G. E. Brueckner, K. P. Dere, D. F. Webb, J. M. Davis, J. W. Harvey, F. Recely, S. F. Martin, & H. Zirin.* 430, 913, 173-C9 (1994)

Gravity Waves in the Lower Solar Corona. *Yu-Qing Lou.* 442, 401, 82-E1 (1995)

Ultraviolet Observations of the Structure and Dynamics of an Active Region at the Limb. *C. M. Korendyke, K. P. Dere, D. G. Socker, G. E. Brueckner, & B. Schmieder.* 443, 869, 109-G10 (1995)

Observed Redshifts in the Solar Transition Region above Active and Quiet Regions. *H. Achour, P. Brekke, O. Kjeldseth-Moe, & P. Maltby.* 453, 945, 297-A9 (1995)

Quiet-Sun Connection between Intensity, Doppler Shift, and Line Broadening in Solar Ultraviolet Emission Lines. *N. Brynildsen, O. Kjeldseth-Moe, & P. Maltby.* 455, L81, 325-G8 (1995)

On the Failure of Standard Emission Measure Analysis for Solar Extreme-Ultraviolet and Ultraviolet Irradiance Spectra. *P. G. Judge, T. N. Woods, P. Brekke, & G. J. Rottman.* 455, L85, 326-A2 (1995)

SUN: UV RADIATION

C IV Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, L. K. Harra, V. M. Burke, & K. G. Widing.* 385, 381, 16-E9 (1992)

Solar Si II Line Ratios from the High-Resolution Telescope and Spectrograph. *F. P. Keenan, J. W. Cook, P. L. Dufton, & A. E. Kingston.* 387, 726, 47-F9 (1992)

Ne V Line Ratios in the EUV Spectra of Solar Flares. *F. P. Keenan, E. S. Conlon, L. K. Harra, K. M. Aggarwal, & K. G. Widing.* 389, 440, 65-D1 (1992)

On the Density and Field Sensitivities of Dielectronic Recombination. *Daniel B. Reisenfeld, John C. Raymond, Albert R. Young, & John L. Kohl.* 389, L37, 66-E5 (1992)

A Rotating Tomographic Imager for Solar Extreme-Ultraviolet/Soft X-Ray Emission. *Joseph M. Davila & W. T. Thompson.* 389, L91, 73-F8 (1992)

The Sun as a Star: High Spectral Resolution Solar Data Degraded to Low-Dispersion *IUE* Resolution. *J. G. Doyle & J. W. Cook.* 391, 393, 90-G1 (1992)

Evidence for Mass Outflow in the Low Solar Corona over a Large Sunspot. *Werner M. Neupert, Jeffrey W. Brosius, Roger J. Thomas, & William T. Thompson.* 392, L95, 113-F6 (1992)

The *Galileo* and *Pioneer Venus* Ultraviolet Spectrometer Experiments: Solar Lyman-α Latitude Variation at Solar Maximum from Interplanetary Lyman-α Observations. *W. R. Pryor, J. M. Ajello, C. A. Barth, C. W. Hord, A. I. F. Stewart, K. E. Simmons, W. E. McClintock, B. R. Sandel, & D. E. Shemansky.* 394, 363, 132-D11 (1992)

Dielectronic Recombination as a Function of Electric Field Strength. *Daniel B. Reisenfeld.* 398, 386, 186-E9 (1992)

Extreme Ultraviolet Line Ratios for Ca XV Applicable to Solar Flare Spectra. *F. P. Keenan, E. S. Conlon, V. J. Foster, K. M. Aggarwal, & K. G. Widing.* 401, 411, 226-B5 (1992)

Photon Escape Probabilities from Resolved Sources: Application to Solar C III Limb Emission. *S. O. Kastner & A. K. Bhatia.* 401, 416, 226-C1 (1992)

Solar Doppler-Shift Measurements in the Ne VII 465 Å Emission Line. *John T. Mariska & James F. Dowdy, Jr.* 401, 754, 231-G8 (1992)

O I Lines in the Sun and Stars. I. Understanding the Resonance Lines. *M. Carlsson & P. G. Judge.* 402, 344, 5-D9 (1993)

The He II 1640 Å Multiplet Observed from Solar Prominences. *J. M. Laming & U. Feldman.* 403, 434, 19-B11 (1993)

Identification of the Fe XV $3s3p\ ^1P$–$3p^2\ ^1S$ Line in Solar Flare Spectra and Its Use as an Electron Density Diagnostic. *F. P. Keenan, P. L. Dufton, E. S. Conlon, V. J. Foster, A. E. Kingston, & K. G. Widing.* 405, 798, 53-A7 (1993)

Energy Balance in the Solar Transition Region. III. Helium Emission in Hydrostatic, Constant-Abundance Models with Diffusion. *J. M. Fontenla, E. H. Avrett, & R. Loeser.* 406, 319, 59-A7 (1993)

Solar Coronal Observations and Formation of the He II 304 Å Line. *S. D. Jordan, W. T. Thompson, R. J. Thomas, & W. M. Neupert.* 406, 346, 59-C8 (1993)

Theoretical Emission-Line Strengths for Fe XXIII and a Comparison with Solar Observational Data. *F. P. Keenan, E. S. Conlon, G. A. Warren, A. W. Boone, & P. H. Norrington.* 406, 350, 59-D1 (1993)

Observed Redshifts in O V and Downflows in the Solar Transition Region. *P. Brekke.* 408, 735, 94-C11 (1993)

Atomic Transition Probabilities of Fe II Lines Determined from Solar Emission Spectra. I. The 2000–2800 Å Wavelength Range. *J. O. Ekberg & U. Feldman.* 86, 611, 22-D7 (1993)

Observational Evidence for Hotter Transition Region Loops within the Supergranular Network. *James F. Dowdy, Jr.* 411, 406, 132-D8 (1993)

Simultaneous Observations of Solar Plage with the Solar Extreme Ultraviolet Rocket Telescope and Spectrograph (SERTS), the VLA, and the Kitt Peak Magnetograph. *Jeffrey W. Brosius, Joseph M. Davila, William T. Thompson, Roger J. Thomas, Gordon D. Holman, N. Gopalswamy, Stephen M. White, Mukul R. Kundu, & Harrison P. Jones.* 411, 410, 132-E4 (1993)

A Doppler Dimming Determination of Coronal Outflow Velocity. *Leonard Strachan, John L. Kohl, Heinz Weiser, George L. Withbroe, & Richard H. Munro.* 412, 410, 147-B13 (1993)

An Ultraviolet Spectral Atlas of the Sun between 1190 and 1730 Å. *P. Brekke.* 87, 443, 33-C9 (1993)

How Reliable are Coronal Hole Temperatures Deduced from Observations? *S. R. Habbal, R. Esser, & M. B. Arndt.* 413, 435, 161-F6 (1993)

Nonphotospheric Abundances in a Solar Active Region. *K. G. Widing & U. Feldman.* 416, 392, 206-A1 (1993)

Ne VI Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, G. A. Warren, A. K. Pradhan, H. L. Zhang, D. H. Sampson, & K. G. Widing.* 421, 851, 28-G8 (1994)

Extreme Ultraviolet Spectrum of a Solar Active Region from SERTS. *Roger J. Thomas & Werner M. Neupert.* 91, 461, 24-G4 (1994)

Time Evolution of a Miniflare as Seen in Hα, UV Lines, and X-Rays. *J. Fontenla, B. Schmieder, G. M. Simnett, & E. Tandberg-Hanssen.* 424, 1022, 77-E3 (1994)

Solar Coronal Temperature Diagnostics Using Emission Lines from Multiple Stages of Ionization of Iron. *Jeffrey W. Brosius, Joseph M. Davila, Roger J. Thomas, & William T. Thompson.* 425, 343, 84-E7 (1994)

The Allowed Lines of O IV near 1340 Å in High Electron Density Solar Flares. *J. W. Cook, F. P. Keenan, & A. K. Bhatia.* 425, 861, 92-E1 (1994)

The Solar Abundance of Helium Determined from a Redshifted Plasma Flow over a Sunspot. *J. M. Laming & U. Feldman.* 426, 414, 101-D3 (1994)

Observational Tests for Nonequilibrium Ionization in the Solar Corona. *D. Spadaro, P. Leto, & S. K. Antiochos.* 427, 453, 115-E1 (1994)

The Fe XIV Spectrum: Predicted Line Intensities and Solar Identifications. *A. K. Bhatia, S. O. Kastner, F. P. Keenan, E. S. Conlon, & K. G. Widing.* 427, 497, 116-B8 (1994)

Exploring the Fine Structure at the Limb in Coronal Holes. *Margarita Karovska, Solon F. Blundell, & Shadia Rifai Habbal.* 428, 854, 141-A1 (1994)

New Radiometric Values of the Solar Ultraviolet Continuum Radiation from 1500 to 1700 Å. *P. Brekke & O. Kjeldseth-Moe.* 431, L55, 183-B1 (1994)

Dynamical Structure of Extreme Ultraviolet Macrospicules. *Margarita Karovska & Shadia Rifai Habbal.* 431, L59, 183-B7 (1994)

The Determination of Electron Densities in the Solar Atmosphere from the 1718.56 Å/1486.51 Å Emission-Line Ratio in N IV. *F. P. Keenan, L. K. Harra, G. A. Doschek, & J. W. Cook.* 432, 806, 206-A10 (1994)

Fe XVI Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, V. J. Foster, S. S. Tayal, & K. G. Widing.* 432, 809, 206-B1 (1994)

The Formation of the Solar He II 1640.4 Å Emission Line. *Cathrine Wahlstrøm & Mats Carlsson.* 433, 417, 213-E1 (1994)

Simultaneous Ultraviolet and X-Ray Observations of Solar Microflares. *J. G. Porter, J. M. Fontenla, & G. M. Simnett.* 438, 472, 8-B1 (1995)

Abundance Ratios of Oxygen, Neon, and Magnesium in Solar Active Regions and Flares: The FIP Effect. *K. G. Widing & U. Feldman.* 442, 446, 83-B3 (1995)

The Solar Lyα Line Profile. *Thomas N. Woods, Gary J. Rottman, O. R. White, Juan Fontenla, & E. H. Avrett.* 442, 898, 92-E4 (1995)

Stellar Coronal Abundances. III. The Solar First Ionization Potential Effect Determined from Full-Disk Observation. *J. Martin Laming, Jeremy J. Drake, & Kenneth G. Widing.* 443, 416, 100-G2 (1995)

Ultraviolet Observations of the Structure and Dynamics of an Active Region at the Limb. *C. M. Korendyke, K. P. Dere, D. G. Socker, G. E. Brueckner, & B. Schmieder.* 443, 869, 109-G10 (1995)

The O IV and S IV Intercombination Lines in Solar and Stellar Ultraviolet Spectra. *J. W. Cook, F. P. Keenan, P. L. Dufton, A. E. Kingston, A. K. Pradhan, H. L. Zhang, J. G. Doyle, & M. A. Hayes.* 444, 936, 129-C9 (1995)

Identification of Low-Latitude Coronal Plumes in Extreme-Ultraviolet Spectroheliograms. *Y.-M. Wang & N. R. Sheeley, Jr.* 446, L51, 161-A8 (1995)

The Mg I λ285.21 Nanometer Line: An Example of Non-LTE Line Formation. *Han Uitenbroek & Carine Briand.* 447, 453, 178-F9 (1995)

Solution to the Bivariate Integral Inversion Problem: The Determination of Emission Measures Differential in Temperature and Density. *Veronika Hubeny & Philip G. Judge.* 448, L61, 200-C13 (1995)

Coronal Plumes and Their Relationship to Network Activity. *Y.-M. Wang & N. R. Sheeley, Jr.* 452, 457, 268-D1 (1995)

Solar Lyman Series Line Profiles and Atomic Hydrogen Excitation Rates. *R. R. Meier.* 452, 462, 268-E1 (1995)

Extreme Ultraviolet Emission Lines of Fe XIII in Solar and Stellar Spectra. *F. P. Keenan, V. J. Foster, J. J. Drake, S. S. Tayal, & K. G. Widing.* 453, 906, 296-D9 (1995)

Observed Redshifts in the Solar Transition Region above Active and Quiet Regions. *H. Achour, P. Brekke, O. Kjeldseth-Moe, & P. Maltby.* 453, 945, 297-A9 (1995)

Quiet-Sun Connection between Intensity, Doppler Shift, and Line Broadening in Solar Ultraviolet Emission Lines. *N. Brynildsen, O. Kjeldseth-Moe, & P. Maltby.* 455, L81, 325-G8 (1995)

On the Failure of Standard Emission Measure Analysis for Solar Extreme-Ultraviolet and Ultraviolet Irradiance Spectra. *P. G. Judge, T. N. Woods, P. Brekke, & G. J. Rottman.* 455, L85, 326-A2 (1995)

SUN: X-RAYS

A Study of Solar Flare Energy Transport Based on Coordinated Hα and X-Ray Observations. *Richard C. Canfield, Dominic M. Zarro, Jean-Pierre Wülser, & Brian R. Dennis.* 367, 671, 21-E11 (1991)

On the Transport and Acceleration of Solar Flare Particles in a Coronal Loop. *James M. Ryan & Martin A. Lee.* 368, 316, 26-A7 (1991)

Solar Radio Microbursts at 1.4 GHz. *T. S. Bastian.* 370, L49, 53-F11 (1991)

A Slingshot Model for Solar Flares. *Gregory Benford.* 373, 671, 96-C9 (1991)

Consequences of Strong Pitch-Angle Diffusion of Particles in Solar Flares. *P. A. Bespalov, V. V. Zaitsev, & A. V. Stepanov.* 374, 369, 102-F5 (1991)

Coronal Magnetic Structures Observing Campaign. I. Simultaneous Microwave and Soft X-Ray Observations of Active Regions at the Solar Limb. *N. Nitta, S. M. White, M. R. Kundu, N. Gopalswamy, G. D. Holman, J. W. Brosius, J. T. Schmelz, J. L. R. Saba, & K. T. Strong.* 374, 374, 102-F11 (1991)

Interrelation of Soft and Hard X-Ray Emissions during Solar Flares. I. Observations. *R. M. Winglee, A. L. Kiplinger, D. M. Zarro, G. A. Dulk, & J. R. Lemen.* 375, 366, 115-D13 (1991)

Interrelation of Soft and Hard X-Ray Emissions during Solar Flares. II. Simulation Model. *R. M. Winglee, G. A. Dulk, P. L. Bornmann, & J. C. Brown.* 375, 382, 115-F1 (1991)

Coronal Dynamics of a Quiescent Active Region. *Julia L. R. Saba & Keith T. Strong.* 375, 789, 122-D9 (1991)

Flares Observed by the Normal Incidence X-Ray Telescope on 1989 September 11. *M. Herant, F. Pardo, E. Spiller, & L. Golub.* 376, 797, 136-C6 (1991)

Magnetohydrodynamics of an Impulsively Heated, Hard X-Ray Emitting Filament. *George Roumeliotis & A. Gordon Emslie.* 377, 685, 148-B9 (1991)

Multi–Wave Band *SMM*–VLA Observations of an M2 Flare and an Associated Coronal Mass Ejection. *Robert F. Willson, Joan T. Schmelz, Raymond D. Gonzalez, Kenneth R. Lang, & Kermit L. Smith.* 378, 360, 155-D6 (1991)

Center-to-Limb Variations of Characteristics of Solar Flare Hard X-Ray and Gamma-Ray Emission. *James M. McTiernan & Vahé Petrosian.* 379, 381, 167-F11 (1991)

The Iron-to-Calcium Abundance Ratio in the 20×10^6 K Plasma of Medium and Large Solar Flares. *K. J. H. Phillips & U. Feldman.* 379, 401, 168-A5 (1991)

Avalanches and the Distribution of Solar Flares. *Edward T. Lu & Russell J. Hamilton.* 380, L89, 188-F5 (1991)

Soft X-Ray Emission from Electron-Beam–heated Solar Flares. *John T. Mariska & Dominic M. Zarro.* 381, 572, 197-F10 (1991)

Relationships between Temperature and Emission Measure in Solar Flares Determined from Highly Ionized Iron Spectra and from Broadband X-Ray Detectors. *U. Feldman, G. A. Doschek, J. T. Mariska, & C. M. Brown.* 450, 441, 234-B1 (1995)

Observations and Interpretation of Soft X-Ray Limb Absorption Seen by the Normal Incidence X-Ray Telescope. *A. Daw, E. E. DeLuca, & L. Golub.* 453, 929, 296-G1 (1995)

SUN: X-RAYS, GAMMA RAYS

Energetics and Dynamics in a Large Solar Flare of 1989 March. *Jean-Pierre Wülser, Dominic M. Zarro, & Richard C. Canfield.* 384, 341, 5-B13 (1992)

Fluid Flow in a Jet and the Ca XIX Line Profiles Observed during Solar Flares. *P. L. Bornmann & J. R. Lemen.* 385, 363, 16-D1 (1992)

Fe XVIII Emission-Line Intensities in the Sun. *D. L. McKenzie, F. P. Keenan, S. M. McCann, K. A. Berrington, A. Hibbert, & M. Mohan.* 385, 378, 16-E5 (1992)

Transitions from Metastable Levels Emitted during Short-Duration Bursts: How Valid Are Their Calculated Intensities? *Uri Feldman.* 385, 758, 22-E1 (1992)

Coronal Magnetic Structures Observing Campaign. IV. Multiwaveband Observations of Sunspot and Plage-associated Coronal Emission. *Jeffrey W. Brosius, Robert F. Willson, Gordon D. Holman, & Joan T. Schmelz.* 386, 347, 28-E1 (1992)

Energy Spectra of Ions from Impulsive Solar Flares. *D. V. Reames, I. G. Richardson, & K.-P. Wenzel.* 387, 715, 47-E11 (1992)

High-Energy Gamma-Ray Emission from Pion Decay in a Solar Flare Magnetic Loop. *Natalie Mandzhavidze & Reuven Ramaty.* 389, 739, 70-E6 (1992)

Characteristics of Hard X-Ray Spectra of Impulsive Solar Flares. *G. A. Dulk, A. L. Kiplinger, & R. M. Winglee.* 389, 756, 70-F11 (1992)

Variations in the Relative Elemental Abundances of Oxygen, Neon, Magnesium, and Iron in High-Temperature Solar Active-Region and Flare Plasmas. *D. L. McKenzie & U. Feldman.* 389, 764, 70-G7 (1992)

A Rotating Tomographic Imager for Solar Extreme-Ultraviolet/Soft X-Ray Emission. *Joseph M. Davila & W. T. Thompson.* 389, L91, 73-F8 (1992)

Stereoscopic Observations of a Solar Flare Hard X-Ray Source in the High Corona. *S. R. Kane, J. McTiernan, J. Loran, E. E. Fenimore, R. W. Klebesadel, & J. G. Laros.* 390, 687, 83-G7 (1992)

Impulsive Phase Fe Kα Emission in a Flare of 1989 March. *D. M. Zarro, B. R. Dennis, & G. L. Slater.* 391, 865, 98-F6 (1992)

X-Ray Emission-Line Ratios in Mg XI as Electron Temperature Diagnostics for Solar Flares and Active Regions. *F. P. Keenan, K. J. H. Phillips, L. K. Harra, E. S. Conlon, & A. E. Kingston.* 393, 815, 126-A9 (1992)

Observation of Upflows during Soft X-Ray Solar Flares. *J. F. Seely & Uri Feldman.* 394, 697, 138-B9 (1992)

On the Process of Resistive Heating Instability and the Formation of Coronal Loop Structures. *Yu-Qing Lou.* 395, 682, 151-F13 (1992)

Resonance Scattering of Fe XVII: A Density Diagnostic. *J. T. Schmelz, J. L. R. Saba, & K. T. Strong.* 398, L115, 194-F6 (1992)

X-Ray Observations of Sunspot Penumbral Structure. *B. J. Sams III, L. Golub, & N. O. Weiss.* 399, 313, 199-B8 (1992)

Coronal Magnetic Structures Observing Campaign. II. Magnetic and Plasma Properties of a Solar Active Region. *J. T. Schmelz, G. D. Holman, J. W. Brosius, & R. D. Gonzalez.* 399, 733, 207-B1 (1992)

Observation of Solar Neutrons Associated with the Large Flare on 1991 June 4. *Y. Muraki, K. Murakami, M. Miyazaki, K. Mitsui, S. Shibata, S. Sakakibara, T. Sakai, T. Takahashi, T. Yamada, & K. Yamaguchi.* 400, L75, 220-F1 (1992)

A Hybrid Thermal/Nonthermal Model for the Energetic Emissions from Solar Flares. *Gordon D. Holman & Stephen G. Benka.* 400, L79, 220-F8 (1992)

The Coevolution of Decimetric Millisecond Spikes and Hard X-Ray Emission during Solar Flares. *Markus J. Aschwanden & Manuel Güdel.* 401, 736, 231-F1 (1992)

On the Absolute Abundance of Calcium in Solar Flares. *Alphonse C. Sterling, George A. Doschek, & Uri Feldman.* 404, 394, 32-F7 (1993)

The Scattered Solar X-Ray Background of the *ROSAT* PSPC. *S. L. Snowden & M. J. Freyberg.* 404, 403, 32-G3 (1993)

Variability of the Occurrence Frequency of Solar Flares as a Function of Peak Hard X-Ray Rate. *T. Bai.* 404, 805, 39-A1 (1993)

The Solar White-Light Flare of 1989 March 7: Simultaneous Multiwavelength Observations at High Time Resolution. *Donald F. Neidig, Alan L. Kiplinger, Howard S. Cohl, & Philip H. Wiborg.* 406, 306, 58-G6 (1993)

Lower Hybrid Resonance Acceleration of Electrons and Ions in Solar Flares and the Associated Microwave Emission. *K. G. McClements, R. Bingham, J. J. Su, J. M. Dawson, & D. S. Spicer.* 409, 465, 102-F9 (1993)

Evidence for a Spatially Extended Component of Gamma Rays from Solar Flares. *W. Thomas Vestrand & David J. Forrest.* 409, L69, 111-F8 (1993)

The Distribution of Flare Parameters and Implications for Coronal Heating. *Theodore T. Lee, Vahé Petrosian, & James M. McTiernan.* 412, 401, 147-B1 (1993)

Multiple Wavelength Observations of an Off-Limb Eruptive Solar Flare. *T. A. Kucera, G. A. Dulk, A. L. Kiplinger, R. M. Winglee, T. S. Bastian, & M. Graeter.* 412, 853, 154-D10 (1993)

Simulations of the Ca XIX Spectral Emission from a Flaring Solar Coronal Loop. II. Impulsive Heating by Accelerated Electrons. *E. Antonucci, M. A. Dodero, R. Martin, G. Peres, F. Reale, & S. Serio.* 413, 786, 166-B11 (1993)

VLA-BATSE Observations of an Intense Solar Decimetric and Hard X-Ray Burst. *Robert F. Willson.* 413, 798, 166-C11 (1993)

Long-Term Containment of Energetic Particles in Coronal Loops. *Yun-Tung Lau, Theodore G. Northrop, & John M. Finn.* 414, 908, 182-E10 (1993)

The 1992 January 5 Flare at 13.3 UT: Observations from *Yohkoh*. *G. A. Doschek, K. T. Strong, R. D. Bentley, C. M. Brown, J. L. Culhane, A. Fludra, E. Hiei, J. Lang, J. T. Mariska, K. J. H. Phillips, C. D. Pike, A. C. Sterling, T. Watanabe, L. W. Acton, M. E. Bruner, T. Hirayama, S. Tsuneta, E. Rolli, T. Kosugi, M. Yoshimori, H. S. Hudson, T. R. Metcalf, J.-P. Wuelser, Y. Uchida, & Y. Ogawara.* 416, 845, 214-A1 (1993)

Quasi-periodic Particle Injection into Coronal Loops. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Victor Gaizauskas.* 416, 857, 214-B5 (1993)

Temperature and Density Structure of the 1991 November 2 Flare Observed by the *YOHKOH* Soft X-Ray Telescope and Hard X-Ray Telescope. *James M. McTiernan, Sharad R. Kane, Jon M. Loran, James R. Lemen, Loren W. Acton, Hirohisa Hara, Saku Tsuneta, & Takeo Kosugi.* 416, L91, 216-F6 (1993)

Implications of the Soft X-Ray versus Hard X-Ray Temporal Relationship in Solar Flares. *Peng Li, A. Gordon Emslie, & John T. Mariska.* 417, 313, 221-D6 (1993)

Two Accelerated Electron Populations in the 1980 June 27 Solar Flare. *R. P. Lin & Christopher M. Johns.* 417, L53, 223-E1 (1993)

The Timing of Electron Beam Signatures in Hard X-Ray and Radio: Solar Flare Observations by BATSE/*Compton Gamma-Ray Observatory* and PHOENIX. *Markus J. Aschwanden, Arnold O. Benz, & Richard A. Schwartz.* 417, 790, 229-C3 (1993)

The Coronal Structure above Sunspots and Pores. *R. Harmon, R. Rosner, H. Zirin, E. Spiller, & L. Golub.* 417, L83, 230-E1 (1993)

Particle Acceleration and Flare Triggering in Large-Scale Magnetic Loops Joining Widely Spaced Active Regions. *Robert F. Willson, Kenneth R. Lang, & Dale E. Gary.* 418, 490, 237-B1 (1993)

Magnetospheres of Solar Active Regions Inferred from Spectral-Polarization Observations with High Spatial Resolution. *K. R. Lang, R. F. Willson, J. N. Kile, J. Lemen, K. T. Strong, V. L. Bogod, G. B. Gelfreikh, B. I. Ryabov, S. R. Hafizov, V. E. Abramov, & S. V. Svetkov.* 419, 398, 251-B7 (1993)

Flare Plasma Dynamics Observed with the *Yohkoh* Bragg Crystal Spectrometer. I. Properties of the Ca XIX Resonance Line. *John T. Mariska, G. A. Doschek, & R. D. Bentley.* 419, 418, 251-D7 (1993)

Helium-like Argon Line Emission in Solar Flares. *K. J. H. Phillips, L. K. Harra, F. P. Keenan, D. M. Zarro, & M. Wilson.* 419, 426, 251-E3 (1993)

Current Sheets and Reconnection Driven by Footpoint Motion in Two-dimensional Coronal Loops with X-Type Neutral Lines. *Xiaogang Wang & A. Bhattacharjee.* 420, 415, 6-A9 (1994)

Temperature and Hard X-Ray Signatures for Energetic Proton Events. *Howard A. Garcia.* 420, 422, 6-B3 (1994)

Solar Coronal Abundances of Elements with Low First Ionization Potential: Chromium, Calcium, and Aluminum. *D. L. McKenzie & U. Feldman.* 420, 892, 14-A7 (1994)

Searching for Hard X-Ray Directivity during the Rise, Peak, and Decay Phases of Solar Flares. *Peng Li.* 421, 381, 20-F7 (1994)

The Correlation of Solar Flare Hard X-Ray Bursts with Doppler Blueshifted Soft X-Ray Flare Emission. *R. D. Bentley, G. A. Doschek, G. M. Simnett, M. L. Rilee, J. T. Mariska, J. L. Culhane, T. Kosugi, & T. Watanabe.* 421, L55, 22-B13 (1994)

Very Impulsive Solar Flares Observed with the *Yohkoh* Spacecraft. *U. Feldman, E. Hiei, K. J. H. Phillips, C. M. Brown, & J. Lang.* 421, 843, 28-F7 (1994)

Loop Models of Low Coronal Structures Observed by the Normal Incidence X-Ray Telescope (NIXT). *G. Peres, F. Reale, & L. Golub.* 422, 412, 35-B11 (1994)

Impulsive Behavior in Solar Soft X-Radiation. *H. S. Hudson, K. T. Strong, B. R. Dennis, D. Zarro, M. Inda, T. Kosugi, & T. Sakao.* 422, L25, 36-D13 (1994)

Thickness Variations along Coronal Loops Inferred from Vector Magnetograph Data. *A. N. McClymont & Z. Mikić.* 422, 899, 43-B3 (1994)

Morphology of Active Region Transient Brightenings with the *Yohkoh* Soft X-Ray Telescope. *Toshifumi Shimizu, Saku Tsuneta, Loren W. Acton, James R. Lemen, Yoshiaki Ogawara, & Yutaka Uchida.* 422, 906, 43-B13 (1994)

Millimeter, Microwave, Hard X-Ray, and Soft X-Ray Observations of Energetic Electron Populations in Solar Flares. *M. R. Kundu, S. M. White, N. Gopalswamy, & J. Lim.* 90, 599, 11-C1 (1994)

Solar Hard X-Ray and Gamma-Ray Observations from *Granat*. *N. Vilmer.* 90, 611, 11-D1 (1994)

Pulsed Acceleration in Solar Flares. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Mukul R. Kundu.* 90, 631, 11-E11 (1994)

Gamma-Ray Spectral Observations with *Yohkoh*. *M. Yoshimori, K. Suga, K. Morimoto, T. Hiraoka, J. Sato, K. Kawabata, & K. Ohki.* 90, 639, 11-F7 (1994)

Gamma-Ray Precursors of Solar Flares. *E. Rieger.* 90, 645, 11-G1 (1994)

Positron Annihilation Radiation from the 1991 November 15 Flare. *K. Kawabata, M. Yoshimori, K. Suga, K. Morimoto, T. Hiraoka, J. Sato, & K. Ohki.* 90, 701, 12-D13 (1994)

The Flare of 1989 September 9 09:09 UT: Does Coronal Loop Collision Initiate Efficient Gamma-Ray Emission? *H. Aurass, A. Hofmann, & E. Rieger.* 90, 707, 12-E6 (1994)

Electron-Beam Evolution in Partially Ionized Hydrogenic Plasma with Return Currents. *D. V. Syniavskii & V. V. Zharkova.* 90, 729, 12-G4 (1994)

The Morphology of the 10^7 K Plasma in Solar Flares. I. Nonimpulsive Flares. *U. Feldman, J. F. Seely, G. A. Doschek, K. T. Strong, L. W. Acton, Y. Uchida, & S. Tsuneta.* 424, 444, 67-D1 (1994)

Multispectral Observations of Chromospheric Evaporation in the 1991 November 15 X-Class Solar Flare. *Jean-Pierre Wülser, Richard C. Canfield, Loren W. Acton, J. Leonard Culhane, Andrew Phillips, Andrzej Fludra, Taro Sakao, Satoshi Masuda, Takeo Kosugi, & Saku Tsuneta.* 424, 459, 67-E4 (1994)

Time Evolution of a Miniflare as Seen in Hα, UV Lines, and X-Rays. *J. Fontenla, B. Schmieder, G. M. Simnett, & E. Tandberg-Hanssen.* 424, 1022, 77-E3 (1994)

Evidence for Intense Coronal Prompt Gamma-Ray Line Emission from a Solar Flare. *C. Barat, G. Trottet, N. Vilmer, J.-P. Dezalay, R. Talon, R. Sunyaev, O. Terekhov, & A. Kuznetsov.* 425, L109, 94-G10 (1994)

Si XIII Emission Lines in Solar Flare X-Ray Spectra Obtained with the *P78-1* Satellite. *F. P. Keenan, D. L. McKenzie, K. J. H. Phillips, & E. S. Conlon.* 426, 454, 101-G10 (1994)

Directivity of 100–500 keV Solar Flare Hard X-Ray Emission. *P. Li, K. Hurley, C. Barat, M. Niel, R. Talon, & V. Kurt.* 426, 758, 107-G10 (1994)

Are Solar Gamma-Ray–Line Flares Different from Other Large Flares? *E. W. Cliver, N. B. Crosby, & B. R. Dennis.* 426, 767, 108-A8 (1994)

A Converging Flux Model of an X-Ray Bright Point and an Associated Canceling Magnetic Feature. *E. R. Priest, C. E. Parnell, & S. F. Martin.* 427, 459, 115-E9 (1994)

Nonthermal Processes in Flaring X-Ray–bright Points. *M. R. Kundu, K. T. Strong, M. Pick, S. M. White, H. S. Hudson, K. L. Harvey, & S. R. Kane.* 427, L59, 118-A1 (1994)

Electric Currents and Coronal Heating in NOAA Active Region 6952. *T. R. Metcalf, R. C. Canfield, H. S. Hudson, D. L. Mickey, J.-P. Wülser, P. C. H. Martens, & S. Tsuneta.* 428, 860, 141-A10 (1994)

The Composition of a Coronal Active Region. *K. Waljeski, D. Moses, K. P. Dere, J. L. R. Saba, K. T. Strong, D. F. Webb, & D. M. Zarro.* 429, 909, 157-A5 (1994)

Imaging Spectroscopy of Solar Microwave Radiation. I. Flaring Emission. *Jeremy Lim, Dale E. Gary, Gordon J. Hurford, & James R. Lemen.* 430, 425, 164-E13 (1994)

Solar Fine-Scale Structures in the Corona, Transition Region, and Lower Atmosphere. *Dan Moses, J. W. Cook, J.-D. F. Bartoe, G. E. Brueckner, K. P. Dere, D. F. Webb, J. M. Davis, J. W. Harvey, F. Recely, S. F. Martin, & H. Zirin.* 430, 913, 173-C9 (1994)

Coherent-Phase or Random-Phase Acceleration of Electron Beams in Solar Flares. *Markus J. Aschwanden, Arnold O. Benz, & Maria L. Montello.* 431, 432, 181-D7 (1994)

A Gigantic Coronal Jet Ejected from a Compact Active Region in a Coronal Hole. *K. Shibata, N. Nitta, K. T. Strong, R. Matsumoto, T. Yokoyama, T. Hirayama, H. Hudson, & Y. Ogawara.* 431, L51, 183-A9 (1994)

The 1991 November 9 Flare at 03.2 UT: Observations from *Yohkoh*. *G. A. Doschek, J. T. Mariska, K. T. Strong, R. D. Bentley, C. M. Brown, J. L. Culhane, J. Lang, A. C. Sterling, & T. Watanabe.* 431, 888, 189-F10 (1994)

Detection of 17 GHz Radio Emission from X-Ray–bright Points. *M. R. Kundu, K. Shibasaki, S. Enome, & N. Nitta.* 431, L155, 192-E13 (1994)

Microwave Spectral Imaging, Hα, and Hard X-Ray Observations of a Solar Limb Flare. *H. Wang, D. E. Gary, J. Lim, & R. A. Schwartz.* 433, 379, 213-A9 (1994)

Gamma-Ray Emission and Electron Accleration in Solar Flares. *Vahé Petrosian, James M. McTiernan, & Holger Marschhäuser.* 434, 747, 238-B2 (1994)

Flare Plasma Dynamics Observed with the *Yohkoh* Bragg Crystal Spectrometer. II. Properties of the Fe XXV, Ca XIX, and S XV Resonance Lines. *John T. Mariska.* 434, 756, 238-C1 (1994)

A Thermal/Nonthermal Model for Solar Hard X-Ray Bursts. *Stephen G. Benka & Gordon D. Holman.* 435, 469, 249-G11 (1994)

Iron Kβ Line Emission in Solar Flares Observed by *Yohkoh* and the Solar Abundance of Iron. *K. J. H. Phillips, C. D. Pike, J. Lang, T. Watanabe, & M. Takahashi.* 435, 888, 258-D3 (1994)

Fe XXV Temperatures in Flares from the *Yohkoh* Bragg Crystal Spectrometer. *Alphonse C. Sterling, George A. Doschek, & C. David Pike.* 435, 898, 258-E3 (1994)

Gamma-Ray and Millimeter-Wave Emissions from the 1991 June X-Class Solar Flares. *Reuven Ramaty, Richard A. Schwartz, Shinzo Enome, & Hiroshi Nakajima.* 436, 941, 278-E13 (1994)

Transient Microwave Brightenings in Solar Active Regions: Comparison between VLA and *Yohkoh* Observations. *N. Gopalswamy, T. E. W. Payne, E. J. Schmahl, M. R. Kundu, J. R. Lemen, K. T. Strong, R. C. Canfield, & J. de La Beaujardiere.* 437, 522, 290-C3 (1994)

Simultaneous Ultraviolet and X-Ray Observations of Solar Microflares. *J. G. Porter, J. M. Fontenla, & G. M. Simnett.* 438, 472, 8-B1 (1995)

The Bright Knots at the Tops of Soft X-Ray Loops: Quantitative Results from *Yohkoh*. *G. A. Doschek, K. T. Strong, & S. Tsuneta.* 440, 370, 46-C7 (1995)

The 1991 October 24 Flare: A Challenge for Standard Models. *J.-F. de La Beaujardière, R. C. Canfield, H. S. Hudson, J.-P. Wülser, L. Acton, T. Kosugi, & S. Masuda.* 440, 386, 46-E3 (1995)

Sequences of Correlated Hard X-Ray and Type III Bursts during Solar Flares. *Markus J. Aschwanden, Maria L. Montello, Brian R. Dennis, & Arnold O. Benz.* 440, 394, 46-E14 (1995)

Testing the DC-Electric Field Model in a Solar Flare Observed by *Yohkoh* and the *Compton Gamma-Ray Observatory*. *D. M. Zarro, J. T. Mariska, & B. R. Dennis.* 440, 888, 55-D8 (1995)

The Magnetic Evolution of AR 6555 Which Led to Two Impulsive, Relatively Compact, X-Type Flares. *J. M. Fontenla, A. Ambastha, B. Kalman, & Gy. Csepura.* 440, 894, 55-E4 (1995)

Directivity and Its Energy Dependence in Solar Flare Energetic Emission. *Peng Li.* 443, 855, 109-F1 (1995)

Flare Plasma Dynamics Observed with the *Yohkoh* Bragg Crystal Spectrometer. III. Spectral Signatures of Electron-Beam–heated Atmospheres. *John T. Mariska.* 444, 478, 120-B12 (1995)

Metric Type III Bursts from a Flaring X-Ray Bright Point near an Active Region. *M. R. Kundu, J. P. Raulin, M. Pick, & K. T. Strong.* 444, 922, 129-B3 (1995)

PHOBOS-GOES Soft X-Ray Observations of the Sun. *F. Farnik & H. Garcia.* 444, 929, 129-B13 (1995)

The Microwave and Hα Sources of the 1992 January 13 Flare. *H. Wang, D. E. Gary, H. Zirin, T. Kosugi, R. A. Schwartz, & G. Linford.* 444, L115, 131-B9 (1995)

Coordinated Observation of the Solar Corona Using the Norikura Coronagraph and the *Yohkoh* Soft X-Ray Telescope. *K. Ichimoto, H. Hara, A. Takeda, K. Kumagai, T. Sakurai, T. Shimizu, & H. S. Hudson.* 445, 978, 148-F8 (1995)

The Electrical Current Structure Associated with Solar Flare Electrons Accelerated by Large-Scale Electric Fields. *A. Gordon Emslie & Jean-Claude Hénoux.* 446, 371, 158-D1 (1995)

Energy Release and Dissipation during Giant Solar Flares. *S. R. Kane, K. Hurley, J. M. McTiernan, M. Sommer, M. Boer, & M. Niel.* 446, L47, 161-A1 (1995)

Morphology and Physical Parameters for Two Long-Duration Solar Flares: Observations from *Yohkoh*. *U. Feldman, J. F. Seely, G. A. Doschek, C. M. Brown, K. J. H. Phillips, & J. Lang.* 446, 860, 168-A4 (1995)

The Velocity Differential Emission Measure: Diagnostic of Bulk Plasma Motion in Solar Flares. *E. K. Newton, A. G. Emslie, & J. T. Mariska.* 447, 915, 188-E1 (1995)

Electron Time-of-Flight Differences in Solar Flares. *Markus J. Aschwanden, Richard A. Schwartz, & Daniel M. Alt.* 447, 923, 188-E12 (1995)

Absolute Abundances of Flaring Coronal Plasma Derived from *SMM* Spectral Observations. *A. Fludra & J. T. Schmelz.* 447, 936, 188-G1 (1995)

Detection of Nonthermal Radio Emission from Coronal X-Ray Jets. *M. R. Kundu, J. P. Raulin, N. Nitta, H. S. Hudson, M. Shimojo, K. Shibata, & A. Raoult.* 447, L135, 191-D7 (1995)

X-Ray Emission from the Sun in Its Youth and Old Age. *J. D. Dorren, M. Güdel, & E. F. Guinan.* 448, 431, 198-B3 (1995)

The Neupert Effect and the Chromospheric Evaporation Model for Solar Flares. *Theodore T. Lee, Vahé Petrosian, & James M. McTiernan.* 448, 915, 207-E7 (1995)

A Comparison of Active Region Temperatures and Emission Measures Observed in Soft X-Rays and Microwaves and Implications for Coronal Heating. *J. A. Klimchuk & D. E. Gary.* 448, 925, 207-F6 (1995)

Particle Simulation of a Collision between a Plasma Cloud and a Current Loop. *Jie Zhao, Jun-Ichi Sakai, & Ken-Ichi Nishikawa.* 449, L161, 227-G1 (1995)

The Radio Properties of Solar Active Region Soft X-Ray Transient Brightenings. *S. M. White, M. R. Kundu, T. Shimizu, K. Shibasaki, & S. Enome.* 450, 435, 234-A5 (1995)

Relationship between Cold and Hot Post–Solar Flare Loops and the Impact on the Reconnection Flare Model. *U. Feldman & J. F. Seely.* 450, 902, 243-D3 (1995)

Hot-Plasma Ejections Associated with Compact-Loop Solar Flares. *K. Shibata, S. Masuda, M. Shimojo, H. Hara, T. Yokoyama, S. Tsuneta, T. Kosugi, & Y. Ogawara.* 451, L83, 261-B2 (1995)

DC Electric Field Acceleration of Ions in Solar Flares. *Gordon D. Holman.* 452, 451, 268-C6 (1995)

Coronal Plumes and Their Relationship to Network Activity. *Y.-M. Wang & N. R. Sheeley, Jr.* 452, 457, 268-D1 (1995)

Gamma-Ray Measurements of Flare-to-Flare Variations in Ambient Solar Abundances. *Gerald H. Share & Ronald J. Murphy.* 452, 933, 277-E4 (1995)

A Novel Maximum-Likelihood Method for Image Reconstruction with Increased Sampling. *George Roumeliotis.* 452, 944, 277-F5 (1995)

Yohkho Soft X-Ray Spectroscopic Observations of the Bright Loop-Top Kernels of Solar Flares. *Josef I. Khan, Louise K. Harra-Murnion, Hugh S. Hudson, James R. Lemen, & Alphonse C. Sterling.* 452, L153, 280-F13 (1995)

Coordinated OVRO, BATSE, *Yohkoh*, and BBSO Observations of the 1992 June 25 M1.4 Flare. *H. Wang, D. E. Gary, H. Zirin, R. A. Schwartz, T. Sakao, T. Kosugi, & K. Shibata.* 453, 505, 288-A9 (1995)

Comparative Studies of Hard X-Ray Spectral Evolution in Solar Flares with High-Energy Proton Events Observed at Earth. *Alan L. Kiplinger.* 453, 973, 297-D4 (1995)

Soft X-Ray Loops and Coronal Heating. *Lisa J. Porter & James A. Klimchuk.* 454, 499, 306-B10 (1995)

Microwave and Hard X-Ray Observations of Footpoint Emission from Solar Flares. *M. R. Kundu, N. Nitta, S. M. White, K. Shibasaki, S. Enome, T. Sakao, T. Kosugi, & T. Sakurai.* 454, 522, 306-D11 (1995)

Scaling Law of Solar Coronal Loops Obtained with *Yohkoh*. *Ryouhei Kano & Saku Tsuneta.* 454, 934, 314-F7 (1995)

Solar Electron Beams Detected in Hard X-Rays and Radio Waves. *Markus J. Aschwanden, Arnold O. Benz, Brian R. Dennis, & Richard A. Schwartz.* 455, 347, 322-G12 (1995)

Accuracy, Uncertainties, and Delay Distribution of Electron Time-of-Flight Measurements in Solar Flares. *Markus J. Aschwanden & Richard A. Schwartz.* 455, 699, 331-E6 (1995)

VLA and *Yohkoh* Observations of an M1.5 Flare. *N. Gopalswamy, J.-P. Raulin, M. R. Kundu, N. Nitta, J. R. Lemen, R. Herrmann, D. Zarro, & T. Kosugi.* 455, 715, 331-G1 (1995)

Statistical Studies of *ISEE 3/ICE* Observations of Impulsive Hard X-Ray Solar Flares. *Kenneth R. Bromund, James M. McTiernan, & Sharad R. Kane.* 455, 733, 332-A8 (1995)

Solar Atmopheric Abundances and Energy Content in Flare Accelerated Ions from Gamma-Ray Spectroscopy. *Reuven Ramaty, Natalie Mandzhavidze, Benzion Kozlovsky, & Ronald J. Murphy.* 455, L193, 335-A4 (1995)

SURVEYS

A Magnitude-limited Survey of Cepheid Companions in the Ultraviolet. *Nancy Remage Evans.* 384, 220, 3-F4 (1992)

A Redshift Survey of *IRAS* Galaxies. IV. The Galaxy Distribution and the Inferred Density Field. *Michael A. Strauss, Marc Davis, Amos Yahil, & John P. Huchra.* 385, 421, 18-D11 (1992)

Star Formation in Taurus. I. The *IRAS* Faint Source Survey. *C. A. Beichman, F. Boulanger, & M. Moshir.* 386, 248, 27-C5 (1992)

Predicted Galaxy Counts in CO Emission. *Frances Verter.* 386, 398, 30-D1 (1992)

The Extended Medium Sensitivity Survey Distant Cluster Sample: X-Ray Data and Interpretation of the Luminosity Evolution. *J. P. Henry, I. M. Gioia, T. Maccacaro, S. L. Morris, J. T. Stocke, & A. Wolter.* 386, 408, 30-D13 (1992)

A Study of a 21 Centimeter–selected Sample of Galaxies. I. The Survey. *P. A. Henning.* 78, 365, 7-D3 (1992)

Spectroscopy and Spectral Types for 387 Stellar Objects from the Large, Bright QSO Survey. *Christopher Berg, Gary Wegner, Craig B. Foltz, Frederic H. Chaffee, Jr., & Paul C. Hewett.* 78, 409, 8-B7 (1992)

The Bell Laboratories H I Survey. *Antony A. Stark, Charles F. Gammie, Robert W. Wilson, John Bally, Richard A. Linke, Carl Heiles, & Mark Hurwitz.* 79, 77, 13-D1 (1992)

H I Observations of Galaxies in the Hercules Supercluster. II. Additional UGC Galaxies and Galaxies in Selected CGCG Fields. *Wolfram Freudling, Martha P. Haynes, & Riccardo Giovanelli.* 79, 157, 16-B1 (1992)

A Near-Infrared Imaging Survey of Interacting Galaxies: The Small Angular-Size Arp Systems. *Howard A. Bushouse & S. Adam Stanford.* 79, 213, 16-G11 (1992)

A New Catalog of 30,239 1.4 GHz Sources. *Richard L. White & Robert H. Becker.* 79, 331, 18-G9 (1992)

Relation of Redshift Surveys to Matter Distribution in Spherically Symmetric Dust Universes. *Hannu Kurki-Suonio & Edison Liang.* 390, 5, 74-B7 (1992)

The Stromlo–APM Redshift Survey. I. The Luminosity Function and Space Density of Galaxies. *J. Loveday, B. A. Peterson, G. Efstathiou, & S. J. Maddox.* 390, 338, 79-D5 (1992)

Mg II Absorption in the Spectra of 103 QSOs: Implications for the Evolution of Gas in High-Redshift Galaxies. *Charles C. Steidel & Wallace L. W. Sargent.* 80, 1, 22-B1 (1992)

The Emission-Line Properties of Low-Redshift Quasi-stellar Objects. *Todd A. Boroson & Richard F. Green.* 80, 109, 23-G9 (1992)

The Structure of Southern Extragalactic Radio Sources. *Paul A. Jones & W. Bruce McAdam.* 80, 137, 24-C3 (1992)

Compact Radio Sources near the Galactic Plane. *D. J. Helfand, S. Zoonematkermani, R. H. Becker, & R. L. White.* 80, 211, 25-B1 (1992)

The *Einstein* Slew Survey. *Martin Elvis, David Plummer, Jonathan Schachter, & G. Fabbiano.* 80, 257, 25-E9 (1992)

Radio Properties of Optically Selected Quasars. *K. L. Visnovsky, C. D. Impey, C. B. Foltz, P. C. Hewett, R. J. Weymann, & S. L. Morris.* 391, 560, 94-G11 (1992)

A 20 Centimeter VLA Survey of Abell Clusters of Galaxies. II. Images and Optical Identifications. *Frazer N. Owen, Richard A. White, & Jack O. Burns.* 80, 501, 30-D13 (1992)

Gravitational Lensing of Quasars as Seen by the *Hubble Space Telescope* Snapshot Survey. *D. Maoz, J. N. Bahcall, R. Doxsey, D. P. Schneider, N. A. Bahcall, O. Lahav, & B. Yanny.* 394, 51, 128-F6 (1992)

A Complete CO Survey of the Cygnus X Region. *Helen O. Leung & P. Thaddeus.* 81, 267, 38-F3 (1992)

Near-Infrared Observations of Young Stellar Objects in the ρ Ophiuchi Dark Cloud. *Thomas P. Greene & Erick T. Young.* 395, 516, 149-B5 (1992)

A Southern Sky Survey of the Peculiar Velocities of 1355 Spiral Galaxies. *D. S. Mathewson, V. L. Ford, & M. Buchhorn.* 81, 413, 41-B1 (1992)

The Spectroscopic and Photometric Evolution of Novae in the Bulge of M31. *Austin B. Tomaney & Allen W. Shafter.* 81, 683, 45-C11 (1992)

An *IRAS* Survey of Galactic Supernova Remnants. *Jon M. Saken, Robert A. Fesen, & J. Michael Shull.* 81, 715, 45-F9 (1992)

Optical Identification, Radio Galaxy Environment, and Statistical Properties for a Homogeneous Sample of 3196 Radio Sources from the Texas Survey. *Elizabeth P. Bozyan.* 82, 1, 49-B1 (1992)

The Case Low-Dispersion Northern Sky Survey. XIII. A Region in Central Bootes and Corona Borealis. *C. B. Stephenson, Peter Pesch, & D. Jack MacConnell.* 82, 471, 55-D3 (1992)

Pearson-Readhead Survey Sources: Properties of the Centimeter-Wavelength Flux and Polarization of a Complete Radio Sample. *M. F. Aller, H. D. Aller, & P. A. Hughes.* 399, 16, 195-C8 (1992)

A Redshift Survey of *IRAS* Galaxies. VII. The Infrared and Redshift Data for the 1.936 Jansky Sample. *Michael A. Strauss, John P. Huchra, Marc Davis, Amos Yahil, Karl B. Fisher, & John Tonry.* 83, 29, 57-D3 (1992)

Large-Scale Structure in the Universe: Results from the Stromlo-APM Redshift Survey. *J. Loveday, G. Efstathiou, B. A. Peterson, & S. J. Maddox.* 400, L43, 220-B1 (1992)

The CFHT North Galactic Pole Faint Galaxy Survey. *L. Infante & C. J. Pritchet.* 83, 237, 61-B1 (1992)

Detection and Selection Effects in Observations of Faint Galaxies. *Yuzuru Yoshii.* 403, 552, 22-D11 (1993)

Microjansky Source Counts and Spectral Indices at 8.44 GHz. *Rogier A. Windhorst, Edward B. Fomalont, R. Bruce Partridge, & James D. Lowenthal.* 405, 498, 49-C5 (1993)

A New Survey of Nebulae around Galactic Wolf-Rayet Stars in the Northern Sky. *Grant J. Miller & You-Hua Chu.* 85, 137, 7-G9 (1993)

Far-Ultraviolet Stellar Photometry: A Field in Monoceros. *Edward G. Schmidt & George R. Carruthers.* 408, 484, 91-C1 (1993)

A Highly Sensitive Radio Survey of Symbiotic Stars at 3.6 Centimeters. *E. R. Seaquist, M. Krogulec, & A. R. Taylor.* 410, 260, 115-C12 (1993)

VLA Observations of 91 Quasars at $0.35 < z < 1$. *Rob Price, Ann C. Gower, J. B. Hutchings, S. Talon, D. Duncan, & G. Ross.* 86, 365, 19-D9 (1993)

High-Resolution Infrared Maps from *IRAS* Observations of Large Galaxies. I. *S. K. Ghosh, R. P. Verma, T. N. Rengarajan, B. Das, & H. T. Saraiya.* 86, 401, 19-G9 (1993)

The Case Low-Dispersion Northern Sky Survey. XIV. A–F Stars in a Region in Southern Canes Venatici. *D. Jack MacConnell, C. B. Stephenson, & Peter Pesch.* 86, 453, 20-D9 (1993)

A VLA Survey of Optically Visible Galactic H II Regions. *Michel Fich.* 86, 475, 20-F7 (1993)

The Radio Properties of High-Redshift Quasars. I. Dual-Frequency Observations of 79 Steep-Spectrum Quasars at $z > 1.5$. *C. J. Lonsdale, P. D. Barthel, & G. K. Miley.* 87, 63, 27-G1 (1993)

A 20 Centimeter VLA Survey of Abell Clusters of Galaxies. III. Images and Optical Identifications. *Frazer N. Owen, Richard A. White, & JingPing Ge.* 87, 135, 28-E5 (1993)

Ten New BL Lacertae Objects Discovered by an Efficient X-Ray/Radio/Optical Technique. *Jonathan F. Schachter, John T. Stocke, Eric Perlman, Martin Elvis, Ron Remillard, Arno Granados, Jane Luu, John P. Huchra, Roberta Humphreys, C. Megan Urry, & John Wallin.* 412, 541, 150-D9 (1993)

Streaming Motions in the Local Universe: Evidence for Large-Scale, Low-Amplitude Density Fluctuations. *Stéphane Courteau, S. M. Faber, Alan Dressler, & Jeffrey A. Willick.* 412, L51, 155-B10 (1993)

The Faintest Stars: From Schmidt Plates to Luminosity Functions. *C. G. Tinney, I. N. Reid, & J. R. Mould.* 414, 254, 173-B12 (1993)

Spectroscopic Study of the CfA Sample of Seyfert Galaxies. *Donald E. Osterbrock & André Martel.* 414, 552, 178-B2 (1993)

Milliarcsecond Polarization Structure of 24 Objects from the Pearson-Readhead Sample of Bright Extragalactic Radio Sources. I. The Images. *T. V. Cawthorne, J. F. C. Wardle, D. H. Roberts, D. C. Gabuzda, & L. F. Brown.* 416, 496, 209-D11 (1993)

The Analysis of Gravitational Lens Surveys. I. Selection Functions and Ambiguous Candidates. *Christopher S. Kochanek.* 417, 438, 224-G1 (1993)

Faint Object Camera Far-Ultraviolet Objective Prism Observations of 12 $z > 3$ Quasars. *P. Jakobsen, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 417, 528, 225-G10 (1993)

The Extended 12 Micron Galaxy Sample. *Brian Rush, Matthew A. Malkan, & Luigi Spinoglio.* 89, 1, 49-B1 (1993)

New OH/IR Stars from Color-selected *IRAS* Sources. III. A Complete Survey. *Jayaram N. Chengalur, B. M. Lewis, J. Eder, & Yervant Terzian.* 89, 189, 51-D3 (1993)

Far-Ultraviolet Stellar Photometry: A Field in Orion. *Edward G. Schmidt & George R. Carruthers.* 89, 259, 53-B2 (1993)

Topological Analysis of the CfA Redshift Survey. *Michael S. Vogeley, Changbom Park, Margaret J. Geller, John P. Huchra, & J. Richard Gott III.* 420, 525, 9-B8 (1994)

The Parkes-MIT-NRAO (PMN) Map Catalog of Radio Sources Covering $-88° < \delta < -37°$ at 4.85 GHz. *P. C. Gregory, J. D. Vavasour, W. K. Scott, & J. J. Condon.* 90, 173, 3-B12 (1994)

The Parkes-MIT-NRAO (PMN) Surveys. III. Source Catalog for the Tropical Survey ($-29° < \delta < -9.5°$). *Mark R. Griffith, Alan E. Wright, B. F. Burke, & R. D. Ekers.* 90, 179, 3-C6 (1994)

A Wide-Field Multicolor Survey for High-Redshift Quasars, $z \geq 2.2$. III. The Luminosity Function. *Stephen J. Warren, Paul C. Hewett, & Patrick S. Osmer.* 421, 412, 23-C11 (1994)

The Parkes-MIT-NRAO (PMN) Surveys. II. Source Catalog for the Southern Survey ($-87.5° < \delta < -37°$). *Alan E. Wright, Mark R. Griffith, B. F. Burke, & R. D. Ekers.* 91, 111, 18-E13 (1994)

A 5 GHz VLA Survey of the Galactic Plane. *Robert H. Becker, Richard L. White, David J. Helfand, & S. Zoonematkermani.* 91, 347, 23-C1 (1994)

A Deep Imaging Survey of the Pleiades with *ROSAT*. *J. R. Stauffer, J.-P. Caillault, M. Gagné, C. F. Prosser, & L. W. Hartmann.* 91, 625, 28-A6 (1994)

Power-Spectrum Analysis of Three-dimensional Redshift Surveys. *Hume A. Feldman, Nick Kaiser, & John A. Peacock.* 426, 23, 96-D2 (1994)

A Redshift Survey in Quasar Fields. I. Photometric and Spectroscopic Catalog. *E. Ellingson & H. K. C. Yee.* 92, 33, 31-D8 (1994)

A Sensitive 1.5 GHz Radio Survey around the North Ecliptic Pole. *Ronald I. Kollgaard, Wolfgang Brinkmann, Margaret McMath Chester, Eric D. Feigelson, Paul Hertz, Patricia Reich, & Richard Wielebinski.* 93, 145, 43-F10 (1994)

Supplement to the Arecibo 1612 MHz Survey of Color-selected *IRAS* Sources. *B. M. Lewis.* 93, 549, 50-D9 (1994)

A CCD Survey for Faint High-Latitude Carbon Stars. *Paul J. Green, Bruce Margon, Scott F. Anderson, & Kem H. Cook.* 434, 319, 229-G6 (1994)

The Hawaii K-Band Galaxy Survey. III. Spectroscopy of $K < 20$ Galaxies. *A. Songaila, L. L. Cowie, E. M. Hu, & J. P. Gardner.* 94, 461, 58-C1 (1994)

A K' Imaging Survey of Molecular Outflow Sources. *Klaus-Werner Hodapp.* 94, 615, 60-D12 (1994)

The Morphology of Faint Galaxies in Medium Deep Survey Images Using WFPC2. *R. E. Griffiths, S. Casertano, K. U. Ratnatunga, L. W. Neuschaefer, R. S. Ellis, G. F. Gilmore, K. Glazebrook, B. Santiago, J. P. Huchra, R. A. Windhorst, S. M. Pascarelle, R. F. Green, G. D. Illingworth, D. C. Koo, & A. J. Tyson.* 435, L19, 251-E1 (1994)

A Survey of Faint Galaxy Pairs. *R. G. Carlberg, C. J. Pritchet, & L. Infante.* 435, 540, 253-E9 (1994)

A Sample of Gigahertz Peaked Spectrum Candidate Radio Sources Located South of $\delta = -9.5°$. *J. C. Cersosimo, M. Lebron Santos, S. I. Cintrón, & Z. M. Quinviento.* 95, 157, 66-C1 (1994)

The *Hubble Space Telescope* Medium Deep Survey with the Wide Field and Planetary Camera. I. Methodology and Results on the Field near 3C 273. *R. E. Griffiths, K. U. Ratnatunga, L. W. Neuschaefer, S. Casertano, M. Im, E. W. Wyckoff, R. S. Ellis, G. F. Gilmore, R. A. W. Elson, K. Glazebrook, D. J. Schade, R. A. Windhorst, P. C. Schmidtke, J. M. Gordon, S. M. Pascarelle, G. D. Illingworth, D. C. Koo, M. A. Bershady, D. A. Forbes, A. C. Phillips, R. F. Green, V. Sarajedini, J. P. Huchra, & A. J. Tyson.* 437, 67, 284-B3 (1994)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. I. The $7° < |B| < 8°$ Strips. *H. Izumiura, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, N. Ukita, & I. Yamamura.* 437, 419, 288-G11 (1994)

The Second Caltech–Jodrell Bank VLBI Survey. I. Observations of 91 of 193 Sources. *G. B. Taylor, R. C. Vermeulen, T. J. Pearson, A. C. S. Readhead, D. R. Henstock, I. W. A. Browne, & P. N. Wilkinson.* 95, 345, 69-B1 (1994)

Survey of Emission-Line Galaxies: Universidad Complutense de Madrid List 1. *J. Zamorano, M. Rego, J. Gallego, A. G. Vitores, R. González-Riestra, & G. Rodríguez-Caderot.* 95, 387, 69-E10 (1994)

The Evolutionary Status of the Stellar Population in the ρ Ophiuchi Cloud Core. *Karen M. Strom, Jeremy Kepner, & Stephen E. Strom.* 438, 813, 15-D7 (1995)

Active Galaxies Observed during the *Extreme Ultraviolet Explorer* All-Sky Survey. *H. L. Marshall, A. Fruscione, & T. E. Carone.* 439, 90, 22-D6 (1995)

Gamma-Ray Emission from Cataclysmic Variables. I. The *Compton* EGRET Survey. *Eric M. Schlegel, Paul E. Barrett, O. C. De Jager, G. Chanmugam, S. Hunter, & J. Mattox.* 439, 322, 25-E10 (1995)

Observation and Reduction Methods of Deep Palomar 200 Inch 4-Shooter Mosaics. *Lyman W. Neuschaefer & Rogier A. Windhorst.* 96, 371, 7-D9 (1995)

Far-Ultraviolet Stellar Photometry: Fields in Sagittarius and Scorpius. *Edward G. Schmidt & George R. Carruthers.* 96, 605, 10-A8 (1995)

High-Resolution X-Ray Imaging of M33. *Eric Schulman & Joel N. Bregman.* 441, 568, 69-G6 (1995)

A Volume-limited Survey of High Galactic Latitude Planetary Nebulae with the *Extreme Ultraviolet Explorer*. *Antonella Fruscione, Jeremy J. Drake, Kelley McDonald, & Roger F. Malina.* 441, 726, 72-A1 (1995)

The Stromlo-APM Redshift Survey. II. Variation of Galaxy Clustering with Morphology and Luminosity. *J. Loveday, S. J. Maddox, G. Efstathiou, & B. A. Peterson.* 442, 457, 86-C1 (1995)

Much Ado about Nothing: Several Large-Area Surveys for Radio Pulsars from Arecibo. *Paul S. Ray, W. T. S. Deich, S. R. Kulkarni, Thomas A. Prince, S. E. Thorsett, Gautam Vasisht, A. Wolszczan, Donald C. Backer, John H. Holliman II, & John Middleditch.* 443, 265, 98-G8 (1995)

The Parkes-MIT-NRAO (PMN) Surveys. VI. Source Catalog for the Equatorial Survey ($-9.5° < \delta < +10.0°$). *Mark R. Griffith, Alan E. Wright, B. F. Burke, & R. D. Ekers.* 97, 347, 16-D11 (1995)

Interpretation of the Faint Galaxy Number Counts in the K Band. *Yuzuru Yoshii & Bruce A. Peterson.* 444, 15, 113-D5 (1995)

Structure and Photometry of an $I < 20.5$ Galaxy Sample from the *Hubble Space Telescope* Medium Deep Survey. *Andrew C. Phillips, Matthew A. Bershady, Duncan A. Forbes, David C. Koo, Garth D. Illingworth, David B. Reitzel, Richard E. Griffiths, & Rogier A. Windhorst.* 444, 21, 113-E2 (1995)

Radio Properties of Optically Selected Quasars. *Eric J. Hooper, Chris D. Impey, Craig B. Foltz, & Paul C. Hewett.* 445, 62, 133-C3 (1995)

The First Caltech–Jodrell Bank VLBI Survey. I. $\lambda = 18$ Centimeter Observations of 87 Sources. *A. G. Polatidis, P. N. Wilkinson, W. Xu, A. C. S. Readhead, T. J. Pearson, G. B. Taylor, & R. C. Vermeulen.* 98, 1, 21-B1 (1995)

The First Caltech–Jodrell Bank VLBI Survey. II. $\lambda = 18$ Centimeter Observations of 25 Sources. *D. D. Thakkar, W. Xu, A. C. S. Readhead, T. J. Pearson, G. B. Taylor, R. C. Vermeulen, A. G. Polatidis, & P. N. Wilkinson.* 98, 33, 21-D8 (1995)

The Case Low-Dispersion Northern Sky Survey. XV. A Region in Ursa Major and Canes Venatici. *Peter Pesch, C. B. Stephenson, & D. Jack MacConnell.* 98, 41, 21-E5 (1995)

The FCRAO Extragalactic CO Survey. I. The Data. *Judith S. Young, Shuding Xie, Linda Tacconi, Pat Knezek, Paul Viscuso, Lowell Tacconi-Garman, Nick Scoville, Steve Schneider, F. Peter Schloerb, Steve Lord, Amy Lesser, Jeff Kenney, Yi-Long Huang, Nick Devereux, Mark Claussen, James Case, John Carpenter, Mike Berry, & Lori Allen.* 98, 219, 23-E3 (1995)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. II. The $4° < |b| < 5°$ Strips. *H. Izumiura, R. Catchpole, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, K. Sekiguchi, N. Ukita, & I. Yamamura.* 98, 271, 25-E14 (1995)

Deep Optical Counterpart Searches of Gamma-Ray Burst Localizations. *Frederick J. Vrba, Dieter H. Hartmann, & Mark C. Jennings.* 446, 115, 154-G4 (1995)

The Optical Redshift Survey: Sample Selection and the Galaxy Distribution. *Basílio X. Santiago, Michael A. Strauss, Ofer Lahav, Marc Davis, Alan Dressler, & John P. Huchra.* 446, 457, 162-D2 (1995)

A Multifrequency Radio Continuum and *IRAS* Faint Source Survey of Markarian Galaxies. *M. D. Bicay, G. Kojoian, J. Seal, D. F. Dickinson, & M. A. Malkan.* 98, 369, 28-B1 (1995)

A Near-Infrared Faint Galaxy Survey: The Catalog. *J. P. Gardner.* 98, 441, 29-B6 (1995)

Patterns of High-Velocity Molecular Gas near Sagittarius A*. *H. S. Liszt & W. B. Burton.* 98, 679, 32-F4 (1995)

A Photometric and Spectroscopic Survey for Young Stars in the Halo of M31. *N. C. Hambly, A. Fitzsimmons, F. P. Keenan, P. L. Dufton, P. J. F. Brown, M. J. Irwin, & W. R. J. Rolleston.* 448, 628, 203-D9 (1995)

ROSAT All-Sky Survey Observations of the Hyades Cluster. *Robert A. Stern, Jürgen H. M. M. Schmitt, & Peter T. Kahabka.* 448, 683, 204-B12 (1995)

A Search for Fast Pulsars along the Galactic Plane. *D. J. Nice, A. S. Fruchter, & J. H. Taylor.* 449, 156, 212-C11 (1995)

Centennial Challenge Essay: Quo Vadis, Astronomia? *George W. Collins II.* 449, 399, 218-C1 (1995)

Groups of Galaxies in the *ROSAT* North Ecliptic Pole Survey. *J. P. Henry, I. M. Gioia, J. P. Huchra, R. Burg, B. McLean, H. Böhringer, R. G. Bower, U. G. Briel, W. Voges, H. MacGillivray, & R. G. Cruddace.* 449, 422, 218-E6 (1995)

The First Caltech–Jodrell Bank VLBI Survey. III. VLBI and MERLIN Observations at 5 GHz and VLA Observations at 1.4 GHz. *W. Xu, A. C. S. Readhead, T. J. Pearson, A. G. Polatidis, & P. N. Wilkinson.* 99, 297, 39-B1 (1995)

VLA Maps of Radio Galaxies to $z = 1$. *S. G. Neff, L. Roberts, & J. B. Hutchings.* 99, 349, 39-F1 (1995)

The CfA Redshift Survey: Data for the NGP +36 Zone. *John P. Huchra, Margaret J. Geller, & Harold G. Corwin, Jr.* 99, 391, 40-D10 (1995)

The *Einstein* Extended Medium-Sensitivity Survey Second Epoch: Results for the Stars. *Thomas A. Fleming, Silvano Molendi, Tommaso Maccacaro, & Anna Wolter.* 99, 701, 44-D12 (1995)

The Soft X-Ray Properties of a Large Optical QSO Sample: *ROSAT* Observations of the Large Bright Quasar Survey. *Paul J. Green, Norbert Schartel, Scott F. Anderson, Paul C. Hewett, Craig B. Foltz, Wolfgang Brinkmann, Henner Fink, Joachim Trümper, & Bruce Margon.* 450, 51, 228-G1 (1995)

A Study of Ultraviolet Objects near the North Galactic Pole with FAUST. *N. Brosch, E. Almoznino, E. M. Leibowitz, H. Netzer, T. P. Sasseen, S. Bowyer, M. Lampton, & X. Wu.* 450, 137, 230-A1 (1995)

The FIRST Survey: Faint Images of the Radio Sky at Twenty Centimeters. *Robert H. Becker, Richard L. White, & David J. Helfand.* 450, 559, 238-D12 (1995)

A Study of a 21 Centimeter–selected Sample of Galaxies. II. Analysis of the Sample. *P. A. Henning.* 450, 578, 238-F6 (1995)

The Second Caltech–Jodrell Bank VLBI Survey. II. Observations of 102 of 193 Sources. *D. R. Henstock, I. W. A. Browne, P. N. Wilkinson, G. B. Taylor, R. C. Vermeulen, T. J. Pearson, & A. C. S. Readhead.* 100, 1, 46-B1 (1995)

The *IRAS* 1.2 Jy Survey: Redshift Data. *Karl B. Fisher, John P. Huchra, Michael A. Strauss, Marc Davis, Amos Yahil, & David Schlegel.* 100, 69, 46-G5 (1995)

An Out-of-Plane CO ($J = 2$–1) Survey of the Milky Way. I. The Data. *Seiichi Sakamoto, Tetsuo Hasegawa, Masahiko Hayashi, Toshihiro Handa, & Tomoharu Oka.* 100, 125, 47-E1 (1995)

ROSAT Extended Medium-Deep Sensitivity Survey: Source Counts for 130 Fields. *A. Vikhlinin, W. Forman, C. Jones, & S. Murray.* 451, 553, 254-G10 (1995)

ROSAT Extended Medium-Deep Sensitivity Survey: Average Source Spectra. *A. Vikhlinin, W. Forman, C. Jones, & S. Murray.* 451, 564, 255-A10 (1995)

A Spectrophotometric Survey of Merging Galaxies. *Charles T. Liu & Robert C. Kennicutt, Jr.* 100, 325, 50-E8 (1995)

An *IRAS*-based Search for New Dusty Late-Type WC Wolf-Rayet Stars. *Martin Cohen.* 100, 413, 51-G1 (1995)

The Contribution of Late-Type/Irregulars to the Faint Galaxy Counts from *Hubble Space Telescope* Medium-Deep Survey Images. *Simon P. Driver, Rogier A. Windhorst, & Richard E. Griffiths.* 453, 48, 281-G10 (1995)

New "Einstein Cross" Gravitational Lens Candidates in *Hubble Space Telescope* WFPC2 Survey Images. *Kavan U. Ratnatunga, Eric J. Ostrander, Richard E. Griffiths, & Myungshin Im.* 453, L5, 289-B12 (1995)

Structural Parameters of Faint Galaxies from Prerefurbishment *Hubble Space Telescope* Medium Deep Survey Observations. *S. Casertano, K. U. Ratnatunga, R. E. Griffiths, M. Im, L. W. Neuschaefer, E. J. Ostrander, & R. A. Windhorst.* 453, 599, 292-B9 (1995)

A Revised and Extended Catalog of Magellanic System Clusters, Associations, and Emission Nebulae. I. Small Magellanic Cloud and Bridge. *Eduardo L. D. Bica & Henrique R. Schmitt.* 101, 41, 53-E4 (1995)

First Maps of the Soft X-Ray Diffuse Background from the *ROSAT* XRT/PSPC All-Sky Survey. *S. L. Snowden, M. J. Freyberg, P. P. Plucinsky, J. H. M. M. Schmitt, J. Trümper, W. Voges, R. J. Edgar, D. McCammon, & W. T. Sanders.* 454, 643, 310-D9 (1995)

Faint Blue Objects at High Galactic Latitude. VII. Spectroscopy of Narrow-Line Objects and the Morphological Selection Criterion of the US Survey. *P. D. Usher, K. J. Mitchell, & K.-L. Huang.* 454, 654, 310-F4 (1995)

The Large Bright QSO Survey for Damped Lyα Absorption Systems. *Arthur M. Wolfe, Kenneth M. Lanzetta, Craig B. Foltz, & Frederic H. Chaffee.* 454, 698, 311-C9 (1995)

A High Galactic Latitude Pulsar Survey of the Arecibo Sky. *R. S. Foster, B. J. Cadwell, A. Wolszczan, & S. B. Anderson.* 454, 826, 313-B12 (1995)

The Canada-France Redshift Survey. I. Introduction to the Survey, Photometric Catalogs, and Surface Brightness Selection Effects. *S. J. Lilly, O. Le Fèvre, David Crampton, F. Hammer, & L. Tresse.* 455, 50, 318-G12 (1995)

The Canada-France Redshift Survey. V. Global Properties of the Sample. *David Crampton, O. Le Fèvre, S. J. Lilly, & F. Hammer.* 455, 96, 319-E8 (1995)

A Very Luminous Binary Millisecond Pulsar. *José Navarro, A. G. de Bruyn, D. A. Frail, S. R. Kulkarni, & A. G. Lyne.* 455, L55, 325-C1 (1995)

Identification and Spectroscopy of Radio Sources from the B3VLA Survey. *S. G. Djorgovski, D. Thompson, L. Maxfield, M. Vigotti, & G. Grueff.* 101, 255, 57-B1 (1995)

H II Region Populations in Seyfert Galaxies. I. Database. *Zlatan I. Tsvetanov & Artashes R. Petrosian.* 101, 287, 57-F4 (1995)

TECHNIQUES: IMAGE PROCESSING

Comparing Restored *HST* and VLA Imagery of R Aquarii. *J. M. Hollis, J. E. Dorband, & F. Yusef-Zadeh.* 386, 293, 27-G3 (1992)

Optical Tracers of Spiral Wave Resonances in Galaxies. II. Hidden Three-Arm Spirals in a Sample of 18 Galaxies. *Bruce G. Elmegreen, Debra Meloy Elmegreen, & Luis Montenegro.* 79, 37, 12-E9 (1992)

Atmospheric Fluctuations: Empirical Structure Functions and Projected Performance of Future Instruments. *M. Bester, W. C. Danchi, C. G. Degiacomi, L. J. Greenhill, & C. H. Townes.* 392, 357, 105-D1 (1992)

Mapping Cygnus A at 3 Millimeter Wavelength with the MIRIAD System. *M. C. H. Wright & R. J. Sault.* 402, 546, 9-C11 (1993)

Direct 75 Milliarcsecond Images from the Multiple Mirror Telescope with Adaptive Optics. *M. Lloyd-Hart, R. Dekany, B. McLeod, D. Wittman, D. Colucci, D. McCarthy, & R. Angel.* 402, L81, 13-B7 (1993)

The Structure of the Core of 47 Tucanae from *Hubble Space Telescope* Observations. *Guido De Marchi, Francesco Paresce, & Francesco R. Ferraro.* 85, 293, 11-B3 (1993)

The First Detection of a Collapsed Core Globular Cluster in M31. *O. Bendinelli, C. Cacciari, S. Djorgovski, L. Federici, F. R. Ferraro, F. Fusi Pecci, G. Parmeggiani, N. Weir, & F. Zavatti.* 409, L17, 104-C7 (1993)

High-Resolution Infrared Maps from *IRAS* Observations of Large Galaxies. I. *S. K. Ghosh, R. P. Verma, T. N. Rengarajan, B. Das, & H. T. Saraiya.* 86, 401, 19-G9 (1993)

Restoration of Astronomical Images by Iterative Blind Deconvolution. *Stuart M. Jefferies & Julian C. Christou.* 415, 862, 198-F9 (1993)

An Iterative Method of Imaging. *L. W. Kebede.* 423, 878, 59-F11 (1994)

VLA Stereoscopy of Solar Active Regions. I. Method and Tests. *Markus J. Aschwanden & T. S. Bastian.* 426, 425, 101-E2 (1994)

VLA Stereoscopy of Solar Active Regions. II. Altitude, Relative Motion, and Center-to-Limb Darkening of 20 Centimeter Emission. *Markus J. Aschwanden & T. S. Bastian.* 426, 434, 101-E13 (1994)

A Coronagraphic Search for Brown Dwarfs around Nearby Stars. *T. Nakajima, S. T. Durrance, D. A. Golimowski, & S. R. Kulkarni.* 428, 797, 140-B11 (1994)

WFPC2 Observations of the Globular Cluster M30. *Brian Yanny, Puragra Guhathakurta, Donald P. Schneider, & John N. Bahcall.* 435, L59, 252-D13 (1994)

High-Resolution Imaging of the Pluto-Charon System with the Faint Object Camera of the *Hubble Space Telescope*. *R. Albrecht, C. Barbieri, H.-M. Adorf, G. Corrain, A. Gemmo, P. Greenfield, O. Hainaut, R. N. Hook, D. J. Tholen, J. C. Blades, & W. B. Sparks.* 435, L75, 252-G3 (1994)

Formal Results Regarding Metric Space Techniques for the Study of Astrophysical Maps. *Fred C. Adams & Jennifer J. Wiseman.* 435, 693, 255-E12 (1994)

An X-Ray Image of the Large Magellanic Cloud. *S. L. Snowden & R. Petre.* 436, L123, 281-A1 (1994)

Photoevaporating Stellar Envelopes Observed with Rayleigh Beacon Adaptive Optics. *P. R. McCullough, R. Q. Fugate, J. C. Christou, B. L. Ellerbroek, C. H. Higgins, J. M. Spinhirne, R. A. Cleis, & J. F. Moroney.* 438, 394, 6-G11 (1995)

Adaptive Optics Experiments Using Sodium Laser Guide Stars. *M. Lloyd-Hart, J. R. P. Angel, B. Jacobsen, D. Wittman, R. Dekany, D. McCarthy, E. Kibblewhite, W. Wild, B. Carter, & J. Beletic.* 439, 455, 27-D2 (1995)

Estimating the Cramér-Rao Bound for Restored Astronomical Observations. *T. S. Zaccheo, R. A. Gonsalves, S. M. Ebstein, & P. Nisenson.* 439, L43, 40-C11 (1995)

Adaptive Optics Imaging of Proto–Planetary Nebulae: Frosty Leo and the Red Rectangle. *F. Roddier, C. Roddier, J. E. Graves, & M. J. Northcott.* 443, 249, 98-E7 (1995)

A First Determination of the Surface Density of Galaxy Clusters at Very Low X-Ray Fluxes. *Piero Rosati, Roberto Della Ceca, Richard Burg, Colin Norman, & Riccardo Giacconi.* 445, L11, 140-C3 (1995)

Rayleigh Beacon Adaptive Optics Imaging of ADS 9731: Measurements of the Isoplanatic Field of View. *Julian C. Christou, Brent Ellerbroek, Robert Q. Fugate, Domenico Bonaccini, & Ruggero Stanga.* 450, 369, 233-A12 (1995)

Automated Source Classification Using a Kohonen Network. *P. H. Mähönen & P. J. Hakala.* 452, L77, 270-G1 (1995)

A Novel Maximum-Likelihood Method for Image Reconstruction with Increased Sampling. *George Roumeliotis.* 452, 944, 277-F5 (1995)

Does the Crab Have a Shell? *D. A. Frail, N. E. Kassim, T. J. Cornwell, & W. M. Goss.* 454, L129, 316-C8 (1995)

TECHNIQUES: INTERFEROMETRIC

Positions of the Radio Recombination Line Masers in MWC 349. *P. Planesas, J. Martín-Pintado, & E. Serabyn.* 386, L23, 29-D1 (1992)

The Structure and Dynamics of the Gaseous and Stellar Components in Centaurus A. *Richard A. Nicholson, Jonathan Bland-Hawthorn, & Keith Taylor.* 387, 503, 45-A1 (1992)

Discovery of Extended Faraday Rotation Compatible with Spiral Structure in an Intervening Galaxy at $z = 0.395$: New Observations of PKS 1229−021. *Philipp P. Kronberg, Judith J. Perry, & Edwin L. H. Zukowski.* 387, 528, 45-C1 (1992)

First Results of an On-Line Adaptive Optics System with Atmospheric Wavefront Sensing by an Artificial Neural Network. *M. Lloyd-Hart, P. Wizinowich, B. McLeod, D. Wittman, D. Colucci, R. Dekany, D. McCarthy, J. R. P. Angel, & D. Sandler.* 390, L41, 78-F8 (1992)

The Structure of Southern Extragalactic Radio Sources. *Paul A. Jones & W. Bruce McAdam.* 80, 137, 24-C3 (1992)

A VLBI Search for AGN Radio Cores in Starburst Galaxies. *Colin J. Lonsdale, Carol J. Lonsdale, & Harding E. Smith.* 391, 629, 95-G6 (1992)

A Measurement of the Primordial Helium Abundance Using μ Cassiopeiae. *James W. Haywood, Dennis J. Hegyi, & Donald H. Gudehus.* 392, 172, 103-B1 (1992)

A Completely Sampled Aperture Synthesis Map of the CO Emission in M51. *David S. Adler, K. Y. Lo, Melvyn C. H. Wright, Gustav Rydbeck, Raymond L. Plante, & Ronald J. Allen.* 392, 497, 108-D11 (1992)

Three-Epoch VLBI Observations of the Nucleus in the Lobe-dominated Quasar 3C 334. *D. H. Hough, A. C. S. Readhead, D. A. Wood, Jr., & J. J. Feldmeier.* 393, 81, 115-B1 (1992)

High-Resolution Images of Dust Emission from Orion-KL. *Melvyn Wright, Goeran Sandell, David J. Wilner, & Richard L. Plambeck.* 393, 225, 117-A1 (1992)

A Speckle Hologram of the Interstellar Plasma. *K. M. Desai, C. R. Gwinn, J. Reynolds, E. A. King, D. Jauncey, C. Flanagan, G. Nicolson, R. A. Preston, & D. L. Jones.* 393, L75, 127-E7 (1992)

Detectability of the Gravitational Wave Signal from a Close Neutron Star Binary with Mass Transfer. *Piotr Jaranowski & Andrzej Krolak.* 394, 586, 136-F1 (1992)

VLBI Observations of the X-Ray Binary LS I +61°303. *A. R. Taylor, H. T. Kenny, R. E. Spencer, & A. Tzioumis.* 395, 268, 143-D11 (1992)

The Compact Triples 0710+439 and 2352+495: A New Morphology of Radio Galaxy Nuclei. *J. E. Conway, T. J. Pearson, A. C. S. Readhead, S. C. Unwin, W. Xu, & R. L. Mutel.* 396, 62, 155-G7 (1992)

Interstellar Scattering toward the Galactic Center as Probed by OH/IR Stars. *Huib Jan van Langevelde, Dale A. Frail, James M. Cordes, & Philip J. Diamond.* 396, 686, 165-G9 (1992)

Kinematics of W3(OH): First Proper Motions of OH Masers from VLBI Measurements. *E. E. Bloemhof, M. J. Reid, & J. M. Moran.* 397, 500, 177-A12 (1992)

Kinematics of the Parsec-Scale Relativistic Jet in 3C 345. *Stephen C. Unwin & Ann E. Wehrle.* 398, 74, 183-A1 (1992)

Radio Images of Sagittarius. I. Overview, Sagittarius D, and Sagittarius E. *Harvey S. Liszt.* 82, 495, 55-G1 (1992)

Imaging Spectrophotometry of the Orion Nebula Core. I. Emission-Line Mapping and Physical Conditions. *Richard W. Pogge, J. Michael Owen, & Bruce Atwood.* 399, 147, 197-A9 (1992)

VLBI Observations of the 6.7 GHz Methanol Masers toward W3(OH). *K. M. Menten, M. J. Reid, P. Pratap, J. M. Moran, & T. L. Wilson.* 401, L39, 227-F1 (1992)

The Parsec-Scale Radio Jet of 4C 39.25. *A. Alberdi, J. M. Marcaide, A. P. Marscher, Y. F. Zhang, P. Elósegui, J. L. Gómez, & D. B. Shaffer.* 402, 160, 3-A13 (1993)

Speckle Observations of Mira's Companion. *M. Karovska, P. Nisenson, & J. Beletic.* 402, 311, 5-A7 (1993)

Mapping Cygnus A at 3 Millimeter Wavelength with the MIRIAD System. *M. C. H. Wright & R. J. Sault.* 402, 546, 9-C11 (1993)

Direct 75 Milliarcsecond Images from the Multiple Mirror Telescope with Adaptive Optics. *M. Lloyd-Hart, R. Dekany, B. McLeod, D. Wittman, D. Colucci, D. McCarthy, & R. Angel.* 402, L81, 13-B7 (1993)

A Molecular Spiral Arm Segment of M51 at 3.5 Arcsecond Resolution. *Richard J. Rand.* 404, 593, 36-C14 (1993)

Near-Infrared Imaging of the Becklin-Neugebauer–IRc2 Region in Orion with Subarcsecond Resolution. *C. Dougados, P. Léna, S. T. Ridgway, J. C. Christou, & R. G. Probst.* 406, 112, 56-E5 (1993)

Angular Diameter Measurements of Cool Giant Stars in Strong TiO Bands and in the Continuum. *A. Quirrenbach, D. Mozurkewich, J. T. Armstrong, D. F. Buscher, & C. A. Hummel.* 406, 215, 57-F9 (1993)

The Halo Radio Source Coma C and the Origin of Halo Sources. *G. Giovannini, L. Feretti, T. Venturi, K.-T. Kim, & P. P. Kronberg.* 406, 399, 62-F1 (1993)

Spiral Structure of the Giant Galaxy UGC 2885: Hα Kinematics. *Blaise Canzian, R. J. Allen, & R. P. J. Tilanus.* 406, 457, 63-D7 (1993)

VLBI Observations of a Complete Sample of Radio Galaxies. II. The Parsec-Scale Structure of NGC 315. *T. Venturi, G. Giovannini, L. Feretti, G. Comoretto, & A. E. Wehrle.* 408, 81, 84-B4 (1993)

Imaging with Ultra-Resolution in the Presence of Strong Scattering. *T. J. Cornwell & Ramesh Narayan.* 408, L68, 89-G1 (1993)

VLBI Observations of a Complete Sample of Radio Galaxies. III. The Two-sided Milliarcsecond Structure of 3C 338. *L. Feretti, G. Comoretto, G. Giovannini, T. Venturi, & A. E. Wehrle.* 408, 446, 90-F7 (1993)

Detection of Magnetohydrodynamic Shocks in the L1551 Outflow. *M. Barsony, N. Z. Scoville, & C. J. Chandler.* 409, 275, 100-E4 (1993)

Angular Broadening of Pulsars and the Distribution of Interstellar Plasma Fluctuations. *C. R. Gwinn, N. Bartel, & J. M. Cordes.* 410, 673, 122-A13 (1993)

VLBI Astrometric Identification of the Radio-emitting Region in Algol and Determination of the Orientation of the Close Binary. *Jean-François Lestrade, Robert B. Phillips, Mark W. Hodges, & Robert A. Preston.* 410, 808, 123-G1 (1993)

A 20 Centimeter VLA Survey of Abell Clusters of Galaxies. III. Images and Optical Identifications. *Frazer N. Owen, Richard A. White, & JingPing Ge.* 87, 135, 28-E5 (1993)

Accurate Measurement of the Geometry for a Full-Disk Solar Image and Estimation of the Observational Point Spread Function. *C. G. Toner & S. M. Jefferies.* 415, 852, 198-E11 (1993)

The Asymmetric Envelope of γ Cassiopeiae Observed with the Mk III Optical Interferometer. *A. Quirrenbach, C. A. Hummel, D. F. Buscher, J. T. Armstrong, D. Mozurkewich, & N. M. Elias II.* 416, L25, 207-D7 (1993)

Milliarcsecond Polarization Structure of 24 Objects from the Pearson-Readhead Sample of Bright Extragalactic Radio Sources. I. The Images. *T. V. Cawthorne, J. F. C. Wardle, D. H. Roberts, D. C. Gabuzda, & L. F. Brown.* 416, 496, 209-D11 (1993)

Detection of the Angular Expansion Rate and Determination of the Distance of the Planetary Nebula NGC 6302. *Yolanda Gómez, Luis F. Rodríguez, & James M. Moran.* 416, 620, 211-B1 (1993)

Optical Shop Tests of a f/1.2 2.5 Meter Diameter Liquid Mirror. *E. F. Borra, R. Content, & L. Girard.* 418, 943, 244-D1 (1993)

Maps of GHz Methyl Cyanide Emission in Orion-KL. *D. J. Wilner, M. C. H. Wright, & R. L. Plambeck.* 422, 642, 39-G7 (1994)

Radio-Size Estimates of SN 1993J. *J. M. Marcaide, A. Alberdi, P. Elósegui, J. C. Guirado, F. Mantovani, E. Pérez, M. I. Ratner, A. Rius, A. E. E. Rogers, B. P. Schmidt, I. I. Shapiro, & A. R. Whitney.* 424, L25, 69-D6 (1994)

On the Apparent Velocity of Integrated Sunlight. II. 1983–1992 and Comparisons with Magnetograms. *Drake Deming & Claude Plymate.* 426, 382, 101-A2 (1994)

Toward Estimation of H_0 from VLBI Observations of the Gravitational Lens System 0957+561. *R. M. Campbell, B. E. Corey, E. E. Falco, I. I. Shapiro, M. V. Gorenstein, P. Elósegui, J. M. Marcaide, & K. Alvi.* 426, 486, 104-D5 (1994)

Hubble Space Telescope Fine Guidance Sensor Interferometric Observations of the Core of 30 Doradus. *M. G. Lattanzi, J. L. Hershey, R. Burg, L. G. Taff, S. T. Holfeltz, B. Bucciarelli, I. N. Evans, R. Gilmozzi, J. Pringle, & N. R. Walborn.* 427, L21, 117-D1 (1994)

Linear Polarization Radio Imaging at Milliarcsecond Resolution. *D. H. Roberts, J. F. C. Wardle, & L. F. Brown.* 427, 718, 121-F2 (1994)

The S140 Core: Aperture Synthesis HCO^+ and SO Observations. *D. J. Wilner & W. J. Welch.* 427, 898, 123-G3 (1994)

VLBI Data for Compact Radio Sources versus Exotic Forms of Matter in the Universe. *J. Stelmach.* 428, 61, 129-A5 (1994)

Superluminal Motion Statistics and Cosmology. *R. C. Vermeulen & M. H. Cohen.* 430, 467, 167-E3 (1994)

Star Formation in NGC 4449: MAMA-Detector UV Imagery and Fabry-Perot Balmer-Line Imagery. *Robert S. Hill, Allen T. Home, Andrew M. Smith, Fred C. Bruhweiler, K. P. Cheng, Paul M. N. Hintzen, & Ronald J. Oliversen.* 430, 568, 168-G5 (1994)

Imaging Spectroscopy with High Spatial Resolution. *Naoshi Baba, Susumu Kuwamura, Noriaki Miura, & Yuji Norimoto.* 431, L111, 192-A1 (1994)

On Cepheid Diameter and Distance Measurement. *Dimitar D. Sasselov & Margarita Karovska.* 432, 367, 197-F6 (1994)

Small-Scale Structure and Position of Sagittarius A* from VLBI at 3 Millimeter Wavelength. *Alan E. E. Rogers, Sheperd Doeleman, Melvyn C. H. Wright, Geoffrey C. Bower, Donald C. Backer, Stephen Padin, J. A. Philips, Darrel T. Emerson, Lincoln Greenhill, James M. Moran, & Kenneth I. Kellermann.* 434, L59, 241-E8 (1994)

VLBI Observations of a Complete Sample of Radio Galaxies. IV. The Radio Galaxies NGC 2484, 3C 109, and 3C 382. *G. Giovannini, L. Feretti, T. Venturi, L. Lara, J. Marcaide, M. Rioja, S. R. Spangler, & A. E. Wehrle.* 435, 116, 245-A1 (1994)

Unusual Evolution in the VLBI Structure of 0735+178. *D. C. Gabuzda, J. F. C. Wardle, D. H. Roberts, M. F. Aller, & H. D. Aller.* 435, 128, 245-B3 (1994)

Evolution of the Millarcsecond Total Intensity and Polarization Structures of BL Lacertae Objects. *D. C. Gabuzda, C. M. Mullan, T. V. Cawthorne, J. F. C. Wardle, & D. H. Roberts.* 435, 140, 245-C5 (1994)

A Search for Diffuse Hα Emission from Lyα Absorption Clouds toward 3C 273. *J. Bland-Hawthorn, K. Taylor, S. Veilleux, & P. L. Shopbell.* 437, L95, 299-A1 (1994)

The Second Caltech–Jodrell Bank VLBI Survey. I. Observations of 91 of 193 Sources. *G. B. Taylor, R. C. Vermeulen, T. J. Pearson, A. C. S. Readhead, D. R. Henstock, I. W. A. Browne, & P. N. Wilkinson.* 95, 345, 69-B1 (1994)

Detection of a Subparsec Diameter Disk in the Nucleus of NGC 4258. *L. J. Greenhill, D. R. Jiang, J. M. Moran, M. J. Reid, K. Y. Lo, & M. J. Claussen.* 440, 619, 51-F8 (1995)

The Deceleration Powering of Synchrotron Emission from Ejecta Components of Supernova Remnant Cassiopeia A. *M. C. Anderson & L. Rudnick.* 441, 307, 63-E9 (1995)

Fabry-Perot Imaging of O III λ = 5007 Å Emission in the Io Plasma Torus. *M. Küppers & K. Jockers.* 441, L101, 76-E4 (1995)

The Parsec-Scale Jet in Quasar 3C 345. *J. Anton Zensus, Marshall H. Cohen, & Stephen C. Unwin.* 443, 35, 95-F9 (1995)

A New Method for Determining the Angular Separation of Double Stars. *Daniel F. V. James, H. C. Kandpal, & Emil Wolf.* 445, 406, 138-B4 (1995)

The First Caltech–Jodrell Bank VLBI Survey. I. λ = 18 Centimeter Observations of 87 Sources. *A. G. Polatidis, P. N. Wilkinson, W. Xu, A. C. S. Readhead, T. J. Pearson, G. B. Taylor, & R. C. Vermeulen.* 98, 1, 21-B1 (1995)

The First Caltech–Jodrell Bank VLBI Survey. II. λ = 18 Centimeter Observations of 25 Sources. *D. D. Thakkar, W. Xu, A. C. S. Readhead, T. J. Pearson, G. B. Taylor, R. C. Vermeulen, A. G. Polatidis, & P. N. Wilkinson.* 98, 33, 21-D8 (1995)

Radio Interferometer Observations of Solar Wind Turbulence from the Orbit of *Helios* to the Solar Corona. *Steven R. Spangler & Takayuki Sakurai.* 445, 999, 149-B10 (1995)

Extragalactic Ionized Hydrogen in the Fornax Cluster. *J. Bland-Hawthorn, R. D. Ekers, W. van Breugel, A. Koekemoer, & K. Taylor.* 447, L77, 190-C13 (1995)

Interferometric Observations of the SiO Masers and Dust Shell of VX Sagittarii. *L. J. Greenhill, F. Colomer, J. M. Moran, D. C. Backer, W. C. Danchi, & M. Bester.* 449, 365, 215-B7 (1995)

Sub-Arcsecond Imaging of W3(OH) at 87.7 GHz. *D. J. Wilner, W. J. Welch, & J. R. Forster.* 449, L73, 217-C1 (1995)

VLBI Observations of a Complete Sample of Radio Galaxies. V. 3C 346 and 4C 31.04: Two Unusual Compact Steep Spectrum Sources. *W. D. Cotton, L. Feretti, G. Giovannini, T. Venturi, L. Lara, J. Marcaide, & A. E. Wehrle.* 452, 605, 273-A6 (1995)

Vertical Scales of Turbulence at the Mount Wilson Observatory. *Robert N. Treuhaft, Stephen T. Lowe, Manfred Bester, William C. Danchi, & Charles H. Townes.* 453, 522, 288-D12 (1995)

TECHNIQUES: PHOTOMETRIC

A Complete, Multicolor Survey of Absolute Proper Motions to $B \sim 22.5$: Galactic Structure and Kinematics at the North Galactic Pole. *Steven Raymond Majewski.* 78, 87, 2-F11 (1992)

A New Solar Irradiance Calibration from 3295 Å to 8500 Å Derived from Absolute Spectrophotometry of Vega. *G. W. Lockwood, H. Tüg, & N. M. White.* 390, 668, 83-E9 (1992)

Extending the MACHO Search to $\sim 10^6\ M_\odot$. *Andrew Gould.* 392, 442, 107-G1 (1992)

New Cepheid Distances to Nearby Galaxies Based on *BVRI* CCD Photometry. III. NGC 300. *Wendy L. Freedman, Barry F. Madore, S. L. Hawley, Irwin K. Horowitz, Jeremy Mould, Mauricio Navarrete, & Shauna Sallmen.* 396, 80, 156-A13 (1992)

CCD Photometry in the Globular Cluster NGC 288. I. Blue Stragglers and Main-Sequence Binary Stars. *Michael Bolte.* 82, 145, 51-B7 (1992)

Intensive High-Precision Photometric Monitoring of the Variable WN6 Wolf-Rayet Star HD 191765. *I. I. Antokhin, T. R. Irsmambetova, A. F. J. Moffat, A. M. Cherepashchuk, & S. V. Marchenko.* 82, 395, 54-G9 (1992)

Photometric Imaging of VW Cephei. *Paul D. Hendry, Stefan W. Mochnacki, & Andrew Collier Cameron.* 399, 246, 198-C8 (1992)

A Method for Obtaining the Age and Scale Height of the Thick Disk from Faint Strömgren Photometry. *Ted von Hippel & Gregory D. Bothun.* 407, 115, 70-E1 (1993)

The Crab Pulsar in the Visible and Ultraviolet with 10 Microsecond Time Resolution. *J. W. Percival, J. D. Biggs, J. F. Dolan, E. L. Robinson, M. J. Taylor, R. C. Bless, J. L. Elliot, M. J. Nelson, T. F. Ramseyer, G. W. van Citters, & E. Zhang.* 407, 276, 72-E1 (1993)

Far-Ultraviolet Stellar Photometry: A Field in Monoceros. *Edward G. Schmidt & George R. Carruthers.* 408, 484, 91-C1 (1993)

Ultraviolet Continuum Variability and Visual Flickering in the Peculiar Object MWC 560. *A. G. Michalitsianos, M. Perez, S. N. Shore, S. P. Maran, M. Karovska, G. Sonneborn, J. R. Webb, Thomas G. Barnes III, Marian L. Frueh, R. J. Oliversen, & S. G. Starrfield.* 409, L53, 111-D8 (1993)

A Study of Carina OB2 Association. I. Observational Data. *Beatriz García.* 87, 197, 29-F3 (1993)

A $UBV\beta$ Data Base for Stephenson-Sanduleak Southern Luminous Stars. *B. Cameron Reed.* 87, 367, 31-F13 (1993)

30 Doradus: Ultraviolet and Optical Stellar Photometry. *Jesse K. Hill, Ralph C. Bohlin, Kwang-Ping Cheng, Michael N. Fanelli, Paul Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 413, 604, 164-A5 (1993)

The Faintest Stars: The Luminosity and Mass Functions at the Bottom of the Main Sequence. *Christopher G. Tinney.* 414, 279, 173-D12 (1993)

A Catalog of Blue and Red Supergiants in M33. *Georgi R. Ivanov, Wendy L. Freedman, & Barry F. Madore.* 89, 85, 50-A9 (1993)

Far-Ultraviolet Stellar Photometry: A Field in Orion. *Edward G. Schmidt & George R. Carruthers.* 89, 259, 53-B2 (1993)

Young Open Clusters as Probes of the Star Formation Process. I. An Atlas of Open Cluster Photometry. *Randy L. Phelps & Kenneth A. Janes.* 90, 31, 1-D6 (1994)

Surface Brightness Fluctuations in Globular Clusters and Stellar Populations in Galaxies. *Edward A. Ajhar & John L. Tonry.* 429, 557, 152-F2 (1994)

Dust Extinction and Molecular Gas in the Dark Cloud IC 5146. *Charles J. Lada, Elizabeth A. Lada, Dan P. Clemens, & John Bally.* 429, 694, 154-C11 (1994)

Color Excesses for Classical Cepheids from *BV* Photometry. *J. D. Fernie.* 429, 844, 156-B9 (1994)

CCD Photometry for Six Metal-rich Galactic Globular Clusters. *Ata Sarajedini & John E. Norris.* 93, 161, 44-A2 (1994)

A Multisite *UBV* Photometric Campaign on 53 Persei in 1991 January. *L. Huang, Z. Guo, J. Hao, J. R. Percy, M. S. Fieldus, R. Fried, K Pavlovski, H. Božić, Ž. Ružić, M. Paparó, & B. Vetö.* 431, 850, 189-C5 (1994)

Deep Infrared Array Photometry of Globular Clusters. II. M71. *T. J. Davidge & D. A. Simons.* 435, 207, 246-B11 (1994)

Stellar Photometry Including Saturated Images: Results on M67 with WFPC2. *Ronald L. Gilliland.* 435, L63, 252-E9 (1994)

Single-Sideband Calibration for CO, ^{13}CO, HCN, and CS Lines near 345 GHz. *Yangsheng Wang, Daniel T. Jaffe, Urs U. Graf, & Neal J. Evans II.* 95, 503, 71-C7 (1994)

CCD Photometry of Globular Cluster Core Structure. II. *U*-Band Profiles for 15 Candidate Collapsed-Core Clusters. *Phyllis M. Lugger, Haldan N. Cohn, & Jonathan E. Grindlay.* 439, 191, 23-G10 (1995)

A Catalog of Far-Ultraviolet Point Sources Detected with the FAUST Telescope on ATLAS-1. *Stuart Bowyer, Timothy P. Sasseen, Xiaoyi Wu, & Michael Lampton.* 96, 461, 8-D9 (1995)

Far-Ultraviolet Stellar Photometry: Fields in Sagittarius and Scorpius. *Edward G. Schmidt & George R. Carruthers.* 96, 605, 10-A8 (1995)

Automated Software for Surface Photometry of Galaxies. *M. Doi, M. Fukugita, & S. Okamura.* 97, 59, 11-F8 (1995)

Socket Stars: *UBVRIJK* Radial Profiles. *Bradley E. Schaefer.* 444, 739, 126-D13 (1995)

Deep Optical Counterpart Searches of Gamma-Ray Burst Localizations. *Frederick J. Vrba, Dieter H. Hartmann, & Mark C. Jennings.* 446, 115, 154-G4 (1995)

A Search for a Pulsar in the Remnant of SN 1987A with the *Hubble Space Telescope* High-Speed Photometer. *J. W. Percival, P. T. Boyd, J. D. Biggs, J. F. Dolan, R. C. Bless, J. L. Elliot, M. J. Nelson, E. L. Robinson, M. J. Taylor, G. W. van Citters, & K. G. Wolinski.* 446, 832, 167-E4 (1995)

Luminosity Attenuation and Distances of Red Giant Stars. *L. Celis S.* 98, 701, 33-A1 (1995)

Synthetic Mean Colors for RR Lyrae Variables. *Giuseppe Bono, Filippina Caputo, & Robert F. Stellingwerf.* 99, 263, 37-F8 (1995)

The B_jRI Photometric System. *Craig A. Gullixson, Patricia C. Boeshaar, J. Anthony Tyson, & Patrick Seitzer.* 99, 281, 38-A1 (1995)

TECHNIQUES: POLARIMETRIC

Spectropolarimetry of SN 1993J in NGC 3031. *Susan R. Trammell, Dean C. Hines, & J. Craig Wheeler.* 414, L21, 175-E2 (1993)

Ultraviolet Interstellar Polarization Observed with the *Hubble Space Telescope*. *W. B. Somerville, R. G. Allen, D. J. Carnochan, Lida He, D. McNally, P. G. Martin, D. H. Morgan, K. Nandy, J. R. Walsh, D. C. B. Whittet, R. Wilson, & M. J. Wolff.* 427, L47, 117-F13 (1994)

Circular and Linear Polarization of the SiO Masers in VY Canis Majoris. *G. C. McIntosh, C. Read Predmore, & Nimesh A. Patel.* 428, L29, 134-E1 (1994)

COBE DIRBE Near-Infrared Polarimetry of the Zodiacal Light: Initial Results. *G. B. Berriman, N. W. Boggess, M. G. Hauser, T. Kelsall, C. M. Lisse, S. H. Moseley, W. T. Reach, & R. F. Silverberg.* 431, L63, 183-C1 (1994)

Magnetic Fields around Bok Globules: CCD Polarimetry of CB 4. *Brian D. Kane, Dan P. Clemens, Robert W. Leach, & Richard Barvainis.* 445, 269, 136-C2 (1995)

TECHNIQUES: RADAR ASTRONOMY

A Potential New Test for Unseen Matter in the Outer Solar System. *Timothy P. Krisher.* 433, 666, 219-C13 (1994)

TECHNIQUES: RADIAL VELOCITIES

Radial Velocities of Carbon Stars: CO versus Optical Measurements. *Cecilia Barnbaum.* 385, 694, 21-F10 (1992)

Radial Velocity Observations of the Sun at Night. *R. S. McMillan, T. L. Moore, M. L. Perry, & P. H. Smith.* 403, 801, 25-G8 (1993)

The Stellar Velocity Dispersion in the Nucleus of M82. *Niall I. Gaffney, Dan F. Lester, & C. M. Telesco.* 407, L57, 82-C6 (1993)

Mapping Spherical Potentials with Discrete Radial Velocities. *David Merritt & Prasenjit Saha.* 409, 75, 97-G10 (1993)

The Radial Velocities of Planetary Nebulae in NGC 3379. *Robin Ciardullo, George H. Jacoby, & Herwig B. Dejonghe.* 414, 454, 176-G3 (1993)

Proper Motions and Radial Velocities in the Globular Cluster M22 and the Cluster Distance. *Ruth C. Peterson & Kyle M. Cudworth.* 420, 612, 10-C7 (1994)

Study of Spectroscopic Binaries with TODCOR. I. A New Two-dimensional Correlation Algorithm to Derive the Radial Velocities of the Two Components. *S. Zucker & T. Mazeh.* 420, 806, 13-A3 (1994)

A Study of the Spectrum of HD 108, An Unusual Of Star. *Anne B. Underhill.* 420, 869, 13-F6 (1994)

A Search for Binaries in the Globular Cluster NGC 3201. *Patrick Côté, Douglas L. Welch, Philippe Fischer, G. S. Da Costa, Peter Tamblyn, Patrick Seitzer, & M. J. Irwin.* 90, 83, 2-B5 (1994)

Radial Velocities of M Giants at 300 Parsec Projected Radius from the Galactic Center. *R. D. Blum, J. S. Carr, D. L. DePoy, K. Sellgren, & D. M. Terndrup.* 422, 111, 31-D9 (1994)

Short-Period Radial Velocity Variations of α Bootis: Evidence for Radial Pulsations. *Artie P. Hatzes & William D. Cochran.* 422, 366, 34-E11 (1994)

An Analysis of the Radial Velocity Residuals for Various Models of SS 433. *George W. Collins II & Christopher J. Garasi.* 431, 836, 189-B1 (1994)

The Radial Velocity Variability of the K Giant β Ophiuchi. I. The Detection of Low-Amplitude, Short-Period Pulsations. *Artie P. Hatzes & William D. Cochran.* 432, 763, 205-E1 (1994)

First Radial Velocities for 146 Bright F- and G-Type Stars. *Helmut A. Abt & Daryl W. Willmarth.* 94, 677, 61-D1 (1994)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. I. The $7° < |B| < 8°$ Strips. *H. Izumiura, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, N. Ukita, & I. Yamamura.* 437, 419, 288-G11 (1994)

Radial Velocities of Stars in the Globular Cluster M4 and the Cluster Distance. *Ruth C. Peterson, Richard F. Rees, & Kyle M. Cudworth.* 443, 124, 96-G11 (1995)

Planetary Nebulae as Probes of Dark Matter in NGC 3384. *Benoit Tremblay, David Merritt, & T. B. Williams.* 443, L5, 102-B8 (1995)

On Spectral Line Formation and Measurement in Cepheids: Implications to Distance Determination. *C. N. Sabbey, D. D. Sasselov, M. S. Fieldus, J. B. Lester, K. A. Venn, & R. P. Butler.* 446, 250, 156-F2 (1995)

M Giant Kinematics in Off-Axis Fields between 150 and 300 Parsecs from the Galactic Center. *R. D. Blum, J. S. Carr, K. Sellgren, & D. M. Terndrup.* 449, 623, 221-C11 (1995)

A Study of the Spectra of Seven Of Stars. I. Radial Velocities. *Anne B. Underhill.* 100, 433, 52-A10 (1995)

SiO Maser Survey of the Galactic Bulge *IRAS* Sources. III. Kinematics of the Bulge Stars. *H. Izumiura, S. Deguchi, O. Hashimoto, Y. Nakada, T. Onaka, T. Ono, N. Ukita, & I. Yamamura.* 453, 837, 295-D7 (1995)

Dynamics of the Galactic Globular Cluster NGC 3201. *Patrick Côté, Douglas L. Welch, Philippe Fischer, & K. Gebhardt.* 454, 788, 312-F3 (1995)

TECHNIQUES: SPECTROSCOPIC

Infrared Emission Spectra of Benzene and Naphthalene: Implications for the Interstellar Polycyclic Aromatic Hydrocarbon Hypothesis. *Jerrell D. Brenner & John R. Barker.* 388, L39, 52-D6 (1992)

The Comet-Tail (A–X) System of CO^+: Precise Molecular Constants of Its $X\ ^2\Sigma^+$, $A\ ^2\Pi_i$, and $B\ ^2\Sigma^+$ States. *C. Haridass, C. V. V. Prasad, & S. Paddi Reddy.* 388, 669, 58-E1 (1992)

A Spectrophotometric Atlas of Galaxies. *Robert C. Kennicutt, Jr.* 79, 255, 17-F7 (1992)

A New Solar Irradiance Calibration from 3295 Å to 8500 Å Derived from Absolute Spectrophotometry of Vega. *G. W. Lockwood, H. Tüg, & N. M. White.* 390, 668, 83-E9 (1992)

Vacuum Ultraviolet Extinction Measurements on Cosmic Dust Analog Carbon Grains. *L. Colangeli, A. Blanco, S. Fonti, & E. Bussoletti.* 392, 284, 104-E1 (1992)

Submillimeter Spectrum of Low-Temperature Hydrogen: The Pure Translational Band of H_2 and the $R(0)$ Line of HD. *E. H. Wishnow, I. Ozier, & H. P. Gush.* 392, L43, 106-F1 (1992)

Measurement of CO Overtone Line Profiles in SVS 13. *John S. Carr & Alan T. Tokunaga.* 393, L67, 127-D7 (1992)

High-Resolution Photoabsorption Cross Sections of $E^1\Pi$–$X^1\Sigma^+$ Vibrational Bands of ^{12}CO and ^{13}CO. *G. Stark, P. L. Smith, K. Ito, & K. Yoshino.* 395, 705, 152-B5 (1992)

A New Library of Stellar Optical Spectra. *David R. Silva & Mark E. Cornell.* 81, 865, 48-A9 (1992)

Analysis of the Photospheric Epoch Spectra of Type Ia Supernovae SN 1990N and SN 1991T. *David J. Jeffery, Bruno Leibundgut, Robert P. Kirshner, Stefano Benetti, David Branch, & George Sonneborn.* 397, 304, 171-F4 (1992)

An Extension of the High-Resolution Millimeter- and Submillimeter-Wave Spectrum of Methanol to High Angular Momentum Quantum Numbers. *Todd Anderson, Eric Herbst, & Frank C. De Lucia.* 82, 405, 55-A9 (1992)

The Redshift Evolution of the Lyman-Alpha Forest: Blending Effects. *Dario Trevese, Emanuele Giallongo, & Luca Camurani.* 398, 491, 190-C1 (1992)

Microwave Spectra and Electric Dipole Moments for Low-J Levels of Interstellar Radicals: SO, C_2S, C_3S, c-HC_3, CH_2CC, and c-C_3H_2. *F. J. Lovas, R. D. Suenram, T. Ogata, & S. Yamamoto.* 399, 325, 199-D7 (1992)

Laboratory Measurement of the Millimeter and Submillimeter Wave Spectrum of $C_2H_3^+$. *M. Bogey, M. Cordonnier, C. Demuynck, & J. L. Destombes.* 399, L103, 201-E3 (1992)

Abundance of Interstellar Carbon toward ζ Ophiuchi. *Jason A. Cardelli, John S. Mathis, Dennis C. Ebbets, & Blair D. Savage.* 402, L17, 6-D1 (1993)

Automated Galaxy Redshift Measurements from Very Low Dispersion Objective Prism Schmidt Plates. *Peter Schuecker.* 84, 39, 1-E11 (1993)

Transition Rates for ZrO from a Laboratory Absorption Spectrum. *J. E. Littleton, Sumner P. Davis, & Mei Song.* 404, 412, 33-A1 (1993)

Variations of the Ultraviolet Fe II and Balmer Continuum Emission in the Seyfert Galaxy NGC 5548. *D. Maoz, H. Netzer, B. M. Peterson, J. Bechtold, R. Bertram, N. G. Bochkarev, T. E. Carone, M. Dietrich, A. V. Filippenko, W. Kollatschny, K. T. Korista, A. I. Shapovalova, J. C. Shields, P. S. Smith, U. Thiele, & R. M. Wagner.* 404, 576, 36-B8 (1993)

A Critical List of Voigt-fitted Equivalent Width Measurements Based on the Solar Flux Spectrum. *Thomas Meylan, Ingemar Furenlid, Michael S. Wiggs, & R. L. Kurucz.* 85, 163, 8-D1 (1993)

High-Resolution Absorption Cross Section Measurements of Carbon Monoxide at 20 K between 96.7 and 98.8 Nanometers. *G. Stark, K. Yoshino, P. L. Smith, J. R. Esmond, K. Ito, & M. H. Stevens.* 410, 837, 124-B8 (1993)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. II. Data Calibration and Absorption-Line Selection. *Donald P. Schneider, George F. Hartig, Buell T. Jannuzi, Sofia Kirhakos, David H. Saxe, Ray J. Weymann, John N. Bahcall, Jacqueline Bergeron, Alec Boksenberg, W. L. W. Sargent, Blair D. Savage, David A. Turnshek, & Arthur M. Wolfe.* 87, 45, 27-E9 (1993)

A Study of Carina OB2 Association. I. Observational Data. *Beatriz García.* 87, 197, 29-F3 (1993)

The Meinel System ($A^2\Pi_i$–$X^2\Sigma^+$) of $^{14}N_2^+$, $^{14}N^{15}N^+$, and $^{15}N_2^+$. *A. Bernard, M. Larzilliere, C. Effantin, & A. J. Ross.* 413, 829, 166-F7 (1993)

Spectropolarimetry of SN 1993J in NGC 3031. *Susan R. Trammell, Dean C. Hines, & J. Craig Wheeler.* 414, L21, 175-E2 (1993)

Detection of [O III] λ5007 Emission from the Io Plasma Torus. *Nicolas Thomas.* 414, L41, 175-G2 (1993)

Ultraviolet Transitions of Low Condensation Temperature Heavy Elements and New Data for Interstellar Arsenic, Selenium, Tellurium, and Lead. *Jason A. Cardelli, S. R. Federman, David L. Lambert, & C. E. Theodosiou.* 416, L41, 207-F5 (1993)

The Mount Wilson Observatory Metallicity Index, C_{RV}: Comparison with Other Photometric Systems. *W. H. Soon, Q. Zhang, S. L. Baliunas, & R. L. Kurucz.* 416, 787, 213-C1 (1993)

New Observations of the Optical Spectrum of SiO^+ and the Prediction of Its Rotational Spectrum. *L. Zhang, R. Cameron, R. A. Holt, T. J. Scholl, & S. D. Rosner.* 418, 307, 234-G5 (1993)

The Laboratory Spectrum of Acetaldehyde at 1 Millimeter (230–325 GHz). *W. L. Barclay, Jr., M. A. Anderson, L. M. Ziurys, I. Kleiner, & J. T. Hougen.* 89, 221, 51-G3 (1993)

Size Effects on Dissociation Rates of Polycyclic Aromatic Hydrocarbon Cations: Laboratory Studies and Astrophysical Implications. *H. W. Jochims, E. Rühl, H. Baumgärtel, S. Tobita, & S. Leach.* 420, 307, 4-F6 (1994)

A High-Resolution ^{13}C Isotope Study in the Vacuum Ultraviolet of Spectra of CO($A \rightarrow X$), C I, and C II. *C. Haridass & K. P. Huber.* 420, 433, 6-C1 (1994)

Interstellar Detection of the Intersystem Line Si II] λ2335 toward ζ Ophiuchi. *Jason A. Cardelli, Ulysses J. Sofia, Blair D. Savage, Francis P. Keenan, & Philip L. Dufton.* 420, L29, 7-D13 (1994)

Comparison of New Experimental and Astrophysical f-Values for Some Ru II Lines, Observed in *HST* Spectra of χ Lupi. *Sveneric G. Johansson, Ali Joueizadeh, Ulf Litzén, Jörgen Larsson, Anders Persson, Claes-Göran Wahlström, Sune Svanberg, David S. Leckrone, & Glenn M. Wahlgren.* 421, 809, 28-C8 (1994)

New Measurement of the $^{12}C(n, \gamma)^{13}C$ Reaction Cross Section. *T. Ohsaki, Y. Nagai, M. Igashira, T. Shima, K. Takeda, S. Seino, & T. Irie.* 422, 912, 43-C9 (1994)

Stellar Spectral Classification Using Automated Schemes. *R. K. Gulati, Ranjan Gupta, Pradeep Gothoskar, & Shyam Khobragade.* 426, 340, 100-D5 (1994)

Fourier Transform Spectroscopy of the Swan ($d\ ^3\Pi_g$–$a\ ^3\Pi_u$) System of the Jet-cooled C_2 Molecule. *C. V. V. Prasad & P. F. Bernath.* 426, 812, 108-E9 (1994)

Accurate Determination of Predissociation Rates and Transition Frequencies for Carbon Monoxide. *W. Ubachs, K. S. E. Eikema, P. F. Levelt, W. Hogervorst, M. Drabbels, W. L. Meerts, & J. J. ter Meulen.* 427, L55, 117-G10 (1994)

The Activity Cycle of τ Ceti. *David F. Gray & Sallie L. Baliunas.* 427, 1042, 125-E8 (1994)

Infrared Spectra of Crystalline Phase Ices Condensed on Silicate Smokes at $T < 20$ K. *Marla H. Moore, Robert F. Ferrante, Reggie L. Hudson, Joseph A. Nuth III, & Bertram Donn.* 428, L81, 143-A7 (1994)

Ultraviolet Spectra of Quenched Carbonaceous Composite Derivatives: Comparison to the "217 Nanometer" Interstellar Absorption Feature. *Akira Sakata, Setsuko Wada, Alan T. Tokunaga, Takatoshi Narisawa, Hidehiro Nakagawa, & Hiroshi Ono.* 430, 311, 163-A7 (1994)

Zeeman Enhancement of Lines in Extremely Active K Dwarfs. *Gibor Basri & Geoffrey W. Marcy.* 431, 844, 189-B11 (1994)

Imaging Spectroscopy with High Spatial Resolution. *Naoshi Baba, Susumu Kuwamura, Noriaki Miura, & Yuji Norimoto.* 431, L111, 192-A1 (1994)

Highly Unsaturated Hydrocarbons as Potential Carriers of Some Diffuse Interstellar Bands. *P. Freivogel, J. Fulara, & J. P. Maier.* 431, L151, 192-E7 (1994)

Abundances, Planetary Nebulae, and Stellar Evolution. *Lawrence H. Aller.* 432, 427, 201-C1 (1994)

MEPSICRON Spectrophotometry of Seyfert Galaxies. I. Spectral Atlas. *Irene Cruz-González, Luis Carrasco, Alfonso Serrano, José Guichard, Deborah Dultzin-Hacyan, & Gian Franco Bisiacchi.* 94, 47, 52-E9 (1994)

Two Micron Spectrophotometry of the Orion Nebula and the Detection of Significant [Fe III] Emission. *D. L. DePoy & Richard W. Pogge.* 433, 725, 220-B1 (1994)

A Spectrum Synthesis Program for Binary Stars. *Albert P. Linnell & Ivan Hubeny.* 434, 738, 238-A4 (1994)

A Search for Diffuse Hα Emission from Lyα Absorption Clouds toward 3C 273. *J. Bland-Hawthorn, K. Taylor, S. Veilleux, & P. L. Shopbell.* 437, L95, 299-A1 (1994)

The Faint Limit of the *Hubble Space Telescope* Faint Object Spectrograph and Rejection of the Cosmic-Ray Background. *David Tytler & Christopher Davis.* 438, 420, 7-C5 (1995)

Precise Laboratory Measurements of Methanol Rotational Transition Frequencies in the 5 to 13 GHz Region. *S. M. Breckenridge & S. G. Kukolich.* 438, 504, 8-E11 (1995)

High-Resolution Absorption Cross Section Measurements of Supersonic Jet-cooled Carbon Monoxide between 92.5 and 97.4 Nanometers. *K. Yoshino, G. Stark, J. R. Esmond, P. L. Smith, K. Ito, & T. Matsui.* 438, 1013, 18-A13 (1995)

First Measurement of a $p(n, \gamma)d$ Reaction Cross Section between 10 and 80 keV. *T. S. Suzuki, Y. Nagai, T. Shima, T. Kikuchi, H. Sato, T. Kii, & M. Igashira.* 439, L59, 40-F5 (1995)

Measurement of the $^{16}O(n, \gamma)^{17}O$ Reaction Cross Section at Stellar Energy and the Critical Role of Nonresonant p-Wave Neutron Capture. *M. Igashira, Y. Nagai, K. Masuda, T. Ohsaki, & H. Kitazawa.* 441, L89, 76-C11 (1995)

Neural Network Classification of the Near-Infrared Spectra of A-Type Stars. *Wm. Bruce Weaver & Ana V. Torres-Dodgen.* 446, 300, 157-D1 (1995)

Extragalactic Ionized Hydrogen in the Fornax Cluster. *J. Bland-Hawthorn, R. D. Ekers, W. van Breugel, A. Koekemoer, & K. Taylor.* 447, L77, 190-C13 (1995)

EXAFS and XANES: New Astrophysical Tools to Study the Solid State Structure of Interstellar Grains. *Jonathan W. Woo.* 447, L129, 191-C8 (1995)

Solution to the Bivariate Integral Inversion Problem: The Determination of Emission Measures Differential in Temperature and Density. *Veronika Hubeny & Philip G. Judge.* 448, L61, 200-C13 (1995)

An Infrared Spectroscopic Survey of the ρ Ophiuchi Young Stellar Cluster: Masses and Ages from the H-R Diagram. *Thomas P. Greene & Michael R. Meyer.* 450, 233, 231-C3 (1995)

Satellites on Lyman Alpha Due to H-H and H-H^+ Collisions. *John F. Kielkopf & Nicole F. Allard.* 450, L75, 245-A8 (1995)

Study of Spectroscopic Binaries with TODCOR. III. Application to Triple-lined Systems. *Shay Zucker, Guillermo Torres, & Tsevi Mazeh.* 452, 863, 276-E10 (1995)

Absolute Measurements of Starspot Area and Temperature: II Pegasi in 1989 October. *James E. Neff, Douglas O'Neal, & Steven H. Saar.* 452, 879, 276-G6 (1995)

The Canada-France Redshift Survey. II. Spectroscopic Program: Data for the 0000−00 and 1000+25 Fields. *Olivier Le Fèvre, David Crampton, Simon J. Lilly, Francois Hammer, & Laurence Tresse.* 455, 60, 319-A12 (1995)

TELESCOPES

High Rate for Type Ic Supernovae. *Richard A. Muller, Heidi Jo Marvin Newberg, Carlton R. Pennypacker, Saul Perlmutter, Timothy P. Sasseen, & Craig K. Smith.* 384, L9, 6-B7 (1992)

The Snapshot Survey: A Search for Gravitationally Lensed Quasars with the *Hubble Space Telescope*. *J. N. Bahcall, D. Maoz, R. Doxsey, D. P. Schneider, N. A. Bahcall, O. Lahav, & B. Yanny.* 387, 56, 37-F6 (1992)

Hard X-Ray Imaging of the Galactic Black Hole Candidate GX 339−4. *C. E. Covault, J. E. Grindlay, & R. P. Manandhar.* 388, L65, 59-C12 (1992)

Liquid Mirror Surface Aberrations. I. Wavefront Analysis. *Brad K. Gibson & Paul Hickson.* 391, 409, 91-B1 (1992)

The Case for Liquid Mirrors in Orbiting Telescopes. *Ermanno F. Borra.* 392, 375, 105-E7 (1992)

Optimal Grazing Incidence Optics and Its Application to Wide-Field X-Ray Imaging. *Christopher J. Burrows, Richard Burg, & Riccardo Giacconi.* 392, 760, 111-F13 (1992)

Liquid Mirrors: Optical Shop Tests and Contributions to the Technology. *E. F. Borra, R. Content, L. Girard, S. Szapiel, L. M. Tremblay, & E. Boily.* 393, 829, 126-C1 (1992)

The Ultraviolet Imaging Telescope: Design and Performance. *Theodore P. Stecher, Gerald R. Baker, Donna D. Bartoe, Frank H. Bauer, Albert Blum, Ralph C. Bohlin, Harvey R. Butcher, Peter C. Chen, Nicholas R. Collins, Robert H. Cornett, John J. Deily, Michael R. Greason, Gregory S. Hennessy, Jesse K. Hill, Robert S. Hill, Paul M. Hintzen, Joan E. Isensee, Peter J. Kenny, Wayne B. Landsman, David L. Linard, Stephen P. Maran, Susan G. Neff, Granville R. Nichols, Joseph Novello, Robert W. O'Connell, Joel D. Offenberg, Ronald A. Parise, Barbara B. Pfarr, Thomas B. Plummer, Foy F. Richardson, Morton S. Roberts, Susan D. Sitko, Andrew M. Smith, Alfred K. Stober, John D. Stolarik, & Jack C. Tebay.* 395, L1, 144-C7 (1992)

The Advanced Cosmic Microwave Explorer: A Millimeter-Wave Telescope and Stabilized Platform. *P. R. Meinhold, A. O. Chingcuanco, J. O. Gundersen, J. A. Schuster, M. D. Seiffert, P. M. Lubin, D. Morris, & T. Villela.* 406, 12, 55-C1 (1993)

Tip-Tilt Compensation: Resolution Limits for Ground-based Telescopes Using Laser Guide Star Adaptive Optics. *Scot S. Olivier, Claire E. Max, Donald T. Gavel, & James M. Brase.* 407, 428, 74-D1 (1993)

Imaging with Ultra-Resolution in the Presence of Strong Scattering. *T. J. Cornwell & Ramesh Narayan.* 408, L68, 89-G1 (1993)

Calibration of the Energetic Gamma-Ray Experiment Telescope (EGRET) for the *Compton Gamma-Ray Observatory*. *D. J. Thompson, D. L. Bertsch, C. E. Fichtel, R. C. Hartman, R. Hofstadter, E. B. Hughes, S. D. Hunter, B. W. Hughlock, G. Kanbach, D. A. Kniffen, Y. C. Lin, J. R. Mattox, H. A. Mayer-Hasselwander, C. von Montigny, P. L. Nolan, H. I. Nel, K. Pinkau, H. Rothermel, E. J. Schneid, M. Sommer, P. Sreekumar, D. Tieger, & A. H. Walker.* 86, 629, 22-F1 (1993)

Instrument Description and Performance of the Imaging Gamma-Ray Telescope COMPTEL aboard the *Compton Gamma-Ray Observatory*. *V. Schönfelder, H. Aarts, K. Bennett, H. de Boer, J. Clear, W. Collmar, A. Connors, A. Deerenberg, R. Diehl, A. von Dordrecht, J. W. den Herder, W. Hermsen, M. Kippen, L. Kuiper, G. Lichti, J. Lockwood, J. Macri, M. McConnell, D. Morris, R. Much, J. Ryan, G. Simpson, M. Snelling, G. Stacy, H. Steinle, A. Strong, B. N. Swanenburg, B. Taylor, C. de Vries, & C. Winkler.* 86, 657, 23-A5 (1993)

In-Flight Performance and Preliminary Results from the Far Ultraviolet Space Telescope (Faust) Flown on ATLAS-1. *Stuart Bowyer, Timothy P. Sasseen, Michael Lampton, & Xiaoyi Wu.* 415, 875, 198-G12 (1993)

Optical Shop Tests of a f/1.2 2.5 Meter Diameter Liquid Mirror. *E. F. Borra, R. Content, & L. Girard.* 418, 943, 244-D1 (1993)

A Wide Sky Coverage Ferrofluid Mercury Telescope. *William L. H. Shuter & Lorne A. Whitehead.* 424, L139, 79-F12 (1994)

The Infrared Telescope in Space (IRTS). *H. Murakami, J. Bock, M. M. Freund, H. Guo, T. Hirao, A. E. Lange, H. Matsuhara, T. Matsumoto, S. Matsuura, T. J. McMahon, M. Murakami, T. Nakagawa, M. Noda, K. Noguchi, H. Okuda, K. Okumura, T. Onaka, T. L. Roellig, S. Sato, H. Shibai, T. Tanabé, T. Watabe, T. Yagi, N. Yajima, & M. Yui.* 428, 354, 132-E8 (1994)

INTEGRAL: Mission and Satellite. *Oscar Pace, Dominique Pawlak, & Chris Winkler.* 92, 339, 36-C13 (1994)

The *Compton Gamma Ray Observatory*. *N. Gehrels, E. Chipman, & D. Kniffen.* 92, 351, 36-E1 (1994)

A Positron Annihilation Radiation Telescope Using Laue Diffraction in a Crystal Lens. *Peter von Ballmoos & Robert K. Smither.* 92, 663, 40-F7 (1994)

A New Telescope for Wide-Band Gamma-Ray Astronomy: The Silicon Compton Recoil Telescope (SCRT). *O. Tümay Tümer, Farid Ait-Ouamer, Scott C. Blair, Gary L. Case, Brendan P. O'Neill, Terrence J. O'Neill, R. Stephen White, & Allen D. Zych.* 92, 671, 40-G2 (1994)

Cylindrical Gamma-Ray Montitor (CYGAM) Concept. *N. G. Leikov & G. S. Bisnovatyi-Kogan.* 92, 679, 41-A1 (1994)

The Polarization Sensitivity of the Liquid Xenon Imaging Telescope. *E. Aprile, A. Bolotnikov, D. Chen, R. Mukherjee, & F. Xu.* 92, 689, 41-A13 (1994)

Detection of a VLBI Counterjet in NGC 1275: A Possible Probe of the Parsec-Scale Accretion Region. *R. C. Walker, J. D. Romney, & J. M. Benson.* 430, L45, 165-F13 (1994)

UBC/Laval 2.7 Meter Liquid Mirror Telescope. *Paul Hickson, Ermanno F. Borra, Rémi Cabanac, Robert Content, Brad K. Gibson, & Gordon A. H. Walker.* 436, L201, 282-F2 (1994)

Adaptive Optics Experiments Using Sodium Laser Guide Stars. *M. Lloyd-Hart, J. R. P. Angel, B. Jacobsen, D. Wittman, R. Dekany, D. McCarthy, E. Kibblewhite, W. Wild, B. Carter, & J. Beletic.* 439, 455, 27-D2 (1995)

Determination of the Galactic ^{26}Al Source Distribution with a Novel Imaging Telescope. *E. Aprile, E. L. Chupp, A. Bolotnikov, & P. P. Dunphy.* 453, 685, 293-C5 (1995)

Performance and Preliminary Calibration of the Hopkins Ultraviolet Telescope on the Astro-2 Mission. *Jeffrey W. Kruk, Samuel T. Durrance, Gerard A. Kriss, Arthur F. Davidsen, William P. Blair, Brian R. Espey, & David S. Finley.* 454, L1, 307-C1 (1995)

TRANSITION PROBABILITIES

Dielectronic Recombination Rate Coefficients for S^{q+} (q = 1–5) Ions. *N. R. Badnell.* 379, 356, 167-D9 (1991)

Atomic Data for Resonance Absorption Lines. I. Wavelengths Longward of the Lyman Limit. *Donald C. Morton.* 77, 119, 45-B1 (1991)

Collisional Rates and Cooling within Atomic Hydrogen Plasmas. *T. T. Scholz & H. R. J. Walters.* 380, 302, 180-A5 (1991)

A Table of Astronomically Important Ro-vibrational Transitions for the H_3^+ Molecular Ion. *Lancelot Kao, Takeshi Oka, Steven Miller, & Jonathan Tennyson.* 77, 317, 48-E1 (1991)

Collision Strengths and Excitation Rate Coefficients for Transitions in Fe XXI. *Kanti M. Aggarwal.* 77, 677, 54-A1 (1991)

TRANSITION RATES

Collisional Excitation and Radiative Properties of N II: The Strong Intercombination (^1D–$^3P^o$) Transition at 748 Å. *T. M. Tripp, D. E. Shemansky, G. K. James, & J. M. Ajello.* 368, 641, 33-B6 (1991)

High-Resolution Absorption Cross Sections of Carbon Monoxide Bands at 295 K between 91.7 and 100.4 Nanometers. *G. Stark, K. Yoshino, Peter L. Smith, K. Ito, & W. H. Parkinson.* 369, 574, 44-G13 (1991)

Cross Sections for Production of H($2p$, $2s$, $1s$) by Electron Collisional Dissociation of H_2. *J. M. Ajello, D. E. Shemansky, & G. K. James.* 371, 422, 65-D5 (1991)

Accurate Oscillator Strengths of Astrophysical Interest for Neutral Oxygen. *E. Biémont, A. Hibbert, M. Godefroid, N. Vaeck, & B. C. Fawcett.* 375, 818, 122-G1 (1991)

Effective Collision Strengths among Fine-Structure Levels of Ca XV: Erratum. *K. M. Aggarwal, K. A. Berrington, & F. P. Keenan.* 77, 441, 50-F1 (1991)

TURBULENCE

On the Transport and Acceleration of Solar Flare Particles in a Coronal Loop. *James M. Ryan & Martin A. Lee.* 368, 316, 26-A7 (1991)

Turbulent Compressible Convection. *Fausto Cattaneo, Nicholas H. Brummell, Juri Toomre, Andrea Malagoli, & Neal E. Hurlburt.* 370, 282, 50-F10 (1991)
Stellar Turbulent Convection: A New Model and Applications. *V. M. Canuto & I. Mazzitelli.* 370, 295, 51-A1 (1991)
VLA and VLBI Angular Broadening Measurements: The Distribution of Interstellar Scattering at Low Galactic Latitudes. *A. L. Fey, S. R. Spangler, & J. M. Cordes.* 372, 132, 75-F1 (1991)
Thermal and Mechanical Damping of Solar *p*-Modes. *Peter Goldreich & Pawan Kumar.* 374, 366, 102-F1 (1991)
Consequences of Strong Pitch-Angle Diffusion of Particles in Solar Flares. *P. A. Bespalov, V. V. Zaitsev, & A. V. Stepanov.* 374, 369, 102-F5 (1991)
On the Orbital Circularization of Close Binaries. *Itzhak Goldman & Tsevi Mazeh.* 376, 260, 128-B8 (1991)
The Dissipation of Magnetohydrodynamic Turbulence Responsible for Interstellar Scintillation and the Heating of the Interstellar Medium. *Steven R. Spangler.* 376, 540, 133-B5 (1991)
First Results from the Goddard High-Resolution Spectrograph: Evidence for Photospheric Microturbulence in Early O Stars: Are Surface Gravities Systematically Underestimated? *I. Hubeny, S. R. Heap, & B. Altner.* 377, L33, 143-D11 (1991)
On Molecular Cloud Scaling Laws and Star Formation. *R. N. Henriksen.* 377, 500, 146-A1 (1991)
The Edges of Molecular Clouds: Fractal Boundaries and Density Structure. *E. Falgarone, T. G. Phillips, & C. K. Walker.* 378, 186, 153-C8 (1991)
Turbulence, Convection, and Stability in Accretion Disks. *César Meirelles Filho.* 378, 266, 154-C4 (1991)
Coherent Radiation from Energetic Electron Streams via Collisionless Bremsstrahlung in Strong Plasma Turbulence. *James C. Weatherall & Gregory Benford.* 378, 543, 159-B8 (1991)
Dynamo Magnetic Field Modes in Thin Astrophysical Disks: An Adiabatic Computational Approximation. *T. F. Stepinski & E. H. Levy.* 379, 343, 167-C9 (1991)
Turbulently Generated Magnetic Fields in Clusters of Galaxies. *Itzhak Goldman & Yoel Rephaeli.* 380, 344, 182-E8 (1991)
Time Variability of Pulsar Dispersion Measures. *J. A. Phillips & A. Wolszczan.* 382, L27, 205-D1 (1991)
Faraday Rotation Measure Irregularities through the Supernova Remnant CTA 1: A Site of Enhanced Interstellar Plasma Turbulence. *John H. Simonetti.* 386, 170, 26-C3 (1992)
Galaxy-driven Turbulence and the Growth of Intracluster Magnetic Fields. *David S. De Young.* 386, 464, 31-B8 (1992)
Turbulence in Cooling Flows. *Catherine F. Westbury & R. N. Henriksen.* 388, 64, 49-G12 (1992)
Proton Acceleration in Neutron Star Magnetospheres. *I. A. Smith, J. I. Katz, & P. H. Diamond.* 388, 148, 50-G7 (1992)
Further Improvements of a New Model for Turbulent Convection in Stars. *V. M. Canuto & I. Mazzitelli.* 389, 724, 70-D1 (1992)
A Self-consistent Turbulent Model for Solar Coronal Heating. *J. Heyvaerts & E. R. Priest.* 390, 297, 77-F3 (1992)
Turbulent Convection with Overshooting: Reynolds Stress Approach. *V. M. Canuto.* 392, 218, 103-F1 (1992)
Atmospheric Fluctuations: Empirical Structure Functions and Projected Performance of Future Instruments. *M. Bester, W. C. Danchi, C. G. Degiacomi, L. J. Greenhill, & C. H. Townes.* 392, 357, 105-D1 (1992)
Dynamo Action in Stratified Convection with Overshoot. *Åke Nordlund, Axel Brandenburg, Richard L. Jennings, Michel Rieutord, Juha Ruokolainen, Robert F. Stein, & Ilkka Tuominen.* 392, 647, 110-C6 (1992)
Nonlinear Restrictions on Dynamo Action. *Samuel I. Vainshtein & Fausto Cattaneo.* 393, 165, 116-B5 (1992)
Swinging Spiral Waves and Alfvén Turbulence in Accretion Disks. *M. Tagger, R. Pellat, & F. V. Coroniti.* 393, 708, 124-F1 (1992)
Propagation Conditions of Relativistic Electrons in the Inner Heliosphere. *M.-B. Kallenrode, G. Wibberenz, & S. Hucke.* 394, 351, 132-C11 (1992)
Development of Magnetohydrodynamic Turbulence in Coronal Loops. *Daniel O. Gómez & Constantino Ferro Fontán.* 394, 662, 137-F8 (1992)
Pressure-confined Clumps in Magnetized Molecular Clouds. *Frank Bertoldi & Christopher F. McKee.* 395, 140, 142-A1 (1992)
Enhanced Damping of Alfvén Waves in the Solar Corona by a Turbulent Wave Spectrum. *Robert G. Kleva & J. F. Drake.* 395, 697, 152-A5 (1992)
The Spectrum of Random Magnetic Fields in the Mean Field Dynamo Theory of the Galactic Magnetic Field. *Russell M. Kulsrud & Stephen W. Anderson.* 396, 606, 165-A1 (1992)
Evidence for Transonic Flows in the Solar Granulation. *A. Nesis, T. J. Bogdan, F. Cattaneo, A. Hanslmeier, M. Knölker, & A. Malagoli.* 399, L99, 201-D10 (1992)
On the Virial Theorem for Turbulent Molecular Clouds. *Christopher F. McKee & Ellen G. Zweibel.* 399, 551, 204-F7 (1992)
Band Splitting in Solar Type II Radio Bursts. *R. A. Treumann & J. LaBelle.* 399, L167, 208-E7 (1992)
Fast Dynamos, Cosmic Rays, and the Galactic Magnetic Field. *E. N. Parker.* 401, 137, 222-F7 (1992)
Interstellar Cloud Shapes: A Minimum-Hypothesis Account Involving a Purely Gravitational Effect. *Robert C. Fleck, Jr.* 401, 146, 222-G3 (1992)
The Observation of Correlated Velocity Structures in a Translucent Molecular Cloud and Implications for Turbulence. *L. Magnani, T. N. LaRosa, & S. N. Shore.* 402, 226, 3-G10 (1993)
Helioseismological Test of a New Model for Stellar Convection. *L. Paternò, R. Ventura, V. M. Canuto, & I. Mazzitelli.* 402, 733, 11-F3 (1993)
Direct 75 Milliarcsecond Images from the Multiple Mirror Telescope with Adaptive Optics. *M. Lloyd-Hart, R. Dekany, B. McLeod, D. Wittman, D. Colucci, D. McCarthy, & R. Angel.* 402, L81, 13-B7 (1993)
Refractive Interstellar Scintillation of Pulsar Intensities at 74 MHz. *Y. Gupta, B. J. Rickett, & W. A. Coles.* 403, 183, 16-C3 (1993)
608 MHz VLBI Observations of the Compact Double Radio Source 2050+364: Constraints on Interstellar Scattering. *Alan L. Fey & Robert L. Mutel.* 404, 197, 30-D1 (1993)
Wave Generation in a Sunspot. *Jeongwoo W. Lee.* 404, 372, 32-D11 (1993)
On the Generation of "Strong" Magnetic Fields. *S. I. Vainshtein, E. N. Parker, & R. Rosner.* 404, 773, 38-E5 (1993)
On the Relation between Fanaroff-Riley Types I and II Radio Galaxies. *David S. De Young.* 405, L13, 47-C8 (1993)
Normal Incidence X-Ray Telescope Power Spectra of X-Ray Emission from Solar Active Regions. I. Observations. *Daniel O. Gómez, Petrus C. H. Martens, & Leon Golub.* 405, 767, 52-E9 (1993)
Normal Incidence X-Ray Telescope Power Spectra of X-Ray Emission from Solar Active Regions. II. Theory. *Daniel O. Gómez, Petrus C. H. Martens, & Leon Golub.* 405, 773, 52-F3 (1993)
Shock Propagation in a Turbulent Cloud. *Toshiya Kimura & Makoto Tosa.* 406, 512, 64-B10 (1993)
Turbulent Mixing Layers in the Interstellar Medium of Galaxies. *Jonathan D. Slavin, J. Michael Shull, & Mitchell C. Begelman.* 407, 83, 70-B7 (1993)
A Theory of Nonlocal Mixing-Length Convection. I. The Moment Formalism. *Scott A. Grossman, Ramesh Narayan, & David Arnett.* 407, 284, 72-F1 (1993)
On the Generation of Sound by Turbulent Convection. I. A Numerical Experiment. *Thomas J. Bogdan, Fausto Cattaneo, & Andrea Malagoli.* 407, 316, 73-A7 (1993)
Tip-Tilt Compensation: Resolution Limits for Ground-based Telescopes Using Laser Guide Star Adaptive Optics. *Scot S. Olivier, Claire E. Max, Donald T. Gavel, & James M. Brase.* 407, 428, 74-D1 (1993)
Turbulent Magnetohydrodynamic Dynamo for Accretion Disks Using the Cross-Helicity Effect. *Akira Yoshizawa & Nobumitsu Yokoi.* 407, 540, 77-C8 (1993)
Quasi-linear Theory and the Phenomenology of Interplanetary Solar Particle Transport. *Wolfgang Dröge, Ulrich Achatz, Wolfgang Wanner, Reinhard Schlickeiser, & Gerd Wibberenz.* 407, L95, 82-G1 (1993)
Cosmic Turbulence Revisited. *I. Goldman & V. M. Canuto.* 409, 495, 105-B1 (1993)
A Similarity Solution to the Kinematic $\alpha^2\omega$ Dynamo Equation with Time-dependent Coefficients. *Chung-Ming Ko.* 410, 128, 113-F8 (1993)
The Dynamics of Magnetic Flux Rings. *E. E. DeLuca, G. H. Fisher, & B. M. Patten.* 411, 383, 132-B4 (1993)
A Turbulent Model of Time Variability in X-Ray Binary Pulsars. *Masahiro Hoshino & Toshiaki Takeshima.* 411, L79, 142-D9 (1993)
The Effects of Zonal Atmospheric Currents on the Spectra of Rotating Early-Type Stars. *Steven R. Cranmer & George W. Collins II.* 412, 720, 152-F12 (1993)
High-Resolution Observations of Turbulence in the Subcondensation TMC-1C in Heiles' Cloud 2: Estimation of the Velocity Spectrum of Turbulence. *Y. Kitamura, K. Sunada, M. Hayashi, & T. Hasegawa.* 413, 221, 159-A9 (1993)
Turbulent Convection with Overshooting: Reynolds Stress Approach. II. *V. M. Canuto.* 416, 331, 205-B12 (1993)
Turbulent Generation of Trapped Oscillations in Black Hole Accretion Disks. *Michael A. Nowak & Robert V. Wagoner.* 418, 187, 233-D1 (1993)

On the Formation of Spheroidal Stellar Systems and the Nature of Supersonic Turbulence in Star-forming Regions. *Guillermo Tenorio-Tagle, Casiana Muñoz-Tuñon, & Donald P. Cox.* 418, 767, 242-B3 (1993)

Star Formation at Compressed Interfaces in Turbulent Self-gravitating Clouds. *B. G. Elmegreen.* 419, L29, 252-E1 (1993)

The Evolution of Accreting Stars with Turbulent Mixing. *M. Y. Fujimoto.* 419, 768, 257-B13 (1993)

Flame Modeling in Supernovae. *A. Khokhlov.* 419, L77, 259-E1 (1993)

Proton and Electron Mean Free Paths: The Palmer Consensus Revisited. *John W. Bieber, William H. Matthaeus, Charles W. Smith, Wolfgang Wanner, May-Britt Kallenrode, & Gerd Wibberenz.* 420, 294, 4-E5 (1994)

Dynamics of the Magnetic Shearing Instability and Magnetohydrodynamic Turbulence in Accretion Disks. I. Vertical Magnetic Field. *W. Zhang, P. H. Diamond, & E. T. Vishniac.* 420, 705, 11-F2 (1994)

The Dynamics of Charged Particles in Turbulent Astrophysical Plasmas. *Rüdiger Dung & Vahé Petrosian.* 421, 550, 25-A6 (1994)

Turbulent Acceleration in Solar Flares. *D. B. Melrose.* 90, 623, 11-E1 (1994)

Weightiness of the Dispersive Rate in Stochastic Acceleration Processes. *J. Pérez-Peraza & A. Gallegos-Cruz.* 90, 669, 12-B1 (1994)

On Sound Generation by Turbulent Convection: A New Look at Old Results. *Z. E. Musielak, R. Rosner, R. F. Stein, & P. Ulmschneider.* 423, 474, 52-A13 (1994)

Hierarchical Structure in Nearly Pressureless Flows as a Consequence of Self-similar Statistics. *Enrique Vázquez-Semadeni.* 423, 681, 57-A12 (1994)

Supernovae Deflagrations in Three Dimensions. *A. Khokhlov.* 424, L115, 79-D1 (1994)

Differential Rotation and Turbulent Convection: A New Reynolds Stress Model and Comparison with Solar Data. *V. M. Canuto, F. O. Minotti, & O. Schilling.* 425, 303, 84-A9 (1994)

A New Path for the Electron Bulk Energization in Solar Flares: Fermi Acceleration by Magnetohydrodynamic Turbulence in Reconnection Outflows. *T. N. LaRosa, R. L. Moore, & S. N. Shore.* 425, 856, 92-D8 (1994)

Angular Scattering of Solar Radio Emission by Coronal Turbulence. *T. S. Bastian.* 426, 774, 108-B3 (1994)

Anisotropic Scattering of OH/IR Stars toward the Galactic Center. *Dale A. Frail, Philip J. Diamond, James M. Cordes, & Huib Jan Van Langevelde.* 427, L43, 117-F6 (1994)

Eigenfunction Solution of Boltzmann's Equation for the Case of a Focusing Magnetic Field with Finite Helicity. *H. L. Pauls & R. A. Burger.* 427, 927, 124-B9 (1994)

Flat Rotation Curves: A Result of the Helical Inverse Cascade in Turbulent Media? *R. D. Prabhu & V. Krishan.* 428, 483, 136-B13 (1994)

Large Eddy Simulation of Turbulence: A Subgrid Scale Model Including Shear, Vorticity, Rotation, and Buoyancy. *V. M. Canuto.* 428, 729, 139-C13 (1994)

Properties of Acoustic Sources in the Sun. *Pawan Kumar.* 428, 827, 140-E7 (1994)

Hypersonic Acceleration and Turbulence of H_2O Masers in W49N. *C. R. Gwinn.* 429, 241, 147-B3 (1994)

Statistical Analysis of Turbulence in Molecular Clouds. *Mark S. Miesch & John Bally.* 429, 645, 153-F13 (1994)

High-Resolution Simulations of Compressible Convection Using the Piecewise-parabolic Method. *David H. Porter & Paul R. Woodward.* 93, 309, 45-G1 (1994)

A Summary of Extreme Scattering Events and a Descriptive Model. *R. Fiedler, B. Dennison, K. J. Johnston, E. B. Waltman, & R. S. Simon.* 430, 581, 169-A13 (1994)

Galactic Structures Associated with Extreme Scattering Events in the Radio Light Curves of NRAO 140, 0954+658, and 2352+495. *R. Fiedler, T. Pauls, K. J. Johnston, & B. Dennison.* 430, 595, 169-C1 (1994)

Charged-Particle Motion in Multidimensional Magnetic Field Turbulence. *J. Giacalone & J. R. Jokipii.* 430, L137, 175-B10 (1994)

Stochastic Reacceleration of Cosmic Rays in the Interstellar Medium. *E. S. Seo & V. S. Ptuskin.* 431, 705, 187-C10 (1994)

Toward a Theory of Interstellar Turbulence. I. Weak Alfvénic Turbulence. *S. Sridhar & P. Goldreich.* 432, 612, 203-E11 (1994)

On the Effects of a Weak Magnetic Field on Turbulent Transport. *Fausto Cattaneo.* 434, 200, 228-B12 (1994)

Highly Ionized Gas in the Galactic Disk: The $l = 295°$, $b = 0°$ Interarm Direction. *Kenneth R. Sembach.* 434, 244, 228-G3 (1994)

Transition to Turbulence in Solar Surges. *Russell B. Dahlburg & Judith T. Karpen.* 434, 766, 238-D1 (1994)

The Study of Coronal Plasma Structures and Fluctuations with Faraday Rotation Measurements. *Takayuki Sakurai & Steven R. Spangler.* 434, 773, 238-E6 (1994)

Synthesized Spectra of Turbulent Clouds. *E. Falgarone, D. C. Lis, T. G. Phillips, A. Pouquet, D. H. Porter, & P. R. Woodward.* 436, 728, 275-E1 (1994)

Ensemble-averaged Thermonuclear Reaction Rates for Turbulent Convection in Stellar Interiors. *Lawrence D. Cloutman.* 437, 384, 288-D9 (1994)

Toward a Theory of Interstellar Turbulence. II. Strong Alfvénic Turbulence. *P. Goldreich & S. Sridhar.* 438, 763, 14-F12 (1995)

The Wall of Reconnection-driven Magnetohydrodynamic Turbulence in a Large Solar Flare. *R. L. Moore, T. N. LaRosa, & L. E. Orwig.* 438, 985, 17-F6 (1995)

Adaptive Optics Experiments Using Sodium Laser Guide Stars. *M. Lloyd-Hart, J. R. P. Angel, B. Jacobsen, D. Wittman, R. Dekany, D. McCarthy, E. Kibblewhite, W. Wild, B. Carter, & J. Beletic.* 439, 455, 27-D2 (1995)

Angular Scattering of Radio Waves: Implications for Mode Coupling in the Solar Corona. *T. S. Bastian.* 439, 494, 27-G9 (1995)

Equipartition of Energy for Turbulent Astrophysical Fluids: Accounting for the Unseen Energy in Molecular Clouds. *Ellen G. Zweibel & Christopher F. McKee.* 439, 779, 35-C13 (1995)

Turbulent Diffusion and Its Effects on the Chemistry of Molecular Clouds. *Taoling Xie, Mark Allen, & William D. Langer.* 440, 674, 52-E1 (1995)

Alfvén Waves in Interstellar Gasdynamics. *Christopher F. McKee & Ellen G. Zweibel.* 440, 686, 52-F2 (1995)

Propagation of Galactic Cosmic Rays under Diffusive Reacceleration. *U. Heinbach & M. Simon.* 441, 209, 62-C4 (1995)

A Turbulent Model for the Interstellar Medium. I. Threshold Star Formation and Self-Gravity. *Enrique Vázquez-Semadeni, Thierry Passot, & Annick Pouquet.* 441, 702, 71-F1 (1995)

Large HCO^+ and HCN Abundances in the Translucent Cloud toward PKS 0528+134. *Michiel R. Hogerheijde, Eugène J. de Geus, Marco Spaans, Huib Jan van Langevelde, & Ewine F. van Dishoeck.* 441, L93, 76-D4 (1995)

On Magnetic Turbulence in Interstellar Clouds. *P. C. Myers & V. K. Khersonsky.* 442, 186, 79-F9 (1995)

Modeling of Shallow and Inefficient Convection in the Outer Layers of the Sun Using Realistic Physics. *Yong-Cheol Kim, Peter A. Fox, Sabatino Sofia, & Pierre Demarque.* 442, 422, 82-G1 (1995)

Turbulent Convection in Thin Accretion Disks. *Itzhak Goldman & Amri Wandel.* 443, 187, 97-F6 (1995)

Electron Density Power Spectrum in the Local Interstellar Medium. *J. W. Armstrong, B. J. Rickett, & S. R. Spangler.* 443, 209, 98-A6 (1995)

On the Supersonic Turbulence of NGC 604. *Nanci S. P. Sabalisck, Guillermo Tenorio-Tagle, Héctor O. Castañeda, & Casiana Muñoz-Tuñón.* 444, 200, 116-B8 (1995)

GHRS Observations of Cool, Low-Gravity Stars. II. Flow and Turbulent Velocities in the Outer Atmosphere of γ Crucis (M3.4 III). *Kenneth G. Carpenter, Richard D. Robinson, & Philip G. Judge.* 444, 424, 119-D7 (1995)

Nonlinear Alfvén Wave Propagation in Nonhomogeneous Collisionless Media. *Ildar K. Khabibrakhmanov & Danny Summers.* 444, 796, 127-D9 (1995)

Numerical Simulations of Stratified Compressible Convection with Internal Heating and Disklike Variable Gravity. *W. Cabot, K. W. Thompson, & J. B. Pollack.* 98, 315, 26-C4 (1995)

Radio Interferometer Observations of Solar Wind Turbulence from the Orbit of *Helios* to the Solar Corona. *Steven R. Spangler & Takayuki Sakurai.* 445, 999, 149-B10 (1995)

The Dynamics of Flux Tubes in a High-β Plasma. I. A General Description. *Ethan T. Vishniac.* 446, 724, 166-B1 (1995)

Dynamo-generated Turbulence and Large-Scale Magnetic Fields in a Keplerian Shear Flow. *Axel Brandenburg, Åke Nordlund, Robert F. Stein, & Ulf Torkelsson.* 446, 741, 166-C7 (1995)

Anisotropic Modal Energy Transfer in Interstellar Turbulence. *David Montgomery & William H. Matthaeus.* 447, 706, 185-F10 (1995)

The Dynamics of Two-dimensional Local and Finite Perturbations in Envelopes of Rotating White Dwarfs. I. *Patrick Godon & Giora Shaviv.* 447, 797, 187-A3 (1995)

Turbulence in Molecular Clouds. *John Dubinski, Ramesh Narayan, & T. G. Phillips.* 448, 226, 195-C6 (1995)

On the Generation of Flux-Tube Waves in Stellar Convection Zones. II. Improved Treatment of Longitudinal Tube Wave Generation. *Z. E. Musielak, R. Rosner, H. P. Gail, & P. Ulmschneider.* 448, 865, 206-G7 (1995)

The First Second of a Type II Supernova: Convection, Accretion, and Shock Propagation. *H.-Thomas Janka & Ewald Müller.* 448, L109, 209-D9 (1995)

Propagation of Turbulent Flames in Supernovae. *Alexei M. Khokhlov.* 449, 695, 222-D7 (1995)

Self-Consistency Constraints on the Dynamo Mechanism. *A. Bhattacharjee & Y. Yuan.* 449, 739, 223-A6 (1995)

Sequential Star Formation in OB Associations: The Role of Molecular Cloud Turbulence. *Bruce G. Elmegreen, Toshiya Kimura, & Makoto Tosa.* 451, 675, 256-E1 (1995)

A Numerical Study of Rayleigh-Taylor Instability in Magnetic Fluids. *Byung-Il Jun, Michael L. Norman, & James M. Stone.* 453, 332, 285-F9 (1995)

On the Interaction of Convection and Rotation in Stars. *Pawan Kumar, Ramesh Narayan, & Abraham Loeb.* 453, 480, 287-F6 (1995)

Vertical Scales of Turbulence at the Mount Wilson Observatory. *Robert N. Treuhaft, Stephen T. Lowe, Manfred Bester, William C. Danchi, & Charles H. Townes.* 453, 522, 288-D12 (1995)

Acceleration Rates and Injection Efficiencies in Oblique Shocks. *Donald C. Ellison, Matthew G. Baring, & Frank C. Jones.* 453, 873, 296-A7 (1995)

The H II Region Sharpless 170: A Multiscale Analysis of the Hα Velocity Field. *Marc-Antoine Miville-Deschênes, Gilles Joncas, & Daniel Durand.* 454, 316, 303-F1 (1995)

Optimization and Performance of Adaptive Optics for Imaging Extrasolar Planets. *Steven M. Stahl & David G. Sandler.* 454, L153, 316-F13 (1995)

Turbulent and Chaotic Dynamics Underlying Solar Magnetic Variability. *J. K. Lawrence, A. C. Cadavid, & A. A. Ruzmaikin.* 455, 366, 323-B9 (1995)

A Turbulent Model for the Interstellar Medium. II. Magnetic Fields and Rotation. *Thierry Passot, Enrique Vázquez-Semadeni, & Annick Pouquet.* 455, 536, 329-D1 (1995)

ULTRAVIOLET: GALAXIES

Hard X-Ray Tests of the Unified Model for an Ultraviolet-detected Sample of Seyfert 2 Galaxies. *John S. Mulchaey, Richard F. Mushotzky, & Kimberly A. Weaver.* 390, L69, 84-G1 (1992)

Lyα Emission from Cooling Flows and Measures of the Dust Content of Rich Clusters of Galaxies. *Esther M. Hu.* 391, 608, 95-E7 (1992)

From Fairall 9 to High-z Objects: Pattern of Change in Ionization Structure. *Wei Zheng, Li-Zhi Fang, & Luc Binette.* 392, 74, 102-A1 (1992)

Intergalactic Ionizing Flux from Active Galactic Nuclei. *Nobuo Terasawa.* 392, L15, 106-C1 (1992)

Hopkins Ultraviolet Telescope Observations of the Far-Ultraviolet Spectrum of NGC 4151. *G. A. Kriss, A. F. Davidsen, William P. Blair, C. W. Bowers, W. V. Dixon, S. T. Durrance, P. D. Feldman, H. C. Ferguson, R. C. Henry, R. A. Kimble, J. W. Kruk, Knox S. Long, H. W. Moos, & O. Vancura.* 392, 485, 108-C10 (1992)

Correlated Hard X-Ray and Ultraviolet Variability in NGC 5548. *J. Clavel, K. Nandra, F. Makino, K. A. Pounds, G. A. Reichert, C. M. Urry, W. Wamsteker, M. Peracaula-Bosch, G. C. Stewart, & C. Otani.* 393, 113, 115-E1 (1992)

Ultraviolet Imaging Telescope Ultraviolet Images: Large-Scale Structure, H II Regions, and Extinction in M81. *Jesse K. Hill, Ralph C. Bohlin, Kwang-Ping Cheng, Paul M. N. Hintzen, Wayne B. Landsman, Susan G. Neff, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L37, 145-B9 (1992)

Ultraviolet Imaging Telescope Observations of the Scl Galaxy NGC 628 (M74). *Peter C. Chen, Robert H. Cornett, Morton S. Roberts, Ralph C. Bohlin, Susan G. Neff, Robert W. O'Connell, Ronald A. Parise, Andrew M. Smith, & Theodore P. Stecher.* 395, L41, 145-C5 (1992)

The Ultraviolet Absorption Spectrum of the Quasar H1821+643 ($z = 0.297$). *John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, George F. Hartig, & Richard F. Green.* 397, 68, 168-G10 (1992)

An Objective Classification Scheme for QSO Spectra. *Paul J. Francis, Paul C. Hewett, Craig B. Foltz, & Frederic H. Chaffee.* 398, 476, 190-A13 (1992)

Seyfert Galaxy Ultraviolet Emission-Line Intensities and Variability: A Self-consistent Photoionization Analysis Applied to Broad-Line–emitting Gas in NGC 3783. *Anuradha P. Koratkar & Gordon M. MacAlpine.* 401, 110, 222-D3 (1992)

A Survey of Ultraviolet Variability in Blazars. *Rick Edelson.* 401, 516, 229-B1 (1992)

The Ultraviolet Color Gradient in the Late-Type Spiral Galaxy M33. *Wayne B. Landsman, Morton S. Roberts, Ralph C. Bohlin, Robert W. O'Connell, Andrew M. Smith, & Theodore P. Stecher.* 401, L83, 233-B3 (1992)

Implications of Lyman-Alpha Equivalent Widths in Active Galactic Nuclei. *Joseph C. Shields & Gary J. Ferland.* 402, 425, 8-A1 (1993)

Simultaneous *ROSAT*, *GINGA*, VLA, *IUE*, and Optical Observations of the Bright Quasar H1821+643. *Michiel Kolman, Jules P. Halpern, Chris R. Shrader, Alexei V. Filippenko, Henner H. Fink, & Stephan G. Schaeidt.* 402, 514, 9-A1 (1993)

The Ultraviolet–to–Near-Infrared Spectral Flux Distribution of Four BL Lacertae Objects. *R. Falomo, A. Treves, L. Chiappetti, L. Maraschi, E. Pian, & E. G. Tanzi.* 402, 532, 9-B7 (1993)

Ultraviolet Imaging Telescope Images: Limits on Recent Star Formation in Holmberg IX. *Jesse K. Hill, Susan E. Gessner, Ralph C. Bohlin, Kwang-Ping Cheng, Paul M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 402, L45, 12-E1 (1993)

NGC 5018: A Metal-poor Giant Elliptical. *Francesco Bertola, David Burstein, & Lucio M. Buson.* 403, 573, 22-F10 (1993)

An *IUE* Search for Star Formation in Ellipticals with Gaseous Disks. *Francesco Bertola, David Burstein, Lucio M. Buson, & Alvio Renzini.* 403, 577, 22-G1 (1993)

Simultaneous *Ginga* and *IUE* Observations of the Seyfert Galaxy NGC 3516. *Michiel Kolman, Jules P. Halpern, Christopher Martin, Hisamitsu Awaki, & Katsuji Koyama.* 403, 592, 23-A8 (1993)

Ultraviolet Polarimetry and Spectroscopy of the BL Lacertae Object PKS 2155−304. *Richard G. Allen, Paul S. Smith, J. R. P. Angel, Bryan W. Miller, Scott F. Anderson, & Bruce Margon.* 403, 610, 23-C1 (1993)

Extended Near-Ultraviolet Continuum Emission and the Nature of the Polarized Broad-Line Seyfert 2 Galaxies. *Richard W. Pogge & M. M. De Robertis.* 404, 563, 36-A7 (1993)

Variations of the Ultraviolet Fe II and Balmer Continuum Emission in the Seyfert Galaxy NGC 5548. *D. Maoz, H. Netzer, B. M. Peterson, J. Bechtold, R. Bertram, N. G. Bochkarev, T. E. Carone, M. Dietrich, A. V. Filippenko, W. Kollatschny, K. T. Korista, A. I. Shapovalova, J. C. Shields, P. S. Smith, U. Thiele, & R. M. Wagner.* 404, 576, 36-B8 (1993)

Ultraviolet Spectra of QSOs, BL Lacertae Objects, and Seyfert Galaxies. *Kenneth M. Lanzetta, David A. Turnshek, & Jennifer Sandoval.* 84, 109, 3-B1 (1993)

The Ultraviolet Absorption Spectrum of the Quasar PKS 0405−12 and the Local Density of Lyman-Alpha Absorption Systems. *John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, & George F. Hartig.* 405, 491, 49-B11 (1993)

Spectral Evolution of Stellar Populations Using Isochrone Synthesis. *Gustavo Bruzual A., & Stéphane Charlot.* 405, 538, 49-F11 (1993)

Damped Lyman-Alpha Absorption in Q0957+561A, B. *David A. Turnshek & Ralph C. Bohlin.* 407, 60, 69-G7 (1993)

Multifrequency Observations of the Optically Active Radio-quiet Quasar GQ Comae. II. Ultraviolet, Optical, and Infrared Continuum Variability. *Michael L. Sitko, Annamaria K. Sitko, Aneta Siemiginowska, & R. Szczerba.* 409, 139, 98-F5 (1993)

An Atlas of Ultraviolet Spectra of Star-forming Galaxies. *A. L. Kinney, R. C. Bohlin, D. Calzetti, N. Panagia, & Rosemary F. G. Wyse.* 86, 5, 14-B9 (1993)

The Narrow-Line Region of High-Luminosity Active Galactic Nuclei. *Beverley J. Wills, H. Netzer, M. S. Brotherton, Mingsheng Han, D. Wills, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 410, 534, 120-C11 (1993)

The Time Variability of the Ultraviolet Continuum and Lyman-Alpha in 3C 273. *M.-H. Ulrich, T. J.-L. Courvoisier, & W. Wamsteker.* 411, 125, 128-E13 (1993)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. I. The *IUE* Campaign. *C. M. Urry, L. Maraschi, R. Edelson, A. Koratkar, J. Krolik, G. Madejski, E. Pian, G. Pike, G. Reichert, A. Treves, W. Wamsteker, R. Bohlin, J. Bregman, W. Brinkmann, L. Chiappetti, T. Courvoisier, A. V. Filippenko, H. Fink, I. M. George, Y. Kondo, P. G. Martin, H. R. Miller, P. O'Brien, J. M. Shull, M. Sitko, A. E. Szymkowiak, G. Tagliaferri, S. Wagner, & R. Warwick.* 411, 614, 137-C9 (1993)

The Influence of QSO Emission-Line Velocity Shifts on Estimates of the Intergalactic Background Intensity. *Brian R. Espey.* 411, L59, 142-B7 (1993)

The Ultraviolet Radiation in Metal-rich Elliptical Galaxies. *Uffe Gråe Jørgensen & Peter Thejll.* 411, L67, 142-C5 (1993)

Ultraviolet Photometry of OB Associations in M31. *Jesse K. Hill, Joan E. Isensee, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 414, L9, 175-C11 (1993)

Statistics of QSO Broad Emission-Line Profiles. I. The C IV λ1549 Line and the λ1400 Feature. *Beverley J. Wills, M. S. Brotherton, D. Fang, Charles C. Steidel, & Wallace L. W. Sargent.* 415, 563, 194-G8 (1993)

Lyman-Alpha Emission from Galaxies. *Stéphane Charlot & S. Michael Fall.* 415, 580, 195-A13 (1993)

First Ultraviolet Spectropolarimetry of Radio-selected BL Lacertae Objects. *Paul S. Smith, Richard G. Allen, & J. R. P. Angel.* 415, L83, 199-F6 (1993)

The Ultraviolet Continua of Blazars: A Reconsideration of *IUE* Archives. *E. Pian & A. Treves.* 416, 130, 202-E14 (1993)

Variable C IV Absorption in the Seyfert Galaxy NGC 5548: A Connection to Broad Absorption Line Quasi-stellar Objects? *J. Michael Shull & Elise R. Sachs.* 416, 536, 210-A10 (1993)

Population Synthesis and the Ultraviolet Spectrum of Elliptical Galaxies. *Gladis Magris C., & Gustavo Bruzual A.* 417, 102, 218-E6 (1993)

Ultraviolet Imaging Telescope: Globular Clusters in M31. *Ralph C. Bohlin, Eric W. Deutsch, Kerry A. McQuade, Jesse K. Hill, Wayne B. Landsman, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 417, 127, 218-G11 (1993)

Faint Object Camera Far-Ultraviolet Objective Prism Observations of 12 $z > 3$ Quasars. *P. Jakobsen, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, & W. B. Sparks.* 417, 528, 225-G10 (1993)

Synthetic UV Lines of Si IV, C IV, and He II from a Population of Massive Stars in Starburst Galaxies. *Carmelle Robert, Claus Leitherer, & Timothy M. Heckman.* 418, 749, 241-G7 (1993)

On the Lyman-Alpha Emission of Starburst Galaxies. *David Valls-Gabaud.* 419, 7, 246-B9 (1993)

Ultraviolet Radiation from Evolved Stellar Populations. I. Models. *Ben Dorman, Robert T. Rood, & Robert W. O'Connell.* 419, 596, 255-B8 (1993)

The Ultraviolet Emission Properties of Five Low-Redshift Active Galactic Nuclei at High Signal-to-Noise Ratio and Spectral Resolution. *Ari Laor, John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, Richard F. Green, & George F. Hartig.* 420, 110, 2-C12 (1994)

Ultraviolet Observations of the Gamma-Ray Blazar 3C 279 following the Gamma-Ray Flare of 1991 June. *Jerry T. Bonnell, W. Thomas Vestrand, & J. Gregory Stacy.* 420, 545, 9-D3 (1994)

HST Observations of the [O III] Emission-Line Region in Markarian 78. *A. Capetti, F. Macchetto, W. B. Sparks, & A. Boksenberg.* 421, 87, 17-B4 (1994)

Conditions in the $z = 0.692$ Absorber toward 3CR 286. *Ross D. Cohen, Thomas A. Barlow, E. A. Beaver, Vesa T. Junkkarinen, Ronald W. Lyons, & Harding E. Smith.* 421, 453, 23-G1 (1994)

Models for the Evolution of the Spectral Energy Distribution of Elliptical Galaxies for Ultraviolet to Far-Infrared Wavelengths. *P. Mazzei, G. De Zotti, & C. Xu.* 422, 81, 31-A13 (1994)

The Multifrequency Spectral Evolution of Blazar 3C 345 during the 1991 Outburst. *J. R. Webb, C. R. Shrader, T. J. Balonek, D. M. Crenshaw, D. Kazanas, S. Clements, A. G. Smith, A. D. Nair, R. J. Leacock, P. P. Gombola, A. Sadun, H. R. Miller, I. Robson, R. Fujimoto, F. Makino, T. Kii, H. Aller, M. Aller, P. Hughes, E. Valtaoja, H. Teräsranta, E. Salonen, M. Tornikoski, & W. Chism.* 422, 570, 38-G11 (1994)

Extreme Ultraviolet Spectroscopy of PKS 2155−304. *Antonella Fruscione, Stuart Bowyer, Arieh Königl, & Steven M. Kahn.* 422, L55, 44-G6 (1994)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. V. Variability of the Ultraviolet Continuum and Emission Lines of NGC 3783. *G. A. Reichert, P. M. Rodríguez-Pascual, D. Alloin, J. Clavel, D. M. Crenshaw, G. A. Kriss, J. H. Krolik, M. A. Malkan, H. Netzer, B. M. Peterson, W. Wamsteker, A. Altamore, B. Altieri, K. S. Anderson, J. H. Blackwell, Jr., C. Boisson, N. Brosch, T. E. Carone, M. Dietrich, M .N. England, I. N. Evans, A. V. Filippenko, C. M. Gaskell, M. Goad, P. M. Gondhalekar, K. Horne, D. Kazanas, W. Kollatschny, A. P. Koratkar, K. T. Korista, G. M. MacAlpine, D. Maoz, T. Mazeh, B. McCollum, H. R. Miller, C. Mendes de Oliveira, P. T. O'Brien, M. G. Pastoriza, D. Pelat, E. Pérez, G. C. Perola, R. W. Pogge, R. L. Ptak, M. C. Recondo-González, J. Rodríguez-Espinosa, E. I. Rosenblatt, A. C. Sadun, M. Santos-Lleó, J. C. Shields, C. R. Shrader, J. M. Shull, S. M. Simkin, M. L. Sitko, M. A. J. Snijders, L. S. Sparke, G. M. Stirpe, R. Stoner, T. Storchi-Bergmann, W.-H. Sun, T. Wang, W. F. Welsh, R. J. White, C. Winge, & W. Zheng.* 425, 582, 89-A1 (1994)

UIT: Ultraviolet Surface Photometry of the Spiral Galaxy M74 (NGC 628). *Robert H. Cornett, Robert W. O'Connell, Michael R. Greason, Joel D. Offenberg, Ronald J. Angione, Ralph C. Bohlin, K. P. Cheng, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, Fred D. Talbert, & Theodore P. Stecher.* 426, 553, 105-C7 (1994)

The *HST* Quasar Absorption Line Key Project. IV. *HST* Faint Object Spectrograph and Ground-based Observations of the Unusual Low-Redshift Broad Absorption Line Quasi-stellar Object PG 0043+039. *David A. Turnshek, Brian R. Espey, Michael Kopko, Jr., Michael Rauch, Ray J. Weymann, Buell T. Jannuzi, Alec Boksenberg, Jacqueline Bergeron, George F. Hartig, W. L. W. Sargent, Blair D. Savage, Donald P. Schneider, & Arthur M. Wolfe.* 428, 93, 129-D1 (1994)

The Intrinsic Nuclear Spectrum of NGC 1068. *Edward A. Pier, Robert Antonucci, Todd Hurt, Gerard Kriss, & Julian Krolik.* 428, 124, 129-F8 (1994)

Multiwavelength Analysis of Quasars, Seyfert Galaxies, and Starbursts. *J. Miguel Mas-Hesse, Pedro M. Rodríguez-Pascual, Lourdes Sanz Fernández de Córdoba, & I. Félix Mirabel.* 92, 599, 39-G4 (1994)

The Reddening Law outside the Local Group Galaxies: The Case of NGC 7552 and NGC 5236. *Anne L. Kinney, Daniela Calzetti, Eduardo Bica, & Thaisa Storchi-Bergmann.* 429, 172, 146-C2 (1994)

Dust Extinction of the Stellar Continua in Starburst Galaxies: The Ultraviolet and Optical Extinction Law. *Daniela Calzetti, Anne L. Kinney, & Thaisa Storchi-Bergmann.* 429, 582, 153-A1 (1994)

The Optical–Ultraviolet–Gamma-Ray Spectrum of 3C 279. *Hagai Netzer, D. Kazanas, Beverley J. Wills, D. Wills, Mingsheng Han, M. S. Brotherton, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 430, 191, 161-D10 (1994)

HST Ultraviolet Spectropolarimetry of NGC 1068. *Robert Antonucci, Todd Hurt, & Joseph Miller.* 430, 210, 161-F5 (1994)

Ultraviolet Imaging of the AGN + Starburst Galaxy NGC 1068. *Susan G. Neff, Michael N. Fanelli, Laura J. Roberts, Robert W. O'Connell, Ralph Bohlin, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 430, 545, 168-E1 (1994)

The Global Second Parameter Phenomenon and the Origin of the Ultraviolet Radiation from Elliptical Galaxies. *Young-Wook Lee.* 430, L113, 174-G3 (1994)

Misdirected Quasars and Evolved Stars in Distant Radio Galaxies. *Sperello di Serego Alighieri, Andrea Cimatti, & Robert A. E. Fosbury.* 431, 123, 177-F5 (1994)

The Near-Infrared–Optical–Ultraviolet Emission of BL Lacertae Objects. *E. Pian, R. Falomo, R. Scarpa, & A. Treves.* 432, 547, 202-F11 (1994)

The Linear Polarization of 3C 345 in the Ultraviolet. *Joseph F. Dolan, Patricia T. Boyd, Karen G. Wolinski, Paul S. Smith, C. D. Impey, Robert C. Bless, M. J. Nelson, J. W. Percival, M. J. Taylor, J. L. Elliot, Edward L. Robinson, & G. W. van Citters.* 432, 560, 203-A1 (1994)

Lyα Emission and Absorption Features in the Spectra of Galaxies. *W. L. Chen & David A. Neufeld.* 432, 567, 203-A10 (1994)

Spectral Energy Distributions of the Brightest Palomar-Green Quasars at Intermediate Redshifts. *Todd M. Tripp, Jill Bechtold, & Richard F. Green.* 433, 533, 217-E12 (1994)

High-Resolution Optical and UV Observations of the Centers of NGC 1316 and NGC 3998 with the *Hubble Space Telescope*. *G. Fabbiano, C. Fassnacht, & G. Trinchieri.* 434, 67, 226-B1 (1994)

The *HST* Quasar Absorption Line Key Project. IX. An Emission-Line Study of PG 2251+113. *Brian R. Espey, David A. Turnshek, Lincoln Lee, Jacqueline Bergeron, Alec Boksenberg, George F. Hartig, Buell T. Jannuzi, W. L. W. Sargent, Blair D. Savage, Donald P. Schneider, Ray J. Weymann, & Arthur M. Wolfe.* 434, 484, 234-D2 (1994)

The X-Ray and Ultraviolet Absorbing Outflow in 3C 351. *Smita Mathur, Belinda Wilkes, Martin Elvis, & Fabrizio Fiore.* 434, 493, 234-E1 (1994)

IUE Spectra and Photoionization Models of the Seyfert 2 Galaxies NGC 7674 and I Zw 92. *Steven B. Kraemer, Chi-Chao Wu, D. Michael Crenshaw, & J. Patrick Harrington.* 435, 171, 245-F1 (1994)

The 1993 Multiwavelength Campaign on 3C 279: The Radio to Gamma-Ray Energy Distribution in Low State. *L. Maraschi, P. Grandi, C. M. Urry, A. E. Wehrle, G. M. Madejski, H. H. Fink, G. Ghisellini, R. C. Hartman, A. P. Koratkar, C. von Montigny, E. Pian, H. C. Thomas, A. Treves, M. F. Aller, H. D. Aller, C. D. Bailyn, T. J. Balonek, H. Bock, W. Collmar, I. S. Glass, S. J. Litchfield, I. M. McHardy, R. Méndez, J. Pesce, H. P. Reuter,*

E. I. Robson, H. Steppe, J. A. Stevens, H. Teräsranta, & S. J. Wagner. 435, L91, 259-D8 (1994)

Emission Lines from Condensing Intracluster Gas. *G. Mark Voit, Megan Donahue, & Jonathan D. Slavin.* 95, 87, 65-C8 (1994)

Effects of Intergalactic Absorption on the Visibility of Young Galaxies. *Yuzuru Yoshii & Bruce A. Peterson.* 436, 551, 273-B3 (1994)

Multiwavelength Tests of the Dusty Torus Model for Seyfert Galaxies. *John S. Mulchaey, Anuradha Koratkar, Martin J. Ward, Andrew S. Wilson, Mark Whittle, Robert R. J. Antonucci, Anne L. Kinney, & Todd Hurt.* 436, 586, 273-E10 (1994)

Luminosity Effects and the Emission-Line Properties of Quasars with $0 < z < 3.8$. *Patrick S. Osmer, Alain C. Porter, & Richard F. Green.* 436, 678, 274-G7 (1994)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. III. Ground-based Observations in 1991 November. *T. J.-L. Courvoisier, A. Blecha, P. Bouchet, P. Bratschi, M. T. Carini, M. Donahue, R. Edelson, E. D. Feigelson, A. V. Filippenko, I. S. Glass, J. Heidt, R. I. Kollgaard, T. Matheson, H. R. Miller, J. C. Noble, K. Sekiguchi, P. S. Smith, C. M. Urry, & S. J. Wagner.* 438, 108, 2-G2 (1995)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. IV. Multiwavelength Analysis. *R. Edelson, J. Krolik, G. Madejski, L. Maraschi, G. Pike, C. M. Urry, W. Brinkmann, T. J.-L. Courvoisier, J. Ellithorpe, K. Horne, A. Treves, S. Wagner, W. Wamsteker, R. Warwick, H. D. Aller, M. F. Aller, M. Ashley, A. Blecha, P. Bouchet, P. Bratschi, J. N. Bregman, M. Carini, A. Celotti, M. Donahue, E. Feigelson, A. V. Filippenko, H. Fink, I. George, I. Glass, J. Heidt, J. Hewitt, P. Hughes, R. Kollgaard, Y. Kondo, A. Koratkar, K. Leighly, A. Marscher, P. G. Martin, T. Matheson, H. R. Miller, J. C. Noble, P. O'Brien, E. Pian, G. Reichert, J. M. Saken, J. M. Shull, M. Sitko, P. S. Smith, W.-H. Sun, & G. Tagliaferri.* 438, 120, 3-A4 (1995)

Ultraviolet Imaging Telescope and Optical Emission-Line Observations of H II Regions in M81. *Jesse K. Hill, K. P. Cheng, Ralph C. Bohlin, Robert H. Cornett, P. M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 438, 181, 3-G2 (1995)

New Observations with the *HST* Goddard High Resolution Spectrograph of the Low-Redshift Lyman-Alpha Clouds in the 3C 273 Line of Sight. *Ray Weymann, Michael Rauch, Robert Williams, Simon Morris, & Sally Heap.* 438, 650, 13-B4 (1995)

Hubble Space Telescope Far-Ultraviolet Imaging of M31, M32, and NGC 205. *F. Bertola, A. Bressan, D. Burstein, L. M. Buson, C. Chiosi, & S. di Serego Alighieri.* 438, 680, 13-E4 (1995)

Active Galaxies Observed during the *Extreme Ultraviolet Explorer* All-Sky Survey. *H. L. Marshall, A. Fruscione, & T. E. Carone.* 439, 90, 22-D6 (1995)

The Ultraviolet Spectrum of the Gravitational Lens Candidate UM 425 = QSO 1120+019: Evidence for Broad Absorption Line (BAL) Structure. *A. G. Michalitsianos & R. J. Oliversen.* 439, 599, 32-E13 (1995)

Ultraviolet Spectropolarimetry of High-Redshift Quasars with the *Hubble Space Telescope*. *C. D. Impey, Matthew A. Malkan, Wayne Webb, & C. E. Petry.* 440, 80, 42-C8 (1995)

Detection of Compact Ultraviolet Nuclear Emission in LINER Galaxies. *Dan Maoz, Alexei V. Filippenko, Luis C. Ho, Hans-Walter Rix, John N. Bahcall, Donald P. Schneider, & F. Duccio Macchetto.* 440, 91, 42-D9 (1995)

Intermediate-Resolution Spectroscopy of the Radio Galaxy B2 0902+34 at $z \approx 3.4$. *J. M. Martín-Mirones, E. Martínez-González, J. I. González-Serrano, & J. L. Sanz.* 440, 191, 43-G2 (1995)

Relation between O VI Emission and X-Ray Intensity in Active Galactic Nuclei. *Wei Zheng, Gerard A. Kriss, & Arthur F. Davidsen.* 440, 606, 51-E2 (1995)

Emission Spectrum Integrated over an Accretion Disk: Comparison with Observations of Active Galactic Nuclei. *Toshiya Shimura & Fumio Takahara.* 440, 610, 51-E9 (1995)

A Catalog of Far-Ultraviolet Point Sources Detected with the FAUST Telescope on ATLAS-1. *Stuart Bowyer, Timothy P. Sasseen, Xiaoyi Wu, & Michael Lampton.* 96, 461, 8-D9 (1995)

Radiative Transfer in a Clumpy Universe: The Colors of High-Redshift Galaxies. *Piero Madau.* 441, 18, 59-D13 (1995)

The Gravitational Lens System Q0957+561 in the Ultraviolet. *J. F. Dolan, A. G. Michalitsianos, R. W. Thompson, P. T. Boyd, K. G. Wolinski, R. C. Bless, M. J. Nelson, J. W. Percival, M. J. Taylor, J. L. Elliot, & G. W. van Citters.* 442, 87, 78-D5 (1995)

Ultraviolet Radiation from Evolved Stellar Populations. II. The Ultraviolet Upturn Phenomenon in Elliptical Galaxies. *Ben Dorman, Robert W. O'Connell, & Robert T. Rood.* 442, 105, 78-F6 (1995)

The Gaseous Extent of Galaxies and the Origin of Lyman-Alpha Absorption Systems: A Survey of Galaxies in the Fields of *Hubble Space Telescope* Spectroscopic Target QSOs. *Kenneth M. Lanzetta, David V. Bowen, David Tytler, & John K. Webb.* 442, 538, 87-D1 (1995)

Multifrequency Observations of Kaz 102 during the *ROSAT* All-Sky Survey. *A. Treves, H. H. Fink, M. Malkan, S. J. Wagner, B. J. Wilkes, F. Baganoff, J. Heidt, E. Pian, A. Sadun, S. Schaeidt, J. T. Bonnell, W. Brinkmann, D. de Martino, L. Maraschi, E. G. Tanzi, M. H. Ulrich, & W. Wamsteker.* 442, 589, 88-A9 (1995)

The Evolution of C/O in Dwarf Galaxies from *Hubble Space Telescope* FOS Observations. *Donald R. Garnett, Evan D. Skillman, Reginald J. Dufour, Manuel Peimbert, Silvia Torres-Peimbert, Roberto Terlevich, Elena Terlevich, & Gregory A. Shields.* 443, 64, 96-B6 (1995)

The Heating of Dust in Starburst Galaxies: The Contribution of the Nonionizing Radiation. *Daniela Calzetti, Ralph C. Bohlin, Anne L. Kinney, Thaisa Storchi-Bergmann, & Timothy M. Heckman.* 443, 136, 97-A12 (1995)

Ne VIII λ774 and Time Variable Associated Absorption in the QSO UM 675. *Fred Hamann, Thomas A. Barlow, E. A. Beaver, E. M. Burbidge, Ross D. Cohen, Vesa Junkkarinen, & R. Lyons.* 443, 606, 106-C1 (1995)

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. VIII. An Intensive *HST*, *IUE*, and Ground-based Study of NGC 5548. *K. T. Korista, D. Alloin, P. Barr, J. Clavel, R. D. Cohen, D. M. Crenshaw, I. N. Evans, K. Horne, A. P. Koratkar, G. A. Kriss, J. H. Krolik, M. A. Malkan, S. L. Morris, H. Netzer, P. T. O'Brien, B. M. Peterson, G. A. Reichert, P. M. Rodríguez-Pascual, W. Wamsteker, K. S. J. Anderson, D. J. Axon, E. Benitez, P. Berlind, R. Bertram, J. H. Blackwell, Jr., N. G. Bochkarev, C. Boisson, M. Carini, R. Carrillo, T. E. Carone, F.-Z. Cheng, J. A. Christensen, K. K. Chuvaev, M. Dietrich, J. J. Dokter, V. Doroshenko, D. Dultzin-Hacyan, M. N. England, B. R. Espey, A. V. Filippenko, C. M. Gaskell, M. R. Goad, L. C. Ho, J. P. Huchra, X. J. Jiang, S. Kaspi, W. Kollatschny, A. Laor, J.-P. Luminet, G. M. MacAlpine, J. W. MacKenty, Yu. F. Malkov, D. Maoz, P. G. Martin, T. Matheson, B. McCollum, N. Merkulova, L. Metik, M. Mignoli, H. R. Miller, M. G. Pastoriza, D. Pelat, J. Penfold, M. Perez, G. C. Perola, J. L. Persaud, J. Peters, R. Pitts, R. W. Pogge, I. Pronik, V. I. Pronik, R. L. Ptak, L. Rawley, M. C. Recondo-González, J. M. Rodríguez-Espinosa, W. Romanishin, A. C. Sadun, I. Salamanca, M. Santos-Lleó, K. Sekiguchi, S. G. Sergeev, A. I. Shapovalova, J. C. Shields, C. Shrader, J. M. Shull, N. A. Silbermann, M. L. Sitko, D. R. Skillman, H. A. Smith, S. M. Smith, M. A. J. Snijders, L. S. Sparke, G. M. Stirpe, R. E. Stoner, W.-H. Sun, U. Thiele, S. Tokarz, Z. I. Tsvetanov, D. A. Turnshek, S. Veilleux, R. M. Wagner, S. J. Wagner, I. Wanders, T. Wang, W. F. Welsh, R. J. Weymann, R. J. White, B. J. Wilkes, B. J. Wills, C. Winge, H. Wu, & Z. L. Zou.* 97, 285, 15-F7 (1995)

Ultraviolet to Optical Spectral Distributions of Northern Star-forming Galaxies. *Kerry McQuade, Daniela Calzetti, & Anne L. Kinney.* 97, 331, 16-C5 (1995)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. V. Redshift Evolution of Lyman Limit Absorption in the Spectra of a Large Sample of Quasars. *Erik A. Stengler-Larrea, Alec Boksenberg, Charles C. Steidel, W. L. W. Sargent, John N. Bahcall, Jacqueline Bergeron, George F. Hartig, Buell T. Jannuzi, Sofia Kirhakos, Blair D. Savage, Donald P. Schneider, David A. Turnshek, & Ray J. Weymann.* 444, 64, 114-B7 (1995)

The Polarization and Ultraviolet Spectrum of Markarian 231. *Paul S. Smith, Gary D. Schmidt, Richard G. Allen, & J. R. P. Angel.* 444, 146, 115-D1 (1995)

Astro-1 and Ground-based Observations of Markarian 335: Evidence for an Accretion Disk. *W. Zheng, G. A. Kriss, A. F. Davidsen, G. Lee, A. D. Code, K. S. Bjorkman, P. S. Smith, D. Weistrop, M. A. Malkan, F. K. Baganoff, & B. M. Peterson.* 444, 632, 125-A10 (1995)

Ultraviolet to Near-Infrared Spectral Distributions of Star-forming and Seyfert 2 Galaxies. *Thaisa Storchi-Bergmann, Anne L. Kinney, & Peter Challis.* 98, 103, 22-C2 (1995)

HST Imaging Polarimetry of NGC 1068. *A. Capetti, D. J. Axon, F. Macchetto, W. B. Sparks, & A. Boksenberg.* 446, 155, 155-C9 (1995)

The Extreme Ultraviolet Spectrum of the BL Lacertae Object PKS 2155−304. *Arieh Königl, John F. Kartje, Stuart Bowyer, Steven M. Kahn, & Chorng-Yuan Hwang.* 446, 598, 164-D1 (1995)

The *Hubble Space Telescope* Sample of Radio-loud Quasars: The Lyα/Hβ Ratio. *Hagai Netzer, M. S. Brotherton, Beverley J. Wills, Mingsheng Han, D. Wills, J. A. Baldwin, G. J. Ferland, & I. W. A. Browne.* 448, 27, 192-E10 (1995)

Discovery of Extreme-Ultraviolet Radiation from the Seyfert Galaxy Ton S180 (= EUVE J0057−223). *Stéphane Vennes, Elisha Polomski, Stuart Bowyer, & John R. Thorstensen.* 448, L9, 199-C3 (1995)

The Ultraviolet Emission Properties of 13 Quasars. *Ari Laor, John N. Bahcall, Buell T. Jannuzi, Donald P. Schneider, & Richard F. Green.* 99, 1, 34-C1 (1995)

Emission-Line Imaging of 3CR Radio Galaxies. I. Imaging Data. *Patrick J. McCarthy, Hyron Spinrad, & Wil van Breugel.* 99, 27, 34-E4 (1995)

Interstellar Mg II Absorption Lines from Low-Redshift Galaxies. *David V. Bowen, J. Chris Blades, & Max Pettini.* 448, 634, 203-E5 (1995)

Quasar Lyman Edge Regions in Polarized Light. *A. Koratkar, R. R. J. Antonucci, R. W. Goodrich, H. Bushouse, & A. L. Kinney.* 450, 501, 237-F1 (1995)

Toward Understanding the Fanaroff-Riley Dichotomy in Radio Source Morphology and Power. *Stefi A. Baum, Esther L. Zirbel, & Christopher P. O'Dea.* 451, 88, 247-C13 (1995)

Are Galaxies Optically Thin to Their Own Lyman-Continuum Radiation? I. M33. *Kanan Patel & Christine D. Wilson.* 451, 607, 255-E11 (1995)

Testing Unified X-Ray/Ultraviolet Absorber Models with NGC 5548. *Smita Mathur, Martin Elvis, & Belinda Wilkes.* 452, 230, 265-C2 (1995)

The Nature of the Ultraviolet Continuum in Type 2 Seyfert Galaxies. *T. Heckman, J. Krolik, G. Meurer, D. Calzetti, A. Kinney, A. Koratkar, C. Leitherer, C. Robert, & A. Wilson.* 452, 549, 272-C3 (1995)

Observational Tests for Ultraviolet Sources in Elliptical Galaxies. *Sukyoung Yi, Ehsan Afshari, Pierre Demarque, & Augustus Oemler, Jr.* 453, L69, 298-C1 (1995)

The Far-Ultraviolet Spectrum of NGC 4151 as Observed with the Hopkins Ultraviolet Telescope on Astro-2. *Gerard A. Kriss, Arthur F. Davidsen, Wei Zheng, Jeffrey W. Kruk, & Brian R. Espey.* 454, L7, 307-C11 (1995)

Far-Ultraviolet Spectrum of Fairall 9 with the Hopkins Ultraviolet Telescope. *Wei Zheng, Gerard A. Kriss, Arthur F. Davidsen, & Jeffrey W. Kruk.* 454, L11, 307-D4 (1995)

Hopkins Ultraviolet Telescope Observations of Six Elliptical and S0 Galaxies. *Thomas H. Brown, Henry C. Ferguson, & Arthur F. Davidsen.* 454, L15, 307-D11 (1995)

The Lyman Continuum in Starburst Galaxies Observed with the Hopkins Ultraviolet Telescope. *Claus Leitherer, Henry C. Ferguson, Timothy M. Heckman, & James D. Lowenthal.* 454, L19, 307-E5 (1995)

A Search for Far-Ultraviolet Emission Lines from Diffuse Hot Gas in the Halo of NGC 4631. *Henry C. Ferguson, W. Van Dyke Dixon, Arthur F. Davidsen, & Ralf-Juergen Dettmar.* 454, L23, 307-E13 (1995)

Broad Ne VIII λ744 Emission from the Quasar PG 1148+549. *Fred Hamann, Joseph C. Shields, Gary J. Ferland, & Kirk T. Korista.* 454, 688, 311-B9 (1995)

ULTRAVIOLET: GENERAL

A Search for Circumstellar Dust around HR 10, a Proposed β Pictoris Star. *Kwang-Ping Cheng, C. A. Grady, & Frederick C. Bruhweiler.* 366, L87, 11-E7 (1991)

The Imaging Performance of the *Hubble Space Telescope*. *Christopher J. Burrows, Jon A. Holtzman, S. M. Faber, Pierre Y. Bely, Hashima Hasan, C. R. Lynds, & Daniel Schroeder.* 369, L21, 45-C1 (1991)

First Results from the Faint Object Camera: SN 1987A. *P. Jakobsen, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, J. M. Deharveng, M. J. Disney, T. M. Kamperman, I. R. King, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, R. P. Kirshner, & N. Panagia.* 369, L63, 46-B1 (1991)

Evidence for a 250 Second Brightness Oscillation at 1600 Å in the Solar Temperature Minimum Region. *J. W. Cook & J. A. Ewing.* 371, 804, 71-E5 (1991)

Vacuum Ultraviolet Imagery of the Virgo Cluster Region. III. Diffuse Far-Ultraviolet Radiation at High Galactic Latitudes. *Takashi Onaka & Keiichi Kodaira.* 379, 532, 171-C5 (1991)

Spectroscopic Limits to an Extragalactic Far-Ultraviolet Background. *Christopher Martin, Mark Hurwitz, & Stuart Bowyer.* 379, 549, 171-D10 (1991)

Spatially Resolved Ultraviolet Spectroscopy of the Liner Galaxy NGC 3998. *G. A. Reichert, G. Branduardi-Raymont, A. V. Filippenko, K. O. Mason, E. M. Puchnarewicz, & C.-C. Wu.* 387, 536, 45-C11 (1992)

Partially Coherent Scattering in Stellar Chromospheres. III. A Second-Order Escape Probability Method. *K. G. Gayley.* 390, 583, 82-E5 (1992)

An Upper Limit on the Cosmic Ultraviolet Background. *Edward L. Wright.* 391, 34, 86-D11 (1992)

The Hopkins Ultraviolet Telescope: Performance and Calibration during the Astro-1 Mission. *Arthur F. Davidsen, Knox S. Long, Samuel T. Durrance, William P. Blair, Charles W. Bowers, Steven J. Conard, Paul D. Feldman, Henry C. Ferguson, Glen H. Fountain, Randy A. Kimble, Gerard A. Kriss, H. Warren Moos, & Kenneth A. Potocki.* 392, 264, 104-C1 (1992)

The Nature of the Recurrent Nova T Coronae Borealis: Ultraviolet Evidence for a White Dwarf Accretor. *Pier Luigi Selvelli, Angelo Cassatella, & Roberto Gilmozzi.* 393, 289, 117-F12 (1992)

A Multiwavelength Study of the Supernova Remnant N49 in the Large Magellanic Cloud. *Olaf Vancura, William P. Blair, Knox S. Long, & John C. Raymond.* 394, 158, 130-A1 (1992)

Evidence for Shock-heated Gas in the Hopkins Ultraviolet Telescope Spectrum of NGC 1068. *Gerard A. Kriss, Arthur F. Davidsen, William P. Blair, Henry C. Ferguson, & Knox S. Long.* 394, L37, 139-B7 (1992)

Ultraviolet Imaging Telescope Observations of the Cygnus Loop. *Robert H. Cornett, Edward B. Jenkins, Ralph C. Bohlin, Kwang-Ping Cheng, Theodore R. Gull, Robert W. O'Connell, Robert A. R. Parker, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L9, 144-D7 (1992)

Astro-1 Ultraviolet Imaging of the 30 Doradus and SN 1987A Fields with the Ultraviolet Imaging Telescope. *Kwang-Ping Cheng, Andrew G. Michalitsianos, Paul Hintzen, Ralph C. Bohlin, Robert W. O'Connell, Robert H. Cornett, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L29, 145-A1 (1992)

Ultraviolet Imaging Telescope Photometry of Massive Stars: The OB Association NGC 206 in M31. *Jesse K. Hill, Barbara B. Pfarr, Ralph C. Bohlin, Joan E. Isensee, Robert W. O'Connell, Susan G. Neff, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L33, 145-B1 (1992)

Ultraviolet Imaging of Old Populations in Nearby Galaxies. *Robert W. O'Connell, Ralph C. Bohlin, Nicholas R. Collins, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Wayne B. Landsman, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L45, 145-D1 (1992)

The Colorado *IUE* Active Galaxy Survey. I. Blazars. *Rick Edelson, Gregory F. Pike, Jon M. Saken, Anne Kinney, & J. Michael Shull.* 83, 1, 57-B1 (1992)

High-Resolution Absorption Cross Section Measurements of Carbon Monoxide at 20 K between 96.7 and 98.8 Nanometers. *G. Stark, K. Yoshino, P. L. Smith, J. R. Esmond, K. Ito, & M. H. Stevens.* 410, 837, 124-B8 (1993)

Constraints on Axions from the Extragalactic Background Light. *J. M. Overduin & P. S. Wesson.* 414, 449, 176-F10 (1993)

Excitation Rate Coefficients and Line Ratios for the Optical and Ultraviolet Transitions in S II. *Wei Cai & Anil K. Pradhan.* 88, 329, 44-C7 (1993)

In-Flight Performance and Preliminary Results from the Far Ultraviolet Space Telescope (Faust) Flown on ATLAS-1. *Stuart Bowyer, Timothy P. Sasseen, Michael Lampton, & Xiaoyi Wu.* 415, 875, 198-G12 (1993)

Ultraviolet Background Radiation. *Richard C. Henry & Jayant Murthy.* 418, L17, 238-C1 (1993)

A Search for Ultraviolet Circumstellar Gas Absorption Features in α Piscis Austrinus (Fomalhaut), A Possible β Pictoris–like System. *K.-P. Cheng, Fred C. Bruhweiler, & Yoji Kondo.* 425, L33, 85-E7 (1994)

Accurate Calculation of the Isotope Shift and Hyperfine Structure in the Boron (B II) Line at 1362 Å. *Per Jönsson, Sveneric G. Johansson, & Charlotte Froese Fischer.* 429, L45, 150-F7 (1994)

Ultraviolet Spectra of Quenched Carbonaceous Composite Derivatives: Comparison to the "217 Nanometer" Interstellar Absorption Feature. *Akira Sakata, Setsuko Wada, Alan T. Tokunaga, Takatoshi Narisawa, Hidehiro Nakagawa, & Hiroshi Ono.* 430, 311, 163-A7 (1994)

UIT: Ultraviolet Observations of the Small Magellanic Cloud. *Robert H. Cornett, J. K. Hill, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 430, L117, 174-G9 (1994)

In-Orbit Performance of the COSTAR-corrected Faint Object Camera. *R. I. Jedrzejewski, G. Hartig, P. Jakobsen, J. H. Crocker, & H. C. Ford.* 435, L7, 251-B12 (1994)

High-Resolution Absorption Cross Section Measurements of Supersonic Jet-cooled Carbon Monoxide between 92.5 and 97.4 Nanometers.

K. Yoshino, G. Stark, J. R. Esmond, P. L. Smith, K. Ito, & T. Matsui. 438, 1013, 18-A13 (1995)

Medium-Resolution Far-Ultraviolet Spectroscopy of PKS 2155−304. *I. Appenzeller, H. Mandel, J. Krautter, S. Bowyer, M. Hurwitz, M. Grewing, G. Krämer, & N. Kappelmann.* 439, L33, 40-B9 (1995)

The Circumstellar Nature of the Metallic Features in a Hot DA White Dwarf. *J. B. Holberg, F. C. Bruhweiler, & J. Andersen.* 443, 753, 108-C1 (1995)

The First Search for a Gamma-Ray Burst Quiescent Counterpart in the Extreme Ultraviolet with *EUVE*. *K. Hurley, P. Li, J. Laros, G. Fishman, C. Kouveliotou, & C. Meegan.* 445, 348, 137-C9 (1995)

Transition Probabilities for the UV0.01 Multiplet in N III. *Tomas Brage, Charlotte Froese Fischer, & Philip G. Judge.* 445, 457, 138-G7 (1995)

Observations of the Galactic and Extragalactic Background with the Far-Ultraviolet Space Telescope (FAUST). *T. P. Sasseen, M. Lampton, S. Bowyer, & X. Wu.* 447, 630, 184-G3 (1995)

A Model of the Diffuse Ultraviolet Radiation Field. *Jayant Murthy & R. C. Henry.* 448, 848, 206-E7 (1995)

Accurate Multiconfiguration Hartree-Fock Calculations of Oscillator Strengths in Light Atoms: The Boron (B II) Line at 1362 Å. *Michel Godefroid, Jeppe Olsen, Per Jönsson, & Charlotte Froese Fischer.* 450, 473, 234-E3 (1995)

Electron Excitation Function of the N_2 Second Positive System. *D. E. Shemansky, J. M. Ajello, & I. Kanik.* 452, 472, 268-F1 (1995)

Fine-Structure Branching in N_2 $c_4' \, {}^1\Sigma_u^+$ (0). *D. E. Shemansky, I. Kanik, & J. M. Ajello.* 452, 480, 268-F13 (1995)

Performance and Preliminary Calibration of the Hopkins Ultraviolet Telescope on the Astro-2 Mission. *Jeffrey W. Kruk, Samuel T. Durrance, Gerard A. Kriss, Arthur F. Davidsen, William P. Blair, Brian R. Espey, & David S. Finley.* 454, L1, 307-C1 (1995)

ULTRAVIOLET: INTERSTELLAR

The First Spectropolarimetric Study of the Wavelength Dependence of Interstellar Polarization in the Ultraviolet. *Geoffrey C. Clayton, Christopher M. Anderson, Antonio Mario Magalhães, Arthur D. Code, Kenneth H. Nordsieck, Marilyn R. Meade, Michael J. Wolff, Brian Babler, Karen S. Bjorkman, Regina E. Schulte-Ladbeck, MaryJane Taylor, & Barbara A. Whitney.* 385, L53, 23-D7 (1992)

On Graphite and the Variations in the Ultraviolet Extinction Curve. *Per A. Aannestad.* 386, 627, 33-B5 (1992)

Dense Clumps of Ionized Gas near π Scorpii, as Revealed by the Fine-Structure Excitation of N II. *Frank Bertoldi & Edward B. Jenkins.* 388, 495, 56-D9 (1992)

The Structure of the Inner Arcsecond of R Aquarii Observed with the *Hubble Space Telescope*. *Denis Burgarella & Francesco Paresce.* 389, L29, 66-D10 (1992)

The Interstellar Deuterium-to-Hydrogen Ratio: A Reevaluation of Lyman Absorption-Line Measurements. *Peter R. McCullough.* 390, 213, 76-E10 (1992)

Spectrophotometry of Bowen Resonance Fluorescence Lines in Three Planetary Nebulae. *C. R. O'Dell & Christopher O. Miller.* 390, 219, 76-F4 (1992)

Highly Ionized Atoms toward HD 93521. *Lyman Spitzer, Jr., & Edward L. Fitzpatrick.* 391, L41, 92-C11 (1992)

Vacuum Ultraviolet Extinction Measurements on Cosmic Dust Analog Carbon Grains. *L. Colangeli, A. Blanco, S. Fonti, & E. Bussoletti.* 392, 284, 104-E1 (1992)

Ultraviolet, Optical, and Infrared Observations of the High-Latitude Molecular Cloud toward HD 210121. *Daniel E. Welty & James R. Fowler.* 393, 193, 116-D13 (1992)

The Anomalous Extinction Curve in the Direction of ρ Ophiuchi from 950 to 1180 Å. *James C. Green, Theodore P. Snow, Timothy A. Cook, Webster C. Cash, & Orion Poplawski.* 395, 289, 143-E9 (1992)

Ultraviolet Imaging Telescope Images of the Reflection Nebula NGC 7023: Derivation of Ultraviolet Scattering Properties of Dust Grains. *Adolf N. Witt, Jens K. Petersohn, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L5, 144-D1 (1992)

Spatial Heterodyne Spectroscopy for the Exploration of Diffuse Interstellar Emission Lines at Far-Ultraviolet Wavelengths. *J. Harlander, R. J. Reynolds, & F. L. Roesler.* 396, 730, 166-D3 (1992)

Global O VI Line Emission from the Cygnus Loop Supernova Remnant and Direct Kinematic Measurement of the Associated Shock. *Andrew Rasmussen & Christopher Martin.* 396, L103, 167-E7 (1992)

CNO Abundances and Temperature Fluctuations in the Orion Nebula. *Donald K. Walter, Reginald J. Dufour, & J. Jeff Hester.* 397, 196, 170-D7 (1992)

Deviations of Interstellar Extinctions from the Mean R-dependent Extinction Law. *John S. Mathis & Jason A. Cardelli.* 398, 610, 191-F7 (1992)

Far-Ultraviolet Observations of the Crab Nebula Using the Hopkins Ultraviolet Telescope. *William P. Blair, Knox S. Long, Olaf Vancura, Charles W. Bowers, Sarah Conger, Arthur F. Davidsen, Gerard A. Kriss, & Richard B. C. Henry.* 399, 611, 205-E1 (1992)

Spectroscopy of a Balmer-dominated Filament in the Cygnus Loop with the Hopkins Ultraviolet Telescope. *Knox S. Long, William P. Blair, Olaf Vancura, Charles W. Bowers, Arthur F. Davidsen, & John C. Raymond.* 400, 214, 211-E8 (1992)

Far-Ultraviolet Observations of the Supernova Remnant N49 Using the Hopkins Ultraviolet Telescope. *Olaf Vancura, William P. Blair, Knox S. Long, Arthur F. Davidsen, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Henry C. Ferguson, Richard C. Henry, Randy A. Kimble, Gerard A. Kriss, Jeffrey W. Kruk, & H. Warren Moos.* 401, 220, 223-G1 (1992)

Accurate Oscillator Strengths for Ultraviolet Lines of Ar I: Implications for Interstellar Material. *S. R. Federman, D. J. Beideck, R. M. Schectman, & D. G. York.* 401, 367, 225-E9 (1992)

Ultraviolet Observations of the Gas Phase Abundances in the Diffuse Clouds toward ζ Ophiuchi at 3.5 Kilometers per Second Resolution. *Blair D. Savage, Jason A. Cardelli, & Ulysses J. Sofia.* 401, 706, 231-C9 (1992)

Abundance of Interstellar Carbon toward ζ Ophiuchi. *Jason A. Cardelli, John S. Mathis, Dennis C. Ebbets, & Blair D. Savage.* 402, L17, 6-D1 (1993)

Goddard High-Resolution Spectrograph Observations of the Local Interstellar Medium and the Deuterium/Hydrogen Ratio along the Line of Sight toward Capella. *Jeffrey L. Linsky, Alexander Brown, Ken Gayley, Athanassios Diplas, Blair D. Savage, Thomas R. Ayres, Wayne Landsman, Steven N. Shore, & Sara R. Heap.* 402, 694, 11-C1 (1993)

Model Atmospheres: Tool for Identifying Interstellar Features. *P. C. Frisch, S. E. Slojkowski, T. Rodriguez-Bell, & D. York.* 84, 55, 1-G3 (1993)

Ultraviolet Interstellar Linear Polarization. I. Applicability of Current Dust Grain Models. *Michael J. Wolff, Geoffrey C. Clayton, & Marilyn R. Meade.* 403, 722, 24-F7 (1993)

Accurate Oscillator Strengths for Interstellar Ultraviolet Lines of Cl I. *R. M. Schectman, S. R. Federman, D. J. Beideck, & D. G. Ellis.* 406, 735, 67-B6 (1993)

The Ultraviolet Spectrum of Annealed Hydrogenated Amorphous Carbon Grains. *A. Blanco, E. Bussoletti, L. Colangeli, S. Fonti, V. Mennella, & J. R. Stephens.* 406, 739, 67-B12 (1993)

A Catalog of Stellar Lyman-Alpha Fluxes. *Wayne Landsman & Theodore Simon.* 408, 305, 87-A1 (1993)

Radiative Lifetimes, Branching Ratios, and Absolute Transition Probabilities in Cr II and Zn II. *S. D. Bergeson & J. E. Lawler.* 408, 382, 88-A3 (1993)

Extreme Ultraviolet Observations of HZ 43 and the Local H/He Ratio with the Hopkins Ultraviolet Telescope. *Randy A. Kimble, Arthur F. Davidsen, Knox S. Long, & Paul D. Feldman.* 408, L41, 89-C1 (1993)

Neutrino Decay and the Heat Budget of the Warm Interstellar Medium. *D. W. Sciama.* 409, L25, 104-D9 (1993)

Voyager 2 Observations of NGC 7023: Dust Scattering Shortward of 1600 Å. *A. N. Witt, J. K. Petersohn, J. B. Holberg, J. Murthy, A. Dring, & R. C. Henry.* 410, 714, 122-E13 (1993)

The *Hubble Space Telescope* Quasar Absorption Line Key Project. III. First Observational Results on Milky Way Gas. *Blair D. Savage, Limin Lu, John N. Bahcall, Jacqueline Bergeron, Alec Boksenberg, George F. Hartig, Buell T. Jannuzi, Sofia Kirhakos, Felix J. Lockman, W. L. W. Sargent, Donald P. Schneider, David Turnshek, Ray J. Weymann, & Arthur M. Wolfe.* 413, 116, 157-E6 (1993)

Silicon and Carbon Abundances in the Orion Nebula. *Robert H. Rubin, Reginald J. Dufour, & Donald K. Walter.* 413, 242, 159-C6 (1993)

High-Resolution Ultraviolet Observations of the Interstellar Diffuse Clouds toward μ Columbae. *Ulysses J. Sofia, Blair D. Savage, & Jason A. Cardelli.* 413, 251, 159-D3 (1993)

Detection of Boron, Cobalt, and Other Weak Interstellar Lines toward ζ Ophiuchi. *S. R. Federman, Y. Sheffer, D. L. Lambert, & R. L. Gilliland.* 413, L51, 162-G7 (1993)

On Graphite and the 2175 Å Extinction Profile. *B. T. Draine & Sangeeta Malhotra.* 414, 632, 179-B1 (1993)

Oscillator Strengths of the Si II 181 Nanometer Resonance Multiplet. *S. D. Bergeson & J. E. Lawler.* 414, L137, 186-D9 (1993)

Electron Density Diagnostics for Gaseous Nebulae Involving the O IV Intercombination Lines near 1400 Å. *F. P. Keenan, E. S. Conlon, D. A. Bowden, W. A. Feibelman, & A. K. Pradhan.* 88, 169, 42-E1 (1993)

Forbidden Velocity Gas Detected in Ultraviolet Interstellar Absorption toward Four Distant Inner Galaxy Stars. *Todd M. Tripp, Kenneth R. Sembach, & Blair D. Savage.* 415, 652, 196-A1 (1993)

A Determination of the Distance to the High-Velocity Cloud Complex M. *Laura Danly, C. E. Albert, & K. D. Kuntz.* 416, L29, 207-D13 (1993)

Ultraviolet Transitions of Low Condensation Temperature Heavy Elements and New Data for Interstellar Arsenic, Selenium, Tellurium, and Lead. *Jason A. Cardelli, S. R. Federman, David L. Lambert, & C. E. Theodosiou.* 416, L41, 207-F5 (1993)

EUVE First Light Observation of the Diffuse Sky Background. *Richard Lieu, Stuart Bowyer, Michael Lampton, Patrick Jelinsky, & Jerry Edelstein.* 417, L41, 223-C8 (1993)

A Far-Ultraviolet Study of the Cygnus Loop Using the *Voyager* Ultraviolet Spectrometers. *Olaf Vancura, William P. Blair, Knox S. Long, John C. Raymond, & J. B. Holberg.* 417, 663, 227-E11 (1993)

Extreme-Ultraviolet Extinction Measurements on Hydrogenated and Dehydrogenated Amorphous Carbon Grains. *L. Colangeli, V. Mennella, A. Blanco, S. Fonti, E. Bussoletti, H. E. Gumlich, H. C. Mertins, & Ch. Jung.* 418, 435, 236-D7 (1993)

Ultraviolet Background Radiation. *Richard C. Henry & Jayant Murthy.* 418, L17, 238-C1 (1993)

Chemical Composition of M8 Based on *IUE* and Visual Observations. *M. Peimbert, S. Torres-Peimbert, & R. J. Dufour.* 418, 760, 242-A8 (1993)

Voyager Observations of Diffuse Far-Ultraviolet Continuum and Line Emission in Eridanus. *Jayant Murthy, M. Im, R. C. Henry, & J. B. Holberg.* 419, 739, 256-G7 (1993)

ULTRAVIOLET: ISM

Highly Ionized Gas Absorption in the Disk and Halo toward HD 167756 at 3.5 Kilometers per Second Resolution. *Blair D. Savage, Kenneth R. Sembach, & Jason A. Cardelli.* 420, 183, 3-C1 (1994)

Size Effects on Dissociation Rates of Polycyclic Aromatic Hydrocarbon Cations: Laboratory Studies and Astrophysical Implications. *H. W. Jochims, E. Rühl, H. Baumgärtel, S. Tobita, & S. Leach.* 420, 307, 4-F6 (1994)

Interstellar Detection of the Intersystem Line Si II] λ2335 toward ζ Ophiuchi. *Jason A. Cardelli, Ulysses J. Sofia, Blair D. Savage, Francis P. Keenan, & Philip L. Dufton.* 420, L29, 7-D13 (1994)

The Origin of Variations in the 2175 Å Extinction Bump. *John S. Mathis.* 422, 176, 32-C8 (1994)

IUE Spectra and Optical Imaging of the Oxygen-rich Supernova Remnant N132D. *William P. Blair, John C. Raymond, & Knox S. Long.* 423, 334, 50-C7 (1994)

N III Intercombination Lines in the *IUE* Spectra of Gaseous Nebulae. *F. P. Keenan, P. L. Dufton, W. A. Feibelman, K. L. Bell, A. Hibbert, & R. P. Stafford.* 423, 882, 59-G3 (1994)

Spectrum of IC 2149 and Its Central Star. *Walter A. Feibelman, Siek Hyung, & Lawrence H. Aller.* 426, 653, 106-E6 (1994)

Composition of Interstellar Clouds in the Disk and Halo. II. γ^2 Velorum. *Edward L. Fitzpatrick & Lyman Spitzer, Jr.* 427, 232, 112-G8 (1994)

An *IUE* Survey of Interstellar H I Lyman-Alpha Absorption. II. Interpretations. *Athanassios Diplas & Blair D. Savage.* 427, 274, 113-D1 (1994)

Ultraviolet Interstellar Polarization Observed with the *Hubble Space Telescope*. *W. B. Somerville, R. G. Allen, D. J. Carnochan, Lida He, D. McNally, P. G. Martin, D. H. Morgan, K. Nandy, J. R. Walsh, D. C. B. Whittet, R. Wilson, & M. J. Wolff.* 427, L47, 117-F13 (1994)

The Galactic Far-Ultraviolet Sky as Seen by FAUST: Modeling and Observations. *Martin Cohen, Timothy P. Sasseen, & Stuart Bowyer.* 427, 848, 123-B9 (1994)

Voyager Observations of Dust Scattering near the Coalsack Nebula. *Jayant Murthy, R. C. Henry, & J. B. Holberg.* 428, 233, 131-A13 (1994)

An *IUE* Survey of Interstellar H I Lyα Absorption. I. Column Densities. *Athanassios Diplas & Blair D. Savage.* 93, 211, 44-F1 (1994)

The Abundant Elements in Interstellar Dust. *Ulysses J. Sofia, Jason A. Cardelli, & Blair D. Savage.* 430, 650, 170-A2 (1994)

High-Resolution Oscillator Strength Measurements for the $A(v')$–$X(0)$ Bands of Carbon Monoxide with $11 \leq v' \leq 14$. *Peter L. Smith, G. Stark, K. Yoshino, & K. Ito.* 431, L143, 192-D11 (1994)

The C_4H Radical and the Diffuse Interstellar Bands: An Ab Initio Study. *M. Kolbuszewski.* 432, L63, 200-A13 (1994)

The Far-Ultraviolet Dust Albedo in the Upper Scorpius Subgroup of the Scorpius OB2 Association. *Karl D. Gordon, Adolf N. Witt, George R. Carruthers, Susan A. Christensen, & Brian C. Dohne.* 432, 641, 204-A3 (1994)

Intersystem Transitions of Interstellar Carbon Monoxide toward ζ Ophiuchi. *S. R. Federman, Jason A. Cardelli, Yaron Sheffer, David L. Lambert, & D. C. Morton.* 432, L139, 207-D5 (1994)

Far-Ultraviolet Emission from the Taurus Molecular Cloud. *M. Hurwitz.* 433, 149, 210-B4 (1994)

Properties of the Highly Ionized Disk and Halo Gas toward Two Distant High-Latitude Stars. *Blair D. Savage & Kenneth R. Sembach.* 434, 145, 227-B6 (1994)

Highly Ionized Gas in the Galactic Disk: The $l = 295°$, $b = 0°$ Interarm Direction. *Kenneth R. Sembach.* 434, 244, 228-G3 (1994)

Hot Gas in the Interstellar Medium: A Reanalysis of O VI Absorption Data. *R. L. Shelton & D. P. Cox.* 434, 599, 236-B2 (1994)

Oscillator Strengths for Fe II Transitions at 224.918 and 226.008 Nanometers. *S. D. Bergeson, K. L. Mullman, & J. E. Lawler.* 435, L157, 260-E11 (1994)

A Compilation of Electronic Transitions in the CO Molecule and the Interpretation of Some Puzzling Interstellar Absorption Features. *Donald C. Morton & Louis Noreau.* 95, 301, 67-F11 (1994)

The Abundance of Interstellar Oxygen toward Orion: Evidence for Recent Infall? *David M. Meyer, M. Jura, Isabel Hawkins, & Jason A. Cardelli.* 437, L59, 292-C1 (1994)

A Study of the Ultraviolet Absorption Lines through the Complete Galactic Halo by the Analysis of *HST* Faint Object Spectrograph Spectra of Active Galactic Nuclei. I. *Geoffrey S. Burks, Frank Bartko, J. Michael Shull, John T. Stocke, Elise R. Sachs, E. Margaret Burbidge, Ross D. Cohen, Vesa T. Junkkarinen, Richard J. Harms, & Derck Massa.* 437, 630, 294-D7 (1994)

N IV Emission Lines in the Ultraviolet Spectra of Gaseous Nebulae. *F. P. Keenan, C. A. Ramsbottom, K. L. Bell, K. A. Berrington, A. Hibbert, W. A. Feibelman, & W. P. Blair.* 438, 500, 8-E3 (1995)

GHRS Observations of Mass-loaded Flows in Abell 78. *J. Patrick Harrington, Kazimierz J. Borkowski, & Zlatan Tsvetanov.* 439, 264, 24-G1 (1995)

Gas Phase Abundances and Conditions along the Sight Line to the Low-Halo, Inner Galaxy Star HD 167756. *Jason A. Cardelli, Kenneth R. Sembach, & Blair D. Savage.* 440, 241, 44-E2 (1995)

First Spectral Observations of the Diffuse Background with the *Extreme Ultraviolet Explorer*. *P. Jelinsky, J. V. Vallerga, & J. Edelstein.* 442, 653, 89-A8 (1995)

Discovery and Imaging of a Galactic Cirrus Cloud with the Far Ultraviolet Space Telescope. *Lauri K. Haikala, Kalevi Mattila, Stuart Bowyer, Timothy P. Sasseen, Michael Lampton, & Jens Knude.* 443, L33, 102-F8 (1995)

Ultraviolet Extinction to 10.8 Inverse Microns. *Per A. Aannestad.* 443, 653, 106-G11 (1995)

Interstellar Graphitic Particles Generated by Annealing of Nanodiamonds and Their Relation to the 2175 Å Peak Carrier. *Daniel Ugarte.* 443, L85, 112-B4 (1995)

A Dehydrogenation Study of Cosmic Carbon Analogue Grains. *V. Mennella, L. Colangeli, A. Blanco, E. Bussoletti, S. Fonti, P. Palumbo, & H. C. Mertins.* 444, 288, 117-D4 (1995)

Hopkins Ultraviolet Telescope Observations of H_2 toward the Planetary Nebula NGC 1535. *Charles W. Bowers, William P. Blair, Knox S. Long, & Arthur F. Davidsen.* 444, 748, 126-E11 (1995)

Properties of the +70 Kilometers per Second Cloud toward HD 203664. *Kenneth R. Sembach.* 445, 314, 136-G3 (1995)

Vibrationally Excited H_2, HCl, and NO^+ in the Diffuse Clouds toward ζ Ophiuchi. *S. R. Federman, Jason A. Cardelli, Ewine F. van Dishoeck, David L. Lambert, & J. H. Black.* 445, 325, 137-A4 (1995)

Ultraviolet Interstellar Linear Polarization. II. The Wavelength Dependence. *Geoffrey C. Clayton, Michael J. Wolff, R. G. Allen, & O. L. Lupie.* 445, 947, 148-C11 (1995)

Scattering Properties of the Dust in the Reflection Nebula IC 435. *Daniela Calzetti, Ralph C. Bohlin, Karl D. Gordon, Adolf N. Witt, & Luciana Bianchi.* 446, L97, 171-C7 (1995)

The Distribution of Metal-absorbing High-Velocity Clouds in the Galaxy. *David V. Bowen, J. Chris Blades, & Max Pettini.* 448, 662, 203-G10 (1995)

Decaying Neutrinos, the Metagalactic Radiation Field, and the Ionization of Nitrogen in the Interstellar Medium. *D. W. Sciama.* 448, 667, 204-A4 (1995)

The *IUE* Spectrum of the Planetary Nebula NGC 6751. *Walter A. Feibelman.* 448, 766, 205-C11 (1995)

Probing the Galactic Disk and Halo. III. The Galactic and Intergalactic Sight Line to H1821+643. *Blair D. Savage, Kenneth R. Sembach, & Limin Lu.* 449, 145, 212-B11 (1995)

Coronal Gas in the Galactic Halo: ORFEUS Observations of NGC 346 No. 1 and PKS 2155−304. *M. Hurwitz, S. Bowyer, R.-P. Kudritzki, & D. J. Lennon.* 450, 149, 230-B2 (1995)

Detection of Hot Gas in the Interstellar Medium. *Jia-Sheng Huang, Antoinette Songaila, Lennox L. Cowie, & Edward B. Jenkins.* 450, 163, 230-C8 (1995)

On the Electronic Structure of Small Carbon Grains of Astrophysical Interest. *V. Mennella, L. Colangeli, E. Bussoletti, G. Monaco, P. Palumbo, & A. Rotundi.* 100, 149, 47-G9 (1995)

R_V-dependent Interstellar Photodestruction Rates. *Cesare Cecchi-Pestellini, Santi Aiello, & Bruno Barsella.* 100, 187, 48-E2 (1995)

Discovery of Highly Ionized High-Velocity Clouds toward Markarian 509. *Kenneth R. Sembach, Blair D. Savage, Limin Lu, & Edward M. Murphy.* 451, 616, 255-F12 (1995)

Atomic Physics with the Goddard High-Resolution Spectrograph on the *Hubble Space Telescope*. II. Oscillator Strengths for Singly Ionized Iron. *Jason A. Cardelli & Blair D. Savage.* 452, 275, 266-A1 (1995)

Detection of Ultraviolet Emission Lines in SN 1006 with the Hopkins Ultraviolet Telescope. *John C. Raymond, William P. Blair, & Knox S. Long.* 454, L31, 307-G2 (1995)

A Far-Ultraviolet Spectrum of the Puppis A Supernova Remnant Using the Hopkins Ultraviolet Telescope. *William P. Blair, John C. Raymond, Knox S. Long, & Gerard A. Kriss.* 454, L35, 307-G12 (1995)

Time-dependent Photodissociation Regions. *David Hollenbach & Antonella Natta.* 455, 133, 320-A12 (1995)

Hydrogen Molecules in SN 1987A. *Michael Culhane & Richard McCray.* 455, 335, 322-F7 (1995)

High-Resolution Electron-Impact Study of the Far-Ultraviolet Emission Spectrum of Molecular Hydrogen. *Xianming Liu, Syed M. Ahmed, Rosalie A. Multari, Geoffrey K. James, & Joseph M. Ajello.* 101, 375, 59-A3 (1995)

ULTRAVIOLET: SOLAR SYSTEM

A Burst Model for Line Emission in the Solar Atmosphere. I. XUV Lines of He I and He II in Impulsive Flares. *J. M. Laming & U. Feldman.* 386, 364, 28-F8 (1992)

Mg IX Line Ratios in the Sun. *F. P. Keenan, E. S. Conlon, L. K. Harra, & K. G. Widing.* 386, 371, 28-G1 (1992)

Steady Siphon Flows in Closed Coronal Structures: Comparison with Extreme-Ultraviolet Observations. *G. Peres, D. Spadaro, & G. Noci.* 389, 777, 71-A8 (1992)

Element Abundances and Plasma Properties in a Coronal Polar Plume. *K. G. Widing & U. Feldman.* 392, 715, 111-B5 (1992)

The Potential for Plasma Diagnostics from Stellar Extreme-Ultraviolet Observations. *U. Feldman, P. Mandelbaum, J. F. Seely, G. A. Doschek, & H. Gursky.* 81, 387, 40-D3 (1992)

Interplanetary Lyman-α Spectra as a Diagnostic of the Local Interstellar Plasma Density: The Baranov Two-Shocks Heliosphere Case. *R. Lallement, Y. G. Malama, E. Quemerais, J. L. Bertaux, & N. A. Zaitzev.* 396, 696, 166-A7 (1992)

Pervasive Variability in the Quiet Solar Transition Region. *Douglas Rabin & James F. Dowdy, Jr.* 398, 665, 192-D1 (1992)

The Abundance of Ammonia in Comet P/Halley Derived from Ultraviolet Spectrophotometry of NH by *ASTRON* and *IUE*. *P. D. Feldman, K. B. Fournier, V. P. Grinin, & A. M. Zvereva.* 404, 348, 32-B11 (1993)

The Spectrum of the Jovian Dayglow Observed at 3 Å Resolution with the Hopkins Ultraviolet Telescope. *P. D. Feldman, M. A. McGrath, H. W. Moos, S. T. Durrance, D. F. Strobel, & A. F. Davidsen.* 406, 279, 58-E1 (1993)

The OH Distribution in Cometary Atmospheres: A Collisional Monte Carlo Model for Heavy Species. *Michael R. Combi, Brent J. Bos, & William H. Smyth.* 408, 668, 93-E1 (1993)

Atomic Transition Probabilities of Fe II Lines Determined from Solar Emission Spectra. I. The 2000–2800 Å Wavelength Range. *J. O. Ekberg & U. Feldman.* 86, 611, 22-D7 (1993)

Detection of [O II] λ2471 from the Io Plasma Torus. *M. A. McGrath, P. D. Feldman, D. F. Strobel, H. W. Moos, & G. E. Ballester.* 415, L55, 192-D7 (1993)

Hopkins Ultraviolet Telescope Determination of the Io Torus Electron Temperature. *D. T. Hall, C. J. Bednar, S. T. Durrance, P. D. Feldman, M. A. McGrath, H. W. Moos, & D. F. Strobel.* 420, L45, 7-F7 (1994)

Detection of CO Cameron Band Emission in Comet P/Hartley 2 (1991 XV) with the *Hubble Space Telescope*. *H. A. Weaver, P. D. Feldman, J. B. McPhate, M. F. A'Hearn, C. Arpigny, & T. E. Smith.* 422, 374, 34-F7 (1994)

Extreme Ultraviolet Explorer Satellite Observation of Jupiter's Io Plasma Torus. *D. T. Hall, G. R. Gladstone, H. W. Moos, F. Bagenal, J. T. Clarke, P. D. Feldman, M. A. McGrath, N. M. Schneider, D. E. Shemansky, D. F. Strobel, & J. H. Waite.* 426, L51, 103-G1 (1994)

Coronal Electron Density Diagnostic from Fe XII. *J. W. Cook, F. P. Keenan, L. K. Harra, & S. S. Tayal.* 429, 924, 157-B9 (1994)

Neutral Sulfur Emission from the Io Torus Measured with the Hopkins Ultraviolet Telescope. *Samuel T. Durrance, Paul D. Feldman, William P. Blair, Arthur F. Davidsen, Gerard A. Kriss, Jeffrey W. Kruk, Knox S. Long, & H. Warren Moos.* 447, 408, 178-A10 (1995)

High-Resolution Ultraviolet Spectroscopy of Jupiter's Aurora with the *Hubble Space Telescope*. *Y. H. Kim, J. J. Caldwell, & J. L. Fox.* 447, 906, 188-D3 (1995)

HST/GHRS Observations of the Interplanetary Medium Downwind and in the Inner Solar System. *John T. Clarke, Rosine Lallement, Jean-Loup Bertaux, & Eric Quemerais.* 448, 893, 207-C5 (1995)

The Ultraviolet Reflectivity of Jupiter at 3.5 Å Resolution from Astro-1 and Astro-2. *Patrick F. Morrissey, Paul D. Feldman, Melissa A. McGrath, Brian C. Wolven, & H. Warren Moos.* 454, L65, 308-E2 (1995)

Ultraviolet Albedo of the Moon with the Hopkins Ultraviolet Telescope. *Richard C. Henry, Paul D. Feldman, Jeffrey W. Kruk, Arthur F. Davidsen, & Samuel T. Durrance.* 454, L69, 308-E11 (1995)

ULTRAVIOLET: SPECTRA

Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. I. An 8 Month Campaign of Monitoring NGC 5548 with *IUE*. *J. Clavel, G. A. Reichert, D. Alloin, D. M. Crenshaw, G. Kriss, J. H. Krolik, M. A. Malkan, H. Netzer, B. M. Peterson, W. Wamsteker, A. Altamore, T. Baribaud, P. Barr, S. Beck, L. Binette, G. E. Bromage, N. Brosch, A. I. Diaz, A. V. Filippenko, K. Fricke, C. M. Gaskell, P. Giommi, I. S. Glass, P. Gondhalekar, R. L. Hackney, J. P. Halpern, D. J. Hutter, S. Jörsäter, A. L. Kinney, W. Kollatschny, A. Koratkar, K. T. Korista, A. Laor, J.-P. Lasota, E. Leibowitz, D. Maoz, P. G. Martin, T. Mazeh, E. J. A. Meurs, A. D. Nair, P. O'Brien, D. Pelat, E. Perez, G. C. Perola, R. L. Ptak, P. Rodríguez-Pascual, E. I. Rosenblatt, A. C. Sadun, M. Santos-Lleo, R. A. Shaw, P. S. Smith, G. M. Stirpe, R. Stoner, W. H. Sun, M.-H. Ulrich, E. van Groningen, & W. Zheng.* 366, 64, 1-G7 (1991)

Circumstellar Material around the Massive Close Binary DH Cephei. *M. F. Corcoran.* 366, 308, 4-G8 (1991)

A Study of the Ultraviolet Evolution of U Geminorum between Outbursts. *Alan L. Kiplinger, Edward M. Sion, & Paula Szkody.* 366, 569, 10-B1 (1991)

Stellar Lyman-Alpha Emission and the Local Interstellar Medium. *Wayne Landsman & Theodore Simon.* 366, L79, 11-D9 (1991)

The Circumstellar Disks of β Pictoris Analogs. *C. A. Grady, Frederick C. Bruhweiler, K. P. Cheng, W. A. Chiu, & Y. Kondo.* 367, 296, 15-F9 (1991)

Circumstellar Material around λ Eridani (B2e). I. Geometry and Kinematics during 1987–1988. *Myron A. Smith, Geraldine J. Peters, & C. A. Grady.* 367, 302, 15-G1 (1991)

PW Vulpeculae: A Nova with Nearly Solar Abundances. *Pedro Saizar, Sumner Starrfield, Gary J. Ferland, R. Mark Wagner, James W. Truran, Scott J. Kenyon, Warren M. Sparks, Robert E. Williams, & L. L. Stryker.* 367, 310, 15-G11 (1991)

Dark Matter Decay and the Temperature of Lyman-Alpha Clouds. *D. W. Sciama.* 367, L39, 22-A11 (1991)

Simulated Optical Images of Galaxies at $z \sim 1$ Using Ultraviolet Images of Nearby Galaxies. *Ralph C. Bohlin, Robert H. Cornett, Jesse K. Hill, Robert S. Hill, Wayne B. Landsman, Robert W. O'Connell, Susan G. Neff, Andrew M. Smith, & Theodore P. Stecher.* 368, 12, 23-C1 (1991)

Coordinated X-Ray, Ultraviolet, and Optical Observations of 3C 120. *L. Maraschi, L. Chiappetti, R. Falomo, B. Garilli, M. Malkan, G. Tagliaferri, E. G. Tanzi, & A. Treves.* 368, 138, 24-F9 (1991)

Ultraviolet Interstellar Lines in the Spectrum of π Scorpii Recorded at 2 Kilometers per Second Resolution. *Charles L. Joseph & Edward B. Jenkins.* 368, 201, 25-E9 (1991)

On Winds and X-Rays of O-Type Stars. *Tomasz Chlebowski & Catharine D. Garmany.* 368, 241, 26-B1 (1991)

Energy Distributions of Symbiotic Novae. *Greg L. Bryan & Sun Kwok.* 368, 252, 26-C1 (1991)

New Ultraviolet Spectroscopic Features Found in Comet Brorsen-Metcalf (1989o). *C. R. O'Dell, Christopher O. Miller, Anita L. Cochran, William D. Cochran, Chet B. Opal, & Edwin S. Barker.* 368, 616, 32-G1 (1991)

Collisional Excitation and Radiative Properties of N II: The Strong Intercombination (^1D–$^3P^o$) Transition at 748 Å. *T. M. Tripp, D. E. Shemansky, G. K. James, & J. M. Ajello.* 368, 641, 33-B6 (1991)

Predicted Profiles of Ultraviolet Interstellar Absorption Lines. *D. E. Welty, L. M. Hobbs, & D. G. York.* 75, 425, 6-E5 (1991)

A Spectrophotometric Atlas of White Dwarfs Compiled from the *IUE* Archives. *Gary Wegner & Steven R. Swanson.* 75, 507, 7-E13 (1991)

Criteria for the Spectral Classification of B Stars in the Ultraviolet. *Janet Rountree & George Sonneborn.* 369, 515, 44-B5 (1991)

High-Resolution Absorption Cross Sections of Carbon Monoxide Bands at 295 K between 91.7 and 100.4 Nanometers. *G. Stark, K. Yoshino, Peter L. Smith, K. Ito, & W. H. Parkinson.* 369, 574, 44-G13 (1991)

Multiwavelength Observations of Nova LMC 1990 Number 2: The First Extragalactic Recurrent Nova. *Steven N. Shore, George Sonneborn, Sumner G. Starrfield, M. Hamuy, R. E. Williams, A. Cassatella, & H. Drechsel.* 370, 193, 49-E8 (1991)

A Critical Analysis of the Ultraviolet Temperature Scale of the Helium-dominated DB and DBV White Dwarfs. *Peter Thejll, Stéphane Vennes, & Harry L. Shipman.* 370, 355, 51-F5 (1991)

An Ultraviolet Atlas of Quasar and Blazar Spectra. *A. L. Kinney, R. C. Bohlin, J. C. Blades, & D. G. York.* 75, 645, 10-C7 (1991)

Structure and Kinematics of the Broad-Line Regions in Active Galaxies from *IUE* Variability Data. *Anuradha P. Koratkar & C. Martin Gaskell.* 75, 719, 11-B5 (1991)

The Solar Spectrum between 914 and 1177 Å. *U. Feldman & G. A. Doschek.* 75, 925, 14-B13 (1991)

The Shape of the Ultraviolet Continuum of Quasars and Intergalactic Dust. *F. H. Cheng, C. Martin Gaskell, & Anuradha P. Koratkar.* 370, 487, 54-D9 (1991)

The Ultraviolet Spectrum of Scorpius X-1 as Observed by *IUE*: 1978–1988. *T. R. Kallman, J. C. Raymond, & S. D. Vrtilek.* 370, 717, 57-C11 (1991)

C IV Line Profile Correlations in NGC 4151. *R. P. Fahey, A. G. Michalitsianos, & D. Kazanas.* 371, 136, 61-F9 (1991)

The Ionization Structure of Planetary Nebulae. X. NGC 2392. *Timothy Barker.* 371, 217, 62-G5 (1991)

The Ultraviolet Continuum and the Fluorescent H_2 Lines in Low-Excitation Herbig-Haro Objects. *K.-H. Böhm, D. M. Scott, & J. Solf.* 371, 248, 63-C1 (1991)

High-Resolution Studies of the Structure of the Solar Atmosphere Using a New Imaging Algorithm. *Margarita Karovska & Shadia Rifai Habbal.* 371, 402, 65-B1 (1991)

Premaximum Observations of the Type Ia SN 1990N. *Bruno Leibundgut, Robert P. Kirshner, Alexei V. Filippenko, Joseph C. Shields, Craig B. Foltz, Mark M. Phillips, & George Sonneborn.* 371, L23, 66-D1 (1991)

Mass Outflow in the Nearby Proto–Planetary System β Pictoris. *Frederick C. Bruhweiler, Yoji Kondo, & C. A. Grady.* 371, L27, 66-D7 (1991)

Ultraviolet Variability of NGC 5548: Dynamics of the Continuum Production Region and Geometry of the Broad-Line Region. *J. H. Krolik, Keith Horne, T. R. Kallman, M. A. Malkan, R. A. Edelson, & G. A. Kriss.* 371, 541, 68-C6 (1991)

Observations of the Peculiar Object MWC 560 in Outburst. *A. G. Michalitsianos, S. P. Maran, R. J. Oliversen, B. Bopp, E. Kontizas, A. Dapergolas, & M. Kontizas.* 371, 761, 71-A7 (1991)

Spectral Observations of the Extreme Ultraviolet Background. *Simon E. Labov & Stuart Bowyer.* 371, 810, 71-F1 (1991)

An Ultraviolet Spectral Atlas of a Sunspot and an Active Region 1190–1730 Å. *P. Brekke, O. Kjeldseth-Moe, J.-D. F. Bartoe, & G. E. Brueckner.* 75, 1337, 23-C1 (1991)

Ultraviolet Interstellar Absorption toward HD 156359, a Halo Star at 11 Kiloparsecs in the Direction $l = 329°$ and $b = -15°$. *Kenneth R. Sembach, Blair D. Savage, & Derck Massa.* 372, 81, 75-A11 (1991)

The Albedo and Scattering Phase Function of Interstellar Dust and the Diffuse Background at Far-Ultraviolet Wavelengths. *Mark Hurwitz, Stuart Bowyer, & Christopher Martin.* 372, 167, 76-A12 (1991)

The Isolated Massive DA White Dwarf GD 50. *P. Bergeron, K. M. Kidder, J. B. Holberg, James Liebert, F. Wesemael, & Rex A. Saffer.* 372, 267, 77-C5 (1991)

Rapid Ultraviolet Variability in the BL Lacertae Object PKS 2155−304. *R. A. Edelson, J. Saken, G. Pike, C. M. Urry, I. M. George, R. S. Warwick, H. R. Miller, M. T. Carini, & J. R. Webb.* 372, L9, 79-B5 (1991)

The Binary Feige 24: The Mass, Radius, and Gravitational Redshift of the DA White Dwarf. *Stéphane Vennes, John R. Thorstensen, Peter Thejll, & Harry L. Shipman.* 372, L37, 79-E5 (1991)

The Local Interstellar Medium toward the Center of Loop I. *Miriam Centurion & Giovanni Vladilo.* 372, 494, 82-A1 (1991)

Classical Cepheid Luminosities from Binary Companions. *Nancy Remage Evans.* 372, 597, 83-B1 (1991)

Rotational Modulation in *IUE* Spectra of Cool Dwarf Chromospheres. I. Data Analysis and Period Search Techniques. *K. L. Hallam, B. Altner, & A. S. Endal.* 372, 610, 83-C1 (1991)

Systematic Radial Flows in the Chromosphere, Transition Region, and Corona of the Quiet Sun. *Donald M. Hassler, Gary J. Rottman, & Frank Q. Orrall.* 372, 710, 84-E1 (1991)

The Ultraviolet Spectrum and Continuum Energy Distribution of the Bright Quasar H1821+643. *Michiel Kolman, Jules P. Halpern, Chris R. Shrader, & Alexei V. Filippenko.* 373, 57, 86-F8 (1991)

Si IV and C IV Resonance Lines as Indicators of Massive Stars in Starburst Galaxies. *Claus Leitherer & Henny J. G. L. M. Lamers.* 373, 89, 87-B6 (1991)

The Interoutburst Behavior of Cataclysmic Variables. *Paula Szkody, Janet A. Mattei, Elizabeth O. Waagen, & Clay Stablein.* 76, 359, 29-E1 (1991)

High-Resolution *IUE* Spectra of the Nova-like Variable IX Velorum. *Christopher W. Mauche.* 373, 624, 95-F7 (1991)

Bowen Fluorescence in AM Herculis Stars. *Jonathan Schachter, Alexei V. Filippenko, Steven M. Kahn, & Frits B. S. Paerels.* 373, 633, 95-G4 (1991)

Ultraviolet High-Excitation Fe II Fluorescence Lines Excited by O VI, C IV, and H I Resonance Emission As Seen in *IUE* Spectra. *Walter A. Feibelman, Frederick C. Bruhweiler, & Sveneric Johansson.* 373, 649, 96-A8 (1991)

Fe XIV Line Ratios in the Sun. *F. P. Keenan, P. L. Dufton, M. B. Boylan, A. E. Kingston, & K. G. Widing.* 373, 695, 96-E13 (1991)

New Observations of the Gas Cloud Associated with the Quasar-Galaxy Pair 3C 232/NGC 3067. *John T. Stocke, James Case, Megan Donahue, J. Michael Shull, & Theodore P. Snow.* 374, 72, 98-G7 (1991)

Far-Ultraviolet Mapping of the Cygnus Loop with the *Voyager 2* Ultraviolet Spectrometer. *William P. Blair, Knox S. Long, Olaf Vancura, & J. B. Holberg.* 374, 202, 100-E5 (1991)

Inefficient Accretion by the DA2 White Dwarf in V471 Tauri. *D. J. Mullan, H. L. Shipman, E. M. Sion, & J. MacDonald.* 374, 707, 107-G8 (1991)

X-Ray to Infrared Observations of the AM Herculis System E1405−451 (V834 Centauri). *R. M. Sambruna, L. Chiappetti, A. Treves, J. M. Bonnet-Bidaud, P. Bouchet, L. Maraschi, C. Motch, & M. Mouchet.* 374, 744, 108-C10 (1991)

IUE Observations of NGC 5548, 1978–1988: The Sizes and Kinematics of the Broad-Line Region. *Anuradha P. Koratkar & C. Martin Gaskell.* 375, 85, 112-A13 (1991)

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. I. AO Cassiopeiae. *Douglas R. Gies & Michael S. Wiggs.* 375, 321, 114-G10 (1991)

The Ultraviolet Spectrum of KX Trianguli Australis. *Walter A. Feibelman.* 375, 335, 115-A12 (1991)

IUE Observations of Early-Type Stars at High Galactic Latitudes. *D. A. Quin, P. J. F. Brown, E. S. Conlon, P. L. Dufton, & F. P. Keenan.* 375, 342, 115-B7 (1991)

The Many Faces of F Stars: A Rotational Modulation Study of Capella, Procyon, and Caph with the *International Ultraviolet Explorer*. *Thomas R. Ayres.* 375, 704, 121-D11 (1991)

Absolute Far-Ultraviolet Spectrophotometry of Hot Subluminous Stars from *Voyager*. *J. B. Holberg, B. Ali, T. E. Carone, & R. S. Polidan.* 375, 716, 121-E11 (1991)

The Chromospheric Emission–Age Relation for Stars of the Lower Main Sequence and Its Implications for the Star Formation Rate. *David R. Soderblom, Douglas K. Duncan, & Dean R. H. Johnson.* 375, 722, 121-F5 (1991)

Tomographic Separation of Composite Spectra: The Components of the O-Star Spectroscopic Binary AO Cassiopeiae. *William G. Bagnuolo, Jr., & Douglas R. Gies.* 376, 266, 128-C1 (1991)

Ultraviolet Variability of the Massive W-R Binary System HDE 311884 = WR 47. *Gloria Koenigsberger, Anthony F. J. Moffat, & Lawrence H. Auer.* 376, 272, 128-C9 (1991)

Observations of Scorpius X-1 with *IUE*: Ultraviolet Results from a Multiwavelength Campaign. *S. D. Vrtilek, W. Penninx, J. C. Raymond, F. Verbunt, P. Hertz, K. Wood, W. H. G. Lewin, & K. Mitsuda.* 376, 278, 128-D1 (1991)

The Featureless Continua and Hydrogen Lines of Seyfert 2 Galaxies. *A. L. Kinney, R. R. J. Antonucci, M. J. Ward, A. S. Wilson, & M. Whittle.* 377, 100, 139-C5 (1991)

Ultraviolet and Optical Spectroscopy of the R Aquarii Symmetrical Jet. *J. M. Hollis, R. J. Oliversen, M. Kafatos, A. G. Michalitsianos, & R. M. Wagner.* 377, 227, 140-F11 (1991)

Ultraviolet Fe VII Absorption and Fe II Emission Lines of Central Stars of Planetary Nebulae. *Kwang-Ping Cheng, Walter A. Feibelman, & Frederick C. Bruhweiler.* 377, 235, 140-G7 (1991)

Far-Ultraviolet Spectroscopy of the Quasar UM 675 with the Faint Object Spectrograph on the *Hubble Space Telescope*. *E. A. Beaver, E. M. Burbidge, Ross D. Cohen, Vesa T. Junkkarinen, Ronald W. Lyons, E. I. Rosenblatt, George F. Hartig, Bruce Margon, & A. F. Davidsen.* 377, L1, 143-B1 (1991)

Faint Object Spectrograph Spectroscopy of Resolved Structure in the Nucleus of NGC 1068. *S. Caganoff, R. R. J. Antonucci, H. C. Ford, G. A. Kriss, G. Hartig, L. Armus, I. N. Evans, E. Rosenblatt, R. C. Bohlin, & A. L. Kinney.* 377, L9, 143-B11 (1991)

Faint Object Spectrograph Observations of the Low-Luminosity Seyfert Galaxy NGC 1566. *G. A. Kriss, G. F. Hartig, L. Armus, William P. Blair, S. Caganoff, & L. Dressel.* 377, L13, 143-C1 (1991)

First Results from the Goddard High-Resolution Spectrograph: The Galactic Halo and the Lyα Forest at Low Redshift in 3C 273. *Simon L. Morris, Ray J. Weymann, Blair D. Savage, & Ronald L. Gilliland.* 377, L21, 143-C11 (1991)

First Results from the Goddard High-Resolution Spectrograph: Spectroscopic Determination of Stellar Parameters of Melnick 42, an O3f Star in the Large Magellanic Cloud. *S. R. Heap, B. Altner, D. Ebbets, I. Hubeny, J. B. Hutchings, R. P. Kudritzki, S. A. Voels, S. Haser, A. Pauldrach, J. Puls, & K. Butler.* 377, L29, 143-D6 (1991)

First Results from the Goddard High-Resolution Spectrograph: Evidence for Photospheric Microturbulence in Early O Stars: Are Surface Gravities Systematically Underestimated? *I. Hubeny, S. R. Heap, & B. Altner.* 377, L33, 143-D11 (1991)

First Results from the Goddard High-Resolution Spectrograph: High-Resolution Observations of the 1942 Å Resonance Line of Hg II in the Chemically Peculiar B Star, χ Lupi. *David S. Leckrone, Glenn M. Wahlgren, & Sveneric G. Johansson.* 377, L37, 143-E1 (1991)

First Results from the Goddard High-Resolution Spectrograph: A Demonstration of Spectral Resolution and Experiments with Deconvolution. *Glenn M. Wahlgren, David S. Leckrone, Steven N. Shore, Don J. Lindler, Ronald L. Gilliland, & Dennis C. Ebbets.* 377, L41, 143-E6 (1991)

First Results from the Goddard High-Resolution Spectrograph: The Chromosphere of α Tauri. *Kenneth G. Carpenter, Richard D. Robinson, Glenn M. Wahlgren, Thomas B. Ake, Dennis C. Ebbets, Jeffrey L. Linsky, Alexander Brown, & Frederick M. Walter.* 377, L45, 143-E11 (1991)

First Results from the Goddard High-Resolution Spectrograph: Resolved Velocity and Density Structure in the β Pictoris Circumstellar Gas. *A. Boggess, Frederick C. Bruhweiler, C. A. Grady, Dennis C. Ebbets, Yoji Kondo, L. M. Trafton, John C. Brandt, & S. R. Heap.* 377, L49, 143-F1 (1991)

First Results from the Goddard High-Resolution Spectrograph: Element Abundances as a Function of Velocity in the Neutral Gas toward ξ Persei. *Blair D. Savage, Jason A. Cardelli, Frederick C. Bruhweiler, Andrew M. Smith, Dennis C. Ebbets, & Kenneth R. Sembach.* 377, L53, 143-F6 (1991)

First Results from the Goddard High-Resolution Spectrograph: Elemental Abundances in the Diffuse Clouds toward ξ Persei. *Jason A. Cardelli, Blair D. Savage, Frederick C. Bruhweiler, Andrew M. Smith, Dennis C. Ebbets, Kenneth R. Sembach, & Ulysses J. Sofia.* 377, L57, 143-F11 (1991)

First Results from the Goddard High-Resolution Spectrograph: C I, S I, and CO toward ξ Persei and the Physical Conditions in Diffuse Clouds. *Andrew M. Smith, Frederick C. Bruhweiler, David L. Lambert, Blair D. Savage, Jason A. Cardelli, Dennis C. Ebbets, Cheng-Hsuan Lyu, & Yaron Sheffer.* 377, L61, 143-G1 (1991)

IUE Investigation of Mass Flow in the Interacting Binary U Sagittae. *George E. McCluskey, Jr., Carolina Paciencia Salas McCluskey, & Yoji Kondo.* 378, 281, 154-D9 (1991)

A Cool Supergiant with Anomalous Behavior of the 2800 Mg II Doublet. *G. A. Gurzadyan, Y. Kondo, S. S. Rustambekyan, Yervant Terzian, & Mario R. Perez.* 378, 298, 154-F1 (1991)

Heating Mechanism(s) for Transition Layers in Giants. *Erika Böhm-Vitense & José Mena-Werth.* 378, 718, 161-C8 (1991)

The Great Flare of 1985 April 12 on AD Leonis. *Suzanne L. Hawley & Bjørn R. Pettersen.* 378, 725, 161-D1 (1991)

The Analysis of Apparent Optical Depth Profiles for Interstellar Absorption Lines. *Blair D. Savage & Kenneth R. Sembach.* 379, 245, 166-B5 (1991)

The $3s^23p\ ^2P$–$3s3p^2\ ^4P$ Intercombination Lines of Fe XIV in the Sun. *F. P. Keenan, P. L. Dufton, E. S. Conlon, M. B. Boylan, A. E. Kingston, & K. G. Widing.* 379, 406, 168-A11 (1991)

Discovery of a Fast Radiative Shock Wave in the Cygnus Loop Using the Hopkins Ultraviolet Telescope. *William P. Blair, Knox S. Long, Olaf Vancura, Charles W. Bowers, Arthur F. Davidsen, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Henry C. Ferguson, Richard C. Henry, Randy A. Kimble, Gerard A. Kriss, Jeffrey W. Kruk, H. Warren Moos, & Theodore R. Gull.* 379, L33, 169-D1 (1991)

Observations of Comet Levy (1990c) with the Hopkins Ultraviolet Telescope. *P. D. Feldman, A. F. Davidsen, W. P. Blair, C. W. Bowers, W. V. Dixon, S. T. Durrance, H. C. Ferguson, R. C. Henry, R. A. Kimble, G. A. Kriss, J. W. Kruk, K. S. Long, H. W. Moos, O. Vancura, & T. R. Gull.* 379, L37, 169-D7 (1991)

Fe II Emission Lines. I. Chromospheric Spectra of Red Giants. *P. G. Judge & C. Jordan.* 77, 75, 44-E1 (1991)

Atomic Data for Resonance Absorption Lines. I. Wavelengths Longward of the Lyman Limit. *Donald C. Morton.* 77, 119, 45-B1 (1991)

IUE Observations of NGC 1068: The Extremely Luminous Starburst Knots. *F. C. Bruhweiler, K. Q. Truong, & B. Altner.* 379, 596, 172-B1 (1991)

IUE Observations of NGC 1068: The Extended High-Ionization Emission Region. *K. Q. Truong & F. C. Bruhweiler.* 379, 609, 172-C1 (1991)

Wind Collision Effects in the Early-Type Close Binaries HD 47129 and AO Cassiopeiae. *Jorge Sahade & Estela Brandi.* 379, 706, 173-E1 (1991)

Chromospheric and Transition Region Diagnostics Using Emission-Line Intensities. *R. Grant Athay & K. P. Dere.* 379, 776, 174-D1 (1991)

The Onset of Chromospheric Activity among the A and F Stars. *Theodore Simon & Wayne Landsman.* 380, 200, 178-E3 (1991)

Predicted Extreme-Ultraviolet Line Emission for Nearby Main-Sequence B Stars. *J. J. MacFarlane, J. P. Cassinelli, B. Y. Welsh, P. W. Vedder, J. V. Vallerga, & W. L. Waldron.* 380, 564, 185-C1 (1991)

Circumstellar Emission from SN 1987A. *Peter Lundqvist & Claes Fransson.* 380, 575, 185-D1 (1991)

A Non–Local Thermodynamic Equilibrium, Line-blanketed Synthetic Spectrum of Iota Herculis: C, Al, and Si Lines. *James A. Grigsby.* 380, 606, 185-F9 (1991)

Probing the Galactic Halo along the 3C 273 Sight Line Using *IUE*. *Geoffrey S. Burks, Donald G. York, J. Chris Blades, Ralph C. Bohlin, & Willem Wamsteker.* 381, 55, 189-F5 (1991)

Velocity Gradients in the Chromosphere-Corona Transition Region. *R. Grant Athay & K. P. Dere.* 381, 323, 193-A6 (1991)

The Evolution of the Diffuse Cosmic Ultraviolet Background Constrained by *Hubble Space Telescope* Observations of 3C 273. *Satoru Ikeuchi & Edwin L. Turner.* 381, L1, 194-A9 (1991)

Spectroscopy of Z Camelopardalis in Outburst with the Hopkins Ultraviolet Telescope. *Knox S. Long, William P. Blair, Arthur F. Davidsen, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Richard C. Henry, Gerard A. Kriss, Jeffrey W. Kruk, H. Warren Moos, Olaf Vancura, Henry C. Ferguson, & Randy A. Kimble.* 381, L25, 194-D5 (1991)

IUE Spectra of the Eclipsing Binary NN Serpentis. *Janet H. Wood & Thomas R. Marsh.* 381, 551, 197-E1 (1991)

Relative Abundances in the Lower Solar Transition Region. *G. A. Doschek, K. P. Dere, & P. A. Lund.* 381, 583, 198-A1 (1991)

Improved Line Ratio Calculations Involving $\Delta n = 1$ (2–3) Transitions in O V and a Reanalysis of *Skylab* Observations of Solar Flares. *F. P. Keenan, P. L. Dufton, L. K. Harra, E. S. Conlon, K. A. Berrington, A. E. Kingston, & K. G. Widing.* 382, 349, 204-E1 (1991)

The Ultraviolet Spectrum of NGC 4151 from 1978 to 1990: General Characteristics and Evolution. *M.-H. Ulrich, A. Boksenberg, G. E. Bromage, J. Clavel, A. Elvius, M. V. Penston, G. C. Perola, & M. A. J. Snijders.* 382, 483, 207-E7 (1991)

The Connection between Coronal Bright Points and the Variability of the Quiet-Sun Extreme-Ultraviolet Emission. *Shadia Rifai Habbal & Edmund Grace.* 382, 667, 209-G11 (1991)

Inference of the Extreme-Ultraviolet Continuum Shape of Quasars. *Wei Zheng.* 382, L55, 211-A11 (1991)

Constraints on the Origin of the Ultraviolet Upturn in Elliptical Galaxies from Hopkins Ultraviolet Telescope Observations of NGC 1399. *Henry C. Ferguson, Arthur F. Davidsen, Gerard A. Kriss, William P. Blair, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Richard C. Henry, Jeffrey W. Kruk, H. Warren Moos, Olaf Vancura, Knox S. Long, & Randy A. Kimble.* 382, L69, 211-C1 (1991)

First Ultraviolet Spectropolarimetry of Hot Supergiants. *M. Taylor, A. D. Code, K. H. Nordsieck, C. M. Anderson, B. L. Babler, K. S. Bjorkman, G. C. Clayton, A. M. Magalhães, M. R. Meade, R. E. Schulte-Ladbeck, & B. A. Whitney.* 382, L85, 211-D5 (1991)

Hydrogenated Amorphous Carbon Grains and the 2175 Å Interstellar Hump. *Armando Blanco, Ezio Bussoletti, Luigi Colangeli, Sergio Fonti, & John R. Stephens.* 382, L97, 211-E8 (1991)

Determination of Ionic Abundances in the Io Torus Using the Hopkins Ultraviolet Telescope. *H. W. Moos, P. D. Feldman, S. T. Durrance, W. P. Blair, C. W. Bowers, A. F. Davidsen, W. V. Dixon, H. C. Ferguson, R. C. Henry, R. A. Kimble, G. A. Kriss, J. W. Kruk, K. S. Long, & O. Vancura.* 382, L105, 211-F3 (1991)

The Ultraviolet Spectra of Nearby Radio Galaxies. *William C. Keel & Rogier A. Windhorst.* 383, 135, 213-F3 (1991)

Constraints on the Optical Properties of Interstellar Dust in the Far-Ultraviolet: *Voyager* Observations of the Diffuse Sky Background. *Jayant Murthy, R. C. Henry, & J. B. Holberg.* 383, 198, 214-E1 (1991)

Interstellar Gas Phase Abundance of Carbon, Oxygen, Nitrogen, Copper, Gallium, Germanium, and Krypton toward ζ Ophiuchi. *Jason A. Cardelli, Blair D. Savage, & Dennis C. Ebbets.* 383, L23, 219-D1 (1991)

IUE Observations of Solar-Type Stars in the Pleiades and the Hyades. *Jean-Pierre Caillault, Osmi Vilhu, & Jeffrey L. Linsky.* 383, 594, 221-F1 (1991)

An Interactive Companion to the S Star HD 35155. *Thomas B. Ake III, Hollis R. Johnson, & Mudhaffer M. Ameen.* 383, 842, 224-F7 (1991)

First Ultraviolet Spectropolarimetry of Be Stars from the Wisconsin Ultraviolet Photo-Polarimeter Experiment. *K. S. Bjorkman, K. H. Nordsieck, A. D. Code, C. M. Anderson, B. L. Babler, G. C. Clayton, A. M. Magalhães, M. R. Meade, M. A. Nook, R. E. Schulte-Ladbeck, M. Taylor, & B. A. Whitney.* 383, L67, 226-E1 (1991)

Probing the Galactic Disk and Halo. II. Hot Interstellar Gas toward the Inner Galaxy Star HD 156359. *Kenneth R. Sembach, Blair D. Savage, & Limin Lu.* 439, 672, 33-F12 (1995)

The Abundances of Pt, Au, and Hg in the Chemically Peculiar HgMn-Type Stars κ Cancri and χ Lupi. *Glenn M. Wahlgren, David S. Leckrone, Sveneric G. Johansson, Maria Rosberg, & Tomas Brage.* 444, 438, 119-E11 (1995)

ULTRAVIOLET: STARS

A Magnitude-limited Survey of Cepheid Companions in the Ultraviolet. *Nancy Remage Evans.* 384, 220, 3-F4 (1992)

The Unusual Ultraviolet Chromospheric Spectrum of the R Coronae Borealis Star, V854 Centauri (NSV 6708), at Minimum Light. *Geoffrey C. Clayton, Barbara A. Whitney, S. Adam Stanford, John S. Drilling, & P. G. Judge.* 384, L19, 6-C8 (1992)

The Luminosity of the Double-Mode Cepheid Y Carinae. *Nancy Remage Evans.* 385, 680, 21-E6 (1992)

Tomographic Separation of Composite Spectra. I. The Components of Plaskett's Star. *William G. Bagnuolo, Jr., Douglas R. Gies, & Michael S. Wiggs.* 385, 708, 21-G12 (1992)

The Origin of the Far-Ultraviolet Continuum in Solar and Stellar Flares. *K. J. H. Phillips, G. E. Bromage, & J. G. Doyle.* 385, 731, 22-B11 (1992)

Properties of the Massive X-Ray Binary 4U 1700−37 = HD 153919. *S. R. Heap & M. F. Corcoran.* 387, 340, 41-B11 (1992)

Improved Calculations for the C III $\lambda\lambda$1907,1909 and Si III $\lambda\lambda$1883,1892 Electron Density Sensitive Emission-Line Ratios, and a Comparison with *IUE* Observations. *F. P. Keenan, W. A. Feibelman, & K. A. Berrington.* 389, 443, 65-D5 (1992)

Fe II Fluorescence and Anomalous C IV Doublet Intensities in Symbiotic Novae. *A. G. Michalitsianos, M. Kafatos, & S. R. Meier.* 389, 649, 69-D12 (1992)

New Calibrators for the Cepheid Period-Luminosity Relation. *Nancy Remage Evans.* 389, 657, 69-E8 (1992)

Time Series Observations of O Stars. I. *IUE* Observations of Variability in the Stellar Wind of ζ Puppis. *R. K. Prinja, L. A. Balona, C. T. Bolton, R. A. Crowe, M. S. Fieldus, A. W. Fullerton, D. R. Gies, I. D. Howarth, D. McDavid, & A. H. N. Reid.* 390, 266, 77-C6 (1992)

The Constitution of the Atmospheric Layers and the Extreme Ultraviolet Spectrum of Hot Hydrogen-rich White Dwarfs. *Stéphane Vennes.* 390, 590, 82-F1 (1992)

The Sun as a Star: High Spectral Resolution Solar Data Degraded to Low-Dispersion *IUE* Resolution. *J. G. Doyle & J. W. Cook.* 391, 393, 90-G1 (1992)

Coordinated *Ginga*, *IUE*, and VLA Observations of Stellar Activity in σ^2 Coronae Borealis. *R. A. Stern, Y. Uchida, F. Walter, O. Vilhu, D. Hannikainen, A. Brown, A. Veale, & B. M. Haisch.* 391, 760, 97-D7 (1992)

Iron Abundance in the Hot DA White Dwarfs Feige 24 and G191 B2B. *Stéphane Vennes, Pierre Chayer, John R. Thorstensen, Stuart Bowyer, & Harry L. Shipman.* 392, L27, 106-D5 (1992)

Spherically Symmetric, Expanding, Non–LTE Model Atmospheres for Novae during Their Early Stages. *P. H. Hauschildt, R. Wehrse, S. Starrfield, & G. Shaviv.* 393, 307, 118-A4 (1992)

Ultraviolet and Optical Spectral Morphology of Melnick 42 and Radcliffe 136a in 30 Doradus. *Nolan R. Walborn, Dennis C. Ebbets, Joel Wm. Parker, Joy Nichols-Bohlin, & Richard L. White.* 393, L13, 120-C1 (1992)

The Coolest DA White Dwarfs Detected at Soft X-Ray Wavelengths. *K. M. Kidder, J. B. Holberg, M. A. Barstow, R. W. Tweedy, & F. Wesemael.* 394, 288, 131-E7 (1992)

Ultraviolet and Radio Observations of Milky Way Halo Gas. *Laura Danly, Felix J. Lockman, Marilyn R. Meade, & Blair D. Savage.* 81, 125, 36-F9 (1992)

The Orbital Parameters and the *IUE* Spectrum of the Single-lined Spectroscopic Binary HD 698. *Jorge Sahade, Rodolfo Barbá, & Yoji Kondo.* 81, 303, 39-B1 (1992)

Ultraviolet Observations of the Symbiotic Star AS 296. *A. Gutiérrez-Moreno, H. Moreno, & W. A. Feibelman.* 395, 295, 143-G1 (1992)

An Ultraviolet Imaging Telescope Study of the Globular Cluster M79 (NGC 1904). *Robert S. Hill, Jesse K. Hill, Wayne B. Landsman, Ralph C. Bohlin, K.-P. Cheng, Paul M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 395, L17, 144-F1 (1992)

The Ultraviolet-bright Stars of Omega Centauri, M3, and M13. *Wayne B. Landsman, Robert W. O'Connell, Jonathan H. Whitney, Ralph C. Bohlin, Robert S. Hill, Stephen P. Maran, Ronald A. Parise, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L21, 144-F9 (1992)

Observations of the Light Echoes from SN 1987A Using the *Astro-1* Ultraviolet Imaging Telescope. *Arlin P. S. Crotts, Wayne B. Landsman, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 395, L25, 144-G7 (1992)

Highly Ionized Gas in the Gum Nebula and Elsewhere: A Comparison of *IUE* and *Copernicus* Satellite Results. *Richard J. Edgar & Blair D. Savage.* 396, 124, 156-F4 (1992)

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. II. Plaskett's Star (HD 47129). *Michael S. Wiggs & Douglas R. Gies.* 396, 238, 158-A12 (1992)

Extreme Ultraviolet Spectroscopy of G191-B2B: Direct Observation of Ionization Edges. *Erik Wilkinson, James C. Green, & Webster Cash.* 397, L51, 173-F13 (1992)

Spectral Synthesis in the Ultraviolet. IV. A Library of Mean Stellar Groups. *Michael N. Fanelli, Robert W. O'Connell, David Burstein, & Chi-Chao Wu.* 82, 197, 52-A1 (1992)

Observations of R Coronae Borealis Stars in Decline: Empirical Arguments for Dust Formation near the Stellar Surface. *Geoffrey C. Clayton, Barbara A. Whitney, S. Adam Stanford, & John S. Drilling.* 397, 652, 179-B10 (1992)

The *Hubble Space Telescope* Observations of X-Ray Nova Muscae 1991 and Its Spectral Evolution. *F. H. Cheng, Keith Horne, N. Panagia, C. R. Shrader, R. Gilmozzi, F. Paresce, & N. Lund.* 397, 664, 179-C11 (1992)

Detection of a Proton Beam during the Impulsive Phase of a Stellar Flare. *Bruce E. Woodgate, Richard D. Robinson, Kenneth G. Carpenter, Stephen P. Maran, & Steven N. Shore.* 397, L95, 181-C1 (1992)

Extreme Ultraviolet Spectroscopy of Capella. *James C. Green, Erik Wilkinson, Thomas R. Ayres, & Webster Cash.* 397, L99, 181-C8 (1992)

A Multiwavelength Study of Nova QU Vulpeculae 1984. *Pedro Saizar, Sumner Starrfield, Gary J. Ferland, R. Mark Wagner, James W. Truran, Scott J. Kenyon, Warren M. Sparks, Robert E. Williams, & L. L. Stryker.* 398, 651, 192-B13 (1992)

Observations of Highly Ionized Gas in the Galactic Halo. *Kenneth R. Sembach & Blair D. Savage.* 83, 147, 58-G11 (1992)

An Interpretation of the Spectral Properties of Hot Hydrogen-rich White Dwarfs with Stratified H/He Model Atmospheres. *Stéphane Vennes & Gilles Fontaine.* 401, 288, 224-E7 (1992)

The Abundance of Boron in Three Halo Stars. *Douglas K. Duncan, David L. Lambert, & Michael Lemke.* 401, 584, 229-G6 (1992)

Companions to Bright S and MS Stars: Technetium Deficiency and Binarity. *Hollis R. Johnson, Thomas B. Ake, & Mudhaffer M. Ameen.* 402, 667, 10-G11 (1993)

The Hydrogen Lyman-Alpha Emission of Capella. *Thomas R. Ayres, A. Brown, K. G. Gayley, & Jeffrey L. Linsky.* 402, 710, 11-D5 (1993)

The Circumstellar Gas Surrounding 51 Ophiuchi: A Candidate Proto–Planetary System Similar to β Pictoris. *C. A. Grady & J. M. S. Silvis.* 402, L61, 12-G1 (1993)

The Distant Future of Solar Activity: A Case Study of β Hydri. II. Chromospheric Activity and Variability. *D. Dravins, P. Linde, K. Fredga, & G. F. Gahm.* 403, 396, 18-F9 (1993)

The Distant Future of Solar Activity: A Case Study of β Hydri. III. Transition Region, Corona, and Stellar Wind. *D. Dravins, P. Linde, T. R. Ayres, J. L. Linsky, B. Monsignori-Fossi, T. Simon, & F. Wallinder.* 403, 412, 18-G13 (1993)

A 25 m$\AA$ Isotope Shift in B I at 2090 $\AA$: A Possible Diagnostic of the Cosmic $^{11}B/^{10}B$ Ratio? *Sveneric G. Johansson, Ulf Litzén, Jörg Kasten, & Manfred Kock.* 403, L25, 20-C11 (1993)

A Spectroscopic Search for Colliding Stellar Winds in O-Type Close Binary Systems. IV. ι Orionis. *Douglas R. Gies, Michael S. Wiggs, & William G. Bagnuolo, Jr.* 403, 752, 25-B4 (1993)

On the Chromospheric Structure of ζ Aurigae. *Joel A. Eaton.* 404, 305, 31-F1 (1993)

A Spectroscopic and Photometric Study of FK Comae in 1989. *David P. Huenemoerder, Lawrence W. Ramsey, Derek L. Buzasi, & Harold L. Nations.* 404, 316, 31-G1 (1993)

Extreme Ultraviolet Observations of G191-B2B and the Local Interstellar Medium with the Hopkins Ultraviolet Telescope. *Randy A. Kimble, Arthur F. Davidsen, William P. Blair, Charles W. Bowers, W. Van Dyke Dixon, Samuel T. Durrance, Paul D. Feldman, Henry C. Ferguson, Richard C. Henry, Gerard A. Kriss, Jeffrey W. Kruk, Knox S. Long, H. Warren Moos, & Olaf Vancura.* 404, 663, 37-B13 (1993)

Extended Variability of the Symbiotic Star AG Draconis. *M. Kafatos, S. R. Meier, & I. Martin.* 84, 201, 4-B7 (1993)

Observations of the White Dwarf in the U Geminorum System with the Hopkins Ultraviolet Telescope. *Knox S. Long, William P. Blair, Charles W. Bowers, Arthur F. Davidsen, Gerard A. Kriss, Edward M. Sion, & Ivan Hubeny.* 405, 327, 45-C1 (1993)

Spectroscopic Observations of the Detached Binary PG 1413+015. *Michael S. Fulbright, James Liebert, P. Bergeron, & Richard Green.* 406, 240, 58-A11 (1993)

Far-Ultraviolet Radiation from Disk Globular Clusters. *R. Michael Rich, Dante Minniti, & James W. Liebert.* 406, 489, 63-G9 (1993)

The Crab Pulsar in the Visible and Ultraviolet with 10 Microsecond Time Resolution. *J. W. Percival, J. D. Biggs, J. F. Dolan, E. L. Robinson, M. J. Taylor, R. C. Bless, J. L. Elliot, M. J. Nelson, T. F. Ramseyer, G. W. van Citters, & E. Zhang.* 407, 276, 72-E1 (1993)

A Catalog of Stellar Lyman-Alpha Fluxes. *Wayne Landsman & Theodore Simon.* 408, 305, 87-A1 (1993)

Dynamic Processes in Be Star Atmospheres. I. "Dimple" Formation in the He sci λ6678 Line of λ Eridani. *Myron A. Smith & Ronald S. Polidan.* 408, 323, 87-B8 (1993)

Extreme Ultraviolet Observations of HZ 43 and the Local H/He Ratio with the Hopkins Ultraviolet Telescope. *Randy A. Kimble, Arthur F. Davidsen, Knox S. Long, & Paul D. Feldman.* 408, L41, 89-C1 (1993)

Far-Ultraviolet Stellar Photometry: A Field in Monoceros. *Edward G. Schmidt & George R. Carruthers.* 408, 484, 91-C1 (1993)

Effective Collision Strengths for O II. *Brendan M. McLaughlin & Kenneth L. Bell.* 408, 753, 94-E3 (1993)

Hopkins Ultraviolet Telescope Observations of Far-Ultraviolet Scattering in NGC 7023: The Dust Albedo. *Jayant Murthy, Andrew Dring, Richard C. Henry, Jeffrey W. Kruk, William P. Blair, Randy A. Kimble, & Samuel T. Durrance.* 408, L97, 95-E3 (1993)

Composition of Interstellar Clouds in the Disk and Halo. I. HD 93521. *Lyman Spitzer, Jr., & Edward L. Fitzpatrick.* 409, 299, 100-G3 (1993)

Ultraviolet Continuum Variability and Visual Flickering in the Peculiar Object MWC 560. *A. G. Michalitsianos, M. Perez, S. N. Shore, S. P. Maran, M. Karovska, G. Sonneborn, J. R. Webb, Thomas G. Barnes III, Marian L. Frueh, R. J. Oliversen, & S. G. Starrfield.* 409, L53, 111-D8 (1993)

Ultraviolet Properties of Individual Hot Stars in Globular Cluster Cores. I. NGC 1904 (M79). *B. Altner & T. A. Matilsky.* 410, 116, 113-E8 (1993)

Hubble Space Telescope Spectra of the Phase-modulated Wind in the SMC O+WR Binary R31. *J. B. Hutchings, L. Bianchi, & S. C. Morris.* 410, 803, 123-F10 (1993)

Ultraviolet Line Diagnostics of Accretion Disk Winds in Cataclysmic Variables. *Peter Vitello & Isaac Shlosman.* 410, 815, 123-G11 (1993)

The First Detection of Ionized Helium in the Local ISM: *EUVE* and *IUE* Spectroscopy of the Hot DA Dwarf GD 246. *Stéphane Vennes, Jean Dupois, Todd Rumph, Jeremy Drake, Stuart Bowyer, Pierre Chayer, & Gilles Fontaine.* 410, L119, 126-D7 (1993)

He 3-519: A Peculiar Post-LBV, Pre-WN Star? *Kris Davidson, Roberta M. Humphreys, Arsen Hajian, & Yervant Terzian.* 411, 336, 131-D9 (1993)

Goddard High-Resolution Spectrograph Observations of Narrow Discrete Stellar Wind Absorption Features in the Ultraviolet Spectrum of the O7.5 III Star ξ Persei. *Steven N. Shore, Bruce Altner, C. T. Bolton, Jason A. Cardelli, & Dennis C. Ebbets.* 411, 864, 140-E5 (1993)

An Improved Ultraviolet Spectral Line List for the Symbiotic Star RR Telescopii. *G. A. Doschek & W. A. Feibelman.* 87, 331, 31-C7 (1993)

IUE Short-Wavelength High-Dispersion Line List for the Symbiotic Nova RR Telescopii. *Jason P. Aufdenberg.* 87, 337, 31-D3 (1993)

Ultraviolet Spectropolarimetry of the Be Star PP Carinae with the Wisconsin Ultraviolet Photo-Polarimeter Experiment. *K. S. Bjorkman, M. R. Meade, K. H. Nordsieck, C. M. Anderson, B. L. Babler, G. C. Clayton, A. D. Code, A. M. Magalhães, R. E. Schulte-Ladbeck, M. Taylor, & B. A. Whitney.* 412, 810, 153-G11 (1993)

Ultraviolet and Optical Studies of Binaries with Luminous Cool Primaries and Hot Companions. IV. Further *IUE* Detections. *Sidney B. Parsons & Thomas B. Ake.* 412, 814, 154-A3 (1993)

Scattered Light in the Echelle Modes of the Goddard High Resolution Spectrograph aboard the *Hubble Space Telescope*. II. Analysis of In-Flight Spectroscopic Observations. *Jason A. Cardelli, Dennis C. Ebbets, & Blair D. Savage.* 413, 401, 161-C5 (1993)

30 Doradus: Ultraviolet and Optical Stellar Photometry. *Jesse K. Hill, Ralph C. Bohlin, Kwang-Ping Cheng, Michael N. Fanelli, Paul Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 413, 604, 164-A5 (1993)

Detection of an Ultraviolet and Visible Counterpart of the NGC 6624 X-Ray Burster. *I. R. King, S. A. Stanford, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, M. J. Disney, J. M. Deharveng, P. Jakobsen, T. M. Kamperman, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, & C. Sosin.* 413, L117, 169-A12 (1993)

A Search for Proton Beams during Flares on AU Microscopii. *R. D. Robinson, K. G. Carpenter, B. E. Woodgate, & S. P. Maran.* 414, 872, 182-B5 (1993)

Extreme Ultraviolet Explorer Deep Survey Observations of a Large Flare on AU Microscopii. *Scott L. Cully, Oswald H. W. Siegmund, Peter W. Vedder, & John V. Vallerga.* 414, L49, 185-B1 (1993)

Extreme Ultraviolet Emission from Late-Type Stars: Initial Results from *Extreme Ultraviolet Explorer*. *Peter W. Vedder, Robert J. Patterer, Patrick Jelinsky, Alex Brown, & Stuart Bowyer.* 414, L61, 185-C5 (1993)

Intense Extreme Ultraviolet Emission from the B Star ϵ Canis Majoris. *John V. Vallerga, Peter W. Vedder, & Barry Y. Welsh.* 414, L65, 185-C11 (1993)

Winds in Central Stars of Planetary Nebulae. *A. Modigliani, P. Patriarchi, & M. Perinotto.* 415, 258, 188-B12 (1993)

Ultraviolet Observations of Selective Wind Eclipses in γ Velorum and Evidence for Colliding Winds. *N. St-Louis, A. J. Willis, & I. R. Stevens.* 415, 298, 188-F8 (1993)

Detection of Accreting Gas toward HD 45677: A Newly Recognized, Herbig Be Proto–Planetary System. *C. A. Grady, K. S. Bjorkman, D. Shepherd, R. E. Schulte-Ladbeck, M. R. Pérez, D. de Winter, & P. S. Thé.* 415, L39, 192-B6 (1993)

SN 1992A: Ultraviolet and Optical Studies Based on *HST*, *IUE*, and CTIO Observations. *Robert P. Kirshner, David J. Jeffery, Bruno Leibundgut, Peter M. Challis, George Sonneborn, M. M. Phillips, N. B. Suntzeff, R. Chris Smith, P. Frank Winkler, Cláudia Winge, Mario Hamuy, Deidre A. Hunter, Katherine C. Roth, J. C. Blades, David Branch, Roger A. Chevalier, Claes Fransson, Nino Panagia, Robert V. Wagoner, J. Craig Wheeler, & Robert P. Harkness.* 415, 589, 195-B10 (1993)

In-Flight Performance and Preliminary Results from the Far Ultraviolet Space Telescope (Faust) Flown on ATLAS-1. *Stuart Bowyer, Timothy P. Sasseen, Michael Lampton, & Xiaoyi Wu.* 415, 875, 198-G12 (1993)

On the Interpretation of the Ultraviolet Spectra of Symbiotic Stars and Recurrent Novae. I. *Steven N. Shore & Jason P. Aufdenberg.* 416, 355, 205-D10 (1993)

The Spectrum of EZ Canis Majoris (HD 50896) to the Lyman Limit with the Hopkins Ultraviolet Telescope. *Stephan R. McCandliss, Richard H. Buss, Jr., William P. Blair, Charles W. Bowers, Arthur F. Davidsen, Paul D. Feldman, & Jeffrey W. Kruk.* 416, 372, 205-F3 (1993)

Ultraviolet Spectroscopy of Herbig-Haro Objects: Spatial Structure, Spectroscopic Diagnostics, and Variability. *K.-H. Böhm, A. Noriega-Crespo, & J. Solf.* 416, 647, 211-D11 (1993)

Two New Extremely Iron-rich Hot DA White Dwarfs and the Nature of the EUV Opacity. *J. B. Holberg, M. A. Barstow, D. A. H. Buckley, A. Chen, S. Dreizler, M. C. Marsh, D. O'Donoghue, E. M. Sion, R. W. Tweedy, G. Vauclair, & K. Werner.* 416, 806, 213-D13 (1993)

Initial White Dwarf Results from the *Extreme Ultraviolet Explorer*. *David S. Finley, Patrick Jelinsky, Jean Dupuis, & Detlev Koester.* 417, 259, 220-F3 (1993)

Time-Series Observations of O Stars. III. *IUE* and *HST* Spectroscopy of ζ Ophiuchi and Implications for the "Photospheric Connection." *Ian D. Howarth, C. T. Bolton, R. A. Crowe, D. C. Ebbets, M. S. Fieldus, A. W. Fullerton, D. R. Gies, D. McDavid, R. K. Prinja, A. H. N. Reid, S. N. Shore, & K. C. Smith.* 417, 338, 221-F10 (1993)

Discovery of a Magnetic/Nonmagnetic Double-degenerate Binary System. *James Liebert, P. Bergeron, Gary D. Schmidt, & Rex A. Saffer.* 418, 426, 236-C10 (1993)

Ultraviolet Morphologies of Globular Clusters Observed with the Ultraviolet Imaging Telescope. *Eric P. Smith, Wayne B. Landsman, Robert S. Hill, Ralph C. Bohlin, Kwang-Ping Cheng, Paul Hintzen, Stephen P. Maran, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 418, 850, 243-B8 (1993)

The Abundances of the Elements in Sharp-lined Early-Type Stars from *IUE* High-Dispersion Spectrograms. I. Cr, Mn, Fe, Ni, and Co. *Saul J. Adelman, Charles R. Cowley, David S. Leckrone, Scott W. Roby, & Glenn M. Wahlgren.* 419, 276, 249-E11 (1993)

The Population of Massive Stars in R136 from Faint Object Camera Ultraviolet Observations. *Guido De Marchi, Antonella Nota, Claus Leitherer, Roberto Ragazzoni, & Cesare Barbieri.* 419, 658, 255-G10 (1993)

Far-Ultraviolet Stellar Photometry: A Field in Orion. *Edward G. Schmidt & George R. Carruthers.* 89, 259, 53-B2 (1993)

A Synoptic Study of Hα Line Profile Variability in the T Tauri Star SU Aurigae. *Mark S. Giampapa, Gibor S. Basri, Christopher M. Johns, & Catherine L. Imhoff.* 89, 321, 54-A8 (1993)

Emission Lines in the Long-Period Cepheid *l* Carinae. *Erika Böhm-Vitense & Stanley G. Love.* 420, 401, 5-G5 (1994)

A Far-Ultraviolet Flare on a Pleiades G Dwarf. *T. R. Ayres, J. R. Stauffer, Theodore Simon, R. A. Stern, S. K. Antiochos, G. S. Basri, J. A. Bookbinder, A. Brown, G. A. Doschek, J. L. Linsky, L. W. Ramsey, & F. M. Walter.* 420, L33, 7-E4 (1994)

The Early Bolometric Evolution of Nova Cygni 1992. *Steven N. Shore, George Sonneborn, Sumner Starrfield, Rosario Gonzalez-Riestra, & Ronald S. Polidan.* 421, 344, 20-B13 (1994)

A *Hubble Space Telescope* Ultraviolet Spectrum of SN 1993J. *David J. Jeffery, Robert P. Kirshner, Peter M. Challis, Chun S. J. Pun, Alexei V. Filippenko, Thomas Matheson, David Branch, Roger A. Chevalier, Claes Fransson, Nino Panagia, Robert V. Wagoner, J. Craig Wheeler, & Alejandro Clocchiatti.* 421, L27, 21-F9 (1994)

Low Density of Neutral Hydrogen and Helium in the Local Interstellar Medium: *Extreme Ultraviolet Explorer* Photometry of the Lyman Continuum of the Hot White Dwarfs MCT 0501−2858, MCT 0455−2812, HZ 43, and GD 153. *Stéphane Vennes, Jean Dupuis, Stuart Bowyer, Gilles Fontaine, Alexandria Wiercigroch, Patrick Jelinsky, François Wesemael, & Roger Malina.* 421, L35, 21-G12 (1994)

The Extreme Ultraviolet Coronal Spectrum of the Solar-Type Star χ^1 Orionis. *Bernhard Haisch, Jeremy J. Drake, & J. H. M. M. Schmitt.* 421, L39, 22-A5 (1994)

Spectroscopy of Chromospheric Lines of Giants in the Globular Cluster NGC 6752. *A. K. Dupree, Lee Hartmann, Graeme H. Smith, A. W. Rodgers, W. H. Roberts, & D. B. Zucker.* 421, 542, 24-G9 (1994)

Al III, Si IV, and C IV Absorption toward ζ Ophiuchi: Evidence for Photoionized and Collisionally Ionized Gas. *Kenneth R. Sembach, Blair D. Savage, & Edward B. Jenkins.* 421, 585, 25-D12 (1994)

Analysis of the *IUE* Satellite and the Ground-based Observations of SW Lacertae. *Jang Hae Jeong, Yong Woon Kang, Woo Baik Lee, & Eon Chang Sung.* 421, 779, 27-G13 (1994)

Ultraviolet Light Curves of β Lyrae: Comparison of *OAO* A-2, *IUE*, and *Voyager* Observations. *Yoji Kondo, George E. McCluskey, Jeffrey M. S. Silvis, Ronald S. Polidan, Carolina P. S. McCluskey, & Joel A. Eaton.* 421, 787, 28-A9 (1994)

Observing Stellar Coronae with the Goddard High Resolution Spectrograph. I. The dMe Star AU Microscopii. *S. P. Maran, R. D. Robinson, S. N. Shore, J. W. Brosius, K. G. Carpenter, B. E. Woodgate, J. L. Linsky, A. Brown, P. B. Byrne, M. R. Kundu, S. White, J. C. Brandt, R. A. Shine, & F. M. Walter.* 421, 800, 28-B10 (1994)

Comparison of New Experimental and Astrophysical *f*-Values for Some Ru II Lines, Observed in *HST* Spectra of χ Lupi. *Sveneric G. Johansson, Ali Joueizadeh, Ulf Litzén, Jörgen Larsson, Anders Persson, Claes-Göran Wahlström, Sune Svanberg, David S. Leckrone, & Glenn M. Wahlgren.* 421, 809, 28-C8 (1994)

The Stellar Population in the Core of M15. *Guido De Marchi & Francesco Paresce.* 422, 597, 39-C6 (1994)

Non–LTE Model Atmosphere Analysis of Nova Cygni 1992. *P. H. Hauschildt, S. Starrfield, S. Austin, R. M. Wagner, S. N. Shore, & G. Sonneborn.* 422, 831, 42-C1 (1994)

An Ultraviolet-Visible Investigation of the Globular Cluster NGC 1851. *Ronald A. Parise, Stephen P. Maran, Wayne B. Landsman, Ralph C. Bohlin, Kwang-Ping Cheng, Michael R. Greason, Paul M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 423, 305, 49-G7 (1994)

Tomographic Separation of Composite Spectra. II. The Components of 29 UW Canis Majoris. *William G. Bagnuolo, Jr., Douglas R. Gies, Michael E. Hahula, Rafael Wiemker, & Michael S. Wiggs.* 423, 446, 51-F7 (1994)

Constraints on Accreting, Isolated Neutron Stars from the *ROSAT* and *EUVE* Surveys. *Piero Madau & Omer Blaes.* 423, 748, 57-G10 (1994)

Optical, *IUE*, and *ROSAT* Observations of the Eclipsing Nova-like Variable V347 Puppis (LB 1800). *Christopher W. Mauche, John C. Raymond, David A. H. Buckley, Martine Mouchet, Jerry Bonnell, Denis J. Sullivan, Jean-Marc Bonnet-Bidaud, & Wolfram H. Bunk.* 424, 347, 66-B12 (1994)

Cooling of the White Dwarf in U Geminorum between Outbursts. *Knox S. Long, Edward M. Sion, Min Huang, & Paula Szkody.* 424, L49, 69-F13 (1994)

Initial Mass Functions from Ultraviolet Stellar Photometry: A Comparison of Lucke and Hodge OB Associations near 30 Doradus with the Nearby Field. *Jesse K. Hill, Joan E. Isensee, Robert H. Cornett, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 425, 122, 81-F5 (1994)

A Search for Ultraviolet Circumstellar Gas Absorption Features in α Piscis Austrinus (Fomalhaut), A Possible β Pictoris–like System. *K.-P. Cheng, Fred C. Bruhweiler, & Yoji Kondo.* 425, L33, 85-E7 (1994)

Hot Gas and the Origin of the Nebular Continuum in Novae. *Pedro Saizar & Gary J. Ferland.* 425, 755, 91-B10 (1994)

ROSAT Observations of Cataclysmic Variables: A Search for the Boundary Layer Emission. *S. D. Vrtilek, A. Silber, J. C. Raymond, & J. Patterson.* 425, 787, 91-E8 (1994)

The Discovery of Ni V in the Photospheres of the Hot DA White Dwarfs RE 2214−492 and G191-B2B. *J. B. Holberg, I. Hubeny, M. A. Barstow, T. Lanz, E. M. Sion, & R. W. Tweedy.* 425, L105, 94-G5 (1994)

A Statistical Equilibrium Analysis of Interstellar CO toward ζ Ophiuchi as Recorded by the Goddard High Resolution Spectrograph. *Cheng-Hsuan*

Lyu, Andrew M. Smith, & Frederick C. Bruhweiler. 426, 254, 99-C7 (1994)

Modeling and Interpretation of the Optical and *HST* UV Spectrum of SN 1993J. *E. Baron, P. H. Hauschildt, & D. Branch.* 426, 334, 100-C11 (1994)

Observations of the Bright Novalike Variable IX Velorum with the Hopkins Ultraviolet Telescope. *Knox S. Long, Richard A. Wade, William P. Blair, Arthur F. Davidsen, & Ivan Hubeny.* 426, 704, 107-B13 (1994)

Evolution of Solitary Density Waves in Stellar Winds of Early-Type Stars: A Simple Explanation of Discrete Absorption Component Behavior. *Wayne L. Waldron, Larry Klein, & Bruce Altner.* 426, 725, 107-D10 (1994)

A Dwarf Nova in the Core of 47 Tucanae. *Francesco Paresce & Guido De Marchi.* 427, L33, 117-E6 (1994)

Geometry and Physical Conditions in the Stellar Wind of AG Carinae. *Claus Leitherer, Richard Allen, Bruce Altner, Augusto Damineli, Laurent Drissen, Thais Idiart, Olivia Lupie, Antonella Nota, Carmelle Robert, Werner Schmutz, & Steven N. Shore.* 428, 292, 131-G4 (1994)

A Search for Chromospheric Emission in A-Type Stars Using the Goddard High-Resolution Spectrograph. *Theodore Simon, Wayne B. Landsman, & Ronald L. Gilliland.* 428, 319, 132-B5 (1994)

GHRS Observations of Cool, Low-Gravity Stars. I. The Far-Ultraviolet Spectrum of α Orionis (M2 Iab). *Kenneth G. Carpenter, Richard D. Robinson, Glenn M. Wahlgren, Jeffrey L. Linsky, & Alexander Brown.* 428, 329, 132-C6 (1994)

HD 129333: The Sun in Its Infancy. *J. David Dorren & Edward F. Guinan.* 428, 805, 140-C9 (1994)

Hot Degenerates in the Montreal-Cambridge-Tololo Survey. II. Two New Hybrid White Dwarfs, MCT 0128−3846 and MCT 0453−2933, and the Nature of the DAB Stars. *F. Wesemael, P. Bergeron, R. Lamontagne, G. Fontaine, A. Beauchamp, S. Demers, M. J. Irwin, J. B. Holberg, S. O. Kepler, & S. Vennes.* 429, 369, 148-F2 (1994)

Ultraviolet Observations of the Accretion Disk in LMC X-3. *A. P. Cowley, P. C. Schmidtke, J. B. Hutchings, & D. Crampton.* 429, 826, 156-A1 (1994)

High-Velocity Plasma in the Transition Region of AU Microscopii: Evidence for Magnetic Reconnection and Saturated Heating during Quiescent and Flaring Conditions. *Jeffrey L. Linsky & Brian E. Wood.* 430, 342, 163-D8 (1994)

The "Monochromatic Density Diagnostic" Technique: First Detection of Multiple Density Components in the Chromosphere of α Tauri. *P. G. Judge.* 430, 351, 163-E5 (1994)

Hubble Space Telescope Goddard High-Resolution Spectrograph Observation of U Geminorum during Quiescence: Evidence for a Slowly Rotating White Dwarf. *Edward M. Sion, Knox S. Long, Paula Szkody, & Min Huang.* 430, L53, 165-G12 (1994)

Star Formation in NGC 4449: MAMA-Detector UV Imagery and Fabry-Perot Balmer-Line Imagery. *Robert S. Hill, Allen T. Home, Andrew M. Smith, Fred C. Bruhweiler, K. P. Cheng, Paul M. N. Hintzen, & Ronald J. Oliversen.* 430, 568, 168-G5 (1994)

Evolution of Macromolecular Dust: Far-Ultraviolet Spectral Dust Extinction and Gas Absorption of Stellar Light as Measured with the Hopkins Ultraviolet Telescope. *Richard H. Buss, Jr., Marsha Allen, Stephan McCandliss, Jeffrey Kruk, Ji-Cheng Liu, & Tom Brown.* 430, 630, 169-F5 (1994)

Analytic Lyman-Alpha Wing Diagnostics and the Chromospheric Excitation Balance in Cool Dwarfs. *K. G. Gayley.* 431, 806, 188-F4 (1994)

The First *Extreme Ultraviolet Explorer* Source Catalog. *S. Bowyer, R. Lieu, M. Lampton, J. Lewis, X. Wu, J. J. Drake, & R. F. Malina.* 93, 569, 50-F3 (1994)

Multiwavelength Study of the Magnetically Active T Tauri Star HD 283447. *Eric D. Feigelson, Alan D. Welty, Catherine L. Imhoff, Jeffrey C. Hall, Paul B. Etzel, Robert B. Phillips, & Colin J. Lonsdale.* 432, 373, 197-G1 (1994)

An Ultraviolet and Visible Spectroscopic Study of a Pulsational Cycle of RY Sagittarii. *Geoffrey C. Clayton, W. A. Lawson, P. L. Cottrell, Barbara A. Whitney, S. Adam Stanford, & Frank de Ruyter.* 432, 785, 205-F13 (1994)

The Ultraviolet Pulsations of the Cataclysmic Variable AE Aquarii as Observed with the *Hubble Space Telescope*. *Michael Eracleous, Keith Horne, Edward L. Robinson, Er-Ho Zhang, Thomas R. Marsh, & Janet H. Wood.* 433, 313, 212-C1 (1994)

Discovery of a New White Dwarf in a Binary System (EUVE 0720−317) in the *Extreme Ultraviolet Explorer* Survey and Implications for the Late Stages of Stellar Evolution. *Stéphane Vennes & John R. Thorstensen.* 433, L29, 214-G13 (1994)

A Far-Ultraviolet Atlas of Symbiotic Stars Observed with *IUE*. I. The SWP Range. *S. R. Meier, M. Kafatos, R. P. Fahey, & A. G. Michalitsianos.* 94, 183, 54-C2 (1994)

Thermally Unstable Perturbations in Stratified Conducting Atmospheres. *Fabio Reale, Salvatore Serio, & Giovanni Peres.* 433, 811, 221-C1 (1994)

The Early Ultraviolet, Optical, and Radio Evolution of the Soft X-Ray Transient GRO J0422+32. *C. R. Shrader, R. Mark Wagner, R. M. Hjellming, X. H. Han, & S. G. Starrfield.* 434, 698, 237-D4 (1994)

Evidence for a Disk in the Wind of HD 93521: UV Line Profiles from an Axisymmetric Model. *J. E. Bjorkman, R. Ignace, T. M. Tripp, & J. P. Cassinelli.* 435, 416, 249-B12 (1994)

Acoustic Heating of the Chromosphere and Cool Corona in the F Star α Canis Minoris (Procyon). *D. J. Mullan & Q. Q. Cheng.* 435, 435, 249-D7 (1994)

A Coronal Mass Ejection Model for the 1992 July 15 Flare on AU Microscopii Observed by the *Extreme Ultraviolet Explorer*. *Scott L. Cully, George H. Fisher, Mark J. Abbott, & Oswald H. W. Siegmund.* 435, 449, 249-E11 (1994)

GHRS Spectroscopy of Individual Stars in R136a. *Sara R. Heap, Dennis Ebbets, Eliot M. Malumuth, Stephen P. Maran, Alex de Koter, & Ivan Hubeny.* 435, L39, 252-A11 (1994)

Far-Ultraviolet Imaging of the Globular Cluster NGC 6681 with WFPC2. *Alan M. Watson, Jeremy R. Mould, John S. Gallagher III, Gilda E. Ballester, Christopher J. Burrows, Stefano Casertano, John T. Clarke, David Crisp, Richard E. Griffiths, J. Jeff Hester, John G. Hoessel, Jon A. Holtzman, Paul A. Scowen, Karl R. Stapelfeldt, John T. Trauger, & James A. Westphal.* 435, L55, 252-D4 (1994)

The Pursuit of Heavy Elements in the HgMn-Type Star χ Lupi: Observations with the GHRS in the COSTAR Era. *Glenn M. Wahlgren, Tomas Brage, Ronald L. Gilliland, Sveneric G. Johansson, David S. Leckrone, Don J. Lindler, & Ulf Litzén.* 435, L67, 252-F3 (1994)

Theoretical Modeling of GHRS Observations of the Of/WN-Type Star R136a5. *Alex de Koter, Ivan Hubeny, Sara R. Heap, & Thierry Lanz.* 435, L71, 252-F9 (1994)

Ultraviolet Spectra of HZ Herculis/Hercules X-1 from *HST*: Hot Gas during Total Eclipse of the Neutron Star. *Scott F. Anderson, Stefanie Wachter, Bruce Margon, Ronald A. Downes, William P. Blair, & Jules P. Halpern.* 436, 319, 265-F5 (1994)

An Atlas of Ultraviolet P Cygni Profiles. *Theodore P. Snow, Henny J. G. L. M. Lamers, Douglas M. Lindholm, & Andrew P. Odell.* 95, 163, 66-C8 (1994)

Ultraviolet Spectra of Amorphous Carbon Grains: Comparison with the Circumstellar Extinction around C-rich Objects. *A. M. Muci, A. Blanco, S. Fonti, & V. Orofino.* 436, 831, 277-B3 (1994)

Determination of Plasma Temperatures and Luminosities Using Multiple Extreme-Ultraviolet and X-Ray Filters. *Brian E. Wood, Alexander Brown, & Jeffrey L. Linsky.* 438, 350, 6-C9 (1995)

RE 0044+09: A New K Dwarf Rapid Rotator with a White Dwarf Companion? *Barry J. Kellett, Gordon E. Bromage, Alexander Brown, Robin D. Jeffries, David J. James, David Kilkenny, Russell M. Robb, David Wonnacott, Christopher Lloyd, & C. Clayton.* 438, 364, 6-D13 (1995)

Late-Time Spectra and Type Ia Supernova Models: New Clues from the *Hubble Space Telescope*. *P. Ruiz-Lapuente, R. P. Kirshner, M. M. Phillips, P. M. Challis, B. P. Schmidt, A. V. Filippenko, & J. C. Wheeler.* 439, 60, 22-A9 (1995)

Stellar-Wind Variability in *IUE* Spectra of 68 Cygni. *Ian D. Howarth & Keith C. Smith.* 439, 431, 27-B3 (1995)

The RIASS Coronathon: Joint X-Ray and Ultraviolet Observations of Normal F–K Stars. *Thomas R. Ayres, T. A. Fleming, T. Simon, B. M. Haisch, A. Brown, D. Lenz, W. Wamsteker, D. de Martino, C. Gonzalez, J. Bonnell, J. M. Mas-Hesse, C. Rosso, J. H. M. M. Schmitt, J. Trümper, W. Voges, J. Pye, R. C. Dempsey, J. L. Linsky, E. F. Guinan, G. M. Harper, C. Jordan, B. M. Montesinos, I. Pagano, & M. Rodonò.* 96, 223, 4-E7 (1995)

Non-LTE Line-blanketed Model Atmospheres of Hot Stars. II. Hot, Metal-rich White Dwarfs. *T. Lanz & I. Hubeny.* 439, 905, 37-B1 (1995)

Hubble Space Telescope FOS Spectroscopy of the Ultrashort-Period Dwarf Nova WZ Sagittae: The Underlying Degenerate. *Edward M. Sion, F. H. Cheng, Knox S. Long, Paula Szkody, Ron L. Gilliland, Min Huang, & Ivan Hubeny.* 439, 957, 37-G3 (1995)

Chromospheric Models for Altair (A7 IV–V). *R. Freire Ferrero, P. Gouttebroze, S. Catalano, E. Marilli, F. Bruhweiler, Y. Kondo, K. van der Hucht, & A. Talavera.* 439, 1011, 38-E12 (1995)

ORFEUS Observations of AM Herculis. *John C. Raymond, Christopher W. Mauche, Stuart Bowyer, & Mark Hurwitz.* 440, 331, 45-F7 (1995)

The Growth of Solids, Destruction of Molecules, and Shielding of Radiation in the Young Stellar Disk of HD 45677. *Thomas M. Brown, Richard Buss, Jr., Carol Grady, & Karen Bjorkman.* 440, 865, 55-A11 (1995)

A Catalog of Far-Ultraviolet Point Sources Detected with the FAUST Telescope on ATLAS-1. *Stuart Bowyer, Timothy P. Sasseen, Xiaoyi Wu, & Michael Lampton.* 96, 461, 8-D9 (1995)

Far-Ultraviolet Stellar Photometry: Fields in Sagittarius and Scorpius. *Edward G. Schmidt & George R. Carruthers.* 96, 605, 10-A8 (1995)

A Volume-limited Survey of High Galactic Latitude Planetary Nebulae with the *Extreme Ultraviolet Explorer*. *Antonella Fruscione, Jeremy J. Drake, Kelley McDonald, & Roger F. Malina.* 441, 726, 72-A1 (1995)

Mg II *h* and *k* Profiles in High-Luminosity, Late-Type Stars. *R. D. Robinson & K. G. Carpenter.* 442, 328, 81-E12 (1995)

The Active Phase of the Hot Component of Z Andromedae. *T. Fernández-Castro, R. González-Riestra, A. Cassatella, A. R. Taylor, & E. R. Seaquist.* 442, 366, 82-B4 (1995)

The Transition Regions of Capella. *Jeffrey L. Linsky, Brian E. Wood, Philip Judge, Alexander Brown, Catherine Andrulis, & Thomas R. Ayres.* 442, 381, 82-C9 (1995)

The Threshold for Stellar Winds in Hot Main-Sequence Stars. *James A. Grigsby & Nancy D. Morrison.* 442, 794, 91-B7 (1995)

White Dwarfs and Mass Segregation in the Core of 47 Tucanae. *Francesco Paresce, Guido De Marchi, & Robert Jedrzejewski.* 442, L57, 94-D12 (1995)

Recent Changes in the *IUE* Spectrum of the Very Young Planetary Nebula He 3-1357 (=SAO 244567). *Walter A. Feibelman.* 443, 245, 98-D13 (1995)

Outer Layers of a Carbon Star: The View from the *Hubble Space Telescope*. *Hollis R. Johnson, Lisa M. Ensman, David R. Alexander, Eugene H. Avrett, Alexander Brown, Kenneth G. Carpenter, Kjell Eriksson, Bengt Gustafsson, Uffe G. Jørgensen, Philip D. Judge, Jeffrey L. Linsky, Donald G. Luttermoser, Francois Querci, Monique Querci, Richard D. Robinson, & Robert F. Wing.* 443, 281, 99-B6 (1995)

Hubble Space Telescope Observations of the Dwarf Nova Z Chamaeleontis through Two Eruption Cycles. *E. L. Robinson, Janet H. Wood, R. C. Bless, J. C. Clemens, J. F. Dolan, J. L. Elliot, M. J. Nelson, J. W. Percival, M. J. Taylor, G. W. van Citters, & E. Zhang.* 443, 295, 99-C9 (1995)

A Reanalysis of the SWP-HI *IUE* Observations of Capella. *Brian E. Wood & Thomas R. Ayres.* 443, 329, 99-F7 (1995)

Stellar Coronal Abundances. II. The First Ionization Potential Effect and Its Absence in the Corona of Procyon. *Jeremy J. Drake, J. Martin Laming, & Kenneth G. Widing.* 443, 393, 100-E2 (1995)

New Model of Iron Spectra in the Extreme Ultraviolet and Application to SERTS and *EUVE* Observations: A Solar Active Region and Capella. *N. S. Brickhouse, J. C. Raymond, & B. W. Smith.* 97, 551, 19-F4 (1995)

GHRS Observations of Cool, Low-Gravity Stars. II. Flow and Turbulent Velocities in the Outer Atmosphere of γ Crucis (M3.4 III). *Kenneth G. Carpenter, Richard D. Robinson, & Philip G. Judge.* 444, 424, 119-D7 (1995)

EUVE Observations of Algol: Detection of a Continuum and Implications for the Coronal [Fe/H] Abundance. *Robert A. Stern, James R. Lemen, Jürgen H. M. M. Schmitt, & John P. Pye.* 444, L45, 121-G7 (1995)

The Stellar Content of 30 Doradus Derived from Spatially Integrated Ultraviolet Spectra: A Test of Spectral Synthesis Models. *William D. Vacca, Carmelle Robert, Claus Leitherer, & Peter S. Conti.* 444, 647, 125-C3 (1995)

ϵ Canis Majoris and the Ionization of the Local Cloud. *J. V. Vallerga & B. Y. Welsh.* 444, 702, 126-A9 (1995)

The O IV and S IV Intercombination Lines in Solar and Stellar Ultraviolet Spectra. *J. W. Cook, F. P. Keenan, P. L. Dufton, A. E. Kingston, A. K. Pradhan, H. L. Zhang, J. G. Doyle, & M. A. Hayes.* 444, 936, 129-C9 (1995)

Composition of Interstellar Clouds in the Disk and Halo. III. HD 149881. *Lyman Spitzer, Jr., & Edward L. Fitzpatrick.* 445, 196, 135-C3 (1995)

The Mass Ratios of Cepheid Binaries. *Nancy Remage Evans.* 445, 393, 138-A1 (1995)

Transition Probabilities for the UV0.01 Multiplet in N III. *Tomas Brage, Charlotte Froese Fischer, & Philip G. Judge.* 445, 457, 138-G7 (1995)

Extreme Ultraviolet Spectroscopy and Photometry of VV Puppis during a High Accretion State. *Stéphane Vennes, Paula Szkody, Edward M. Sion, & Knox S. Long.* 445, 921, 148-A1 (1995)

Interpretation of Anomalous Ultraviolet Transitions of Fe II Observed in Laboratory Fourier Transform Spectra and Stellar *HST* and *IUE* Spectra. *Sveneric Johansson, Tomas Brage, David S. Leckrone, Gillian Nave, & Glenn M. Wahlgren.* 446, 361, 158-C1 (1995)

UV Spectrophotometry of the Hottest Stars from the Southern HK Survey. *John S. Drilling & Timothy C. Beers.* 446, L27, 160-E7 (1995)

UIT and Optical Imagery of Large Magellanic Cloud Associations LH 52 and LH 53: Ages and Initial Mass Function Slopes. *Robert S. Hill, K.-P. Cheng, Ralph C. Bohlin, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, & Theodore P. Stecher.* 446, 622, 164-F10 (1995)

ORFEUS Observations of G191-B2B: Neutral and Ionized Gas in the Local Interstellar Medium. *M. Hurwitz & S. Bowyer.* 446, 812, 167-C4 (1995)

A Search for a Pulsar in the Remnant of SN 1987A with the *Hubble Space Telescope* High-Speed Photometer. *J. W. Percival, P. T. Boyd, J. D. Biggs, J. F. Dolan, R. C. Bless, J. L. Elliot, M. J. Nelson, E. L. Robinson, M. J. Taylor, G. W. van Citters, & K. G. Wolinski.* 446, 832, 167-E4 (1995)

EUVE Observations of the Anomalous 1993 August Outburst of SS Cygni. *Christopher W. Mauche, John C. Raymond, & Janet A. Mattei.* 446, 842, 167-F7 (1995)

Ultraviolet and Optical Observations of OB Associations in M31. *Jesse K. Hill, Joan E. Isensee, Ralph C. Bohlin, K. P. Cheng, P. M. N. Hintzen, Robert W. O'Connell, Morton S. Roberts, Andrew M. Smith, Eric P. Smith, & Theodore P. Stecher.* 98, 595, 31-F10 (1995)

New Insights into Nonradiative Heating in Late A Star Chromospheres. *Frederick M. Walter, Lynn D. Matthews, & Jeffrey L. Linsky.* 447, 353, 177-C6 (1995)

Goddard High-Resolution Spectrograph Observations of the Interacting Binary System W Serpentis. *J. L. Weiland, S. N. Shore, E. A. Beaver, R. W. Lyons, & E. I. Rosenblatt.* 447, 401, 177-G13 (1995)

Tomography/Power Spectrum Techniques for Removal of Fixed Pattern Noise from *Hubble Space Telescope* Spectra. *Cheng-Hsuan Lyu, Frederick C. Bruhweiler, & Andrew M. Smith.* 447, 880, 188-A10 (1995)

The Visual and Ultraviolet Polarimetric Data of α Camelopardalis and κ Cassiopeia: Evidence of Shocked Regions. *Geoffrey K. Fox, John C. Brown, & Karen S. Bjorkman.* 447, 889, 188-B8 (1995)

A Model for the Amorphous Carbon Grains around C-rich Objects. *A. Blanco, S. Fonti, & V. Orofino.* 448, 339, 196-G6 (1995)

High-Speed Photometer Observations of the LMC Pulsar B0540−69. *P. T. Boyd, G. W. van Citters, J. F. Dolan, K. G. Wolinski, J. W. Percival, R. C. Bless, J. L. Elliot, M. J. Nelson, & M. J. Taylor.* 448, 365, 197-B13 (1995)

Hubble Space Telescope and *R*-Band Eclipse Maps of the UX Ursae Majoris Accretion Disk. *R. Baptista, Keith Horne, R. W. Hilditch, K. O. Mason, & J. E. Drew.* 448, 395, 197-E13 (1995)

Atlas of Synthetic Ultraviolet Spectra of Massive Star Populations. *Claus Leitherer, Carmelle Robert, & Timothy M. Heckman.* 99, 173, 36-F1 (1995)

Ultraviolet Observations of SN 1987A with the *IUE* Satellite. *Chun S. J. Pun, Robert P. Kirshner, George Sonneborn, Peter Challis, George Nassiopoulos, Richard Arquilla, D. Michael Crenshaw, Chris Shrader, Terry Teays, Angelo Cassatella, Roberto Gilmozzi, Antonio Talavera, Willem Wamsteker, Claes Fransson, & Nino Panagia.* 99, 223, 37-B13 (1995)

Tomographic Separation of Composite Spectra. III. Ultraviolet Detection of the Hot Companion of ϕ Persei. *Michelle L. Thaller, William G. Bagnuolo, Jr., Douglas R. Gies, & Laura R. Penny.* 448, 878, 207-A10 (1995)

Optical and Ultraviolet Analyses of ZZ Ceti Stars and Study of the Atmospheric Convective Efficiency in DA White Dwarfs. *P. Bergeron, F. Wesemael, R. Lamontagne, G. Fontaine, R. A. Saffer, & N. F. Allard.* 449, 258, 213-F10 (1995)

Far-Ultraviolet (912–1900 Å) Energy Distribution in Early-Type Main-Sequence Stars. *M. Chavez, R. Stalio, & J. B. Holberg.* 449, 280, 214-A7 (1995)

Phase-resolved *IUE* and Optical Observations of the Polar BY Camelopardalis. *D. B. Zucker, J. C. Raymond, A. Silber, P. Mason, S. Curiel, S. Vrtilek, & E. Schlegel.* 449, 310, 214-D1 (1995)

Extreme-Ultraviolet Spectroscopy and Photometry of EQ Pegasi. *Brunella C. Monsignori Fossi, Massimo Landini, Antonella Fruscione, & Jean Dupuis.* 449, 376, 215-C7 (1995)

The *IUE* Spectrum of the "O VI Sequence" Planetary Nebula He 2–55. *Walter A. Feibelman.* 449, L87, 217-D9 (1995)

A Search for *r*-Process Elements in the Vela Supernova Remnant. *George Wallerstein, Andrew D. Vanture, Edward B. Jenkins, & George M. Fuller.* 449, 688, 222-C10 (1995)

Spectroscopic *EUVE* Observations of the Active Star AB Doradus. *Slavek M. Rucinski, Rolf Mewe, Jelle S. Kaastra, Osmi Vilhu, & Stephen M. White.* 449, 900, 225-B11 (1995)

A Study of Ultraviolet Objects near the North Galactic Pole with FAUST. *N. Brosch, E. Almoznino, E. M. Leibowitz, H. Netzer, T. P. Sasseen, S. Bowyer, M. Lampton, & X. Wu.* 450, 137, 230-A1 (1995)

Deuterium and the Local Interstellar Medium Properties for the Procyon and Capella Lines of Sight. *Jeffrey L. Linsky, Athanassios Diplas, Brian E. Wood, Alexander Brown, Thomas R. Ayres, & Blair D. Savage.* 451, 335, 250-E2 (1995)

Ultraviolet Temporal Variability of the Peculiar Star R Aquarii. *S. R. Meier & M. Kafatos.* 451, 359, 250-G5 (1995)

A Search for Microflaring Activity on dMe Flare Stars. I. Observations of the dM8e Star CN Leonis. *R. D. Robinson, K. G. Carpenter, J. W. Percival, & J. A. Bookbinder.* 451, 795, 258-B6 (1995)

A Semiempirical Determination of the Wind Velocity Structure for the Hybrid-Chromosphere Star α Trianguli Australis. *Graham M. Harper, Brian E. Wood, Jeffrey L. Linsky, Philip D. Bennett, Thomas R. Ayres, & Alexander Brown.* 452, 407, 267-F6 (1995)

Discovery of Faint Ultraviolet Sources in the Globular Cluster NGC 6624 with the *Hubble Space Telescope*. *Craig Sosin & Adrienne M. Cool.* 452, L29, 269-F13 (1995)

The *IUE* MEGA Campaign: Wind Variability and Rotation in Early-Type Stars. *D. Massa, A. W. Fullerton, J. S. Nichols, S. P. Owocki, R. K. Prinja, N. St-Louis, A. J. Willis, B. Altner, C. T. Bolton, J. P. Cassinelli, D. Cohen, R. G. Cooper, A. Feldmeier, K. G. Gayley, T. Harries, S. R. Heap, R. N. Henriksen, I. D. Howarth, I. Hubeny, E. Kambe, L. Kaper, G. Koenigsberger, S. Marchenko, S. R. McCandliss, A. F. J. Moffat, T. Nugis, J. Puls, C. Robert, R. E. Schulte-Ladbeck, L. J. Smith, M. A. Smith, W. L. Waldron, & R. L. White.* 452, L53, 270-C8 (1995)

The *IUE* MEGA Campaign: Wind Structure and Variability of HD 50896 (WN5). *Nicole St-Louis, M. J. Dalton, S. V. Marchenko, A. F. J. Moffat, & A. J. Willis.* 452, L57, 270-D3 (1995)

The *IUE* MEGA Campaign: Modulated Structure in the Wind of HD 64760 (B0.5 Ib). *Raman K. Prinja, Derck Massa, & Alexander W. Fullerton.* 452, L61, 270-D13 (1995)

The *IUE* MEGA Campaign: The Rotationally Modulated Wind of ζ Puppis. *Ian D. Howarth, Raman K. Prinja, & Derck Massa.* 452, L65, 270-E6 (1995)

Wind Variability of B Supergiants. I. The Rapid Rotator HD 64760 (B0.5 Ib). *Derck Massa, Raman K. Prinja, & Alexander W. Fullerton.* 452, 842, 276-C7 (1995)

Ultraviolet Observations of the Eruption in the Small Magellanic Cloud Wolf-Rayet System HD 5980. *Gloria Koenigsberger, Ed Guinan, Lawrence Auer, & Leonid Georgiev.* 452, L107, 279-G11 (1995)

C IV and O VI Transitions in the Region $\lambda\lambda$1100–2000 and Examples Found in *IUE* Spectra of Hot Stars. *Walter A. Feibelman & Sveneric Johansson.* 100, 405, 51-F3 (1995)

The *EUVE* and *IUE* Spectra of the Hot DA White Dwarf GD 659. *J. B. Holberg, M. A. Barstow, F. C. Bruhweiler, & E. M. Sion.* 453, 313, 285-D12 (1995)

Simultaneous *Extreme-Ultraviolet Explorer* and Optical Observations of AD Leonis: Evidence for Large Coronal Loops and the Neupert Effect in Stellar Flares. *Suzanne L. Hawley, George H. Fisher, Theodore Simon, Scott L. Cully, Susana E. Deustua, Marek Jablonski, Christopher M. Johns-Krull, Bjørn R. Pettersen, Verne Smith, William J. Spiesman, & Jeffrey Valenti.* 453, 464, 287-D14 (1995)

Extreme Ultraviolet Emission Lines of Fe XIII in Solar and Stellar Spectra. *F. P. Keenan, V. J. Foster, J. J. Drake, S. S. Tayal, & K. G. Widing.* 453, 906, 296-D9 (1995)

Accreting, Isolated Neutron Stars. III. Preheating of Infalling Gas and Cometary H II Regions. *Omer Blaes, Orlando Warren, & Piero Madau.* 454, 370, 304-D3 (1995)

Extreme Ultraviolet Emission from the Millisecond Pulsar J0437–4715. *J. Edelstein, R. S. Foster, & S. Bowyer.* 454, 442, 305-D4 (1995)

Hopkins Ultraviolet Telescope Observations of Six Elliptical and S0 Galaxies. *Thomas H. Brown, Henry C. Ferguson, & Arthur F. Davidsen.* 454, L15, 307-D11 (1995)

A Reconnaissance of the 900–1200 Å Spectra of Early O Stars in the Magellanic Clouds. *Nolan R. Walborn, Knox S. Long, Daniel J. Lennon, & Rolf-Peter Kudritzki.* 454, L27, 307-F9 (1995)

Hopkins Ultraviolet Telescope Observations of U Geminorum Far from Outburst. *Knox S. Long, William P. Blair, & John C. Raymond.* 454, L39, 308-A8 (1995)

Observations of the Ultraviolet-Bright Star in 47 Tucanae with the Hopkins Ultraviolet Telescope. *W. Van Dyke Dixon, Arthur F. Davidsen, & Henry C. Ferguson.* 454, L47, 308-B9 (1995)

New Far-Ultraviolet Intrinsic Spectral Fluxes of Hot Stars and Their Photospheric Temperatures. *Richard H. Buss, Jr., J. W. Kruk, & H. C. Ferguson.* 454, L55, 308-C12 (1995)

Simultaneous Observation of Direct and Raman-scattered O VI Lines in the Symbiotic Nova RR Telescopii. *Brian R. Espey, Regina E. Schulte-Ladbeck, Gerard A. Kriss, Fred Hamann, Hans M. Schmid, & Joni J. Johnson.* 454, L61, 308-D8 (1995)

Terminal Velocities and the Bistability of Stellar Winds. *Henny J. G. L. M. Lamers, Theodore P. Snow, & Douglas M. Lindholm.* 455, 269, 321-G7 (1995)

A Non-LTE Analysis of the ζ Aurigae B-Type Secondary. I. Determination of the Fundamental Stellar Parameters. *Philip D. Bennett, Alexander Brown, & Jeffrey L. Linsky.* 455, 317, 322-D14 (1995)

Hot White Dwarfs in the Local Interstellar Medium: Hydrogen and Helium Interstellar Column Densities and Stellar Effective Temperatures from *Extreme-Ultraviolet Explorer* Spectroscopy. *Jean Dupuis, Stéphane Vennes, Stuart Bowyer, Anil K. Pradhan, & Peter Thejll.* 455, 574, 329-G3 (1995)

VIDEOTAPES

The Void Spectrum in Two-dimensional Numerical Simulations of Gravitational Clustering. *Guinevere Kauffmann & Adrian L. Melott.* 393, 415, 121-B1 (1992)

The Three-Point Function in an Ensemble of Numerical Simulations. *J. N. Fry, Adrian L. Melott, & Sergei F. Shandarin.* 393, 431, 121-C5 (1992)

Coherent Structures in the Universe and the Adhesion Model. *Lev Kofman, Dmitri Pogosyan, Sergei F. Shandarin, & Adrian L. Melott.* 393, 437, 121-D1 (1992)

Percolation Analysis of Nonlinear Structures in Scale-free Two-dimensional Simulations. *Kurt G. Dominik & Sergei F. Shandarin.* 393, 450, 121-E1 (1992)

Transformations of Galaxies. I. Mergers of Equal-Mass Stellar Disks. *Joshua E. Barnes.* 393, 484, 121-G9 (1992)

Off-Center Nuclei in Galaxies. *R. H. Miller & B. F. Smith.* 393, 508, 122-B7 (1992)

Three-dimensional Hydrodynamic Simulations of Narrow-Angle–Tail Radio Sources. I. The Begelman, Rees, and Blandford Model. *Dinshaw S. Balsara & Michael L. Norman.* 393, 631, 123-F3 (1992)

On the Differences between Plage and Quiet Sun in the Solar Photosphere. *Alan M. Title, Kenneth P. Topka, Theodore D. Tarbell, Wolfgang Schmidt, Christiaan Balke, & Göran Scharmer.* 393, 782, 125-E1 (1992)

A Simulation Atlas of Tidal Features in Galaxies. *Sethanne Howard, William C. Keel, Gene Byrd, & Jordan Burkey.* 417, 502, 225-E8 (1993)

Numerical Simulations of Shock-driven Accretion. *M. Różyczka & H. C. Spruit.* 417, 677, 227-G1 (1993)

The Coronal Structure above Sunspots and Pores. *R. Harmon, R. Rosner, H. Zirin, E. Spiller, & L. Golub.* 417, L83, 230-E1 (1993)

Simulation of the Instability of Mach 2 and Mach 4 Gaseous Jets in Two and Three Dimensions. *Gene M. Bassett & Paul R. Woodward.* 441, 582, 70-B1 (1995)

A Turbulent Model for the Interstellar Medium. I. Threshold Star Formation and Self-Gravity. *Enrique Vázquez-Semadeni, Thierry Passot, & Annick Pouquet.* 441, 702, 71-F1 (1995)

Theoretical Overview and Modeling of the Sodium and Potassium Atmospheres of Mercury. *William H. Smyth & M. L. Marconi.* 441, 839, 73-E12 (1995)

Emerging Flux Tubes in the Solar Convection Zone. I. Asymmetry, Tilt, and Emergence Latitude. *P. Caligari, F. Moreno-Insertis, & M. Schüssler.* 441, 886, 74-B12 (1995)

Magnetoconvection Dynamics in a Stratified Layer. I. Two-dimensional Simulations and Visualization. *Steven R. Lantz & R. N. Sudan.* 441, 903, 74-D4 (1995)

Magnetoconvection Dynamics in a Stratified Layer. II. A Low-Order Model of the Tilting Instability. *Steven R. Lantz.* 441, 925, 74-F2 (1995)

Nonlinear Hydrodynamics of Cosmological Sheets. II. Fragmentation and the Gravitational, Cooling, and Thin-Shell Instabilities. *Wenbo Y. Anninos, Michael L. Norman, & Peter Anninos.* 450, 1, 228-B1 (1995)

Gravitational Microlensing by Random Motion of Stars: Analysis of Light Curves. *Joachim Wambsganss & Tomislav Kundić.* 450, 19, 228-C11 (1995)

High-Resolution Observation of Disk Spicules. I. Evolution and Kinematics of Spicules in the Enhanced Network. *Yoshinori Suematsu, Haimin Wang, & Harold Zirin.* 450, 411, 233-E12 (1995)

The Role of Magnetic Reconnection in Chromospheric Eruptions. *Judith T. Karpen, Spiro K. Antiochos, & C. Richard DeVore.* 450, 422, 233-G3 (1995)

The Structure of the Io Torus. *Nicholas M. Schneider & John T. Trauger.* 450, 450, 234-B13 (1995)

WAVE MOTIONS

Nonaxisymmetric Instabilities in Rotating Shear Flows: Internal Gravity Modes in Stratified Media and Analogies with Plane Flows. *P. Ghosh & M. A. Abramowicz.* 366, 221, 3-F13 (1991)

Coronal Loop Heating by Wave-Particle Interactions. *Altair S. de Assis & King H. Tsui.* 366, 324, 5-B1 (1991)

Scattering of Acoustic Waves from a Magnetic Flux Tube Embedded in a Radiating Fluid. *T. J. Bogdan & M. Knölker.* 369, 219, 38-F1 (1991)

Spectral Distortions of the Microwave Background Radiation Resulting from the Damping of Pressure Waves. *R. A. Daly.* 371, 14, 60-C3 (1991)

Viscosity and Inertia in Cosmic-Ray Transport: Effects of an Average Magnetic Field. *L. L. Williams & J. R. Jokipii.* 371, 639, 69-E3 (1991)

Heating Solar Coronal Holes. *E. N. Parker.* 372, 719, 84-E11 (1991)

Coronal Proton Transport in the Presence of Alfvén Waves and Implications for Gamma-Ray Burst Models. *D. F. Smith & S. H. Brecht.* 373, 289, 89-E9 (1991)

Measurements of High-Frequency Solar Oscillation Modes. *T. L. Duvall, Jr., J. W. Harvey, S. M. Jefferies, & M. A. Pomerantz.* 373, 308, 89-G1 (1991)

Magnetohydrodynamic Turbulence Dissipation and Stochastic Proton Acceleration in Solar Flares. *James A. Miller.* 376, 342, 129-B11 (1991)

The Phase Mixing of Alfvén Waves, Coordinated Modes, and Coronal Heating. *E. N. Parker.* 376, 355, 129-C11 (1991)

Li Depletion in F Stars by Internal Gravity Waves. *Ramón J. García López & Hendrik C. Spruit.* 377, 268, 141-C7 (1991)

Alfvén Wave Trapping, Network Microflaring, and Heating in Solar Coronal Holes. *R. L. Moore, Z. E. Musielak, S. T. Suess, & C.-H. An.* 378, 347, 155-C5 (1991)

Diskoseismology: Probing Accretion Disks. I. Trapped Adiabatic Oscillations. *Michael A. Nowak & Robert V. Wagoner.* 378, 656, 160-E9 (1991)

A Mechanism for Gamma-Ray Bursts by Alfvén-Wave Acceleration in a Nonuniform Atmosphere. *K. A. Holcomb & T. Tajima.* 378, 682, 160-G10 (1991)

Multiple Scattering of Acoustic Waves by a Pair of Uniformly Magnetized Flux Tubes. *Thomas J. Bogdan & David C. Fox.* 379, 758, 174-B10 (1991)

Emission at Cyclotron Harmonics Due to Coalescence of z-Mode Waves. *D. B. Melrose.* 380, 256, 179-C1 (1991)

Propagation of Magnetoacoustic Waves in the Solar Atmosphere with Random Inhomogeneities of Density and Magnetic Fields. *M. Ryutova, M. Kaisig, & T. Tajima.* 380, 268, 179-D1 (1991)

WAVES

Orbital Evolution of Bodies Crossing Disks Due to Density and Bending Wave Excitation. *Pawel Artymowicz.* 423, 581, 55-F8 (1994)

Linear Wave Propagation in Mildly Relativistic Thermal Pair Plasmas. *Paola Pietrini & Julian H. Krolik.* 423, 693, 57-B13 (1994)

Electron Injection and Acceleration at Nonlinear Shocks: Results of Numerical Simulations. *Amir Levinson.* 426, 327, 100-C1 (1994)

Properties of Acoustic Sources in the Sun. *Pawan Kumar.* 428, 827, 140-E7 (1994)

Stellar Winds with Non-WKB Alfvén Waves. I. Wind Models for Solar Coronal Conditions. *K. B. MacGregor & P. Charbonneau.* 430, 387, 164-A9 (1994)

Gravitational Damping of Alfvén Waves in Stellar Atmospheres and Winds. *I. K. Khabibrakhmanov & D. J. Mullan.* 430, 814, 172-A7 (1994)

Acoustic Instability Driven by Cosmic-Ray Streaming. *Mitchell C. Begelman & Ellen G. Zweibel.* 431, 689, 187-B6 (1994)

Stochastic Reacceleration of Cosmic Rays in the Interstellar Medium. *E. S. Seo & V. S. Ptuskin.* 431, 705, 187-C10 (1994)

Shock Propagation and the Generation of Magnetohydrodynamic Wave Fields in Inhomogeneous Molecular Clouds. *Mark S. Miesch & Ellen G. Zweibel.* 432, 622, 203-F9 (1994)

Chromospheric Heating and Metal Deficiency in Cool Giants: Theoretical Results versus Observations. *M. Cuntz, W. Rammacher, & P. Ulmschneider.* 432, 690, 204-E12 (1994)

Waves and Instabilities of a Toroidal Magnetic Flux Tube in a Rotating Star. *A. Ferriz-Mas & M. Schüssler.* 433, 852, 221-F10 (1994)

Use of Acoustic Wave Travel-Time Measurements to Probe the Near-Surface Layers of the Sun. *S. M. Jefferies, Y. Osaki, H. Shibahashi, T. L. Duvall, Jr., J. W. Harvey, & M. A. Pomerantz.* 434, 795, 238-G6 (1994)

The Possible Role of MHD Waves in Heating the Solar Corona. *Lisa J. Porter, James A. Klimchuk, & Peter A. Sturrock.* 435, 482, 250-B1 (1994)

The Possible Role of High-Frequency Waves in Heating Solar Coronal Loops. *Lisa J. Porter, James A. Klimchuk, & Peter A. Sturrock.* 435, 502, 250-C10 (1994)

Simulation of Interactions of an Orbiting Compact Star with an Accretion Disk by Smoothed Particle Hydrodynamics. *Diego Molteni, G. Gerardi, & Sandip K. Chakrabarti.* 436, 249, 264-F1 (1994)

Multiple Scattering and Resonant Absorption of p-Modes by Fibril Sunspots. *R. Keppens, T. J. Bogdan, & M. Goossens.* 436, 372, 266-E2 (1994)

The Effects of a Hot Outer Atmosphere on Acoustic-Gravity Waves. *Bradley W. Hindman & Ellen G. Zweibel.* 436, 929, 278-D11 (1994)

On the Dynamics of Warped Accretion Disks. *J. C. B. Papaloizou & D. N. C. Lin.* 438, 841, 15-G2 (1995)

Alfvén Waves in Interstellar Gasdynamics. *Christopher F. McKee & Ellen G. Zweibel.* 440, 686, 52-F2 (1995)

On Magnetic Turbulence in Interstellar Clouds. *P. C. Myers & V. K. Khersonsky.* 442, 186, 79-F9 (1995)

Gravity Waves in the Lower Solar Corona. *Yu-Qing Lou.* 442, 401, 82-E1 (1995)

Contact and Pressure Balance Structures in Two-Fluid Cosmic-Ray Hydrodynamics. *G. M. Webb, M. Brio, G. P. Zank, & T. Story.* 442, 822, 91-E2 (1995)

A Numerical Study of Resonant Absorption in a Magnetohydrodynamic Cavity Driven by a Broadband Spectrum. *Andrew N. Wright & Graham J. Rickard.* 444, 458, 119-G13 (1995)

Coronal Heating by the Resonant Absorption of Alfvén Waves: Wavenumber Scaling Laws. *L. Ofman, J. M. Davila, & R. S. Steinolfson.* 444, 471, 120-B1 (1995)

Nonlinear Alfvén Wave Propagation in Nonhomogeneous Collisionless Media. *Ildar K. Khabibrakhmanov & Danny Summers.* 444, 796, 127-D9 (1995)

Acoustic Wave Propagation in the Solar Atmosphere. I. Rediscussion of the Linearized Theory Including Nonstationary Solutions. *Zhengzhi Wang, Roger K. Ulrich, & Ferdinand V. Coroniti.* 444, 879, 128-E10 (1995)

Hydromagnetic Waves and the Linewidth-Size Relation in Interstellar Molecular Clouds. *Telemachos Ch. Mouschovias & Dimitrios Psaltis.* 444, L105, 131-A8 (1995)

Magnetic Interchange Instability in Accretion Disks. *Stephen H. Lubow & Hendrik C. Spruit.* 445, 337, 137-B9 (1995)

Gradual Approach to Coalescence for Compact Stars Orbiting Massive Black Holes. *Dieter Hils & Peter L. Bender.* 445, L7, 140-B10 (1995)

Gravity Wave–induced Polarization of the Cosmic Microwave Background Radiation. *Ka Lok Ng & Kin-Wang Ng.* 445, 521, 142-C1 (1995)

Alfvén Turbulence Dissipation in Proton Injection and Acceleration in Solar Flares. *Dean F. Smith & James A. Miller.* 446, 390, 158-E12 (1995)

Nonlinear Evolution of Internal Gravity Waves in Cluster Cooling Flows. *Eric A. Lufkin, Steven A. Balbus, & John F. Hawley.* 446, 529, 163-D5 (1995)

Fokker-Planck Equations of Stochastic Acceleration: Green's Functions and Boundary Conditions. *Brian T. Park & Vahé Petrosian.* 446, 699, 165-F10 (1995)

Instabilities in Photoionized Interstellar Gas. *Edvige Corbelli & Andrea Ferrara.* 447, 708, 185-G1 (1995)

"Steady" and "Fluctuating" Parts of the Sun's Internal Magnetic Field: Improved Model. *K. M. Hiremath & M. H. Gokhale.* 448, 437, 198-B12 (1995)

Magnetohydrodynamic Waves in a Bounded Inhomogeneous Medium with Prominence-Corona Properties. *R. Oliver & J. L. Ballester.* 448, 444, 198-C8 (1995)

On the Generation of Flux-Tube Waves in Stellar Convection Zones. II. Improved Treatment of Longitudinal Tube Wave Generation. *Z. E. Musielak, R. Rosner, H. P. Gail, & P. Ulmschneider.* 448, 865, 206-G7 (1995)

Detectability of Electrostatic Decay Products in *Ulysses* and *Galileo* Observations of Type III Solar Radio Sources. *Iver H. Cairns.* 449, L95, 217-E8 (1995)

Millisecond Pulsars: Detectable Sources of Continuous Gravitational Waves? *Kimberly C. B. New, G. Chanmugam, Warren W. Johnson, & Joel E. Tohline.* 450, 757, 241-B9 (1995)

The Effects on Mass Flows on the Dissipation of Alfvén Waves in the Upper Layers of the Solar Atmosphere. *Margarita P. Ryutova & Shadia R. Habbal.* 451, 381, 251-B7 (1995)

Klein-Gordon Equation and the Local Critical Frequency for Alfvén Waves Propagating in an Isothermal Atmosphere. *Z. E. Musielak & R. L. Moore.* 452, 434, 268-A11 (1995)

Coronal Loop Oscillations Driven by Footpoint Motions: Analytical Results for a Model Problem. *David Berghmans & Peter De Bruyne.* 453, 495, 287-G10 (1995)

Jacket Modes: Solar Acoustic Oscillations Confined to Regions Surrounding Sunspots and Plage. *T. J. Bogdan & P. S. Cally.* 453, 919, 296-F1 (1995)

Ion Acoustic Wave Frequencies and Onset Times during Type III Solar Radio Bursts. *Iver H. Cairns & P. A. Robinson.* 453, 959, 297-C1 (1995)

Coronal Heating and Solar Wind Energy Balance. *Ørnulf Sandbæk & Egil Leer.* 454, 486, 306-A7 (1995)

Stellar Winds with Non-WKB Alfvén Waves. II. Wind Models for Cool, Evolved Stars. *P. Charbonneau & K. B. MacGregor.* 454, 901, 314-C3 (1995)

The Damping of Compressional Alfvén Waves near Magnetic Cusp Configurations. *R. A. Scheper & A. B. Hassam.* 455, 693, 331-D11 (1995)

X-RAYS: BINARIES

The Orbital Ephemeris and Eclipse Transitions of the Low-Mass X-Ray Binary EXO 0748−676. *A. N. Parmar, A. P. Smale, F. Verbunt, & R. H. D. Corbet.* 366, 253, 4-B9 (1991)

Neutron Star Crustal Plate Tectonics. I. Magnetic Dipole Evolution in Millisecond Pulsars and Low-Mass X-Ray Binaries. *M. Ruderman.* 366, 261, 4-C5 (1991)

Spectroscopy of FO Aquarii: Evidence for Reprocessing in a Hot Wind. *Phillip J. Martell & Ronald H. Kaitchuck.* 366, 286, 4-E5 (1991)

Sigma Observation of the Pulsar OAO 1657−415: Precise Localization at Hard X-Ray Energy and Discovery of Spin-down. *S. Mereghetti, J. Ballet, A. Lambert, P. Mandrou, L. Natalucci, J. Paul, J. P. Roques, L. Salotti, M. Gilfanov, R. Sunyaev, G. Babalyan, E. Churazov, N. Khavenson, A. Kuznetsov, D. Stepanov, & S. Yunin.* 366, L23, 6-C11 (1991)

Birthrates of Galactic Millisecond Pulsars and Their Low-Mass X-Ray Binary Precursors. *Marco Tavani.* 366, L27, 6-D1 (1991)

"Superlow-State" Hard X-Ray Observation of Cygnus X-1. *P. Ubertini, A. Bazzano, F. Perotti, E. Quadrini, A. Court, A. J. Dean, N. Dipper, R. Lewis, L. Bassani, & J. B. Stephen.* 366, 544, 9-G1 (1991)

Application of a General Relativistic Accretion Disk Model to LMC X-1, LMC X-3, X1608−522, and X1636−536. *Ken Ebisawa, Kazuhisa Mitsuda, & Tomoyuki Hanawa.* 367, 213, 14-F8 (1991)

Ginga Observation of an AM Herculis Type Source H0538+608. *M. Ishida, A. Silber, H. V. Bradt, R. A. Remillard, K. Makishima, & T. Ohashi.* 367, 270, 15-D6 (1991)

Conditions for Accretion-induced Collapse of White Dwarfs. *Ken'ichi Nomoto & Yoji Kondo.* 367, L19, 17-D1 (1991)

Structure of Thermal Pair Clouds around Gamma-Ray–emitting Black Holes. *Edison P. Liang.* 367, 470, 19-C1 (1991)

Accretion Powered Pulsars: Continuum Spectra and Light Curves of Settling Accretion Mounds. *David J. Burnard, Jonathan Arons, & Richard I. Klein.* 367, 575, 20-D10 (1991)

On the Detectability of Pulsars in Close Binary Systems. *Helen M. Johnston & Shrinivas R. Kulkarni.* 368, 504, 31-D1 (1991)

Accretion Mechanisms in the Be/X-Ray Transient System A0535+26. *C. Motch, L. Stella, E. Janot-Pacheco, & M. Mouchet.* 369, 490, 43-G5 (1991)

X-Ray Echoes from Gamma-Ray Bursts. *Charles D. Dermer, Kevin C. Hurley, & Dieter H. Hartmann.* 370, 341, 51-E1 (1991)

Problems of Ultra–High-Energy Particle Acceleration in Cygnus X-3: A Critical Reappraisal. *Abhas Mitra.* 370, 345, 51-E7 (1991)

Multimission Observations of 4U 1538−52. *L. R. Cominsky & F. Moraes.* 370, 670, 56-F10 (1991)

The Ultraviolet Spectrum of Scorpius X-1 as Observed by *IUE*: 1978–1988. *T. R. Kallman, J. C. Raymond, & S. D. Vrtilek.* 370, 717, 57-C11 (1991)

The Discovery of an X-Ray Burst and a Study of Aperiodic Variability from SMC X-1. *L. Angelini, L. Stella, & N. E. White.* 371, 332, 64-C1 (1991)

Enhanced Winds and Tidal Streams in Massive X-Ray Binaries. *John M. Blondin, Ian R. Stevens, & Timothy R. Kallman.* 371, 684, 70-B1 (1991)

Accretion in Wind-driven X-Ray Sources. *Ronald E. Taam, Albert Fu, & B. A. Fryxell.* 371, 696, 70-C1 (1991)

Magnetic Two-Photon Scattering and Two-Photon Emission: Cross Sections and Redistribution Functions. *S. G. Alexander & P. Mészáros.* 372, 554, 82-E11 (1991)

Cyclotron Harmonics in Accreting Pulsars and Gamma-Ray Bursters: Effect of Two-Photon Processes. *S. G. Alexander & P. Mészáros.* 372, 565, 82-F9 (1991)

Stationary Accelerators around Keplerian Disks of Aligned Magnetized Collapsed Objects: Pair Production and Gamma-Ray Emission. *K. S. Cheng & M. Ruderman.* 373, 187, 88-C9 (1991)

The Near-Infrared Spectra of Low-Mass X-Ray Binaries and Related Objects. *A. P. Cowley, P. C. Schmidtke, D. Crampton, J. B. Hutchings, & M. Bolte.* 373, 228, 88-G1 (1991)

Observations of Ultra–High-Energy Photons from Cygnus X-3. *Y. Muraki, S. Shibata, T. Aoki, K. Mitsui, A. Okada, Y. Ohashi, K. Kobayakawa, H. Kojima, T. Kitamura, Y. Kato, T. Takahashi, & I. Nakamura.* 373, 657, 96-B4 (1991)

Changes in the 11 Minute Period of 4U 1820−30. *J. Tan, E. Morgan, W. H. G. Lewin, W. Penninx, M. van der Klis, J. van Paradijs, K. Makishima, H. Inoue, T. Dotani, & K. Mitsuda.* 374, 291, 101-F6 (1991)

The Effects of X-Ray Illumination on Accretion Disk Interiors. *Yuan-Kuen Ko & Timothy R. Kallman.* 374, 721, 108-A10 (1991)

A Jet Model for a Very High State of GX 339−4. *Sigenori Miyamoto & Shunji Kitamoto.* 374, 741, 108-C6 (1991)

X-Ray to Infrared Observations of the AM Herculis System E1405−451 (V834 Centauri). *R. M. Sambruna, L. Chiappetti, A. Treves, J. M. Bonnet-Bidaud, P. Bouchet, L. Maraschi, C. Motch, & M. Mouchet.* 374, 744, 108-C10 (1991)

Detection of Coherent 7.6 Hz Oscillations during a Burst from Aquila X-1. *R. J. Schoelkopf & R. L. Kelley.* 375, 696, 121-D1 (1991)

Flares in the X-Ray Source EXO 2030+375. *Krishna M. V. Apparao.* 375, 701, 121-D7 (1991)

Cyclotron Line Features in the Spectrum of the Transient X-Ray Pulsar X0115+634. *F. Nagase, T. Dotani, Y. Tanaka, K. Makishima, T. Mihara, T. Sakao, H. Tsunemi, S. Kitamoto, K. Tamura, A. Yoshida, & H. Nakamura.* 375, L49, 124-B11 (1991)

The X-Ray Properties of GX 301−2 (4U 1223−62). *F. Haberl.* 376, 245, 128-A5 (1991)

Optical Emission Enhancements in Be Stars. *Krishna M. V. Apparao.* 376, 256, 128-B3 (1991)

Observations of Scorpius X-1 with *IUE*: Ultraviolet Results from a Multiwavelength Campaign. *S. D. Vrtilek, W. Penninx, J. C. Raymond, F. Verbunt, P. Hertz, K. Wood, W. H. G. Lewin, & K. Mitsuda.* 376, 278, 128-D1 (1991)

SMM/HXRBS Observations of Cygnus X-1 from 1986 December to 1988 April. *R. A. Schwartz, L. E. Orwig, B. R. Dennis, J. C. Ling, & W. A. Wheaton.* 376, 312, 128-G1 (1991)

Mayflower Mine 1500 GV Detector: Cosmic-Ray Anisotropy and Search for Cygnus X-3. *D. J. Cutler & D. E. Groom.* 376, 322, 128-G12 (1991)

Collisions of Giant Stars with Compact Objects: Hydrodynamical Calculations. *Frederic A. Rasio & Stuart L. Shapiro.* 377, 559, 146-F1 (1991)

On the Nature and Evolution of the Windy Binary Pulsar PSR 1744−24A. *Jacob Shaham & Marco Tavani.* 377, 588, 147-A11 (1991)

On Spectra of X-Ray Bursters in the Expansion Phase. *I. I. Lapidus.* 377, L93, 150-E1 (1991)

The *Einstein* Objective Grating Spectrometer Survey of Galactic Binary X-Ray Sources. *S. D. Vrtilek, J. E. McClintock, F. D. Seward, S. M. Kahn, & B. J. Wargelin.* 76, 1127, 41-C1 (1991)

Turbulence, Convection, and Stability in Accretion Disks. *César Meirelles Filho.* 378, 266, 154-C4 (1991)

A Model for the 35 Day Variations in the Pulse Profile of Hercules X-1. *J. A. Petterson, R. E. Rothschild, & D. E. Gruber.* 378, 696, 161-A11 (1991)

A New Candidate Orbital Period for KO Velorum (E1013−477). *K. Mukai & R. H. D. Corbet.* 378, 701, 161-B3 (1991)

Searches for Millisecond Pulsations in Low-Mass X-Ray Binaries. *K. S. Wood, J. P. Norris, P. Hertz, B. A. Vaughan, P. F. Michelson, K. Mitsuda, W. H. G. Lewin, J. van Paradijs, W. Penninx, & M. van der Klis.* 379, 295, 166-F9 (1991)

X-Ray–illuminated Stellar Winds: Optically Thick Wind Models for Massive X-Ray Binaries. *Ian R. Stevens.* 379, 310, 167-A1 (1991)

Can Neutron Stars Ablate Their Companions? *Amir Levinson & David Eichler.* 379, 359, 167-E1 (1991)

Discovery with the Sigma Telescope of Hard X-Rays from the Globular Cluster Terzan 2. *D. Barret, S. Mereghetti, J. P. Roques, P. Mandrou, L. Salotti, F. Lebrun, Ph. Laurent, J. Ballet, E. Churazov, M. Gifanov, R. Sunyaev, N. Khavenson, I. Chulkov, B. Novikov, A. Kuznetzov, & A. Dyachkov.* 379, L21, 169-C1 (1991)

UBVRI Photometry of Stars in the Fields of X-Ray Selected BL Lacertae Objects. *Paul S. Smith, Buell T. Jannuzi, & Richard Elston.* 77, 67, 44-D1 (1991)

The Eclipsing AM Herculis Variable H1907+690. *R. A. Remillard, B. A. Stroozas, S. Tapia, & A. Silber.* 379, 715, 173-E13 (1991)

Discovery of a Cyclotron Resonance Feature at 30 keV from the Transient X-Ray Pulsar Cepheus X-4. *T. Mihara, K. Makishima, S. Kamijo, T. Ohashi, F. Nagase, Y. Tanaka, & K. Koyama.* 379, L61, 175-C6 (1991)

Discovery of Periodic Eclipses in the X-Ray Pulsar 1H 0253+193. *Yuichi Kamata, Yuzuru Tawara, & Katsuji Koyama.* 379, L65, 175-C13 (1991)

"Hidden" Millisecond Pulsars. *Marco Tavani.* 379, L69, 175-D5 (1991)

LMC X-4: *Ginga* Observations and Search for Orbital Period Changes. *A. Levine, S. Rappaport, A. Putney, R. Corbet, & F. Nagase.* 381, 101, 190-C7 (1991)

A Model of Pulsed Gamma Radiation from the X-Ray Binary Hercules X-1/HZ Herculis. *F. A. Aharonian & A. M. Atoyan.* 381, 220, 191-F8 (1991)

A Search for the 2.223 MeV Neutron Capture Gamma-Ray Line from the Directions of Cygnus and the Galactic Center. *Michael J. Harris & Gerald H. Share.* 381, 439, 196-B10 (1991)

Discovery of a Long-Term Periodic Variation in LMC X-3. *A. P. Cowley, P. C. Schmidtke, K. Ebisawa, F. Makino, R. A. Remillard, D. Crampton, J. B. Hutchings, S. Kitamoto, & A. Treves.* 381, 526, 197-C1 (1991)

N III Line Emission in Planetary Nebulae: Not Bowen Fluorescence. *S. O. Kastner & A. K. Bhatia.* 381, L59, 199-D7 (1991)

Polarization Properties of Emission Lines from Relativistic Accretion Disks. *Kaiyou Chen & Douglas M. Eardley.* 382, 125, 201-F10 (1991)

Low-Flux Hard X-Ray Observation of Cygnus X-1. *P. Ubertini, A. Bazzano, C. La Padula, R. K. Manchanda, V. F. Polcaro, R. Staubert, E. Kendziorra, & F. Perotti.* 383, 263, 215-D9 (1991)

Spectral Signatures of the MeV–PeV Radiation from Accreting Neutron Stars. *B. Rudak & P. Mészáros.* 383, 269, 215-E3 (1991)

The Radio "Lobes" of Scorpius X-1 Are Unrelated Background Sources. *E. B. Fomalont & B. J. Geldzahler.* 383, 289, 215-G1 (1991)

Decrease in the Orbital Period of Hercules X-1. *John E. Deeter, Paul E. Boynton, Sigenori Miyamoto, Shunji Kitamoto, Fumiaki Nagase, & Nobuyuki Kawai.* 383, 324, 216-C1 (1991)

Evolution of Compact Binary Systems with X-Ray Heating. *Amos Harpaz & Saul Rappaport.* 383, 739, 223-D3 (1991)

X-Ray Variability of GX 339−4 in Its Very High State. *Sigenori Miyamoto, Kazuhiro Kimura, Shunji Kitamoto, Tadayasu Dotani, & Ken Ebisawa.* 383, 784, 224-A3 (1991)

A Study of the Hα Line in X1735−444. *Alan P. Smale & Robin H. D. Corbet.* 383, 853, 224-G6 (1991)

OSSE Observations of GX 339−4. *D. A. Grabelsky, S. M. Matz, W. R. Purcell, M. P. Ulmer, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, & G. V. Jung.* 441, 800, 73-A6 (1995)

X-RAYS: BURSTS

Monte Carlo Simulation of Comptonization in Plasma Accreting onto Neutron Stars. *Tomoyuki Hanawa.* 366, 495, 9-B9 (1991)

The Discovery of an X-Ray Burst and a Study of Aperiodic Variability from SMC X-1. *L. Angelini, L. Stella, & N. E. White.* 371, 332, 64-C1 (1991)

Accretion in Wind-driven X-Ray Sources. *Ronald E. Taam, Albert Fu, & B. A. Fryxell.* 371, 696, 70-C1 (1991)

Detection of Coherent 7.6 Hz Oscillations during a Burst from Aquila X-1. *R. J. Schoelkopf & R. L. Kelley.* 375, 696, 121-D1 (1991)

Flares in the X-Ray Source EXO 2030+375. *Krishna M. V. Apparao.* 375, 701, 121-D7 (1991)

Model Atmospheres and X-Ray Spectra of Bursting Neutron Stars. *Jerzy Madej.* 376, 161, 127-A4 (1991)

Magnetohydrodynamics of an Impulsively Heated, Hard X-Ray Emitting Filament. *George Roumeliotis & A. Gordon Emslie.* 377, 685, 148-B9 (1991)

On Spectra of X-Ray Bursters in the Expansion Phase. *I. I. Lapidus.* 377, L93, 150-E1 (1991)

X-Ray Detectability of Gamma-Ray Bursts from M31. *Edison P. Liang.* 380, L55, 188-B11 (1991)

Thermal Structure of Neutron Stars with Very Low Accretion Rates. *J. L. Zdunik, P. Haensel, B. Paczyński, & J. Miralda-Escudé.* 384, 129, 2-E12 (1992)

The Fate of Accreted CNO Elements in Neutron Star Atmospheres: X-Ray Bursts and Gamma-Ray Lines. *Lars Bildsten, Edwin E. Salpeter, & Ira Wasserman.* 384, 143, 2-G1 (1992)

Disk Instability and Outburst Properties of the Intermediate Polar GK Persei. *Soon-Wook Kim, J. Craig Wheeler, & Shin Mineshige.* 384, 269, 4-C7 (1992)

Radiation Dynamics in X-Ray Binaries. I. Type 1 Bursts. *Mark A. Walker.* 385, 642, 21-B1 (1992)

Radiation Dynamics in X-Ray Binaries. II. Type 2 Bursts. *Mark A. Walker.* 385, 651, 21-B12 (1992)

Radiation Dynamics in X-Ray Binaries. III. Extremely Compact Objects. *Mark A. Walker.* 385, 661, 21-C10 (1992)

Transitions from Metastable Levels Emitted during Short-Duration Bursts: How Valid Are Their Calculated Intensities? *Uri Feldman.* 385, 758, 22-E1 (1992)

Light Curves of Rotating, Oscillating Neutron Stars. *T. E. Strohmayer.* 388, 138, 50-F9 (1992)

CNO Destruction by Spallation and Type I X-Ray Bursts. *Jason C. Tillett & James MacDonald.* 388, 555, 57-B7 (1992)

The X-Ray Outburst from X0115+634 in 1990 February. *Keisuke Tamura, Hiroshi Tsunemi, Shunji Kitamoto, Kiyoshi Hayashida, & Fumiaki Nagase.* 389, 676, 69-G1 (1992)

Characteristics of Hard X-Ray Spectra of Impulsive Solar Flares. *G. A. Dulk, A. L. Kiplinger, & R. M. Winglee.* 389, 756, 70-F11 (1992)

Thermonuclear Flash Model for Long X-Ray Tails from Aquila X-1. *Ikko Fushiki, Ronald E. Taam, S. E. Woosley, & D. Q. Lamb.* 390, 634, 83-B9 (1992)

Canonical Time Variations of X-Rays from Black Hole Candidates in the Low-Intensity State. *Sigenori Miyamoto, Shunji Kitamoto, Sayuri Iga, Hitoshi Negoro, & Kentaro Terada.* 391, L21, 92-B1 (1992)

Sigma Detection of Hard X-Ray Emission from the Soft Transient Type I X-Ray Burster KS 1731−260. *D. Barret, L. Bouchet, P. Mandrou, J. P. Roques, B. Cordier, Ph. Laurent, F. Lebrun, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, A. Diachkov, N. Khavenson, B. Novikov, I. Chulkov, & A. Kuznetsov.* 394, 615, 137-B1 (1992)

Radiative-hydrodynamical Simulations of X-Ray Burst–induced Accretion Disk Coronae. *Fulvio Melia, Gregory J. Zylstra, & Bruce Fryxell.* 396, L27, 160-E8 (1992)

Stochastic Acceleration of Electrons. I. Effects of Collisions in Solar Flares. *Russell J. Hamilton & Vahé Petrosian.* 398, 350, 186-B5 (1992)

An Interpretation of the Multipeaked Structure in X-Ray Bursts. *Fulvio Melia & Gregory J. Zylstra.* 398, L53, 188-A1 (1992)

X-Ray Flashes from M31 Based on Extended Halo Models of Gamma-Ray Bursts. *Hui Li & Edison P. Liang.* 400, L59, 220-D3 (1992)

An Instability Associated with a Magnetosphere-Disk Interaction. *H. C. Spruit & Ronald E. Taam.* 402, 593, 10-A5 (1993)

Can We Observe Accreting, Isolated Neutron Stars? *Omer Blaes & Piero Madau.* 403, 690, 24-C8 (1993)

Relativistic Frequency-dependent Transfer in Spherical Flows. I. Method and Numerical Tests. *Luciano Nobili, Roberto Turolla, & Luca Zampieri.* 404, 686, 37-D12 (1993)

Successive X-Ray Bursts from Accreting Neutron Stars. *Ronald E. Taam, S. E. Woosley, T. A. Weaver, & D. Q. Lamb.* 413, 324, 160-C8 (1993)

Detection of an Ultraviolet and Visible Counterpart of the NGC 6624 X-Ray Burster. *I. R. King, S. A. Stanford, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, M. J. Disney, J. M. Deharveng, P. Jakobsen, T. M. Kamperman, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, & C. Sosin.* 413, L117, 169-A12 (1993)

Rings of Fire: Nuclear Burning as the Origin of Sub-Hertz Noise and Weak X-Ray Bursts in Accreting Neutron Stars. *Lars Bildsten.* 418, L21, 238-C8 (1993)

The Evolution of Accreting Stars with Turbulent Mixing. *M. Y. Fujimoto.* 419, 768, 257-B13 (1993)

Simultaneous Optical and *ROSAT* Soft X-Ray Observations of Impulsive Bursts on the Flare Star UV Ceti. *J. H. M. M. Schmitt, Bernhard Haisch, & H. Barwig.* 419, L81, 259-E7 (1993)

On High Mass Accretion Rates in Magnetized Column Accretion onto White Dwarfs. *Insu Yi.* 422, 289, 33-F5 (1994)

Another Clue About Particle Acceleration in Impulsive Hard X-Ray/Microwave Bursts. *David Batchelor.* 90, 697, 12-D7 (1994)

Electron Acceleration in Short-lived Radio Transients. *Lewis Ball.* 90, 889, 14-G4 (1994)

SIGMA Hard X-Ray Observations of the Burst Source MXB 1728−34. *A. Claret, A. Goldwurm, B. Cordier, J. Paul, J.-P. Roques, L. Bouchet, M.-C. Schmitz-Fraysse, P. Mandrou, E. Churazov, M. Gilfanov, R. Sunyaev, N. Khavenson, A. Diachkov, B. Novikov, R. Kremnev, & V. Kovtunenko.* 423, 436, 51-E5 (1994)

X-Ray Halos as Tracers of the Distance of the Gamma-Ray Bursters. *S. Klose.* 423, L23, 53-D5 (1994)

Structure of X-Ray Shots of Cygnus X-1 in Its Low State. *Hitoshi Negoro, Sigenori Miyamoto, & Shunji Kitamoto.* 423, L127, 61-A13 (1994)

X-Ray Images of the Galactic Center Obtained with Art-P/*Granat*: Discovery of New Sources, Variability of Persistent Sources, and Localization of X-Ray Bursters. *M. N. Pavlinsky, S. A. Grebenev, & R. A. Sunyaev.* 425, 110, 81-E5 (1994)

1ES 1113+432: Luminous, Soft X-Ray Outburst from a Nearby Cataclysmic Variable (AR Ursae Majoris). *R. A. Remillard, J. F. Schachter, A. D. Silber, & P. Slane.* 426, 288, 99-F5 (1994)

A Wide-Field Monitor for *INTEGRAL*. *Niels Lund.* 92, 337, 36-C9 (1994)

SIGMA Observations of the Bright X-Ray Transient Nova Persei: A New Black Hole Candidate? *J. P. Roques, L. Bouchet, E. Jourdain, P. Mandrou, A. Goldwurm, J. Ballet, A. Claret, F. Lebrun, A. Finoguenov, E. Churazov, M. Gilfanov, R. Sunyaev, B. Novikov, I. Chulkov, N. Kuleshova, & I. Tserenin.* 92, 451, 37-G2 (1994)

Discovery and Observations by WATCH of the X-Ray Transient GRS 1915+105. *Alberto J. Castro-Tirado, Søren Brandt, Niels Lund, Igor Lapshov, Rashid A. Sunyaev, Aleksei A. Shlyapnikov, Sergei Guziy, & Elena P. Pavlenko.* 92, 469, 38-B1 (1994)

On the Spectra of X-Ray Bursters: Expansion and Contraction Stages. *Lev Titarchuk.* 429, 340, 148-C6 (1994)

On the Nature of Photospheric Oscillations in Strong X-Ray Bursts. *Iosif Lapidus, Luciano Nobili, & Roberto Turolla.* 431, L103, 191-F13 (1994)

Reaction Rates and Reaction Sequences in the rp-Process. *L. Van Wormer, J. Görres, C. Iliadis, M. Wiescher, & F.-K. Thielemann.* 432, 326, 197-C1 (1994)

The X-Ray Spectrum of the Soft Gamma Repeater 1806−20. *E. E. Fenimore, J. G. Laros, & A. Ulmer.* 432, 742, 205-C3 (1994)

Winds from Neutron Stars and Strong Type I X-Ray Bursts. *Luciano Nobili, Roberto Turolla, & Iosif Lapidus.* 433, 276, 211-F11 (1994)

Accretion Rates in X-Ray Bursting Sources. *Iosif Lapidus, Luciano Nobili, & Roberto Turolla.* 433, 287, 211-G11 (1994)

The Early Ultraviolet, Optical, and Radio Evolution of the Soft X-Ray Transient GRO J0422+32. *C. R. Shrader, R. Mark Wagner, R. M. Hjellming, X. H. Han, & S. G. Starrfield.* 434, 698, 237-D4 (1994)

Recurrence Times and Periodicities in 4U 1608−52 as Observed by *VELA 5B*. *James C. Lochner & Diane Roussel-Dupré.* 435, 840, 257-F1 (1994)

Observations of the Small Magellanic Cloud by the *Vela 5B* X-Ray Monitor. *L. Whitlock & James C. Lochner.* 437, 841, 297-B7 (1994)

Super-Eddington Radiation Transfer in Soft Gamma Repeaters. *Andrew Ulmer.* 437, L111, 299-C1 (1994)

Propagation of Nuclear Burning Fronts on Accreting Neutron Stars: X-Ray Bursts and Sub-Hertz Noise. *Lars Bildsten.* 438, 852, 16-A2 (1995)

EXOSAT Observations of the Low-Luminosity X-Ray Burster 4U 0614+091: Evidence for a Hard Power-Law Tail. *Didier Barret & Jonathan E. Grindlay.* 440, 841, 54-F6 (1995)

Detection of the A1742−294 X-Ray Burster above 35 keV. *E. Churazov, M. Gilfanov, R. Sunyaev, B. Novickov, I. Chulkov, V. Kovtunenko, A. Sheikhet, K. Sukhanov, A. Goldwurm, B. Cordier, J. Paul, P. O. Petrucci, E. Jourdain, J. P. Roques, L. Bouchet, & P. Mandrou.* 443, 341, 99-G8 (1995)

Nonradial Oscillations in Neutron Star Oceans: A Source of Quasi-periodic X-Ray Oscillations? *Lars Bildsten & Curt Cutler.* 449, 800, 223-F12 (1995)

The Evolution of Accretion Disks with Coronae: A Model for the Low-Frequency Quasi-periodic Oscillations in X-Ray Binaries. *Marek A. Abramowicz, Xingming Chen, & Ronald E. Taam.* 452, 379, 267-C11 (1995)

Directions for Future X-Ray, Optical, and Radio Follow-up Observations of Gamma-Ray Burst Counterparts. *B. J. McNamara, T. E. Harrison, & C. L. Williams.* 452, L25, 269-F6 (1995)

Statistics of X-Ray Fluctuations from Cygnus X-1: Reservoirs in the Disk? *H. Negoro, S. Kitamoto, M. Takeuchi, & S. Mineshige.* 452, L49, 270-C1 (1995)

X-RAYS: GALAXIES

EXOSAT X-Ray Spectra of Quasars. *Andrea Comastri, Giancarlo Setti, Giovanni Zamorani, Martin Elvis, Paolo Giommi, Belinda J. Wilkes, & Jonathan C. McDowell.* 384, 62, 1-G1 (1992)

X-Ray Study of NGC 1399 in the Fornax Cluster of Galaxies. *Y. Ikebe, T. Ohashi, K. Makishima, T. Tsuru, G. Fabbiano, D.-W. Kim, G. Trinchieri, I. Hatsukade, K. Yamashita, & H. Kondo.* 384, L5, 6-B1 (1992)

Dark Matter in NGC 4472. *Michael Loewenstein.* 384, 474, 8-A9 (1992)

X-Ray Spectral Variability of the Seyfert I Galaxy NGC 4051. *Hideyo Kunieda, Satio Hayakawa, Yuzuru Tawara, Katsuji Koyama, Sachiko Tsuruta, & Karen Leighly.* 384, 482, 8-B5 (1992)

Microflare Heating of the Galactic Halo. *John C. Raymond.* 384, 502, 8-D1 (1992)

Distant Cooling Flows. *Megan Donahue, John T. Stocke, & Isabella M. Gioia.* 385, 49, 12-E13 (1992)

X-Ray Continuum and Line Emission of the Seyfert Galaxy MCG−5-23-16. *K. P. Singh, A. R. Rao, & M. N. Vahia.* 385, 132, 13-E10 (1992)

The Extended Medium Sensitivity Survey Distant Cluster Sample: X-Ray Data and Interpretation of the Luminosity Evolution. *J. P. Henry, I. M. Gioia, T. Maccacaro, S. L. Morris, J. T. Stocke, & A. Wolter.* 386, 408, 30-D13 (1992)

Abundance of Rich Clusters of Galaxies: A Test for Cosmological Parameters. *Per B. Lilje.* 386, L33, 36-B1 (1992)

A Comprehensive X-Ray Study of the Small Magellanic Cloud. *Qingde Wang & Xiaoyi Wu.* 78, 391, 7-G5 (1992)

The Spectral Archive of Cosmic X-Ray Sources Observed by the *Einstein Observatory* Focal Plane Crystal Spectrometer. *Kenneth S. K. Lum, Claude R. Canizares, George W. Clark, Joan M. Coyne, Thomas H. Markert, Pablo J. Saez, Mark L. Schattenburg, & P. Frank Winkler.* 78, 423, 8-E11 (1992)

Interstellar Matter in Early-Type Galaxies. II. The Relationship between Gaseous Components and Galaxy Types. *Joel N. Bregman, David E. Hogg, & Morton S. Roberts.* 387, 484, 44-F9 (1992)

X-Ray Properties of Bright Far-Infrared Galaxies. *L. P. David, C. Jones, & W. Forman.* 388, 82, 50-B4 (1992)

Where Have All the Cluster Halos Gone? *Jack O. Burns, Martin E. Sulkanen, Galen R. Gisler, & Rick A. Perley.* 388, L49, 59-B1 (1992)

The X-Ray Spectra of High-Luminosity Active Galactic Nuclei Observed by *Ginga*. *O. R. Williams, M. J. L. Turner, G. C. Stewart, R. D. Saxton, T. Ohashi, K. Makishima, T. Kii, H. Inoue, F. Makino, K. Hayashida, & K. Koyama.* 389, 157, 62-A5 (1992)

EXOSAT Observations of the Broad-Line Radio Galaxy 3C 382. *K. K. Ghosh & S. Soundararajaperumal.* 389, 179, 62-C1 (1992)

The Properties of X-Ray Selected Active Galactic Nuclei. II. A Deeper Look at the Cosmological Evolution. *Roberto Della Ceca, Tommaso Maccacaro, Isabella M. Gioia, Anna Wolter, & John T. Stocke.* 389, 491, 67-E8 (1992)

X-Ray–emitting Filaments in the Cooling Flow Cluster A2029. *Craig L. Sarazin, Robert W. O'Connell, & Brian R. McNamara.* 389, L59, 73-C8 (1992)

A2163: An Exceptionally Hot Cluster of Galaxies. *M. Arnaud, J. P. Hughes, W. Forman, C. Jones, M. Lachièze-Rey, K. Yamashita, & I. Hatsukade.* 390, 345, 79-E1 (1992)

The Braided Jets in the Spiral Galaxy NGC 4258. *Gerald Cecil, Andrew S. Wilson, & R. Brent Tully.* 390, 365, 79-G1 (1992)

Hard X-Ray Tests of the Unified Model for an Ultraviolet-detected Sample of Seyfert 2 Galaxies. *John S. Mulchaey, Richard F. Mushotzky, & Kimberly A. Weaver.* 390, L69, 84-G1 (1992)

The Contribution of Galaxy Clusters to the Soft X-Ray Background. *A. Blanchard, K. Wachter, A. E. Evrard, & Joseph Silk.* 391, 1, 86-B1 (1992)

Evidence for an Ionized Reprocessor in NGC 6814. *T. Jane Turner, Christine Done, Richard Mushotzky, Greg Madejski, & Hideyo Kunieda.* 391, 102, 87-C4 (1992)

An X-Ray Image of the Seyfert Galaxy NGC 1068. *A. S. Wilson, M. Elvis, A. Lawrence, & J. Bland-Hawthorn.* 391, L75, 99-E11 (1992)

A Deep Image of the Diffuse Soft X-Ray Background at the Galactic Plane. *Qingde Wang.* 392, 509, 108-E11 (1992)

An X-Ray Catalog and Atlas of Galaxies. *G. Fabbiano, D.-W. Kim, & G. Trinchieri.* 80, 531, 31-A11 (1992)

The X-Ray Spectra of Galaxies. I. Spectral Fits of Individual Galaxies and X-Ray Colors. *D.-W. Kim, G. Fabbiano, & G. Trinchieri.* 80, 645, 32-D7 (1992)

Correlated Hard X-Ray and Ultraviolet Variability in NGC 5548. *J. Clavel, K. Nandra, F. Makino, K. A. Pounds, G. A. Reichert, C. M. Urry, W. Wamsteker, M. Peracaula-Bosch, G. C. Stewart, & C. Otani.* 393, 113, 115-E1 (1992)

The X-Ray Spectra of Galaxies. II. Average Spectral Properties and Emission Mechanisms. *D.-W. Kim, G. Fabbiano, & G. Trinchieri.* 393, 134, 115-F12 (1992)

Characteristic-based Models for the Evolution of Cooling Flows. *Stephen D. Murray & Steven A. Balbus.* 395, 99, 141-C11 (1992)

Using Electron Scattering to Probe the Environment of Cluster Cooling Flows. *Michael W. Wise & Craig L. Sarazin.* 395, 387, 147-B5 (1992)

X-Ray Spectral Structure of the Seyfert Galaxy NGC 6814. *M. Yamauchi, M. Matsuoka, N. Kawai, & A. Yoshida.* 395, 453, 148-A13 (1992)

A New Hard X-Ray Source 15′ Away from 3C 273? *E. Jourdain, L. Bassani, J. P. Roques, P. Mandrou, J. Ballet, A. Claret, A. Goldwurm, F. Lebrun, A. Finogenov, E. Churazov, M. Gilfanov, R. Sunyaev, A. Dyachkov, N. Khavenson, B. Novikov, & N. Kuleshova.* 395, L69, 153-F6 (1992)

Active Galactic Nuclei with Ultrasoft X-Ray Emission. *F. A. Córdova, J. F. Kartje, R. J. Thompson, Jr., K. O. Mason, E. M. Puchnarewicz, & F. R. Harnden, Jr.* 81, 661, 45-A11 (1992)

SIGMA Observation of Two Quasars: 3C 273 and 0241+62. *L. Bassani, E. Jourdain, J. P. Roques, L. Bouchet, J. Ballet, F. Lebrun, Ph. Laurent, B. Cordier, R. Sunyaev, E. Churazov, M. Gilfanov, A. Finogenov, A. Dyachkov, N. Khavenson, B. Novikov, & I. Chulkov.* 396, 504, 163-F11 (1992)

X-Ray and Optical Emission-Line Filaments in the Cooling Flow Cluster 2A 0335+096. *Craig L. Sarazin, Robert W. O'Connell, & Brian R. McNamara.* 397, L31, 173-D10 (1992)

X-Ray Luminosity and Spectral Variability of Hard X-Ray–selected Active Galactic Nuclei. *P. Grandi, G. Tagliaferri, P. Giommi, P. Barr, & G. G. C. Palumbo.* 82, 93, 50-C9 (1992)

Clusters in Collision? *M. P. Ulmer, G. D. Wirth, & M. P. Kowalski.* 397, 430, 176-A9 (1992)

High-Energy X Emission from the Coma Cluster. *Yoel Rephaeli & Oleg Goldshmidt.* 397, 438, 176-B6 (1992)

The X-Ray Spectrum of Abell 665. *John P. Hughes & Yasuo Tanaka.* 398, 62, 182-G1 (1992)

X-Ray Spectra of Bright Core-dominant Quasars: NRAO 140 and 4C 34.47. *T. Ohashi, M. Tashiro, K. Makishima, T. Kii, F. Makino, M. J. L. Turner, & O. R. Williams.* 398, 87, 183-B1 (1992)

Nonthermal Electron-Positron Pairs and the Break in the Hard X-Ray Spectrum of NGC 4151. *Paolo S. Coppi & Andrzej A. Zdziarski.* 398, L37, 187-F1 (1992)

X-Ray Observations of the Seyfert 1 Galaxy MCG 2-58-22. *K. K. Ghosh & S. Soundararajaperumal.* 398, 501, 190-D1 (1992)

The Nucleus of M31. *Fulvio Melia.* 398, L95, 194-C8 (1992)

X-Ray Emission from SN 1986J in NGC 891. *Joel N. Bregman & Rachel A. Pildis.* 398, L107, 194-E7 (1992)

Hard X-Ray Emission from a Narrow-Line Radio Galaxy IC 5063 and Obscured Active Nucleus. *Katsuji Koyama, Hisamitu Awaki, Kazushi Iwasawa, & Martin J. Ward.* 399, L129, 208-A9 (1992)

The X-Ray Variability of NGC 6814: Power Spectrum. *C. Done, G. M. Madejski, R. F. Mushotzky, T. J. Turner, K. Koyama, & H. Kunieda.* 400, 138, 210-F1 (1992)

The BL Lacertae Object PKS 1413+135: Is It within or behind a Spiral Galaxy? *John T. Stocke, Ron Wurtz, Qingde Wang, Richard Elston, & Buell T. Jannuzi.* 400, L17, 214-C5 (1992)

X-Ray Constraints on the Shape of the Dark Matter in Five Abell Clusters. *David A. Buote & Claude R. Canizares.* 400, 385, 215-B3 (1992)

Analysis of Soft X-Ray Excesses of Quasi-stellar Objects by Using Their IPC Spectra. *Y. Y. Zhou & K. N. Yu.* 400, 430, 215-F1 (1992)

Numerical Simulation of X-Ray–heated Winds in Seyfert Galaxies. I. The Case of Zero Angular Momentum. *Dinshaw S. Balsara & Julian H. Krolik.* 402, 109, 2-D9 (1993)

X-Ray Light Curves of Active Galactic Nuclei Are Phase Incoherent. *Julian Krolik, Chris Done, & Grzegorz Madejski.* 402, 432, 8-A9 (1993)

Simultaneous *ROSAT*, *GINGA*, VLA, *IUE*, and Optical Observations of the Bright Quasar H1821+643. *Michiel Kolman, Jules P. Halpern, Chris R. Shrader, Alexei V. Filippenko, Henner H. Fink, & Stephan G. Schaeidt.* 402, 514, 9-A1 (1993)

On the Relation of the X-Ray and Emission-Line Properties of Low-Redshift QSOs. *Michael R. Corbin.* 403, L9, 20-B1 (1993)

Simultaneous *Ginga* and *IUE* Observations of the Seyfert Galaxy NGC 3516. *Michiel Kolman, Jules P. Halpern, Christopher Martin, Hisamitsu Awaki, & Katsuji Koyama.* 403, 592, 23-A8 (1993)

The X-Ray Spectral Variability of the BL Lacertae Type Object PKS 2155−304. *S. Sembay, R. S. Warwick, C. Megan Urry, J. Sokoloski, I. M. George, F. Makino, T. Ohashi, & M. Tashiro.* 404, 112, 29-D5 (1993)

Diffuse X-Ray Emission from the NGC 2300 Group of Galaxies: Implications for Dark Matter and Galaxy Evolution in Small Groups. *John S. Mulchaey, David S. Davis, Richard F. Mushotzky, & David Burstein.* 404, L9, 33-D7 (1993)

Ginga Observations of the Coma Cluster and Studies of the Spatial Distribution of Iron. *John P. Hughes, Jackie A. Butcher, Gordon C. Stewart, & Yasuo Tanaka.* 404, 611, 36-E8 (1993)

The 6.7 keV Iron Line Distribution in the Galaxy. *Shigeo Yamauchi & Katsuji Koyama.* 404, 620, 36-F5 (1993)

The Soft X-Ray Background and Galaxy Clusters. *R. Burg, A. Cavaliere, & N. Menci.* 404, L55, 40-D1 (1993)

On Compton Reflection in the Sources of the Cosmic X-Ray Background. *Andrzej A. Zdziarski, Piotr T. Życki, Roland Svensson, & Elihu Boldt.* 405, 125, 42-E8 (1993)

A Stochastic Model for the Variability of NGC 6814. *R. Vio, R. Turolla, S. Cristiani, & C. Barbieri.* 405, 163, 43-A13 (1993)

A New X-Ray Spectral Observation of NGC 1068. *F. E. Marshall, H. Netzer, K. A. Arnaud, E. A. Boldt, S. S. Holt, K. M. Jahoda, R. Kelley, R. F. Mushotzky, R. Petre, P. J. Serlemitsos, A. P. Smale, J. H. Swank, A. E. Szymkowiak, & K. A. Weaver.* 405, 168, 43-B7 (1993)

Soft Variability and Reflection Features in the X-Ray Spectrum of the Seyfert Galaxy NGC 5506. *I. A. Bond, M. Matsuoka, & M. Yamauchi.* 405, 179, 43-C7 (1993)

The Insignificance of "Heating Flows" in "Cooling Flow" Clusters of Galaxies. *Claude R. Canizares, Thomas H. Markert, Sera Markoff, & John P. Hughes.* 405, L17, 47-D1 (1993)

Upper Limits on TeV Gamma-Ray Emission from Centaurus A, Vela X-1, Centaurus X-3, and Circinus X-1. *W. H. Allen, I. A. Bond, E. Budding, M. J. Conway, A. Daniel, K. B. Fenton, H. Fujii, Z. Fujii, N. Hayashida, K. Hibino, M. Honda, J. E. Humble, S. Kabe, K. Kasahara, T. Kifune, G. D. Lythe, A. Masaike, Y. Matsubara, K. Mitsui, Y. Miura, M. Mori, Y. Muraki, M. Nagano, T. Nakamura, M. Nishizawa, P. M. Norris, S. Ogio, To. Saito, M. Sakata, H. Sato, H. M. Shimizu, M. Spencer, J. R. Storey, T. Tanimori, M. Teshima, S. Torii, A. Wadsworth, Y. Watase, M. D. Woodhams, Y. Yamamoto, P. C. M. Yock, & T. Yuda (The JANZOS Collaboration).* 405, 554, 50-A1 (1993)

A Catalog of X-Ray Spectra of BL Lacertae Objects. *P. Ciliegi, L. Bassani, & E. Caroli.* 85, 111, 7-D7 (1993)

The Radio Structure of X-Ray–selected BL Lacertae Objects. *Eric S. Perlman & John T. Stocke.* 406, 430, 63-A13 (1993)

ROSAT Observations of the Blazar PKS 0537−441. *A. Treves, T. Belloni, R. Falomo, H. Fink, L. Maraschi, R. M. Sambruna, G. Tagliaferri, & H. U. Zimmermann.* 406, 447, 63-C5 (1993)

Does the Baryon Fraction in Clusters Imply an Open Universe? *Arif Babul & Neal Katz.* 406, L51, 68-B13 (1993)

BBXRT and *Ginga* Observations of the Seyfert 1 Galaxy Markarian 335. *T. J. Turner, K. Nandra, A. A. Zdziarski, K. Jahoda, G. M. Madejski, F. Marshall, R. F. Mushotzky, R. Petre, K. A. Pounds, A. P. Smale, P. Serlemitsos, & K. Weaver.* 407, 556, 77-D13 (1993)

The Center of the Galaxy in the Recent Past: A View from *GRANAT*. *R. A. Sunyaev, M. Markevitch, & M. Pavlinsky.* 407, 606, 78-B7 (1993)

When Clusters Collide: A Numerical Hydro/N-Body Simulation of Merging Galaxy Clusters. *Kurt Roettiger, Jack Burns, & Chris Loken.* 407, L53, 82-C1 (1993)

X-Ray Spectra of 12 Distant Clusters of Galaxies. *Qingde Wang & John T. Stocke.* 408, 71, 84-A4 (1993)

A Spectral Study of Four X-Ray–selected BL Lacertae Objects with *EXOSAT*. *R. M. Sambruna, P. Barr, L. Maraschi, G. Tagliaferri, & A. Treves.* 408, 452, 90-G1 (1993)

X-Ray Evidence for Seyfert Activity Buried in the Infrared Galaxy NGC 4945. *K. Iwasawa, K. Koyama, H. Awaki, H. Kunieda, K. Makishima, T. Tsuru, T. Ohashi, & N. Nakai.* 409, 155, 98-G9 (1993)

Features of the Fluorescent Iron Line from Highly Inclined Disks: Some Possible Examples for NGC 6814. *G. Bao.* 409, L41, 111-C1 (1993)

Discovery of a New Component in the Gravitationally Lensed Quasar 0957+561. *C. Jones, C. Stern, E. Falco, W. Forman, L. David, I. Shapiro, & A. C. Fabian.* 410, 21, 112-D1 (1993)

Quasar X-Ray Spectra Revisited. *P. Shastri, B. J. Wilkes, M. Elvis, & J. McDowell.* 410, 29, 112-D11 (1993)

Self-absorbed Active Galactic Nuclei and the Cosmic X-Ray Background. *Piero Madau, Gabriele Ghisellini, & A. C. Fabian.* 410, L7, 117-F8 (1993)

High-Resolution X-Ray Observations of the Central Region of M31 with the *ROSAT* Satellite. *F. A. Primini, W. Forman, & C. Jones.* 410, 615, 121-C12 (1993)

BL Lacertae Objects, Fanaroff-Riley Type I Radio Sources, and Cluster Cooling Flows. *Craig L. Sarazin & Michael W. Wise.* 411, 55, 127-F13 (1993)

Ionized Absorbers, Ionized Emitters, and the X-Ray Spectrum of Active Galactic Nuclei. *Hagai Netzer.* 411, 594, 137-A10 (1993)

Angular Correlations of the X-Ray Background and Clustering of Extragalactic X-Ray Sources. *L. Danese, L. Toffolatti, A. Franceschini, J. M. Martín-Mirones, & G. De Zotti.* 412, 56, 142-F9 (1993)

ROSAT Position Sensitive Proportional Counter Spectra of Six Seyfert 1 Galaxies. *T. J. Turner, I. M. George, & R. F. Mushotzky.* 412, 72, 143-A1 (1993)

Nuclear Winds in Active Elliptical Galaxies. II. Observational Signatures. *Steven J. Smith, C. F. Kennel, & F. V. Coroniti.* 412, 82, 143-A13 (1993)

Hierarchical Galaxy Formation: Overmerging and the Formation of an X-Ray Cluster. *Neal Katz & Simon D. M. White.* 412, 455, 149-C1 (1993)

A Catalog of Intracluster Gas Temperatures. *L. P. David, A. Slyz, C. Jones, W. Forman, S. D. Vrtilek, & K. A. Arnaud.* 412, 479, 149-E9 (1993)

Spartan 1 X-Ray Observations of the Perseus Cluster. III. The Distribution of Iron in the Intracluster Gas. *M. P. Kowalski, R. G. Cruddace, W. A. Snyder, G. G. Fritz, M. P. Ulmer, & E. E. Fenimore.* 412, 489, 149-F8 (1993)

Ten New BL Lacertae Objects Discovered by an Efficient X-Ray/Radio/Optical Technique. *Jonathan F. Schachter, John T. Stocke, Eric Perlman, Martin Elvis, Ron Remillard, Arno Granados, Jane Luu, John P. Huchra, Roberta Humphreys, C. Megan Urry, & John Wallin.* 412, 541, 150-D9 (1993)

The X-Ray Structure and Spectrum of NGC 6251. *M. Birkinshaw & D. M. Worrall.* 412, 568, 150-G4 (1993)

On the Hard X-Ray Variability of Centaurus A. *E. Jourdain, L. Bassani, J. P. Roques, P. Mandrou, J. Ballet, A. Claret, P. Laurent, F. Lebrun, A. Finogenov, E. Churazov, M. Gilfanov, R. Sunyaev, A. Dyachkov, N. Khavenson, K. Sukhanov, & R. Kremnev.* 412, 586, 151-A11 (1993)

The X-Ray Baldwin Effect. *Kazushi Iwasawa & Yoshiaki Taniguchi.* 413, L15, 162-C8 (1993)

An X-Ray Method for Detecting Substructure in Galaxy Clusters: Application to Perseus, A2256, Centaurus, Coma, and Sersic 40/6. *Joseph J. Mohr, Daniel G. Fabricant, & Margaret J. Geller.* 413, 492, 162-F1 (1993)

X-Ray Spectra from Two-Phase Accretion Disks. *Francesco Haardt & Laura Maraschi.* 413, 507, 162-G3 (1993)

Broad-Band X-Ray Telescope Observations of the Hot Interstellar Media in NGC 1399 and NGC 4472. *P. J. Serlemitsos, M. Loewenstein, R. F. Mushotzky, F. E. Marshall, & R. Petre.* 413, 518, 163-A1 (1993)

The Dark Matter Distribution of M87 and NGC 1399. *John C. Tsai.* 413, L59, 168-B7 (1993)

Soft X-Ray Spectra of Seyfert 2 Galaxies. *John S. Mulchaey, Edward Colbert, Andrew S. Wilson, Richard F. Mushotzky, & Kimberly A. Weaver.* 414, 144, 171-G1 (1993)

Active Galactic Nuclei Make the Cosmic X-Ray Background. *Andrzej A. Zdziarski, Piotr T. Życki, & Julian H. Krolik.* 414, L81, 185-E8 (1993)

X-Ray Variability of Active Galactic Nuclei: A Universal Power Spectrum with Luminosity-dependent Amplitude. *A. Lawrence & I. Papadakis.* 414, L85, 185-F1 (1993)

Acceleration Efficiency in Nonthermal Sources and the Soft Gamma Rays from NGC 4151 Observed by OSSE and SIGMA. *Andrzej A. Zdziarski, Alan P. Lightman, & Andrzej Maciołek-Niedźwiecki.* 414, L93, 185-F13 (1993)

X-Rays from SN 1986J: Emission of a Shocked Clumpy Wind. *N. N. Chugai.* 414, L101, 185-G10 (1993)

On Cosmological Constraints from Statistics of X-Ray Clusters. *Hitoshi Hanami.* 415, 42, 185-E6 (1993)

Distant Clusters of Galaxies Detected by X-Rays. *A. Cavaliere, S. Colafrancesco, & N. Menci.* 415, 50, 185-F1 (1993)

The X-Ray Spectra of Cluster Cooling Flows. I. Optically Thin Models. *Michael W. Wise & Craig L. Sarazin.* 415, 58, 185-F10 (1993)

The *ROSAT* Spectrum of 3C 351: A Warm Absorber in an X-Ray–"quiet" Quasar? *Fabrizio Fiore, Martin Elvis, Smita Mathur, Belinda J. Wilkes, & Jonathan C. McDowell.* 415, 129, 186-F1 (1993)

The Relation between Velocity Dispersion and Temperature in Clusters: Limiting the Velocity Bias. *Lori M. Lubin & Neta A. Bahcall.* 415, L17, 191-G5 (1993)

X-Ray Emission from the Starburst Galaxy IC 342. *Joel N. Bregman. Caroline V. Cox, & Kohji Tomisaka.* 415, L79, 199-E13 (1993)

Unified Model for X-Ray– and Radio-selected BL Lacertae Objects. *A. Celotti, L. Maraschi, G. Ghisellini, A. Caccianiga, & T. Maccacaro.* 416, 118, 202-D13 (1993)

The Iron K Line as a Probe of Beamed X-Ray Emission in Active Galactic Nuclei. *T. Yaqoob, B. McKernan, C. Done, P. J. Serlemitsos, & K. A. Weaver.* 416, L5, 207-B7 (1993)

The Complex, Gravitationally Lensed Arc System in the X-Ray–selected Cluster of Galaxies MS 0440+0204. *G. A. Luppino, I. M. Gioia, J. Annis, O. Le Fèvre, & F. Hammer.* 416, 444, 208-G8 (1993)

Helium-like Iron Line Temperature Diagnostics in Clusters of Galaxies. *Douglas A. Swartz & Martin E. Sulkanen.* 417, 487, 225-D3 (1993)

Comptonization of the Cosmic Microwave Background by Gas in Superclusters of Galaxies. *Yoel Rephaeli.* 418, 1, 231-B1 (1993)

Contributions of Starburst Galaxies and Reflection-dominated Active Galactic Nuclei to the Cosmic X-Ray Background. *Paul M. Ricker & P. Mészáros.* 418, 49, 231-F8 (1993)

The Association of Faint Radio Sources with Fluctuations in the X-Ray Background. *T. T. Hamilton & D. J. Helfand.* 418, 55, 231-G1 (1993)

Polarized Scattering in the Vicinity of Galaxies. *Brian W. Murphy & David F. Chernoff.* 418, 60, 231-G7 (1993)

A BBXRT Observation of the High-Luminosity Quasar H1821+643. *T. Yaqoob, P. J. Serlemitsos, R. F. Mushotzky, K. A. Weaver, F. E. Marshall, & R. Petre.* 418, 638, 240-D6 (1993)

The Broad-Band X-Ray Spectrum of the Nucleus of M81. *R. Petre, R. F. Mushotzky, P. J. Serlemitsos, K. Jahoda, & F. E. Marshall.* 418, 644, 240-E1 (1993)

Position Sensitive Proportional Counter Soft X-Ray Observations of Seyfert 2 Galaxies. *T. J. Turner, C. M. Urry, & R. F. Mushotzky* 418, 653, 240-E13 (1993)

The Heavy Element Abundance in the Hot Corona of the Bright Elliptical Galaxy NGC 4472. *W. Forman, C. Jones, L. David, M. Franx, K. Makishima, & T. Ohashi.* 418, L55, 245-B1 (1993)

Accurate Period Determination of an Eclipsing Binary X-Ray Source in M33. *Eric Schulman, Joel N. Bregman, Alfonso Collura, Fabio Reale, & Giovanni Peres.* 418, L67, 245-C6 (1993)

Spatially Resolved X-Ray Spectroscopy of the Merging Galaxy Cluster A2256. *T. Miyaji, R. F. Mushotzky, M. Loewenstein, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, E. A. Boldt, S. S. Holt, J. Swank, A. E. Szymkowiak, & R. Kelley.* 419, 66, 247-A2 (1993)

X-Ray Observations of the Warm Absorber in NGC 3783. *T. J. Turner, K. Nandra, I. M. George, A. C. Fabian, & K. A. Pounds.* 419, 127, 247-F8 (1993)

A Morphology-Cosmology Connection for X-Ray Clusters. *August E. Evrard, Joseph J. Mohr, Daniel G. Fabricant, & Margaret J. Geller.* 419, L9, 252-B13 (1993)

A Measurement of the Hubble Constant from the X-Ray Properties and the Sunyaev-Zel'dovich Effect of Abell 2218. *M. Birkinshaw & J. P. Hughes.* 420, 33, 1-D9 (1994)

ROSAT Observations of X-Ray–selected Active Galactic Nuclei. *R. J. Thompson, Jr., E. M. Puchnarewicz, F. A. Córdova, & K. O. Mason.* 420, 136, 2-F1 (1994)

X-Ray Continuum and Iron K Emission Line from the Radio Galaxy 3C 390.3. *M. Inda, K. Makishima, Y. Kohmura, M. Tashiro, T. Ohashi, P. Barr, K. Hayashida, G. G. C. Palumbo, G. Trinchieri, M. Elvis, & G. Fabbiano.* 420, 143, 2-F9 (1994)

Extended and Compact X-Ray Emission in Powerful Radio Galaxies. *D. M. Worrall, C. R. Lawrence, T. J. Pearson, & A. C. S. Readhead.* 420, L17, 7-C11 (1994)

X-Ray–emitting Gas Surrounding the Spiral Galaxy NGC 891. *Joel N. Bregman & Rachel A. Pildis.* 420, 570, 9-F7 (1994)

X-Ray Bumps, Iron Kα Lines, and X-Ray Suppression by Obscuring Tori in Seyfert Galaxies. *Julian H. Krolik, Piero Madau, & Piotr T. Życki.* 420, L57, 15-B13 (1994)

Two Very Luminous Variable X-Ray Sources in M82. *A. Collura, Fabio Reale, Eric Schulman, & Joel N. Bregman.* 420, L63, 15-C6 (1994)

Optical Caustics in a Kerr Spacetime and the Origin of Rapid X-Ray Variability in Active Galactic Nuclei. *Kevin P. Rauch & Roger D. Blandford.* 421, 46, 16-F1 (1994)

Evidence for X-Ray Flux and Spectral Modulation by Absorption in NGC 6814. I. The Nature of the Most Rapid Variability. *Karen Leighly, Hideyo Kunieda, Yoshiyuki Tsusaka, Hisamitsu Awaki, & Sachiko Tsuruta.* 421, 69, 16-G12 (1994)

The X-Ray Luminosity Functions of Abell Clusters from the *Einstein* Cluster Survey. *R. Burg, R. Giacconi, W. Forman, & C. Jones.* 422, 37, 30-E1 (1994)

Absorption in X-Ray Spectra of High-Redshift Quasars. *Martin Elvis, Fabrizio Fiore, Belinda Wilkes, Jonathan McDowell, & Jill Bechtold.* 422, 60, 30-G1 (1994)

Einstein Observations of Ultrasoft X-Ray Sources in the Magellanic Clouds. *Thomas Brown, France Córdova, Robin Ciardullo, Richard Thompson, & Howard Bond.* 422, 118, 31-E4 (1994)

X-Ray Clusters and Gravitational Instability Theories. *S. Colafrancesco & N. Vittorio.* 422, 443, 37-D5 (1994)

Infrared Spectroscopy of Seyfert 2 Galaxies: A Look through the Obscuring Torus? *Robert W. Goodrich, Sylvain Veilleux, & Gary J. Hill.* 422, 521, 38-C12 (1994)

The Multifrequency Spectral Evolution of Blazar 3C 345 during the 1991 Outburst. *J. R. Webb, C. R. Shrader, T. J. Balonek, D. M. Crenshaw, D. Kazanas, S. Clements, A. G. Smith, A. D. Nair, R. J. Leacock, P. P. Gombola, A. Sadun, H. R. Miller, I. Robson, R. Fujimoto, F. Makino, T. Kii, H. Aller, M. Aller, P. Hughes, E. Valtaoja, H. Teräsranta, E. Salonen, M. Tornikoski, & W. Chism.* 422, 570, 38-G11 (1994)

The "Drop-off" Frequency in the X-Ray Variability Power Spectrum of Active Galactic Nuclei: A Possible Characteristic Timescale in X-Ray Emission of NGC 4051. *G. Bao & E. Østgaard.* 422, L51, 44-G1 (1994)

Extreme Ultraviolet Spectroscopy of PKS 2155−304. *Antonella Fruscione, Stuart Bowyer, Arieh Königl, & Steven M. Kahn.* 422, L55, 44-G6 (1994)

Clumped X-Ray Emission around Radio Galaxies in Abell Clusters. *Jack O. Burns, George Rhee, Frazer N. Owen, & Jason Pinkney.* 423, 94, 47-C9 (1994)

Reanalysis of X-Ray Emission from M87. I. The Single-Phase Medium. *John C. Tsai.* 423, 143, 47-G9 (1994)

X-Ray Emission from a Simulated Cluster of Galaxies. *John C. Tsai, Neal Katz, & Edmund Bertschinger.* 423, 553, 55-D4 (1994)

The Complex Soft X-Ray Excess in NGC 4151. *K. A. Weaver, R. F. Mushotzky, K. A. Arnaud, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, A. P. Smale, & H. Netzer.* 423, 621, 56-C1 (1994)

Einstein X-Ray Observations of the Core of the Shapley Supercluster in Northern Centaurus. *Jeffrey Breen, Somak Raychaudhury, William Forman, & Christine Jones.* 424, 59, 62-F9 (1994)

Dust and Ionized Gas in NGC 3607. *K. P. Singh, T. P. Prabhu, A. K. Kembhavi, & P. N. Bhat.* 424, 638, 72-G2 (1994)

The Detection of X-Ray Emission from the Highest Redshift Galaxy Clusters. *Francisco J. Castander, Richard S. Ellis, Carlos S. Frenk, Alan Dressler, & James E. Gunn.* 424, L79, 78-F9 (1994)

Dark Matter in Hierarchical Cluster Evolution. *Mark J. Henriksen.* 425, 35, 80-E8 (1994)

X-Ray Absorption toward the Red Quasar 3C 212. *Martin Elvis, Fabrizio Fiore, Smita Mathur, & Belinda J. Wilkes.* 425, 103, 81-D10 (1994)

Cluster Evolution and Microwave Source Counts. *M. Markevitch, G. R. Blumenthal, W. Forman, C. Jones, & R. A. Sunyaev.* 426, 1, 96-B1 (1994)

Is the Universe Gravitationally Dominated by Nonbaryonic Dark Matter? *Makoto Hattori.* 426, 19, 96-C9 (1994)

The Correlation Function of Flux-limited X-Ray Clusters. *Neta A. Bahcall & Renyue Cen.* 426, L15, 103-B13 (1994)

Resolving the Beta-Discrepancy for Clusters of Galaxies. *Neta A. Bahcall & Lori M. Lubin.* 426, 513, 104-F11 (1994)

Geometrical Evidence for Dark Matter: X-Ray Constraints on the Mass of the Elliptical Galaxy NGC 720. *David A. Buote & Claude R. Canizares.* 427, 86, 111-A12 (1994)

Multiple X-Ray Emission Components in Low-Power Radio Galaxies. *D. M. Worrall & M. Birkinshaw.* 427, 134, 111-E10 (1994)

The *Einstein* Database of IPC X-Ray Observations of Optically Selected and Radio-selected Quasars. I. *Belinda J. Wilkes, Harvey Tananbaum, D. M. Worrall, Yoram Avni, M. S. Oey, & Joan Flanagan.* 92, 53, 31-G2 (1994)

The Coma Cluster after Lunch: Has a Galaxy Group Passed through the Cluster Core? *Jack O. Burns, Kurt Roettiger, Michael Ledlow, & Anatoly Klypin.* 427, L87, 127-A5 (1994)

Hot Gas in the Cold Dark Matter Scenario: X-Ray Clusters from a High-Resolution Numerical Simulation. *Hyesung Kang, Renyue Cen, Jeremiah P. Ostriker, & Dongsu Ryu.* 428, 1, 128-C1 (1994)

The Intrinsic Nuclear Spectrum of NGC 1068. *Edward A. Pier, Robert Antonucci, Todd Hurt, Gerard Kriss, & Julian Krolik.* 428, 124, 129-F8 (1994)

X-Ray Clusters from a High-Resolution Hydrodynamic PPM Simulation of the Cold Dark Matter Universe. *Greg L. Bryan, Renyue Cen, Michael L. Norman, Jeremiah P. Ostriker, & James M. Stone.* 428, 405, 135-C1 (1994)

Mapping the Dark Matter in the NGC 5044 Group with *ROSAT*: Evidence for a Nearly Homogeneous Cooling Flow with a Cooling Wake. *Laurence P. David, Christine Jones, William Forman, & Stuart Daines.* 428, 544, 137-A11 (1994)

ROSAT PSPC Observations of NGC 4636: Interaction with Virgo Gas? *G. Trinchieri, D.-W. Kim, G. Fabbiano, & C. R. C. Canizares.* 428, 555, 137-B11 (1994)

Nonthermal Pair Models, Reflection, and X-Ray Spectral Variability of Active Galaxies. *P. Grandi, C. Done, & C. M. Urry.* 428, 599, 137-F5 (1994)

The Nonthermal Pair Model for the X-Ray and Gamma-Ray Spectra from Active Galactic Nuclei. *Roland Svensson.* 92, 585, 39-E12 (1994)

Multiwavelength Analysis of Quasars, Seyfert Galaxies, and Starbursts. *J. Miguel Mas-Hesse, Pedro M. Rodríguez-Pascual, Lourdes Sanz Fernández de Córdoba, & I. Félix Mirabel.* 92, 599, 39-G4 (1994)

Is the X-Ray Source of 3C 273 Really Compact? *Roland Walter.* 92, 619, 40-B3 (1994)

Gamma-Ray Bright Quasars and BL Lacertae Objects: EGRET Data. *Jonathan Schachter & Martin Elvis.* 92, 623, 40-B9 (1994)

Do Active Galactic Nuclei Produce the Cosmic X-Ray Background? *Amri Wandel.* 92, 633, 40-C10 (1994)

X-Ray Clusters in a Cold Dark Matter + Λ Universe: A Direct, Large-Scale, High-Resolution, Hydrodynamic Simulation. *Renyue Cen & Jeremiah P. Ostriker.* 429, 4, 144-C6 (1994)

Models of Hot Galactic Coronae around Early-Type Galaxies. *W. Forman, C. Jones, & W. Tucker.* 429, 77, 145-B7 (1994)

ROSAT PSPC Observations of Two X-Ray–faint Early-Type Galaxies: NGC 4365 and NGC 4382. *G. Fabbiano, D.-W. Kim, & G. Trinchieri.* 429, 94, 145-C12 (1994)

The Very Soft X-Ray Emission of X-Ray–faint Early-Type Galaxies. *S. Pellegrini & G. Fabbiano.* 429, 105, 145-D11 (1994)

Reanalysis of X-Ray Emission from M87. II. The Multiphase Medium. *John C. Tsai.* 429, 119, 145-E13 (1994)

Nonpolytropic Model for the Coma Cluster. *R. Fusco-Femiano & John P. Hughes.* 429, 545, 152-D12 (1994)

OSSE Search for High-Energy X-Ray Emission from the Coma Cluster. *Yoel Rephaeli, Mel Ulmer, & Duane Gruber.* 429, 554, 152-E10 (1994)

Dynamics and X-Ray Emission of a Galactic Superwind Interacting with Disk and Halo Gas. *Anatoly A. Suchkov, Dinshaw S. Balsara, Timothy M. Heckman, & Claus Leitherer.* 430, 511, 168-B5 (1994)

The Properties of X-Ray–selected Active Galactic Nuclei. III. The Radio-quiet versus Radio-loud Samples. *Roberto Della Ceca, Giovanni Zamorani, Tommaso Maccacaro, Anna Wolter, Richard Griffiths, John T. Stocke, & Giancarlo Setti.* 430, 533, 168-D1 (1994)

Statistically Efficient Parallel Testing of the Hubble and Lundmark Laws in the Preevolutionary X-Ray Band. *I. E. Segal, J. F. Nicoll, & P. Wu.* 431, 52, 176-G5 (1994)

Implications for Gravitational Lensing and the Dark Matter Content in Clusters of Galaxies from Spatially Resolved X-Ray Spectra. *M. Loewenstein.* 431, 91, 177-C9 (1994)

X-Ray Observations of Cygnus A Using the *Ginga* Satellite. *Shiro Ueno, Katsuji Koyama, Minoru Nishida, Shigeo Yamauchi, & Martin J. Ward.* 431, L1, 182-C1 (1994)

Weak Soft X-Ray Excesses Need Not Result from the High-Frequency Tail of the Optical/Ultraviolet Bump in Active Galactic Nuclei. *Bożena Czerny & Piotr T. Życki.* 431, L5, 182-C7 (1994)

The Complex Optical to Soft X-Ray Spectrum of Low-Redshift Radio-quiet Quasars. I. The X-Ray Data. *Fabrizio Fiore, Martin Elvis, Jonathan C. McDowell, Aneta Siemiginowska, & Belinda J. Wilkes.* 431, 515, 185-A6 (1994)

Absorption in 3C 212. *Smita Mathur.* 431, L75, 191-C11 (1994)

Giant Explosion at the Galactic Center and Huge Shocked Shells in the Halo. *Yoshiaki Sofue.* 431, L91, 191-E8 (1994)

Temperatures of Distant Clusters of Galaxies. *J. P. Henry, L. Jiao, & I. M. Gioia.* 432, 49, 193-G3 (1994)

Radio and X-Ray Observations of the Gamma-Ray Bright Quasar PKS 0528+134. *Yun Fei Zhang, Alan P. Marscher, Hugh D. Aller, Margo F. Aller, Harri Teräsranta, & Esko Valtaoja.* 432, 91, 194-D1 (1994)

Inverse-Compton X-Ray Emission from the Superluminal Quasar 3C 345. *S. C. Unwin, A. E. Wehrle, C. M. Urry, D. M. Gilmore, E. J. Barton, B. C. Kjerulf, J. A. Zensus, & C. R. Rabaça.* 432, 103, 194-E1 (1994)

A Search for X-Ray Bright Distant Clusters of Galaxies. *R. C. Nichol, M. P. Ulmer, R. G. Kron, G. D. Wirth, & D. C. Koo.* 432, 464, 201-F5 (1994)

The Near-Infrared–Optical–Ultraviolet Emission of BL Lacertae Objects. *E. Pian, R. Falomo, R. Scarpa, & A. Treves.* 432, 547, 202-F11 (1994)

Soft X-Ray Spectrum of BL Lacertae Object AO 0235+164 as a Tracer of Elemental Abundances at $z \sim 0.5$. *Greg Madejski.* 432, 554, 202-G6 (1994)

Soft X-Ray Observations of the Interacting Galaxies NGC 1808 and NGC 1792. *Michael Dahlem, Gisela D. Hartner, & Norbert Junkes.* 432, 598, 203-D7 (1994)

Luminosity Functions of BL Lacertae Objects. *Anna Wolter, Alessandro Caccianiga, Roberto Della Ceca, & Tommaso Maccacaro.* 433, 29, 208-E6 (1994)

Predicted Optical/Ultraviolet Line Fluxes for the Warm Absorber in Abell 2256. *Shlomi Pistinner & Craig L. Sarazin.* 433, 577, 218-B8 (1994)

Abundance Gradients in Cooling Flow Clusters: *Ginga* Large Area Counters and *Einstein* Solid State Spectrometer Spectra of A496, A1795, A2142, and A2199. *Raymond E. White III, C. S. R. Day, Isamu Hatsukade, & John P. Hughes.* 433, 583, 218-C2 (1994)

The True Nature of *IRAS*-selected, X-Ray–luminous "Normal" Galaxies in the *ROSAT* All-Sky Survey. *Edward C. Moran, Jules P. Halpern, & David J. Helfand.* 433, L65, 223-E10 (1994)

A Statistical Analysis of the Broadband 0.1 to 3.5 keV Spectral Properties of X-Ray–selected Active Galactic Nuclei. *R. J. Thompson, Jr., & F. A. Córdova.* 434, 54, 225-G13 (1994)

The Cosmic X-Ray Background–*IRAS* Galaxy Correlation and the Local X-Ray Volume Emissivity. *Takamitsu Miyaji, Ofer Lahav, Keith Jahoda, & Elihu Boldt.* 434, 424, 233-E9 (1994)

Active Galactic Nuclei. V. X-Ray Variability and the Black Hole Cluster Paradigm. *A. G. Pacholczyk & W. R. Stoeger, S.J.* 434, 435, 233-F9 (1994)

The X-Ray Spectra of Blazars Observed with *EXOSAT*. *Rita M. Sambruna, Paul Barr, Paolo Giommi, Laura Maraschi, Gianpiero Tagliaferri, & Aldo Treves.* 434, 468, 234-B6 (1994)

The X-Ray and Ultraviolet Absorbing Outflow in 3C 351. *Smita Mathur, Belinda Wilkes, Martin Elvis, & Fabrizio Fiore.* 434, 493, 234-E1 (1994)

A *ROSAT* Observation of the Nearby Spiral Galaxy NGC 6946. *Eric M. Schlegel.* 434, 523, 235-A4 (1994)

High-Energy Spectra of Active Galactic Nuclei. I. The Catalog. *G. Malaguti, L. Bassani, & E. Caroli.* 94, 517, 59-B7 (1994)

The EMSS Catalog of X-Ray–selected Clusters of Galaxies. I. An Atlas of CCD Images of 41 Distant Clusters. *I. M. Gioia & G. A. Luppino.* 94, 583, 59-G13 (1994)

X-Ray Color Analysis of the Spectra of Active Galactic Nuclei. *Hagai Netzer, T. J. Turner, & Ian M. George.* 435, 106, 244-G1 (1994)

Mass Concentrations Associated with Extended X-Ray Sources in the Core of the Coma Cluster. *A. Vikhlinin, W. Forman, & C. Jones.* 435, 162, 245-E3 (1994)

The Soft X-Ray Properties of a Complete Sample of Optically Selected Quasars. I. First Results. *Ari Laor, Fabrizio Fiore, Martin Elvis, Belinda J. Wilkes, & Jonathan C. McDowell.* 435, 611, 254-E3 (1994)

The 1993 Multiwavelength Campaign on 3C 279: The Radio to Gamma-Ray Energy Distribution in Low State. *L. Maraschi, P. Grandi, C. M. Urry, A. E. Wehrle, G. M. Madejski, H. H. Fink, G. Ghisellini, R. C. Hartman, A. P. Koratkar, C. von Montigny, E. Pian, H. C. Thomas, A. Treves, M. F. Aller, H. D. Aller, C. D. Bailyn, T. J. Balonek, H. Bock, W. Collmar, I. S. Glass, S. J. Litchfield, I. M. McHardy, R. Méndez, J. Pesce, H. P. Reuter, E. I. Robson, H. Steppe, J. A. Stevens, H. Teräsranta, & S. J. Wagner.* 435, L91, 259-D8 (1994)

X-Ray Emission from Hickson's Compact Groups of Galaxies: Results from the *ROSAT* All-Sky Survey. *Harald Ebeling, Wolfgang Voges, & Hans Böhringer.* 436, 44, 261-G6 (1994)

A Unified Relativistic Beaming Model for BL Lacertae Objects and Flat Spectrum Radio Quasars. *Laura Maraschi & Fausto Rovetti.* 436, 79, 262-C13 (1994)

Rapid X-Ray Spectral Variability in NGC 3227. *A. Ptak, T. Yaqoob, P. J. Serlemitsos, R. Mushotzky, & C. Otani.* 436, L31, 268-G2 (1994)

Iron Line Emission and Two-Component Spectral Behavior in the *ASCA* Observation of the Seyfert 1 Galaxy NGC 7469. *Matteo Guainazzi, Masaru Matsuoka, Luigi Piro, Tatehiro Mihara, & Makoto Yamauchi.* 436, L35, 268-G10 (1994)

Detections of Hard X-Ray Emissions from Bright Early-Type Galaxies with *ASCA*. *K. Matsushita, K. Makishima, H. Awaki, C. R. Canizares, A. C. Fabian, Y. Fukazawa, M. Loewenstein, H. Matsumoto, T. Mihara, R. F. Mushotzky, T. Ohashi, G. R. Ricker, P. J. Serlemitsos, T. Tsuru, Y. Tsusaka, & T. Yamazaki.* 436, L41, 269-A5 (1994)

Fe K Emission from the Hidden Quasar IRAS P09104+4109. *A. C. Fabian, Y. Shioya, K. Iwasawa, K. Nandra, C. Crawford, R. Johnstone, H. Kunieda, R. McMahon, K. Makishima, T. Murayama, T. Ohashi, Y. Tanaka, Y. Taniguchi, & Y. Terashima.* 436, L51, 269-B9 (1994)

The X-Ray Spectrum of the Highly Polarized Quasar PKS 1502+106. *I. M. George, K. Nandra, T. J. Turner, & A. Celotti.* 436, L59, 269-C11 (1994)

Nonisothermality of the Hottest Cluster Abell 2163. *Maxim Markevitch, Koujun Yamashita, Akihiro Furuzawa, & Yuzuru Tawara.* 436, L71, 269-E7 (1994)

Emission Lines from Condensing Intracluster Gas. *G. Mark Voit, Megan Donahue, & Jonathan D. Slavin.* 95, 87, 65-C8 (1994)

Multiwavelength Tests of the Dusty Torus Model for Seyfert Galaxies. *John S. Mulchaey, Anuradha Koratkar, Martin J. Ward, Andrew S. Wilson, Mark Whittle, Robert R. J. Antonucci, Anne L. Kinney, & Todd Hurt.* 436, 586, 273-E10 (1994)

VLA Observations of the Rich X-Ray Cluster Abell 2256. *H. Röttgering, I. Snellen, G. Miley, J. P. de Jong, R. J. Hanisch, & R. Perley.* 436, 654, 274-E4 (1994)

An X-Ray Image of the Large Magellanic Cloud. *S. L. Snowden & R. Petre.* 436, L123, 281-A1 (1994)

A Simulation of the Intracluster Medium with Feedback from Cluster Galaxies. *Christopher A. Metzler & August E. Evrard.* 437, 564, 293-E8 (1994)

X-Ray Constraints on the Intergalactic Medium. *Thomas Aldcroft, Martin Elvis, Jonathan McDowell, & Fabrizio Fiore.* 437, 584, 293-G4 (1994)

X-Ray Reflection from Photoionized Media in Active Galactic Nuclei. *Piotr T. Życki, Julian H. Krolik, Andrzej A. Zdziarski, & Timothy R. Kallman.* 437, 597, 294-A6 (1994)

The X-Ray Spectra of Blazars: Analysis of the Complete *EXOSAT* Archive. *Rita M. Sambruna, Paul Barr, Paolo Giommi, Laura Maraschi, Gianpiero Tagliaferri, & Aldo Treves.* 95, 371, 69-D1 (1994)

Dark Matter in X-Ray–emitting Elliptical Galaxies. *F. De Paolis, G. Ingrosso, & F. Strafella.* 438, 83, 2-D11 (1995)

Rotating Cooling Flows. *Wilhelm Kley & William G. Mathews.* 438, 100, 2-F4 (1995)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. III. Ground-based Observations in 1991 November. *T. J.-L. Courvoisier, A. Blecha, P. Bouchet, P. Bratschi, M. T. Carini, M. Donahue, R. Edelson, E. D. Feigelson, A. V. Filippenko, I. S. Glass, J. Heidt, R. I. Kollgaard, T. Matheson, H. R. Miller, J. C. Noble, K. Sekiguchi, P. S. Smith, C. M. Urry, & S. J. Wagner.* 438, 108, 2-G2 (1995)

Multiwavelength Monitoring of the BL Lacertae Object PKS 2155−304. IV. Multiwavelength Analysis. *R. Edelson, J. Krolik, G. Madejski, L. Maraschi, G. Pike, C. M. Urry, W. Brinkmann, T. J.-L. Courvoisier, J. Ellithorpe, K. Horne, A. Treves, S. Wagner, W. Wamsteker, R. Warwick, H. D. Aller, M. F. Aller, M. Ashley, A. Blecha, P. Bouchet, P. Bratschi,*

J. N. Bregman, M. Carini, A. Celotti, M. Donahue, E. Feigelson, A. V. Filippenko, H. Fink, I. George, I. Glass, J. Heidt, J. Hewitt, P. Hughes, R. Kollgaard, Y. Kondo, A. Koratkar, K. Leighly, A. Marscher, P. G. Martin, T. Matheson, H. R. Miller, J. C. Noble, P. O'Brien, E. Pian, G. Reichert, J. M. Saken, J. M. Shull, M. Sitko, P. S. Smith, W.-H. Sun, & G. Tagliaferri. 438, 120, 3-A4 (1995)

The Spectral Energy Distribution of the $z = 3$ Quasar: HS 1946+7658. *O. Kuhn, J. Bechtold, R. Cutri, M. Elvis, & M. Rieke.* 438, 643, 13-A8 (1995)

ROSAT Observations of the Luminous X-Ray Sources in M51. *A. P. Marston, D. Elmegreen, B. Elmegreen, W. Forman, C. Jones, & K. Flanagan.* 438, 663, 13-C9 (1995)

Joint *ROSAT–Compton GRO* Observations of the X-Ray–bright Seyfert Galaxy IC 4329A. *G. M. Madejski, A. A. Zdziarski, T. J. Turner, C. Done, R. F. Mushotzky, R. C. Hartman, N. Gehrels, A. Connors, A. C. Fabian, K. Nandra, A. Celotti, M. J. Rees, W. N. Johnson, J. E. Grove, & C. H. Starr.* 438, 672, 13-D7 (1995)

The Average X-Ray/Gamma-Ray Spectra of Seyfert Galaxies from *Ginga* and OSSE and the Origin of the Cosmic X-Ray Background. *Andrzej A. Zdziarski, W. Neil Johnson, Chris Done, David Smith, & Kellie McNaron-Brown.* 438, L63, 19-C11 (1995)

The Discovery of an O VII Emission Line in the *ASCA* Spectrum of the Seyfert Galaxy NGC 3783. *I. M. George, T. J. Turner, & H. Netzer.* 438, L67, 19-D4 (1995)

ROSAT HRI Images of Abell 85 and Abell 496: Evidence for Inhomogeneities in Cooling Flows. *Andrea H. Prestwich, Stephen J. Guimond, Christian B. Luginbuhl, & Marshall Joy.* 438, L71, 19-D11 (1995)

The Reliability of X-Ray Constraints of Intrinsic Cluster Shapes. *David A. Buote & John C. Tsai.* 439, 29, 21-E11 (1995)

On the X-Ray Spectra of BL Lacertae Objects. *P. Ciliegi, L. Bassani, & E. Caroli.* 439, 80, 22-C7 (1995)

ROSAT Observations of Coma Cluster Galaxies. *K. L. Dow & S. D. M. White.* 439, 113, 22-F9 (1995)

Extended Soft X-Ray Emission in Seyfert Galaxies: *ROSAT* HRI Observations of NGC 3516, NGC 4151, and Markarian 3. *Jon A. Morse, Andrew S. Wilson, Martin Elvis, & Kimberly A. Weaver.* 439, 121, 22-G6 (1995)

X-Ray Emission from Giant H II Regions in M101. *Rosa Murphy Williams & You-Hua Chu.* 439, 132, 23-A9 (1995)

High-Resolution X-Ray Imaging of the Starburst Galaxy M82. *Joel N. Bregman, Eric Schulman, & Kohji Tomisaka.* 439, 155, 23-C13 (1995)

ROSAT Detection of Diffuse Hot Gas in the Edge-on Galaxy NGC 4631. *Q. Daniel Wang, René A. M. Walterbos, Michael F. Steakly, Colin A. Norman, & Robert Braun.* 439, 176, 23-E13 (1995)

Abell 548: An X-Ray and Optical Analysis of Substructure. *David S. Davis, Christina M. Bird, Richard F. Mushotzky, & S. C. Odewahn.* 440, 48, 43-G9 (1995)

Pure Scattered Emission as an Explanation for the Hard X-Ray Spectra of Active Galactic Nuclei. *E. Jourdain & J. P. Roques.* 440, 128, 43-A2 (1995)

Low-Luminosity Active Galaxies: Are They Similar to Seyfert Galaxies? *A. Koratkar, S. E. Deustua, T. Heckman, A. V. Filippenko, L. C. Ho, & M. Rao.* 440, 132, 43-A9 (1995)

Hot Shocked Gas along the Jets of NGC 4258 (M106). *G. Cecil, A. S. Wilson, & C. De Pree.* 440, 181, 43-F3 (1995)

Relation between O VI Emission and X-Ray Intensity in Active Galactic Nuclei. *Wei Zheng, Gerard A. Kriss, & Arthur F. Davidsen.* 440, 606, 51-E2 (1995)

Emission Spectrum Integrated over an Accretion Disk: Comparison with Observations of Active Galactic Nuclei. *Toshiya Shimura & Fumio Takahara.* 440, 610, 51-E9 (1995)

ROSAT PSPC Observations of the Early-Type Galaxies NGC 507 and NGC 499: Central Cooling and Mass Determination. *Dong-Woo Kim & G. Fabbiano.* 441, 182, 61-G10 (1995)

The Interaction between Hot and Cold Gas in Early-Type Galaxies. *Joel N. Bregman, David E. Hogg, & Morton S. Roberts.* 441, 561, 69-F9 (1995)

High-Resolution X-Ray Imaging of M33. *Eric Schulman & Joel N. Bregman.* 441, 568, 69-G6 (1995)

A Multiparametric Analysis of the *Einstein* Sample of Early-Type Galaxies. I. Luminosity and ISM Parameters. *Paul B. Eskridge, Giuseppina Fabbiano, & Dong-Woo Kim.* 97, 141, 12-G6 (1995)

A Multiparametric Analysis of the *Einstein* Sample of Early-Type Galaxies. II. Galaxy Formation History and Properties of the Interstellar Medium. *Paul B. Eskridge, Giuseppina Fabbiano, & Dong-Woo Kim.* 442, 523, 87-B8 (1995)

Multifrequency Observations of Kaz 102 during the *ROSAT* All-Sky Survey. *A. Treves, H. H. Fink, M. Malkan, S. J. Wagner, B. J. Wilkes, F. Baganoff, J. Heidt, E. Pian, A. Sadun, S. Schaeidt, J. T. Bonnell, W. Brinkmann, D. de Martino, L. Maraschi, E. G. Tanzi, M. H. Ulrich, & W. Wamsteker.* 442, 589, 88-A9 (1995)

The Origin of the Soft X-Ray Excess in the Seyfert 2 Galaxy NGC 2110. *K. A. Weaver, R. F. Mushotzky, P. J. Serlemitsos, A. S. Wilson, M. Elvis, & U. Briel.* 442, 597, 88-B7 (1995)

ROSAT Observations of the Two Radio-selected Blazars PKS 1034−293 and PKS 1335−127. *L. Maraschi, A. Ciapi, G. Fossati, G. Tagliaferri, & A. Treves.* 443, 29, 95-E13 (1995)

An X-Ray Temperature Map of Abell 754: A Major Merger. *J. Patrick Henry & Ulrich G. Briel.* 443, L9, 102-C1 (1995)

ROSAT Observations of Compact Groups of Galaxies. *Rachel A. Pildis, Joel N. Bregman, & August E. Evrard.* 443, 514, 105-A1 (1995)

ROSAT Observations of Blazars from a Polarized Radio-selected Sample. *L. Maraschi, G. Fossati, G. Tagliaferri, & A. Treves.* 443, 578, 105-G4 (1995)

An Extended Galactic Population of Low-Luminosity X-Ray Sources (CVs?) and the Diffuse X-Ray Background. *Eyal Maoz & Jonathan E. Grindlay.* 444, 183, 115-G11 (1995)

A Search for "Failed Clusters" of Galaxies. *W. H. Tucker, H. Tananbaum, & R. A. Remillard.* 444, 532, 123-F11 (1995)

The Connection between X-Ray– and Radio-selected BL Lacertae Objects. *Paolo Padovani & Paolo Giommi.* 444, 567, 124-C2 (1995)

Diffuse Hot Gas in the NGC 4261 Group of Galaxies. *David S. Davis, Richard F. Mushotzky, John S. Mulchaey, D. M. Worrall, M. Birkinshaw, & David Burstein.* 444, 582, 124-D6 (1995)

Cooling Gas Outflows from Galaxies. *Boqi Wang.* 444, 590, 124-E3 (1995)

Detection of Soft Gamma-Ray Emission from the Seyfert 2 Galaxy NGC 4507 by the OSSE Telescope. *L. Bassani, G. Malaguti, E. Jourdain, J. P. Roques, & W. N. Johnson.* 444, L73, 130-C8 (1995)

ROSAT Observations of the Gravitationally Lensed System 0957+561. *G. Chartas, E. Falco, W. Forman, C. Jones, R. Schild, & I. Shapiro.* 445, 140, 134-C7 (1995)

A First Determination of the Surface Density of Galaxy Clusters at Very Low X-Ray Fluxes. *Piero Rosati, Roberto Della Ceca, Richard Burg, Colin Norman, & Riccardo Giacconi.* 445, L11, 140-C3 (1995)

Cosmological Implications of *ROSAT* Observations of Groups and Clusters of Galaxies. *Laurence P. David, Christine Jones, & William Forman.* 445, 578, 143-A8 (1995)

Wavelet Transform Analysis of the Small-Scale X-Ray Structure of the Cluster Abell 1367. *S. A. Grebenev, W. Forman, C. Jones, & S. Murray.* 445, 607, 143-D12 (1995)

ASCA and *ROSAT* Observations of NRAO 140 and IX Persei. *T. J. Turner, I. M. George, G. M. Madejski, S. Kitamoto, & T. Suzuki.* 445, 660, 144-B11 (1995)

ROSAT Observations of NGC 2146: Evidence for a Starburst-driven Superwind. *L. Armus, T. M. Heckman, K. A. Weaver, & M. D. Lehnert.* 445, 666, 144-C8 (1995)

Constraints on Cold Dark Matter Theories from Observations of Massive X-Ray–luminous Clusters of Galaxies at High Redshift. *G. A. Luppino & I. M. Gioia.* 445, L77, 150-D5 (1995)

The Effects of Substructure on Galaxy Cluster Mass Determinations. *Christina M. Bird.* 445, L81, 150-E1 (1995)

An Objective Multicolor Method for the Characterization of Low-Resolution X-Ray Spectra. *A. Collura, G. Micela, S. Sciortino, F. R. Harnden, Jr., & R. Rosner.* 446, 108, 154-F7 (1995)

Soft X-Ray Emission from the Spiral Galaxy NGC 1313. *Edward J. M. Colbert, Robert Petre, Eric M. Schlegel, & Stuart D. Ryder.* 446, 177, 155-F2 (1995)

Nonlinear Evolution of Internal Gravity Waves in Cluster Cooling Flows. *Eric A. Lufkin, Steven A. Balbus, & John F. Hawley.* 446, 529, 163-D5 (1995)

Evidence for an On-going Cluster/Group Merger in Abell 2255. *Jack O. Burns, Kurt Roettiger, Jason Pinkney, Rick A. Perley, Frazer N. Owen, & Wolfgang Voges.* 446, 583, 164-B8 (1995)

The Extreme Ultraviolet Spectrum of the BL Lacertae Object PKS 2155−304. *Arieh Königl, John F. Kartje, Stuart Bowyer, Steven M. Kahn, & Chorng-Yuan Hwang.* 446, 598, 164-D1 (1995)

Cosmological Constraints from Observed Cluster X-Ray Morphologies. *Joseph J. Mohr, August E. Evrard, Daniel G. Fabricant, & Margaret J. Geller.* 447, 8, 172-C12 (1995)

A Confirmation of 2–40 keV Spectral Complexity in Seyfert Galaxies. *K. A. Weaver, K. A. Arnaud, & R. F Mushotzky.* 447, 121, 173-G3 (1995)

Soft X-Ray Emission from NGC 5253 and the Ionized Interstellar Medium. *Crystal L. Martin & Robert C. Kennicutt, Jr.* 447, 171, 174-E2 (1995)

Observable Properties of X-Ray–heated Winds in Active Galactic Nuclei: Warm Reflectors and Warm Absorbers. *Julian H. Krolik & Gerard A. Kriss.* 447, 512, 182-G11 (1995)

Comparison of the Radio, Optical, and X-Ray Structures of the cD Galaxy in Abell 2597. *Craig L. Sarazin, Jack O. Burns, Kurt Roettiger, & Brian R. McNamara.* 447, 559, 183-D13 (1995)

ROSAT PSPC Observations of Two Dynamically Young Elliptical Galaxies: NGC 4125 and NGC 3610. *G. Fabbiano & François Schweizer.* 447, 572, 183-F7 (1995)

EXAFS and XANES: New Astrophysical Tools to Study the Solid State Structure of Interstellar Grains. *Jonathan W. Woo.* 447, L129, 191-C8 (1995)

A Multiparametric Analysis of the *Einstein* Sample of Early-Type Galaxies. III. Comparisons with the κ-Parameters. *Paul B. Eskridge, Giuseppina Fabbiano, & Dong-Woo Kim.* 448, 70, 193-B9 (1995)

An X-Ray and Optical Study of the Dwarf Galaxy NGC 1569: Evidence for a Starburst-driven Outflow. *Timothy M. Heckman, Michael Dahlem, Matthew D. Lehnert, Giuseppina Fabbiano, Diane Gilmore, & William H. Waller.* 448, 98, 193-E1 (1995)

Discovery of Extreme-Ultraviolet Radiation from the Seyfert Galaxy Ton S180 (= EUVE J0057−223). *Stéphane Vennes, Elisha Polomski, Stuart Bowyer, & John R. Thorstensen.* 448, L9, 199-C3 (1995)

A Search for Optically Quiet Quasars. *R. I. Kollgaard, E. D. Feigelson, S. A. Laurent-Muehleisen, H. Spinrad, A. Dey, & W. Brinkmann.* 449, 61, 211-A13 (1995)

The Complex Optical to Soft X-Ray Spectrum of Low-Redshift Radio-quiet Quasars. II. Comparison with Free-Free and Accretion Disk Models. *Fabrizio Fiore, Martin Elvis, Aneta Siemiginowska, Belinda J. Wilkes, Jonathan C. McDowell, & Smita Mathur.* 449, 74, 211-C1 (1995)

Pair Cascades in Extragalactic Jets. II. The Beamed X-Ray Spectrum. *Amir Levinson & Roger Blandford.* 449, 86, 211-D2 (1995)

The X-Ray Environment of the Dumbbell Radio Galaxy NGC 326. *D. M. Worrall, M. Birkinshaw, & R. A. Cameron.* 449, 93, 211-D13 (1995)

OSSE Observations of Gamma-Ray Emission from Centaurus A. *R. L. Kinzer, W. N. Johnson, C. D. Dermer, J. D. Kurfess, M. S. Strickman, J. E. Grove, R. A. Kroeger, D. A. Grabelsky, W. R. Purcell, M. P. Ulmer, G. V. Jung, & K. McNaron-Brown.* 449, 105, 211-F1 (1995)

Groups of Galaxies in the *ROSAT* North Ecliptic Pole Survey. *J. P. Henry, I. M. Gioia, J. P. Huchra, R. Burg, B. McLean, H. Böhringer, R. G. Bower, U. G. Briel, W. Voges, H. MacGillivray, & R. G. Cruddace.* 449, 422, 218-E6 (1995)

Velocity Bias from Merging in Clusters of Galaxies: The $\beta < 1$ Problem. *R. Fusco-Femiano & N. Menci.* 449, 431, 218-F13 (1995)

ROSAT Observations of Distant Clusters of Galaxies. *Megan Donahue & John T. Stocke.* 449, 554, 220-D8 (1995)

Spectral Variability of the X-Ray–bright BL Lacertae Object PKS 2005−489. *Rita M. Sambruna, C. Megan Urry, Gabriele Ghisellini, & Laura Maraschi.* 449, 567, 220-E12 (1995)

Discovery of Inverse-Compton X-Rays in Radio Lobes. *E. D. Feigelson, S. A. Laurent-Muehleisen, R. I. Kollgaard, & E. B. Fomalont.* 449, L149, 227-E6 (1995)

The Soft X-Ray Properties of a Large Optical QSO Sample: *ROSAT* Observations of the Large Bright Quasar Survey. *Paul J. Green, Norbert Schartel, Scott F. Anderson, Paul C. Hewett, Craig B. Foltz, Wolfgang Brinkmann, Henner Fink, Joachim Trümper, & Bruce Margon.* 450, 51, 228-G1 (1995)

Cooling Flow Models of the X-Ray Emission and Temperature Profiles for a Sample of Elliptical Galaxies. *G. Bertin & T. Toniazzo.* 451, 111, 247-F1 (1995)

An *ASCA* X-Ray Spectrum of a Prototype Bare Seyfert 1 Nucleus in MCG −2-58-22. *K. A. Weaver, J. Nousek, T. Yaqoob, K. Hayashida, & S. Murakami.* 451, 147, 248-B1 (1995)

Substructure: Clues to the Formation of Clusters of Galaxies. *Michael J. West, Christine Jones, & William Forman.* 451, L5, 252-B5 (1995)

Multifrequency Spectra of *EXOSAT* Blazars. *K. K. Ghosh & S. Soundararajaperumal.* 100, 37, 46-D12 (1995)

The Distribution of Mass and Gas in the Center of Clusters of Galaxies Implied by X-Ray and Lensing Observations. *Eli Waxman & Jordi Miralda-Escudé.* 451, 451, 253-E6 (1995)

Matched Filter Source Detection Applied to the *ROSAT* PSPC and the Determination of the Number-Flux Relation. *A. Vikhlinin, W. Forman, C. Jones, & S. Murray.* 451, 542, 254-F10 (1995)

ROSAT Extended Medium-Deep Sensitivity Survey: Source Counts for 130 Fields. *A. Vikhlinin, W. Forman, C. Jones, & S. Murray.* 451, 553, 254-G10 (1995)

ROSAT Extended Medium-Deep Sensitivity Survey: Average Source Spectra. *A. Vikhlinin, W. Forman, C. Jones, & S. Murray.* 451, 564, 255-A10 (1995)

OSSE Observations of Blazars. *K. McNaron-Brown, W. N. Johnson, G. V. Jung, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, C. D. Dermer, D. A. Grabelsky, W. R. Purcell, M. P. Ulmer, M. Kafatos, P. A. Becker, R. Staubert, & M. Maisack.* 451, 575, 255-B11 (1995)

Problems with Cold Clouds and Cooling Flows. *G. Mark Voit & Megan Donahue.* 452, 164, 264-C9 (1995)

Testing Unified X-Ray/Ultraviolet Absorber Models with NGC 5548. *Smita Mathur, Martin Elvis, & Belinda Wilkes.* 452, 230, 265-C2 (1995)

Quantifying the Morphologies and Dynamical Evolution of Galaxy Clusters. I. The Method. *David A. Buote & John C. Tsai.* 452, 522, 271-G11 (1995)

Spectral Evidence for Shock-ionized Gas along the Jets of NGC 4258. *Gerald Cecil, Jon A. Morse, & Sylvain Veilleux.* 452, 613, 273-B4 (1995)

Diffuse X-Ray Emission from M101. *S. L. Snowden & W. Pietsch.* 452, 627, 273-C12 (1995)

The Velocity Dispersion–Temperature Correlation from a Limited Cluster Sample. *Christina M. Bird, Richard F. Mushotzky, & Christopher A. Metzler.* 453, 40, 281-F13 (1995)

Detection of Inverse-Compton X-Rays from Lobes of the Radio Galaxy Fornax A. *H. Kaneda, M. Tashiro, Y. Ikebe, Y. Ishisaki, H. Kubo, K. Makishima, T. Ohashi, Y. Saito, H. Tabara, & T. Takahashi.* 453, L13, 289-D1 (1995)

No X-Ray–luminous Starbursts in the *Einstein* Medium Sensitivity Survey, Either. *Jules P. Halpern, David J. Helfand, & Edward C. Moran.* 453, 611, 292-C10 (1995)

On the Origin of Temperature Substructure within Merging Clusters of Galaxies: Abell 2256. *Kurt Roettiger, Jack O. Burns, & Jason Pinkney.* 453, 634, 292-E11 (1995)

Intracluster Globular Clusters. *Michael J. West, Patrick Côté, Christine Jones, William Forman, & Ronald O. Marzke.* 453, L77, 298-D1 (1995)

The Iron Kα Line Profile in NGC 4151. *T. Yaqoob, R. Edelson, K. A. Weaver, R. S. Warwick, R. F. Mushotzky, P. J. Serlemitsos, & S. S. Holt.* 453, L81, 298-D8 (1995)

Relativistic Jets and the Fanaroff-Riley Classification of Radio Galaxies. *Geoffrey V. Bicknell.* 101, 29, 53-D4 (1995)

First Maps of the Soft X-Ray Diffuse Background from the *ROSAT* XRT/PSPC All-Sky Survey. *S. L. Snowden, M. J. Freyberg, P. P. Plucinsky, J. H. M. M. Schmitt, J. Trümper, W. Voges, R. J. Edgar, D. McCammon, & W. T. Sanders.* 454, 643, 310-D9 (1995)

The Underlying Distribution of Optical to X-Ray Spectral Index for Quasars in the Presence of Detection Thresholds. *Y. Avni, D. M. Worrall, & W. A. Morgan, Jr.* 454, 673, 311-A1 (1995)

Strong X-Ray Absorption in a Broad Absorption Line Quasar: PHL 5200. *Smita Mathur, Martin Elvis, & K. P. Singh.* 455, L9, 324-D1 (1995)

Hard X-Ray Emission from Extragalactic *IRAS* 12 Micron Sources: Constraints on the Unified Active Galactic Nucleus Model and the Synthesis of the X-Ray Background. *Xavier Barcons, Alberto Franceschini, Gianfranco De Zotti, Luigi Danese, & Takamitsu Miyaji.* 455, 480, 328-E7 (1995)

The Destruction of a Compact Group of Galaxies. *Rachel A. Pildis.* 455, 492, 328-F8 (1995)

ROSAT X-Ray Observations of the 2A 0335+096 Cluster of Galaxies. *Jimmy A. Irwin & Craig L. Sarazin.* 455, 497, 328-G3 (1995)

The Hard X-Ray Emission of NGC 3628 and the Contribution of Low-Luminosity Spiral Galaxies to the Cosmic X-Ray Background. *Tahir Yaqoob, Peter J. Serlemitsos, Andy Ptak, Richard Mushotzky, Hideyo Kunieda, & Yuichi Terashima.* 455, 508, 329-A4 (1995)

Detection of the Angular Correlation of Faint X-Ray Sources. *A. Vikhlinin & W. Forman.* 455, L109, 333-D10 (1995)

X-RAYS: GENERAL

Birthrates of Galactic Millisecond Pulsars and Their Low-Mass X-Ray Binary Precursors. *Marco Tavani.* 366, L27, 6-D1 (1991)

Limits on the Density of Neutral Gas within 100 Parsecs from Observations of the Soft X-Ray Background. *M. Juda, J. J. Bloch, B. C. Edwards, D. McCammon, W. T. Sanders, S. L. Snowden, & J. Zhang.* 367, 182, 14-C8 (1991)

Comptonization of Gamma Rays by Cold Electrons. *Yueming Xu, Randy R. Ross, & Richard McCray.* 371, 280, 63-E11 (1991)

A Recipe for Making Hot Accretion Disks. *Gunnlaugur Björnsson & Roland Svensson.* 371, L69, 73-C10 (1991)

Unsaturated Comptonization of Isotropic Photon Spectra by Relativistic Electrons. *Abraham Loeb, Christopher F. McKee, & Ofer Lahav.* 374, 44, 98-E5 (1991)

Determination of Confidence Limits for Experiments with Low Numbers of Counts. *Ralph P. Kraft, David N. Burrows, & John A. Nousek.* 374, 344, 102-D1 (1991)

On the Distribution of the Diffuse Galactic Gamma-Ray Line Emissions at 1809 keV and 511 keV. *P. von Ballmoos.* 380, 98, 177-C1 (1991)

Search for Starbursts among X-Ray–selected Galaxies: Optical Spectroscopy. *Antonella Fruscione & Richard E. Griffiths.* 380, L13, 181-C1 (1991)

Supernova Remnants in Dense Clouds. I. Blast-Wave Dynamics and X-Ray Irradiation. *B. T. Draine & D. T. Woods.* 383, 621, 222-A6 (1991)

Variability of the Galactic Center in the Hard X-Ray Range. *A. Bazzano, C. La Padula, P. Ubertini, & R. K. Sood.* 385, L17, 17-C1 (1992)

The Semicircular Shell of CTB 109. *Zhenru Wang, Quinyue Qu, Ding Luo, Richard McCray, & Mordecai-Mark Mac Low.* 388, 127, 50-E10 (1992)

On the Optical Counterpart of 1E 1207.4−5209, the Central X-Ray Source of a Ring-shaped Supernova Remnant. *Giovanni F. Bignami, Patrizia A. Caraveo, & Sandro Mereghetti.* 389, L67, 73-D5 (1992)

X-Ray Nova in Musca (GRS 1124−68): Hard X-Ray Source with Narrow Annihilation Line. *R. Sunyaev, E. Churazov, M. Gilfanov, A. Dyachkov, N. Khavenson, S. Grebenev, R. Kremnev, K. Sukhanov, A. Goldwurm, J. Ballet, B. Cordier, J. Paul, M. Denis, G. Vedrenne, M. Niel, & E. Jourdain.* 389, L75, 73-E1 (1992)

SIGMA/*GRANAT* Soft Gamma-Ray Observations of the X-Ray Nova in Musca: Discovery of Positron Annihilation Emission Line. *A. Goldwurm, J. Ballet, B. Cordier, J. Paul, L. Bouchet, J. P. Roques, D. Barret, P. Mandrou, R. Sunyaev, E. Churazov, M. Gilfanov, A. Dyachkov, N. Khavenson, V. Kovtunenko, R. Kremnev, & K. Sukhanov.* 389, L79, 73-E6 (1992)

L-Shell X-Ray Opacity of Many-Electron Atoms. *Young-Dae Jung & Robert J. Gould.* 391, 403, 91-A7 (1992)

The *Einstein* Slew Survey. *Martin Elvis, David Plummer, Jonathan Schachter, & G. Fabbiano.* 80, 257, 25-E9 (1992)

Optimal Grazing Incidence Optics and Its Application to Wide-Field X-Ray Imaging. *Christopher J. Burrows, Richard Burg, & Riccardo Giacconi.* 392, 760, 111-F13 (1992)

The Particle Background of the *ROSAT* PSPC. *S. L. Snowden, P. P. Plucinsky, U. Briel, G. Hasinger, & E. Pfeffermann.* 393, 819, 126-B1 (1992)

A Jet Model for the Gamma-Ray–emitting Blazar 3C 279. *L. Maraschi, G. Ghisellini, & A. Celotti.* 397, L5, 173-B4 (1992)

Oriented Scintillation Spectrometer Experiment Observations of ^{57}Co in SN 1987A. *J. D. Kurfess, W. N. Johnson, R. L. Kinzer, R. A. Kroeger, M. S. Strickman, J. E. Grove, M. D. Leising, D. D. Clayton, D. A. Grabelsky, W. R. Purcell, M. P. Ulmer, R. A. Cameron, & G. V. Jung.* 399, L137, 208-B7 (1992)

Light Element Nucleosynthesis: A False Clue? *N. Yu. Gnedin & J. P. Ostriker.* 400, 1, 209-A13 (1992)

Photoelectric Absorption Cross Sections with Variable Abundances. *Monika Batucińska-Church & Dan McCammon.* 400, 699, 219-B11 (1992)

The Unstable Long-Term Periodicity of Aquila X-1. *Shunji Kitamoto, Hiroshi Tsunemi, Sigenori Miyamoto, & Diane Roussel-Dupre.* 403, 315, 17-F13 (1993)

High-Resolution Measurements, Line Identification, and Spectral Modeling of Kα Transitions in Fe XVIII–Fe XXV. *P. Beiersdorfer, T. Phillips, V. L. Jacobs, K. W. Hill, M. Bitter, S. von Goeler, & S. M. Kahn.* 409, 846, 109-F6 (1993)

On the Origin of the Soft X-Ray Background. *Q. Daniel Wang & Richard McCray.* 409, L37, 111-B8 (1993)

Ionized Absorbers, Ionized Emitters, and the X-Ray Spectrum of Active Galactic Nuclei. *Hagai Netzer.* 411, 594, 137-A10 (1993)

A Turbulent Model of Time Variability in X-Ray Binary Pulsars. *Masahiro Hoshino & Toshiaki Takeshima.* 411, L79, 142-D9 (1993)

A Comparison of the Cosmic Microwave and Cosmic X-Ray Backgrounds: Constraints on Local Sources of the Fluctuations Observed by *COBE*. *S. P. Boughn & K. Jahoda.* 412, L1, 148-A9 (1993)

An Updated Calibration of the *ROSAT* PSPC Particle Background for the Analysis of Diffuse and Extended Sources. *P. P. Plucinsky, S. L. Snowden, U. G. Briel, G. Hasinger, & E. Pfeffermann.* 418, 519, 237-D10 (1993)

Three Years of Monitoring GRS 1758−258: An Extremely Hard X-Ray Source near GX 5−1. *M. Gilfanov, E. Churazov, R. Sunyaev, N. Khavenson, B. Novikov, A. Dyachkov, R. Kremnev, K. Sukhanov, L. Bouchet, P. Mandrou, J. P. Roques, G. Vedrenne, B. Cordier, A. Goldwurm, P. Laurent, & J. Paul.* 418, 844, 243-A13 (1993)

ROSAT Observations of Nine Globular Clusters. *S. Rappaport, D. Dewey, A. Levine, & L. Macri.* 423, 633, 56-D2 (1994)

Analysis Procedures for *ROSAT* XRT/PSPC Observations of Extended Objects and the Diffuse Background. *S. L. Snowden, D. McCammon, D. N. Burrows, & J. A. Mendenhall.* 424, 714, 73-F7 (1994)

The Detection of X-Ray Emission from the Highest Redshift Galaxy Clusters. *Francisco J. Castander, Richard S. Ellis, Carlos S. Frenk, Alan Dressler, & James E. Gunn.* 424, L79, 78-F9 (1994)

X-Ray and Gamma-Ray Emission of Sagittarius A* as a Wind-accreting Black Hole. *A. Mastichiadis & L. M. Ozernoy.* 426, 599, 105-G7 (1994)

X-Ray Observations of Supernova Remnants as Distance Indicators. *Namir E. Kassim, Paul Hertz, Schuyler D. Van Dyk, & Kurt W. Weiler.* 427, L95, 127-B5 (1994)

A Review of Recent Results in Gamma-Ray Astronomy Obtained from High-Altitude Balloons. *B. J. Teegarden.* 92, 363, 36-F3 (1994)

Observation of Transient High-Energy Emission Features in the Spectra of Black Hole Candidates and the Crab Nebula by *GRANAT*/SIGMA. *M. Gilfanov, E. Churazov, R. Sunyaev, N. Khavenson, B. Novikov, A. Dyachkov, I. Tserenin, K. Sukhanov, L. Bouchet, M. Denis, M. C. Schmitz-Fraysse, P. Mandrou, J. Paul, B. Cordier, A. Goldwurm, & F. Lebrun.* 92, 411, 37-C6 (1994)

On Thermal Comptonization in $e^{\pm}$ Pair Plasmas. *Gabriele Ghisellini & Francesco Haardt.* 429, L53, 157-G7 (1994)

A Sensitive 1.5 GHz Radio Survey around the North Ecliptic Pole. *Ronald I. Kollgaard, Wolfgang Brinkmann, Margaret McMath Chester, Eric D. Feigelson, Paul Hertz, Patricia Reich, & Richard Wielebinski.* 93, 145, 43-F10 (1994)

MACHOs and the Diffuse X-Ray Background. *V. Kashyap, R. Rosner, D. Schramm, & J. Truran.* 431, L87, 191-E2 (1994)

Hard X-Rays from SN 1993J. *M. D. Leising, J. D. Kurfess, D. D. Clayton, D. A. Grabelsky, J. E. Grove, W. N. Johnson, G. V. Jung, R. L. Kinzer, R. A. Kroeger, W. R. Purcell, M. S. Strickman, L.-S. The, & M. P. Ulmer.* 431, L95, 191-F1 (1994)

A Model for the X-Ray and Ultraviolet Emission from Seyfert Galaxies and Galactic Black Holes. *Francesco Haardt, Laura Maraschi, & Gabriele Ghisellini.* 432, L95, 206-F7 (1994)

Statistical Uncertainties in Temperature Diagnostics for Hot Coronal Plasma Using the *ASCA* SIS. *Douglas A. Swartz, S. L. O'Dell, M. E. Sulkanen, & A. F. Tennant, Jr.* 435, L149, 260-D11 (1994)

The Evolution of X-Ray Clusters in a Cold Plus Hot Dark Matter Universe. *Greg L. Bryan, Anatoly Klypin, Chris Loken, Michael L. Norman, & Jack O. Burns.* 437, L5, 291-B8 (1994)

The Derived Population of Luminous Supersoft X-Ray Sources. *R. Di Stefano & S. Rappaport.* 437, 733, 295-G1 (1994)

An Accurate Galactic N_H Map of the North Ecliptic Pole. *Martin Elvis, Felix J. Lockman, & C. Fassnacht.* 95, 413, 70-A6 (1994)

New Calculations of Fe *L*-Shell X-Ray Spectra in High-Temperature Plasmas. *Duane A. Liedahl, Albert L. Osterheld, & William H. Goldstein.* 438, L115, 20-D2 (1995)

Calibrating the Broad Band X-Ray Telescope. *K. A. Weaver, K. A. Arnaud, E. A. Boldt, D. Christian, M. Corcoran, S. S. Holt, K. Jahoda, R. Kelley, F. E. Marshall, R. F. Mushotzky, R. Petre, G. Rawley, P. J. Serlemitsos, E. M. Schlegel, A. P. Smale, J. H. Swank, A. E. Szymkowiak, & S. Yamauchi.* 96, 303, 5-D13 (1995)

Images of HCO^+ (1–0) Emission in a Molecular Cloud near 1E 1740.7−2942. *J. A. Phillips & T. Joseph W. Lazio.* 442, L37, 85-B7 (1995)

The Nuclear X-Ray Source in NGC 3628: A Strange Active Galactic Nucleus or the Most Luminous High-Mass X-Ray Binary Known? *Michael Dahlem, Timothy M. Heckman, & Giuseppina Fabbiano.* 442, L49, 94-C9 (1995)

A First Determination of the Surface Density of Galaxy Clusters at Very Low X-Ray Fluxes. *Piero Rosati, Roberto Della Ceca, Richard Burg, Colin Norman, & Riccardo Giacconi.* 445, L11, 140-C3 (1995)

Infrared Response of H_2 to X-Rays. *R. Gredel & A. Dalgarno.* 446, 852, 167-G7 (1995)

The Galactic Distribution of Low-Mass X-Ray Binaries. *J. van Paradijs & N. White.* 447, L33, 181-A3 (1995)

On the Geometry of the X-Ray–Emitting Region in Seyfert Galaxies. *Boris E. Stern, Juri Poutanen, Roland Svensson, Marek Sikora, & Mitchell C. Begelman.* 449, L13, 216-B9 (1995)

Old Isolated Accreting Neutron Stars: Contribution to the Soft X-Ray Background in the 0.5–2 keV Band. *Silvia Zane, Roberto Turolla, Luca Zampieri, Monica Colpi, & Aldo Treves.* 451, 739, 257-D2 (1995)

Disk-Corona Model of Active Galactic Nuclei with Nonthermal Pairs. *Sachiko Tsuruta & Michael Kellen.* 453, L9, 289-C7 (1995)

First Maps of the Soft X-Ray Diffuse Background from the *ROSAT* XRT/PSPC All-Sky Survey. *S. L. Snowden, M. J. Freyberg, P. P. Plucinsky, J. H. M. M. Schmitt, J. Trümper, W. Voges, R. J. Edgar, D. McCammon, & W. T. Sanders.* 454, 643, 310-D9 (1995)

Fine-Structure Resolved Dielectronic Recombination Rates for the $n = 3$ Excited Configurations of Fe XVI–Fe XIX. *Arati Dasgupta.* 101, 401, 59-C4 (1995)

X-RAYS: INTERSTELLAR

Discovery of X-Ray Emission Associated with the Gum Nebula. *D. A. Leahy, J. Nousek, & G. Garmire.* 385, 561, 20-B4 (1992)

A New Scheme for Multidimensional Line Transfer. II. ETLA Method in One Dimension with Application to Iron Kα Lines. *John I. Castor, Pieter G. Dykema, & Richard I. Klein.* 387, 561, 45-F1 (1992)

ROSAT Wide Field Camera Minisurvey of the Diffuse Sky Background in 90–188 eV Soft X-Rays. *R. Lieu, J. J. Quenby, S. D. Sidher, T. J. Sumner, R. Willingale, R. G. West, A. W. Harris, S. L. Snowden, & K. Bickert.* 397, 158, 170-A1 (1992)

The Soft X-Ray Diffuse Background Observed with the *HEAO 1* Low-Energy Detectors. *G. P. Garmire, J. A. Nousek, K. M. V. Apparao, D. N. Burrows, R. L. Fink, & R. P. Kraft.* 399, 694, 206-E1 (1992)

The Radio Counterpart of the Hard X-Ray Source GRS 1758−258. *L. F. Rodríguez, I. F. Mirabel, & J. Martí.* 401, L15, 227-C1 (1992)

Hard X-Rays from the Orion Nebula Region. *Shigeo Yamauchi & Katsuji Koyama.* 405, 268, 44-D8 (1993)

A Multiwavelength Study of the Eridanus Soft X-Ray Enhancement. *D. N. Burrows, K. P. Singh, J. A. Nousek, G. P. Garmire, & J. Good.* 406, 97, 56-C7 (1993)

An Observation of the Galactic Center Hard X-Ray Source, 1E 1740.7−2942, with the Caltech Coded-Aperture Telescope. *William A. Heindl, Walter R. Cook, John M. Grunsfeld, David M. Palmer, Thomas A. Prince, Stephen M. Schindler, & Edward C. Stone.* 408, 507, 91-E7 (1993)

The X-Ray Shadow of the High-Latitude Molecular Cloud MBM 12. *S. L. Snowden, D. McCammon, & F. Verter.* 409, L21, 104-D1 (1993)

Radio and X-Ray Observations of OH 231.8+4.2. *Gregory B. Taylor & Mark Morris.* 409, 720, 108-A9 (1993)

On the Source Function of the Soft X-Ray Diffuse Background. *David N. Burrows & Ralph P. Kraft.* 411, 685, 138-C1 (1993)

Hot Bubbles in a Magnetic Interstellar Medium: Another Look at the Soft X-Ray Background. *Richard J. Edgar & Donald P. Cox.* 413, 190, 158-D10 (1993)

Hidden Supernova Remnants in the Large Magellanic Cloud H II Complex N44. *You-Hua Chu, Mordecai-Mark Mac Low, Guillermo Garcia-Segura, Bart Wakker, & Robert C. Kennicutt, Jr.* 414, 213, 172-F2 (1993)

High-Resolution X-Ray Spectroscopy of the Supernova Remnant N132D. *Una Hwang, John P. Hughes, Claude R. Canizares, & Thomas H. Markert.* 414, 219, 172-F11 (1993)

The Discovery of a Supernova Remnant Embedded in a Giant H II Region of M33. *Shawn M. Gordon, Robert P. Kirshner, Nebojsa Duric, & Knox S. Long.* 418, 743, 241-F10 (1993)

ROSAT Observations of the Composite Supernova Remnant G326.3−1.8. *Namir E. Kassim, Paul Hertz, & Kurt W. Weiler.* 419, 733, 256-F13 (1993)

X-RAYS: ISM

ROSAT Observations of VRO 42.05.01. *David N. Burrows & Zhiyu Guo.* 421, L19, 21-E7 (1994)

The Outer Shell of SNR 0540−69.3. *F. D. Seward & F. R. Harnden, Jr.* 421, 581, 25-D5 (1994)

Elemental Abundances of the Supernova Remnant G292.0+1.8: Evidence for a Massive Progenitor. *John P. Hughes & K. P. Singh.* 422, 126, 31-F1 (1994)

Two-Temperature X-Ray Emission from the Planetary Nebula NGC 7293. *D. A. Leahy, C. Y. Zhang, & Sun Kwok.* 422, 205, 32-F1 (1994)

An *Einstein* Survey of the 1 keV Soft X-Ray Background in the Galactic Plane. *John M. Stanford & Jean-Pierre Caillault.* 424, 671, 73-C1 (1994)

CCD Soft X-Ray Observations of the Puppis A Supernova Remnant. *G. D. Berthiaume, D. N. Burrows, G. P. Garmire, & J. A. Nousek.* 425, 132, 81-G8 (1994)

Multiwavelength Approach to Gamma-Ray Sources in the Galactic Center Region. *I. F. Mirabel.* 92, 369, 36-F12 (1994)

Is the Galactic Center Annihilator 1E 1740.7−2942 a Source of MeV Gamma-Ray Continuum Emission? *Philippe Laurent & Jacques Paul.* 92, 375, 36-G5 (1994)

On the X-Ray Spectrum of Kepler's Supernova Remnant. *Kazimierz J. Borkowski, Craig L. Sarazin, & John M. Blondin.* 429, 710, 154-E1 (1994)

Soft X-Ray and H I Surveys of the Low N_H Region in Ursa Major. *S. L. Snowden, G. Hasinger, K. Jahoda, Felix J. Lockman, D. McCammon, & W. T. Sanders.* 430, 601, 169-C9 (1994)

An X-Ray and Optical Study of the Supernova Remnant W44. *Jeonghee Rho, R. Petre, Eric M. Schlegel, & J. Jeff Hester.* 430, 757, 171-C8 (1994)

Ionization Nebulae Surrounding Supersoft X-Ray Sources. *S. Rappaport, E. Chiang, T. Kallman, & R. Malina.* 431, 237, 179-B1 (1994)

An X-Ray Study of Five Supernova Remnants in the Carina Spiral Arm. *Una Hwang & Thomas H. Markert.* 431, 819, 188-G5 (1994)

MACHOs and the Diffuse X-Ray Background. *V. Kashyap, R. Rosner, D. Schramm, & J. Truran.* 431, L87, 191-E2 (1994)

The Nature of the Compact X-Ray Source in the Supernova Remnant G27.4+0.0. *David J. Helfand, R. H. Becker, G. Hawkins, & R. L. White.* 434, 627, 236-D9 (1994)

Detections of Hard X-Ray Emissions from Bright Early-Type Galaxies with *ASCA*. *K. Matsushita, K. Makishima, H. Awaki, C. R. Canizares, A. C. Fabian, Y. Fukazawa, M. Loewenstein, H. Matsumoto, T. Mihara, R. F. Mushotzky, T. Ohashi, G. R. Ricker, P. J. Serlemitsos, T. Tsuru, Y. Tsusaka, & T. Yamazaki.* 436, L41, 269-A5 (1994)

An X-Ray Image of the Large Magellanic Cloud. *S. L. Snowden & R. Petre.* 436, L123, 281-A1 (1994)

ROSAT PSPC Observation of the Northeast Region of the Vela Supernova Remnant. I. Evidence of Thermal Structure on a Scale of 5′. *F. Bocchino, A. Maggio, & S. Sciortino.* 437, 209, 286-B1 (1994)

Nonequilibria in Thermal Emission from Supernova Remnants. *Kuniaki Masai.* 437, 770, 296-C2 (1994)

ROSAT Observations of the Eridanus Soft X-Ray Enhancement. *S. L. Snowden, D. N. Burrows, W. T. Sanders, B. Aschenbach, & E. Pfeffermann.* 439, 399, 26-E11 (1995)

Ionization Nebulae Surrounding CAL 83 and Other Supersoft X-Ray Sources. *R. A. Remillard, S. Rappaport, & L. M. Macri.* 439, 646, 33-C11 (1995)

A *ROSAT* Observation of the Supernova Remnant Kesteven 79. *F. D. Seward & T. Velusamy.* 439, 715, 34-D13 (1995)

ROSAT Observations of the Unusual Supernova Remnant CTB 80 Containing the Pulsar PSR 1951+32. *Samar Safi-Harb, Hakki Ögelman, & John P. Finley.* 439, 722, 34-E10 (1995)

Evidence for Elemental Variation in the Ejecta of the Tycho Supernova Remnant. *O. Vancura, P. Gorenstein, & John P. Hughes.* 441, 680, 71-D1 (1995)

ROSAT Observations of the Supernova Remnant 3C 400.2. *Jon M. Saken, Knox S. Long, William P. Blair, & P. Frank Winkler.* 443, 231, 98-C6 (1995)

High-Resolution Measurements of the Kα Spectra of Low-Ionization Species of Iron: A New Spectral Signature of Nonequilibrium Ionization Conditions in Young Supernova Remnants. *V. Decaux, P. Beiersdorfer, A. Osterheld, M. Chen, & S. M. Kahn.* 443, 464, 101-D13 (1995)

An X-Ray and Optical Study of the Interaction of the Cygnus Loop Supernova Remnant with an Interstellar Cloud. *James R. Graham, N. A. Levenson, J. J. Hester, J. C. Raymond, & R. Petre.* 444, 787, 127-C8 (1995)

ASCA Observations of the Large Magellanic Cloud Supernova Remnant Sample: Typing Supernovae from Their Remnants. *John P. Hughes, Ichizo Hayashi, David Helfand, Una Hwang, Masayuki Itoh, Robert Kirshner, Katsuji Koyama, Thomas Markert, Hiroshi Tsunemi, & Jonathan Woo.* 444, L81, 130-E1 (1995)

The Optical Counterpart to the Extremely Luminous X-Ray Source near Holmberg IX: A Possible Supershell in a Tidal Tail. *Bryan W. Miller.* 446, L75, 170-G4 (1995)

ROSAT Observations of the Supernova Remnant W51C. *Bon-Chul Koo, Kee-Tae Kim, & Frederick D. Seward.* 447, 211, 175-B8 (1995)

WFPC2 Studies of the Crab Nebula. I. *HST* and *ROSAT* Imaging of the Synchrotron Nebula. *J. Jeff Hester, Paul A. Scowen, Ravi Sankrit, Christopher J. Burrows, John S. Gallagher III, Jon A. Holtzman, Alan Watson, John T. Trauger, Gilda E. Ballester, Stefano Casertano, John T. Clarke, David Crisp, Robin W. Evans, Richard E. Griffiths, John G. Hoessel, John Krist, Roger Lynds, Jeremy R. Mould, Earl J. O'Neil, Jr., Karl R. Stapelfeldt, & James A. Westphal.* 448, 240, 195-D12 (1995)

Diffuse X-Ray Emission from the Hydrogen-deficient Planetary Nebula Abell 30. *You-Hua Chu & Ching-Hwa Ho.* 448, L127, 209-F9 (1995)

A *ROSAT*-detected, New Galactic Supernova Remnant in Sagittarius, G13.3−1.3. *F. D. Seward, T. M. Dame, R. A. Fesen, & B. Aschenbach.* 449, 681, 222-B7 (1995)

X-Rays from Superbubbles in the Large Magellanic Cloud. III. X-Ray–dim Superbubbles. *You-Hua Chu, Hsiao-wei Chang, Yu-ling Su, & Mordecai-Mark Mac Low.* 450, 157, 230-B13 (1995)

Luminous Supersoft X-Ray Sources and the Planetary Nebula Luminosity Function. *R. Di Stefano, F. Paerels, & S. Rappaport.* 450, 705, 240-D10 (1995)

Discovery of Diffuse X-Ray Emission in 47 Tucanae. *Martin Krockenberger & Jonathan E. Grindlay.* 451, 200, 248-F11 (1995)

X-Ray Morphology, Kinematics, and Geometry of the Eridanus Soft X-Ray Enhancement. *Z. Guo, D. N. Burrows, W. T. Sanders, S. L. Snowden, & B. E. Penprase.* 453, 256, 284-E7 (1995)

X-Ray Emission from the Supernova Remnant CTA 1. *F. D. Seward, B. Schmidt, & P. Slane.* 453, 284, 285-A11 (1995)

The X-Ray Emission of 3C 58 Revisited. *David J. Helfand, Robert H. Becker, & Richard L. White.* 453, 741, 294-A12 (1995)

Radio Monitoring of GRS 1915+105. *L. F. Rodríguez, E. Gerard, I. F. Mirabel, Y. Gómez, & A. Velázquez.* 101, 173, 55-A5 (1995)

First Maps of the Soft X-Ray Diffuse Background from the *ROSAT* XRT/PSPC All-Sky Survey. *S. L. Snowden, M. J. Freyberg, P. P. Plucinsky, J. H. M. M. Schmitt, J. Trümper, W. Voges, R. J. Edgar, D. McCammon, & W. T. Sanders.* 454, 643, 310-D9 (1995)

PSR 1509−58 and Its Plerionic Environment. *C. Greiveldinger, S. Caucino, S. Massaglia, H. Ögelman, & E. Trussoni.* 454, 855, 313-E11 (1995)

A Gamma-Ray Monte Carlo Study of the Clumpy Debris of SN 1987A. *Adam Burrows & Kenneth A. Van Riper.* 455, 215, 321-B3 (1995)

X-RAYS: SOURCES

Cosmic X-Ray Background from Hot Gas. *R. D. Rogers & G. B. Field.* 366, 22, 1-C13 (1991)

A New X-Ray Pulsar GS 2138+56 (Cepheus X-4). *Katsuji Koyama, Mitsunobu Kawada, Yuzuru Tawara, Kazuhiro Kimura, Shunji Kitamoto, Sigenori Miyamoto, Hiroshi Tsunemi, Ken Ebisawa, & Fumiaki Nagase.* 366, L19, 6-C5 (1991)

X-Ray Luminosity Functions of Clusters of Galaxies. *A. Cavaliere, R. Burg, & R. Giacconi.* 366, L61, 11-B11 (1991)

The Proper Motion of the Soft X-Ray–emitting Radio Pulsar PSR 0656+14. *R. J. Thompson, Jr., F. A. Córdova, R. M. Hjellming, & E. B. Fomalont.* 366, L83, 11-E1 (1991)

Dynamic Effects on Cyclotron Scattering in Pulsar Accretion Columns. *J. J. Brainerd & P. Mészáros.* 369, 179, 38-B11 (1991)

A Search for Periodicities in the X-Ray Emission from Cataclysmic Variables. *Michael Eracleous, Joseph Patterson, & Jules Halpern.* 370, 330, 51-D1 (1991)

An X-Ray Image of the Violent Interstellar Medium in 30 Doradus. *Q. Wang & D. J. Helfand.* 370, 541, 55-B9 (1991)

Compton Reflection in Active Galactic Nuclei and the Cosmic X-Ray Background. *R. D. Rogers & G. B. Field.* 370, L57, 59-A11 (1991)

Discovery of 111 Second Pulsation from the X-Ray Source Scutum X-1. *K. Koyama, H. Kunieda, Y. Takeuchi, & Y. Tawara.* 370, L77, 59-D1 (1991)

Dust from Early Galaxies and the X-Ray Background Radiation. *B. Rudak & P. Mészáros.* 371, 29, 60-D5 (1991)

EXOSAT Observations of the X-Ray Source 2S 0114+65. *Krishna M. V. Apparao, P. Bisht, & K. P. Singh.* 371, 772, 71-B6 (1991)

A Recipe for Making Hot Accretion Disks. *Gunnlaugur Björnsson & Roland Svensson.* 371, L69, 73-C10 (1991)

Rapid Ultraviolet Variability in the BL Lacertae Object PKS 2155−304. *R. A. Edelson, J. Saken, G. Pike, C. M. Urry, I. M. George, R. S. Warwick, H. R. Miller, M. T. Carini, & J. R. Webb.* 372, L9, 79-B5 (1991)

Coded-Aperture Imaging of the Galactic Center Region at Gamma-Ray Energies. *Walter R. Cook, John M. Grunsfeld, William A. Heindl, David M. Palmer, Thomas A. Prince, Stephen M. Schindler, & Edward C. Stone.* 372, L75, 85-D1 (1991)

High-Energy X-Ray Production in a Boundary Layer of an Accreting Neutron Star. *Tomoyuki Hanawa.* 373, 222, 88-F9 (1991)

The Detection of X-Ray Emission from the OB Associations of the Large Magellanic Cloud. *Q. Wang & D. J. Helfand.* 373, 497, 94-B7 (1991)

W28 and 3C 400.2: Two Shell-like Radio Supernova Remnants with Centrally Peaked X-Ray Morphologies. *Knox S. Long, William P. Blair, Richard L. White, & Yutaka Matsui.* 373, 567, 95-A10 (1991)

Thermal X-Ray Emission from Classical Novae in Optical Decline. *James MacDonald & Stéphane Vennes.* 373, L51, 97-C4 (1991)

The Properties of X-Ray–selected Active Galactic Nuclei. I. Luminosity Function, Cosmological Evolution, and Contribution to the Diffuse X-Ray Background. *Tommaso Maccacaro, Roberto Della Ceca, Isabella M. Gioia, Simon L. Morris, John T. Stocke, & Anna Wolter.* 374, 117, 99-D11 (1991)

High-Speed Photometry of V404 Cygni in Outburst. *Eric Gotthelf, Joseph Patterson, & Richard J. Stover.* 374, 340, 102-C11 (1991)

The CfA *Einstein Observatory* Extended Deep X-Ray Survey. *F. A. Primini, S. S. Murray, J. Huchra, R. Schild, R. Burg, & R. Giacconi.* 374, 440, 104-E12 (1991)

The Detection of X-Rays from the Hot Interstellar Medium of the Large Magellanic Cloud. *Q. Wang, T. Hamilton, D. J. Helfand, & X. Wu.* 374, 475, 105-A10 (1991)

Bremsstrahlung and Energetic Electrons in Supernovae. *Donald D. Clayton & Lih-Sin The.* 375, 221, 113-F12 (1991)

The Formation and Detection of Strongly Magnetic White Dwarf Binaries in Globular Clusters. *G. Chanmugam, A. Ray, & K. P. Singh.* 375, 600, 120-B9 (1991)

Cyclotron Line Features in the Spectrum of the Transient X-Ray Pulsar X0115+634. *F. Nagase, T. Dotani, Y. Tanaka, K. Makishima, T. Mihara, T. Sakao, H. Tsunemi, S. Kitamoto, K. Tamura, A. Yoshida, & H. Nakamura.* 375, L49, 124-B11 (1991)

Shot Model Parameters for Cygnus X-1 through Phase Portrait Fitting. *James C. Lochner, J. H. Swank, & A. E. Szymkowiak.* 376, 295, 128-E9 (1991)

The *Einstein Observatory* Extended Medium-Sensitivity Survey. II. The Optical Identifications. *John T. Stocke, Simon L. Morris, I. M. Gioia, T. Maccacaro, R. Schild, A. Wolter, Thomas A. Fleming, & J. Patrick Henry.* 76, 813, 36-B1 (1991)

An X-Ray Pulsator in the Direction of Molecular Cloud MBM 12 (Lynds 1457). *K. Koyama, S. Takano, Y. Tawara, T. Matsumoto, K. Noguchi, Y. Fukui, T. Iwata, N. Ohashi, K. Tatematsu, N. Takahashi, T. Umemoto, K. W. Hodapp, J. Rayner, & K. Makishima.* 377, 240, 141-A1 (1991)

The *EXOSAT* High Galactic Latitude Survey. *P. Giommi, G. Tagliaferri, K. Beuermann, G. Branduardi-Raymont, R. Brissenden, U. Graser, K. O. Mason, J. D. P. Mittaz, P. Murdin, G. Pooley, H.-C. Thomas, & I. Tuohy.* 378, 77, 152-A5 (1991)

Optical Identification of the X-Ray Source GS 2023+338 as V404 Cygni. *R. Mark Wagner, Sumner G. Starrfield, Steve B. Howell, Tobias J. Kreidl, S. J. Bus, A. Cassatella, R. Bertram, & R. Fried.* 378, 293, 154-E10 (1991)

A Compton Reflection Model for the Cosmic X-Ray and Gamma-Ray Backgrounds. *R. D. Rogers & G. B. Field.* 378, L17, 157-C1 (1991)

Persistence and Change in the Soft X-Ray Spectrum of the Quasar PG 1211+143. *Martin Elvis, P. Giommi, Belinda J. Wilkes, & Jonathan McDowell.* 378, 537, 159-B1 (1991)

Cross-Correlation of the X-Ray Background with Nearby Galaxies. *Keith Jahoda, Ofer Lahav, Richard F. Mushotzky, & Elihu Boldt.* 378, L37, 162-D7 (1991)

Constraints on Models for the High- and Low-Energy X-Ray Backgrounds. *R. A. Daly.* 379, 37, 163-E1 (1991)

LMC-2 as the Blowout of a Hot Superbubble. *Qingde Wang & David J. Helfand.* 379, 327, 167-B5 (1991)

Discovery with the Sigma Telescope of Hard X-Rays from the Globular Cluster Terzan 2. *D. Barret, S. Mereghetti, J. P. Roques, P. Mandrou, L. Salotti, F. Lebrun, Ph. Laurent, J. Ballet, E. Churazov, M. Gifanov, R. Sunyaev,*

N. Khavenson, I. Chulkov, B. Novikov, A. Kuznetzov, & A. Dyachkov. 379, L21, 169-C1 (1991)

Small-Scale Fluctuations and Angular Correlations of the X-Ray Background in the *HEAO 1* A-2 Energy Band: Constraints on Clustering of X-Ray Sources. *J. M. Martín-Mirones, G. De Zotti, E. A. Boldt, F. E. Marshall, L. Danese, A. Franceschini, & M. Persic.* 379, 507, 171-A4 (1991)

The Intensity and Spectrum of the Diffuse X-Ray Background. *X. Wu, T. Hamilton, D. J. Helfand, & Q. Wang.* 379, 564, 171-F1 (1991)

Faint X-Ray Source Counts and the Origin of the X-Ray Background. *T. T. Hamilton, D. J. Helfand, & X. Wu.* 379, 576, 171-G1 (1991)

The Luminosity Function and Cosmological Evolution of X-Ray–selected BL Lacertae Objects. *Simon L. Morris, John T. Stocke, Isabella M. Gioia, Rudy E. Schild, Anna Wolter, Tommaso Maccacaro, & Roberto Della Ceca.* 380, 49, 176-F1 (1991)

Short-Term X-Ray Variability of the BL Lacertae Object PKS 2155−304: Power Spectrum and Cross-Correlation Analysis. *G. Tagliaferri, L. Stella, L. Maraschi, A. Treves, & A. Celotti.* 380, 78, 177-A5 (1991)

Search for Starbursts among X-Ray–selected Galaxies: Optical Spectroscopy. *Antonella Fruscione & Richard E. Griffiths.* 380, L13, 181-C1 (1991)

X-Ray Observations of the Seyfert 1 Galaxy Markarian 464. *L. Piro, G. Matt, E. Costa, D. Dal Fiume, F. Frontera, & E. Morelli.* 380, 357, 182-F9 (1991)

Interaction of Mass Lost in Globular Clusters with the Halo Medium. *D. J. Faulkner & Graeme H. Smith.* 380, 441, 183-F7 (1991)

The Diffuse Soft X-Ray Background As Seen with the *Einstein Observatory*. *G. Micela, F. R. Harnden, Jr., R. Rosner, S. Sciortino, & G. S. Vaiana.* 380, 495, 184-D1 (1991)

X-Ray Emission from Starburst Galaxies. *Yoel Rephaeli, Duane Gruber, Massimo Persic, & Dan MacDonald.* 380, L59, 188-C1 (1991)

Direct Evidence for Stellar Wind X-Ray Absorption in O Stars. *Wayne L. Waldron.* 382, 603, 209-A9 (1991)

The Coronal Dividing Line in the *ROSAT* X-Ray All-Sky Survey. *Bernhard Haisch, J. H. M. M. Schmitt, & C. Rosso.* 383, L15, 219-C1 (1991)

Relativistic Enhancement of the Compton-reflected Component in Active Galactic Nuclei. *R. D. Rogers.* 383, 550, 221-B4 (1991)

Three Spectral States of 1E 1740.7−2942: From Standard Cygnus X-1 Type Spectrum to the Evidence of Electron-Positron Annihilation Feature. *R. Sunyaev, E. Churazov, M. Gilfanov, M. Pavlinsky, S. Grebenev, G. Babalyan, I. Dekhanov, N. Khavenson, L. Bouchet, P. Mandrou, J. P. Roques, G. Vedrenne, B. Cordier, A. Goldwurm, F. Lebrun, & J. Paul.* 383, L49, 226-C6 (1991)

X-Ray and Radio Pulse Phase Comparison for PSR 1509−58. *N. Kawai, R. Okayasu, W. Brinkmann, R. Manchester, A. G. Lyne, & N. D'Amico.* 383, L65, 226-D12 (1991)

X-RAYS: SPECTRA

Ginga Observations of Three X-Ray–luminous Galaxies: NGC 4472, NGC 4636, and NGC 3998. *H. Awaki, K. Koyama, H. Kunieda, S. Takano, Y. Tawara, & T. Ohashi.* 366, 88, 2-B8 (1991)

A New X-Ray Pulsar GS 2138+56 (Cepheus X-4). *Katsuji Koyama, Mitsunobu Kawada, Yuzuru Tawara, Kazuhiro Kimura, Shunji Kitamoto, Sigenori Miyamoto, Hiroshi Tsunemi, Ken Ebisawa, & Fumiaki Nagase.* 366, L19, 6-C5 (1991)

"Superlow-State" Hard X-Ray Observation of Cygnus X-1. *P. Ubertini, A. Bazzano, F. Perotti, E. Quadrini, A. Court, A. J. Dean, N. Dipper, R. Lewis, L. Bassani, & J. B. Stephen.* 366, 544, 9-G1 (1991)

X-Ray Continuum and Evidence for an Iron Emission Line from the Quasar E1821+643. *T. Kii, O. R. Williams, T. Ohashi, H. Awaki, K. Hayashida, H. Inoue, H. Kondo, K. Koyama, F. Makino, K. Makishima, R. D. Saxton, G. C. Stewart, S. Takano, Y. Tanaka, & M. J. L. Turner.* 367, 455, 19-A11 (1991)

Fe XII Line Ratios in Solar Flares. *S. S. Tayal, Ronald J. W. Henry, F. P. Keenan, S. M. McCann, & K. G. Widing.* 369, 567, 44-G1 (1991)

A Ubiquitous Absorption Feature in the X-Ray Spectra of BL Lacertae Objects. *Greg M. Madejski, Richard F. Mushotzky, Kimberly A. Weaver, Keith A. Arnaud, & C. Megan Urry.* 370, 198, 49-F1 (1991)

Discovery of 111 Second Pulsation from the X-Ray Source Scutum X-1. *K. Koyama, H. Kunieda, Y. Takeuchi, & Y. Tawara.* 370, L77, 59-D1 (1991)

Spectral Observations of the Extreme Ultraviolet Background. *Simon E. Labov & Stuart Bowyer.* 371, 810, 71-F1 (1991)

X-Ray Luminosity and Spectral Variability in the Seyfert Type I Galaxy: PG 2130+099. *K. P. Singh, A. R. Rao, & M. N. Vahia.* 372, 49, 74-E13 (1991)

Magnetic Two-Photon Scattering and Two-Photon Emission: Cross Sections and Redistribution Functions. *S. G. Alexander & P. Mészáros.* 372, 554, 82-E11 (1991)

Cyclotron Harmonics in Accreting Pulsars and Gamma-Ray Bursters: Effect of Two-Photon Processes. *S. G. Alexander & P. Mészáros.* 372, 565, 82-F9 (1991)

Hard X-Ray Spectra from Gap Accretion onto Neutron Stars. *Włodzimierz Kluźniak & James R. Wilson.* 372, L87, 85-E1 (1991)

The Energies and Structure of X-Ray K-Absorption Edges. *Robert J. Gould & Young-Dae Jung.* 373, 271, 89-D1 (1991)

HEAO 1 A-2 Low-Energy Detector X-Ray Spectra of the Lupus Loop and SN 1006. *D. A. Leahy, J. Nousek, & A. J. S. Hamilton.* 374, 218, 100-G1 (1991)

Coronal Dynamics of a Quiescent Active Region. *Julia L. R. Saba & Keith T. Strong.* 375, 789, 122-D9 (1991)

Cyclotron Line Features in the Spectrum of the Transient X-Ray Pulsar X0115+634. *F. Nagase, T. Dotani, Y. Tanaka, K. Makishima, T. Mihara, T. Sakao, H. Tsunemi, S. Kitamoto, K. Tamura, A. Yoshida, & H. Nakamura.* 375, L49, 124-B11 (1991)

Line Profiles from a Disk around a Rotating Black Hole. *Ari Laor.* 376, 90, 126-B1 (1991)

The X-Ray Properties of GX 301−2 (4U 1223−62). *F. Haberl.* 376, 245, 128-A5 (1991)

SMM/HXRBS Observations of Cygnus X-1 from 1986 December to 1988 April. *R. A. Schwartz, L. E. Orwig, B. R. Dennis, J. C. Ling, & W. A. Wheaton.* 376, 312, 128-G1 (1991)

X-Ray Observations of the Bright Seyfert Galaxy IC 4329A. *K. P. Singh, A. R. Rao, & M. N. Vahia.* 377, 417, 145-A1 (1991)

The *Einstein* Objective Grating Spectrometer Survey of Galactic Binary X-Ray Sources. *S. D. Vrtilek, J. E. McClintock, F. D. Seward, S. M. Kahn, & B. J. Wargelin.* 76, 1127, 41-C1 (1991)

Origin of Cosmic X-Ray Background Radiation. *Nobuo Terasawa.* 378, L11, 157-B8 (1991)

Persistence and Change in the Soft X-Ray Spectrum of the Quasar PG 1211+143. *Martin Elvis, P. Giommi, Belinda J. Wilkes, & Jonathan McDowell.* 378, 537, 159-B1 (1991)

Discovery of a Cyclotron Resonance Feature at 30 keV from the Transient X-Ray Pulsar Cepheus X-4. *T. Mihara, K. Makishima, S. Kamijo, T. Ohashi, F. Nagase, Y. Tanaka, & K. Koyama.* 379, L61, 175-C6 (1991)

X-Ray Observations of the Seyfert 1 Galaxy Markarian 464. *L. Piro, G. Matt, E. Costa, D. Dal Fiume, F. Frontera, & E. Morelli.* 380, 357, 182-F9 (1991)

Radiative Widths and Splitting of Cyclotron Lines in Superstrong Magnetic Fields. *G. G. Pavlov, V. G. Bezchastnov, P. Mészáros, & S. G. Alexander.* 380, 541, 185-A1 (1991)

A Two-Phase Model for the X-Ray Emission from Seyfert Galaxies. *F. Haardt & L. Maraschi.* 380, L51, 188-B6 (1991)

Polarization Properties of Emission Lines from Relativistic Accretion Disks. *Kaiyou Chen & Douglas M. Eardley.* 382, 125, 201-F10 (1991)

Multifrequency Observations of BL Lacertae in 1988. *N. Kawai, M. Matsuoka, J. N. Bregman, H. D. Aller, M. F. Aller, P. A. Hughes, S. A. Balbus, T. J. Balonek, K. C. Chambers, R. E. S. Clegg, S. D. Clements, R. J. Leacock, A. G. Smith, R. Goodrich, J. S. Miller, M. Hereld, M. G. Hoare, V. A. Hughes, G. K. Miley, G. H. Moriarty-Schieven, K. Matthews, G. Neugebauer, T. Ohashi, P. F. Roche, H. A. Thronson, E. Valtaoja, H. Terasranta, J. R. Webb, B. J. Wills, & D. Wills.* 382, 508, 207-G8 (1991)

Low-Flux Hard X-Ray Observation of Cygnus X-1. *P. Ubertini, A. Bazzano, C. La Padula, R. K. Manchanda, V. F. Polcaro, R. Staubert, E. Kendziorra, & F. Perotti.* 383, 263, 215-D9 (1991)

X-Ray Variability of GX 339−4 in Its Very High State. *Sigenori Miyamoto, Kazuhiro Kimura, Shunji Kitamoto, Tadayasu Dotani, & Ken Ebisawa.* 383, 784, 224-A3 (1991)

X-RAYS: STARS

A Reanalysis of the Orbital Inclination of Cygnus XR-1 Determined Polarimetrically. *Joseph F. Dolan.* 384, 249, 4-A9 (1992)

Is There a Recycled Old Pulsar in Cygnus X-3? *Abhas Mitra.* 384, 255, 4-B3 (1992)

Time Variations in the X-Rays from Cygnus X-3 Observed with *Ginga*. *Shunji Kitamoto, Seiko Mizobuchi, Koujun Yamashita, & Hiroshi Nakamura.* 384, 263, 4-B13 (1992)

Disk Instability and Outburst Properties of the Intermediate Polar GK Persei. *Soon-Wook Kim, J. Craig Wheeler, & Shin Mineshige.* 384, 269, 4-C7 (1992)

A Study of the Stellar Population in the Chamaeleon Dark Clouds. *Lisa S. Gauvin & Karen M. Strom.* 385, 217, 14-F1 (1992)

Simultaneous X-Ray and Radio Observations of GX 5−1. *J. Tan, W. H. G. Lewin, R. M. Hjellming, W. Penninx, J. van Paradijs, M. van der Klis, & K. Mitsuda.* 385, 314, 15-G1 (1992)

Low-Mass X-Ray Binary Evolution and the Origin of Millisecond Pulsars. *Juhan Frank, Andrew R. King, & Jean-Pierre Lasota.* 385, L45, 23-C8 (1992)

Colliding Winds from Early-Type Stars in Binary Systems. *Ian R. Stevens, John M. Blondin, & A. M. T. Pollock.* 386, 265, 27-E1 (1992)

On the Power Spectra of the Wind-fed X-Ray Binary Pulsar GX 301−2. *Mauro Orlandini & G. E. Morfill.* 386, 703, 34-A9 (1992)

Hard X-Ray Observation of Scorpius X-1. *P. Ubertini, A. Bazzano, M. Cocchi, C. La Padula, & R. K. Sood.* 386, 710, 34-B4 (1992)

A Comprehensive X-Ray Study of the Small Magellanic Cloud. *Qingde Wang & Xiaoyi Wu.* 78, 391, 7-G5 (1992)

The Spectral Archive of Cosmic X-Ray Sources Observed by the *Einstein Observatory* Focal Plane Crystal Spectrometer. *Kenneth S. K. Lum, Claude R. Canizares, George W. Clark, Joan M. Coyne, Thomas H. Markert, Pablo J. Saez, Mark L. Schattenburg, & P. Frank Winkler.* 78, 423, 8-E11 (1992)

Properties of the Massive X-Ray Binary 4U 1700−37 = HD 153919. *S. R. Heap & M. F. Corcoran.* 387, 340, 41-B11 (1992)

X-Ray Activity as Statistical Age Indicator: The Disk G–K Giants. *G. Micela, A. Maggio, & G. S. Vaiana.* 388, 171, 51-B5 (1992)

Energy Dependence of Normal Branch Quasi-periodic Intensity Oscillations in Low-Mass X-Ray Binaries. *Guy S. Miller & Frederick K. Lamb.* 388, 541, 57-A5 (1992)

Time Variability Studies with Photon-counting Imaging Detectors. I. A Maximum Likelihood Technique. *S. Sciortino & G. Micela.* 388, 595, 57-E11 (1992)

ROSAT X-Ray All-Sky Survey Observations of Hybrid Stars. *Bernhard Haisch, J. H. M. M. Schmitt, & C. Rosso.* 388, L61, 59-C7 (1992)

Hard X-Ray Imaging of the Galactic Black Hole Candidate GX 339−4. *C. E. Covault, J. E. Grindlay, & R. P. Manandhar.* 388, L65, 59-C12 (1992)

Stellar Wind Collision and X-Ray Generation in Massive Binaries. *V. V. Usov.* 389, 635, 69-C10 (1992)

X-Ray Scattering and Fluorescence in the Wind of a Massive X-Ray Binary. *W. Lewis, S. Rappaport, A. Levine, & F. Nagase.* 389, 665, 69-F3 (1992)

H0538+608 (= BY Camelopardalis): An Asynchronously Rotating AM Herculis Binary? *A. Silber, H. V. Bradt, M. Ishida, T. Ohashi, & R. A. Remillard.* 389, 704, 70-B7 (1992)

X-Ray Nova in Musca (GRS 1124−68): Hard X-Ray Source with Narrow Annihilation Line. *R. Sunyaev, E. Churazov, M. Gilfanov, A. Dyachkov, N. Khavenson, S. Grebenev, R. Kremnev, K. Sukhanov, A. Goldwurm, J. Ballet, B. Cordier, J. Paul, M. Denis, G. Vedrenne, M. Niel, & E. Jourdain.* 389, L75, 73-E1 (1992)

Steady, Periodic Gamma-Ray Emission from Accreting X-Ray Pulsars. *K. S. Cheng, M. M. Lau, T. Cheung, P. P. Leung, & K. Y. Ding.* 390, 480, 81-C8 (1992)

The Constitution of the Atmospheric Layers and the Extreme Ultraviolet Spectrum of Hot Hydrogen-rich White Dwarfs. *Stéphane Vennes.* 390, 590, 82-F1 (1992)

Thermonuclear Flash Model for Long X-Ray Tails from Aquila X-1. *Ikko Fushiki, Ronald E. Taam, S. E. Woosley, & D. Q. Lamb.* 390, 634, 83-B9 (1992)

What Drives the Mass Transfer in Cygnus X-3? *Abhas Mitra.* 390, 645, 83-C8 (1992)

X-Ray Spectrum and Time Variation of X1850−087 in the Globular Cluster NGC 6712. *Shunji Kitamoto, Hiroshi Tsunemi, & Diane Roussel-Dupre.* 391, 220, 88-F7 (1992)

Periodic Variability in the Optical Counterpart of X-Ray Nova Muscae 1991. *Charles D. Bailyn.* 391, 298, 89-F1 (1992)

X-Ray Emission-Line Spectra of Photoionized Plasmas: Density Sensitivity of the Fe L-Shell Series. *Duane A. Liedahl, Steven M. Kahn, Albert L. Osterheld, & William H. Goldstein.* 391, 306, 89-F11 (1992)

Canonical Time Variations of X-Rays from Black Hole Candidates in the Low-Intensity State. *Sigenori Miyamoto, Shunji Kitamoto, Sayuri Iga, Hitoshi Negoro, & Kentaro Terada.* 391, L21, 92-B1 (1992)

Disk Instability and the Time-dependent X-Ray Emission from the Intermediate Polar GK Persei. *Insu Yi, Soon-Wook Kim, Ethan T. Vishniac, & J. Craig Wheeler.* 391, L25, 92-B6 (1992)

The *Einstein* Slew Survey. *Martin Elvis, David Plummer, Jonathan Schachter, & G. Fabbiano.* 80, 257, 25-E9 (1992)

Modeling the Stellar Contribution to the Galactic Component of the Diffuse Soft X-Ray Background. I. Background Fluxes and Number Counts. *V. Kashyap, R. Rosner, G. Micela, S. Sciortino, G. S. Vaiana, & F. R. Harnden, Jr.* 391, 667, 96-C12 (1992)

X-Ray to Infrared Observations of the Cataclysmic Variable KO Velorum (E1013−477). *R. M. Sambruna, L. Chiappetti, A. Treves, J. M. Bonnet-Bidaud, P. Bouchet, L. Maraschi, C. Motch, M. Mouchet, & S. Van Amerongen.* 391, 750, 97-C9 (1992)

Coordinated *Ginga*, *IUE*, and VLA Observations of Stellar Activity in σ^2 Coronae Borealis. *R. A. Stern, Y. Uchida, F. Walter, O. Vilhu, D. Hannikainen, A. Brown, A. Veale, & B. M. Haisch.* 391, 760, 97-D7 (1992)

Rapid Oscillations in Cataclysmic Variables. VIII. YY Draconis (=3A 1148+719. *J. Patterson, D. A. Schwartz, J. P. Pye, W. P. Blair, G. A. Williams, & J.-P. Caillault.* 392, 233, 103-G3 (1992)

SIGMA Observation of Hard X-Ray Emission from the Ultrasoft X-Ray Transient Triangulum Australe X-1 (A1524−62). *D. Barret, J. P. Roques, P. Mandrou, L. Bouchet, F. Lebrun, A. Goldwurm, P. Laurent, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, A. Diachkov, N. Kavenson, B. Novikov, I. Chulkov, & A. Kuznetsov.* 392, L19, 106-C7 (1992)

Deep VLA Images of Globular Clusters: NGC 6624. *Helen M. Johnston & Shrinivas R. Kulkarni.* 393, L17, 120-C8 (1992)

On the Role of Radioactive Decays in Powering Gamma Rays and X-Rays from Novae. *Mario Livio, Apostolos Mastichiadis, Hakki Ögelman, & James W. Truran.* 394, 217, 130-F5 (1992)

Column Accretion with Radiation Drag and the Two-Branch Spectrum of the Low-Mass X-Ray Binary GX 5−1. *J. H. You, T. Lu, C. Y. Wei, & T. G. Wang.* 394, 283, 131-E1 (1992)

The Coolest DA White Dwarfs Detected at Soft X-Ray Wavelengths. *K. M. Kidder, J. B. Holberg, M. A. Barstow, R. W. Tweedy, & F. Wesemael.* 394, 288, 131-E7 (1992)

The Cooling of Neutron Stars by the Direct Urca Process. *Dany Page & James H. Applegate.* 394, L17, 133-C7 (1992)

ROSAT Observations of PSR 0656+14: A Pulsating and Cooling Neutron Star. *John P. Finley, Hakki Ögelman, & Ümit Kiziloğlu.* 394, L21, 133-C13 (1992)

Discovery and X-Ray Properties of GS 1124−683 (=Nova Muscae). *Shunji Kitamoto, Hiroshi Tsunemi, Sigenori Miyamoto, & Kiyoshi Hayashida.* 394, 609, 137-A6 (1992)

Sigma Detection of Hard X-Ray Emission from the Soft Transient Type I X-Ray Burster KS 1731−260. *D. Barret, L. Bouchet, P. Mandrou, J. P. Roques, B. Cordier, Ph. Laurent, F. Lebrun, J. Paul, R. Sunyaev, E. Churazov, M. Gilfanov, A. Diachkov, N. Khavenson, B. Novikov, I. Chulkov, & A. Kuznetsov.* 394, 615, 137-B1 (1992)

VLBI Observations of the X-Ray Binary LS I +61°303. *A. R. Taylor, H. T. Kenny, R. E. Spencer, & A. Tzioumis.* 395, 268, 143-D11 (1992)

An Ionized Accretion Disk in Cygnus X-1. *C. Done, J. S. Mulchaey, R. F. Mushotzky, & K. A. Arnaud.* 395, 275, 143-E5 (1992)

X-Ray Spectral Structure of the Seyfert Galaxy NGC 6814. *M. Yamauchi, M. Matsuoka, N. Kawai, & A. Yoshida.* 395, 453, 148-A13 (1992)

The Polar Cap Structure of the X-Ray Pulsar 4U 1538−52. *T. Bulik, P. Mészáros, J. W. Woo, F. Nagase, & K. Makishima.* 395, 564, 149-G9 (1992)

X-Ray Emission from Single Magnetic Early-Type Stars. *V. V. Usov & D. B. Melrose.* 395, 575, 150-B1 (1992)

Long-Term Variability in Low-Mass X-Ray Binaries: A Study Using Data from *Vela 5B*. *Alan P. Smale & James C. Lochner.* 395, 582, 150-B13 (1992)

An *Einstein Observatory* SAO-based Catalog of B-Type Stars. *F. Grillo, S. Sciortino, G. Micela, G. S. Vaiana, & F. R. Harnden, Jr.* 81, 795, 46-G13 (1992)

Ginga Observations of Centaurus X-3. *F. Nagase, R. H. D. Corbet, C. S. R. Day, H. Inoue, T. Takeshima, K. Yoshida, & T. Mihara.* 396, 147, 157-A3 (1992)

X-Ray Variability of Scorpius X-1 during a Multiwavelength Campaign. *P. Hertz, B. Vaughan, K. S. Wood, J. P. Norris, K. Mitsuda, P. F. Michelson, & T. Dotani.* 396, 201, 157-E12 (1992)

Radio Continuum and X-Ray Properties of the Coronae of RS Canum Venaticorum and Related Active Binary Systems. *Stephen A. Drake, Theodore Simon, & Jeffrey L. Linsky.* 82, 311, 53-F5 (1992)

X-Ray Observations of Planetary Nebulae with Binary Nuclei. *K. M. V. Apparao, G. D. Berthiaume, & J. A. Nousek.* 397, 534, 177-E5 (1992)

Observation of A0535+26 at Energies above 150 keV with the Figaro II Experiment. *G. Cusumano, T. Mineo, B. Sacco, L. Scarsi, G. Gerardi, B. Agrinier, E. Barouch, R. Comte, B. Parlier, J. L. Masnou, E. Massaro, G. Matt, E. Costa, M. Salvati, P. Mandrou, M. Niel, & J. F. Olive.* 398, L103, 194-E1 (1992)

Evidence for a Black Hole in the X-Ray Binary Nova Muscae 1991. *Ronald A. Remillard, Jeffrey E. McClintock, & Charles D. Bailyn.* 399, L145, 208-C7 (1992)

First Results from *ROSAT* All-Sky Survey Observations of the Hyades Cluster. *Robert A. Stern, Jürgen H. M. M. Schmitt, Cristina Rosso, John P. Pye, Simon T. Hodgkin, & John R. Stauffer.* 399, L159, 208-D9 (1992)

Ginga Observations of X-Ray Flares on Algol. *R. A. Stern, Y. Uchida, S. Tsuneta, & F. Nagase.* 400, 321, 212-G13 (1992)

Ginga Observations of the Dipping Low-Mass X-Ray Binaries XB 1916−053 and EXO 0748−676. *Alan P. Smale, Koji Mukai, O. Rees Williams, Mark H. Jones, & Robin H. D. Corbet.* 400, 330, 213-A10 (1992)

The Infrared Counterpart of the Eclipsing X-Ray Binary H0253+193. *B. Zuckerman, E. E. Becklin, I. S. McLean, & Joseph Patterson.* 400, 665, 218-F7 (1992)

EXOSAT Observations of the Be/X-Ray Binary 4U 2206+54. *Priyamvada Saraswat & Krishna M. V. Apparao.* 401, 678, 231-A1 (1992)

EXOSAT Observations of the X-Ray Binary Pulsar 4U 1538−52. *N. R. Robba, G. Cusumano, M. Orlandini, D. Dal Fiume, & F. Frontera.* 401, 685, 231-A10 (1992)

Periodic Photometric Variability of the Black Hole Binary V404 Cygni. *R. Mark Wagner, T. J. Kreidl, S. B. Howell, & S. G. Starrfield.* 401, L97, 233-C13 (1992)

ROSAT Detections of X-Ray Emission from Young B-Type Stars. *J. H. M. M. Schmitt, H. Zinnecker, R. Cruddace, & F. R. Harnden, Jr.* 402, L13, 6-C8 (1993)

An X-Ray Excited Wind in Centaurus X-3. *C. S. R. Day & Ian R. Stevens.* 403, 322, 17-G9 (1993)

Discovery of the Orbit of the X-Ray Pulsar OAO 1657−415. *Deepto Chakrabarty, John M. Grunsfeld, Thomas A. Prince, Lars Bildsten, Mark H. Finger, Robert B. Wilson, Gerald J. Fishman, Charles A. Meegan, & William S. Paciesas.* 403, L33, 20-D6 (1993)

Another Canonical Time Variation of X-Rays from Black Hole Candidates in the Very High Flare State? *Sigenori Miyamoto, Sayuri Iga, Shunji Kitamoto, & Yasuhide Kamado.* 403, L39, 20-D13 (1993)

Spectral Variations of LMC X-3 Observed with *Ginga*. *Ken Ebisawa, Fumiyoshi Makino, Kazuhisa Mitsuda, Tomaso Belloni, Anne P. Cowley, Paul C. Schmidtke, & Aldo Treves.* 403, 684, 24-B13 (1993)

Can We Observe Accreting, Isolated Neutron Stars? *Omer Blaes & Piero Madau.* 403, 690, 24-C8 (1993)

Positron Annihilation Radiation from X-Ray Binary Systems. *Mei Wu, Chun-sheng Zhang, & Ti-pei Li.* 404, 276, 31-C11 (1993)

Effects of Inclination Angle on the Spectra of X-Ray Binaries. *S. D. Vrtilek, Noam Soker, & J. C. Raymond.* 404, 696, 37-E10 (1993)

Hard X-Rays from the Orion Nebula Region. *Shigeo Yamauchi & Katsuji Koyama.* 405, 268, 44-D8 (1993)

Binary Structure and Accretion Flow of the New Intermediate Polar H0253+193. *Yuichi Kamata & Katsuji Koyama.* 405, 307, 45-A3 (1993)

Upper Limits on TeV Gamma-Ray Emission from Centaurus A, Vela X-1, Centaurus X-3, and Circinus X-1. *W. H. Allen, I. A. Bond, E. Budding, M. J. Conway, A. Daniel, K. B. Fenton, H. Fujii, Z. Fujii, N. Hayashida, K. Hibino, M. Honda, J. E. Humble, S. Kabe, K. Kasahara, T. Kifune, G. D. Lythe, A. Masaike, Y. Matsubara, K. Mitsui, Y. Miura, M. Mori, Y. Muraki, M. Nagano, T. Nakamura, M. Nishizawa, P. M. Norris, S. Ogio, To. Saito, M. Sakata, H. Sato, H. M. Shimizu, M. Spencer, J. R. Storey, T. Tanimori, M. Teshima, S. Torii, A. Wadsworth, Y. Watase, M. D. Woodhams, Y. Yamamoto, P. C. M. Yock, & T. Yuda (The JANZOS Collaboration).* 405, 554, 50-A1 (1993)

The Evolutionary Status of the Pulsar–Be Star Binary PSR 1259−63. *A. R. King.* 405, 727, 52-B5 (1993)

X-Ray/Microwave Relation of Different Types of Active Stars. *Manuel Güdel & Arnold O. Benz.* 405, L63, 54-C13 (1993)

Fitting Pulse Profiles of X-Ray Pulsars: The Effects of Relativistic Light Deflection. *H. Riffert, H.-P. Nollert, U. Kraus, & H. Ruder.* 406, 185, 57-D1 (1993)

X-Rays from Emission-Line Stars in the Herbig-Haro 1 Region. *Steven H. Pravdo & Lorella Angelini.* 407, 232, 72-A1 (1993)

Sigma Hard X-Ray Observations of GX 339−4 during the Hard State and a Transition to the Soft State. *L. Bouchet, E. Jourdain, P. Mandrou, J. P. Roques, Ph. Laurent, F. Lebrun, J. Paul, L. Salotti, R. Sunyaev, E. Churazov, M. Gilfanov, N. Khavenson, A. Diachkov, I. Chulkov, B. Novikov, & A. Kuznetsov.* 407, 739, 79-F7 (1993)

A Broad-Band X-Ray Telescope Spectrum of the Massive X-Ray Binary X Persei. *Eric M. Schlegel, Peter J. Seriemitsos, Keith Jahoda, Frank Marshall, Robert Petre, Elihu Boldt, Richard Mushotzky, Jean Swank, Andrew Szymkowiak, Alan Smale, & Kim Weaver.* 407, 744, 79-F13 (1993)

The Secondary Maxima in Black Hole X-Ray Nova Light Curves: Clues toward a Complete Picture. *Wan Chen, Mario Livio, & Neil Gehrels.* 408, L5, 88-E8 (1993)

Low-Mass X-Ray Binaries and Millisecond Pulsars in Globular Clusters. *Kaiyou Chen, John Middleditch, & Malvin Ruderman.* 408, L17, 88-G1 (1993)

Optical and X-Ray Observations of the Low-Mass X-Ray Binary EXO 0748−676. *Brian Thomas, Robin Corbet, Thomas Augusteijn, Paul Callanan, & Alan P. Smale.* 408, 651, 93-C7 (1993)

The Discovery of Pulsed Iron Line Emission from Centaurus X-3. *C. S. R. Day, F. Nagase, K. Asai, & T. Takeshima.* 408, 656, 93-D1 (1993)

Hydrodynamics of Winds from Irradiated Companion Stars in Low-Mass X-Ray Binaries. *Marco Tavani & Richard London.* 410, 281, 115-E8 (1993)

ROSAT Observations of the Large Magellanic Cloud Pulsar PSR 0540−69. *John P. Finley, Hakki Ögelman, Günther Hasinger, & Joachim Trümper.* 410, 323, 116-B1 (1993)

Discovery of Orbital Decay in SMC X-1. *A. Levine, S. Rappaport, J. E. Deeter, P. E. Boynton, & F. Nagase.* 410, 328, 116-B8 (1993)

Stellar Coronae at the End of the Main Sequence: A *ROSAT* Survey of the Late M Dwarfs. *Thomas A. Fleming, Mark S. Giampapa, J. H. M. M. Schmitt, & Jay A. Bookbinder.* 410, 387, 116-G8 (1993)

High-Frequency Emission of X-Ray Pulsar 1E 2259+586. *V. V. Usov.* 410, 761, 123-C1 (1993)

Resolving the Iron K Line in Cygnus X-2: An Observation with BBXRT. *A. P. Smale, C. Done, R. F. Mushotzky, K. A. Weaver, P. J. Serlemitsos, F. E. Marshall, R. Petre, K. M. Jahoda, E. A. Boldt, J. H. Swank, A. E. Szymkowiak, R. L. Kelley, & K. Arnaud.* 410, 796, 123-F1 (1993)

A Supersoft Variable Low-Luminosity X-Ray Source in the Globular Cluster M3. *P. Hertz, J. E. Grindlay, & C. D. Bailyn.* 410, L87, 126-A1 (1993)

Discovery of Multiple Low-Luminosity X-Ray Sources in NGC 6397. *Adrienne M. Cool, Jonathan E. Grindlay, Martin Krockenberger, & Charles D. Bailyn.* 410, L103, 126-B11 (1993)

The *ROSAT* All-Sky Survey of Active Binary Coronae. I. Quiescent Fluxes for the RS Canum Venaticorum Systems. *Robert C. Dempsey, Jeffrey L. Linsky, Thomas A. Fleming, & J. H. M. M. Schmitt.* 86, 599, 22-C3 (1993)

Hard Apex Transition in Quasi-periodic Oscillators: Closing of the Accretion Gap. *Garrett T. Biehle & Roger D. Blandford.* 411, 302, 131-A8 (1993)

Broad-Band X-Ray Telescope Observations of the Magnetic Cataclysmic Variable H0538+608 = BY Camelopardalis. *T. R. Kallman, E. M. Schlegel, P. J. Serlemitsos, R. Petre, F. Marshall, K. Jahoda, E. A. Boldt, S. S. Holt, R. F. Mushotzky, J. Swank, A. E. Szymkowiak, R. L. Kelley, A. Smale, K. Arnaud, K. Weaver, & F. B. Paerels.* 411, 869, 140-E12 (1993)

The Quasi-periodic Oscillations and Very Low Frequency Noise of Scorpius X-1 as Transient Chaos: A Dripping Handrail? *Jeffrey D. Scargle, Thomas Steiman-Cameron, Karl Young, David L. Donoho, James P. Crutchfield, & James Imamura.* 411, L91, 142-E13 (1993)

High-Energy Spectrum of Cygnus X-1 Revisited. *F. Haardt, C. Done, G. Matt, & A. C. Fabian.* 411, L95, 142-F5 (1993)

A Model of an X-Ray–illuminated Accretion Disk and Corona. *John C. Raymond.* 412, 267, 145-D6 (1993)

A *ROSAT* Upper Limit on X-Ray Emission from SN 1992A. *Eric M. Schlegel & Robert Petre.* 412, L29, 148-D1 (1993)

Stellar Birthrate in the Galaxy: Constraints from X-Ray Flux-limited Surveys. *G. Micela, S. Sciortino, & F. Favata.* 412, 618, 151-D10 (1993)

Broad-Band X-Ray Telescope Spectroscopy of ζ Puppis. *M. F. Corcoran, J. H. Swank, P. J. Serlemitsos, E. Boldt, R. Petre, F. E. Marshall, K. Jahoda, R. Mushotzky, A. Szymkowiak, K. Arnaud, A. P. Smale, K. Weaver, & S. S. Holt.* 412, 792, 153-F1 (1993)

ROSAT Observations of Pulsed Soft X-Ray Emission from PSR 1055−52. *Hakki Ögelman & John P. Finley.* 413, L31, 162-E5 (1993)

Thermal Evolution of Neutron Stars with Internal Heating in the Superfluid Core. *Armen D. Sedrakian & David M. Sedrakian.* 413, 658, 164-F1 (1993)

A Study of the Spatial and Spectral Characteristics of the Corona of AR Lacertae. *R. Ottmann, J. H. M. M. Schmitt, & M. Kürster.* 413, 710, 165-C6 (1993)

Can Isolated Stellar-Mass Black Holes Explain the Hard X-Ray Sources in the Galactic Center Region? *Sergio Campana & Sandro Mereghetti.* 413, L89, 168-E10 (1993)

Detection of an Ultraviolet and Visible Counterpart of the NGC 6624 X-Ray Burster. *I. R. King, S. A. Stanford, R. Albrecht, C. Barbieri, J. C. Blades, A. Boksenberg, P. Crane, M. J. Disney, J. M. Deharveng, P. Jakobsen, T. M. Kamperman, F. Macchetto, C. D. Mackay, F. Paresce, G. Weigelt, D. Baxter, P. Greenfield, R. Jedrzejewski, A. Nota, W. B. Sparks, & C. Sosin.* 413, L117, 169-A12 (1993)

A Reprocessing Model for the Ultraviolet and Optical Light from 4U 1820−30. *Jonathan Arons & Ivan R. King.* 413, L121, 169-B4 (1993)

The Luminosity Dependence of the X-Ray Spectrum of the Transient 42 Second Pulsar EXO 2030+375. *A. P. Reynolds, A. N. Parmar, & N. E. White.* 414, 302, 173-F9 (1993)

X-Ray Emission at the Low-Mass End: Results from an Extensive *Einstein Observatory* Survey. *M. Barbera, G. Micela, S. Sciortino, F. R. Harnden, Jr., & R. Rosner.* 414, 846, 181-F10 (1993)

ROSAT High Resolution Imager Observations of PSR 0656+14. *S. B. Anderson, F. A. Córdova, G. G. Pavlov, C. R. Robinson, & R. J. Thompson, Jr.* 414, 867, 182-A12 (1993)

Extreme Ultraviolet Explorer Observations of the Magnetic Cataclysmic Variable RE 1938−461. *John K. Warren, John V. Vallerga, Christopher W. Mauche, Koji Mukai, & Oswald H. W. Siegmund.* 414, L69, 185-D2 (1993)

A Tight Correlation between Radio and X-Ray Luminosities of M Dwarfs. *Manuel Güdel, Jürgen H. M. M. Schmitt, Jay A. Bookbinder, & Thomas A. Fleming.* 415, 236, 188-A1 (1993)

Soft X-Ray Properties of the Geminga Pulsar. *J. P. Halpern & M. Ruderman.* 415, 286, 188-E8 (1993)

The Evolution of Stellar Coronae: Initial Results from a *ROSAT* PSPC Observation of IC 2391. *Brian M. Patten & Theodore Simon.* 415, L123, 200-D1 (1993)

ROSAT X-Ray Detection of ε Taurus: Revisiting the Coronal and Transition Region Emission of the Hyades Giants. *A. Collura, A. Maggio, G. Micela, S. Sciortino, F. R. Harnden, Jr., & R. Rosner.* 416, 204, 203-E8 (1993)

SMM Observations of Gamma-Ray Transients. I. A Search for Variable Emission at MeV Energies from Five Galactic and Extragalactic Sources. *M. J. Harris, G. H. Share, M. D. Leising, & J. E. Grove.* 416, 601, 210-G8 (1993)

ROSAT X-Ray Study of the Chamaeleon I Dark Cloud. I. The Stellar Population. *Eric D. Feigelson, Sophie Casanova, Thierry Montmerle, & Jean Guibert.* 416, 623, 211-B8 (1993)

Detection of the First Coronal X-Ray Source about a White Dwarf. *Thomas A. Fleming, Klaus Werner, & Martin A. Barstow.* 416, L79, 216-E6 (1993)

Soft Gamma Repeater 1806−20: Weak Evidence for a Periodicity following the Bursts. *A. Ulmer, E. E. Fenimore, R. I. Epstein, C. Ho, R. W. Klebesadel, J. G. Laros, & F. Delgado.* 418, 395, 235-G13 (1993)

Temperatures of Enhanced Stability in Hot Thin Plasmas. *Neil Gehrels & Ellen D. Williams.* 418, L25, 238-D1 (1993)

The *EXOSAT* Medium Energy (ME) Sample of Dwarf Novae. *K. Mukai & K. Shiokawa.* 418, 863, 243-C12 (1993)

Nonthermal Cyclotron Emission from Low-Luminosity Accretion onto Magnetic Neutron Stars. *Robert W. Nelson, E. E. Salpeter, & Ira Wasserman.* 418, 874, 243-D12 (1993)

Cygnus X-3 in an "Ultrahigh" X-Ray State with No Detected Kα Line Emission. *A. P. Smale, R. F. Mushotzky, E. M. Schlegel, K. A. Weaver, P. J. Serlemitsos, F. E. Marshall, R. Petre, & K. Jahoda.* 418, 894, 243-F7 (1993)

Detection, Identification, and Observed Properties of Large Magellanic Cloud Supersoft X-Ray Sources. *A. P. Cowley, P. C. Schmidtke, J. B. Hutchings, D. Crampton, & T. K. McGrath.* 418, L63, 245-B13 (1993)

Accurate Period Determination of an Eclipsing Binary X-Ray Source in M33. *Eric Schulman, Joel N. Bregman, Alfonso Collura, Fabio Reale, & Giovanni Peres.* 418, L67, 245-C6 (1993)

The X-Ray Spectrum of Cygnus X-1. *F. E. Marshall, R. F. Mushotzky, R. Petre, & P. J. Serlemitsos.* 419, 301, 250-A2 (1993)

On the Observability of Microsecond Temporal Structure in the Emission from X-Ray Binary Pulsars. *Mauro Orlandini & Elihu Boldt.* 419, 776, 257-C9 (1993)

Effects of Coronal and Shock-produced X-Rays on the Ionization Distribution in Hot Star Winds. *J. J. MacFarlane, W. L. Waldron, M. F. Corcoran, M. J. Wolff, P. Wang, & J. P. Cassinelli.* 419, 813, 257-F11 (1993)

Hydrodynamical Models for X-Ray Emissions from SN 1993J in M81. *Tomoharu Suzuki, Shiomi Kumagai, Toshikazu Shigeyama, Ken'ichi Nomoto, Hitoshi Yamaoka, & Hideyuki Saio.* 419, L73, 259-D11 (1993)

Simultaneous Optical and *ROSAT* Soft X-Ray Observations of Impulsive Bursts on the Flare Star UV Ceti. *J. H. M. M. Schmitt, Bernhard Haisch, & H. Barwig.* 419, L81, 259-E7 (1993)

X-Ray Emission from Chemically Peculiar Stars. *S. A. Drake, J. L. Linsky, J. H. M. M. Schmitt, & C. Rosso.* 420, 387, 5-F1 (1994)

Detection of X-Rays from SN 1987A with *ROSAT*. *Paul Gorenstein, John P. Hughes, & Wallace H. Tucker.* 420, L25, 7-D8 (1994)

Evolutionary Sequences of Very Hot, Low-Mass, Accreting White Dwarfs with Application to Symbiotic Variables and Ultrasoft/Supersoft Low-Luminosity X-Ray Sources. *Edward M. Sion & Sumner G. Starrfield.* 421, 261, 19-C1 (1994)

Hard X-Ray Timing Observation of the Crab Pulsar and Cygnus X-1. *P. Ubertini, A. Bazzano, M. Cocchi, C. La Padula, V. F. Polcaro, R. Staubert, & E. Kendziorra.* 421, 269, 19-C11 (1994)

The Extreme Ultraviolet Coronal Spectrum of the Solar-Type Star χ^1 Orionis. *Bernhard Haisch, Jeremy J. Drake, & J. H. M. M. Schmitt.* 421, L39, 22-A5 (1994)

Detection of Rotational Modulation in the Coronal Extreme-Ultraviolet Emission from V711 Tauri? *Jeremy J. Drake, Alex Brown, Robert J. Patterer, Peter W. Vedder, Stuart Bowyer, & Edward F. Guinan.* 421, L43, 22-A10 (1994)

X-Ray Emission from Near–Main-Sequence B Stars. *J. P. Cassinelli, D. H. Cohen, J. J. MacFarlane, W. T. Sanders, & B. Y. Welsh.* 421, 705, 27-A8 (1994)

The Time-Delay Spectrum of GX 5−1 in Its Horizontal Branch. *B. Vaughan, M. van der Klis, W. H. G. Lewin, R. A. M. J. Wijers, J. van Paradijs, T. Dotani, & K. Mitsuda.* 421, 738, 27-D6 (1994)

X-Ray Spectral Study of Two X-Ray Binaries: 4U 1957+11 and 2S 1543−624. *Kulinder P. Singh, Krishna M. V. Apparao, & Ralph P. Kraft.* 421, 753, 27-E9 (1994)

Einstein Observations of Ultrasoft X-Ray Sources in the Magellanic Clouds. *Thomas Brown, France Córdova, Robin Ciardullo, Richard Thompson, & Howard Bond.* 422, 118, 31-E4 (1994)

A Broad-Band X-Ray Telescope Observation of the Black Hole Candidate LMC X-1. *Eric M. Schlegel, F. E. Marshall, R. F. Mushotzky, A. P. Smale, K. A. Weaver, P. J. Serlemitsos, R. Petre, & K. M. Jahoda.* 422, 243, 33-B5 (1994)

On High Mass Accretion Rates in Magnetized Column Accretion onto White Dwarfs. *Insu Yi.* 422, 289, 33-F5 (1994)

Properties of a B0 I Stellar Wind and Interstellar Grains Derived from *Ginga* Observations of the Binary X-Ray Pulsar 4U 1538−52. *George W. Clark, Jonathan W. Woo, & Fumiaki Nagase.* 422, 336, 34-C3 (1994)

A Kinematic Model for Black Hole X-Ray Power Spectra. *Michael A. Nowak.* 422, 688, 40-D7 (1994)

Accretion Disk Corona Line Emission from X0614+091. *D. J. Christian, N. E. White, & J. H. Swank.* 422, 791, 41-F6 (1994)

An X-Ray Spectroscopic Study of the Pre-Eclipse Dips of Hercules X-1. *C. S. Choi, F. Nagase, F. Makino, T. Dotani, & K. W. Min.* 422, 799, 41-G5 (1994)

ROSAT Observations of Stellar Flares. *J. H. M. M. Schmitt.* 90, 735, 12-G12 (1994)

Gamma-Ray Observations of Pulsars. *M. P. Ulmer.* 90, 789, 13-E6 (1994)

Do Quiescent Soft X-Ray Transients Contain Millisecond Radio Pulsars? *L. Stella, S. Campana, M. Colpi, S. Mereghetti, & M. Tavani.* 423, L47, 53-F11 (1994)

Constraints on Accreting, Isolated Neutron Stars from the *ROSAT* and *EUVE* Surveys. *Piero Madau & Omer Blaes.* 423, 748, 57-G10 (1994)

Structure of X-Ray Shots of Cygnus X-1 in Its Low State. *Hitoshi Negoro, Sigenori Miyamoto, & Shunji Kitamoto.* 423, L127, 61-A13 (1994)

A Multiwavelength Study of Star Formation in the L1495E Cloud in Taurus. *Karen M. Strom & Stephen E. Strom.* 424, 237, 64-G4 (1994)

Generalized Spectral Model for 1–100 keV X-Ray Emission from Cygnus X-3 Based on *EXOSAT* Data. *M. R. Rajeev, V. R. Chitnis, A. R. Rao, & K. P. Singh.* 424, 376, 66-E7 (1994)

Discovery of a Low-Frequency Broad Quasi-periodic Oscillation Peak in the Power Density Spectrum of Cygnus X-1 with *Granat*/SIGMA. *A. Vikhlinin, E. Churazov, M. Gilfanov, R. Sunyaev, A. Dyachkov, N. Khavenson, R. Kremnev, K. Sukhanov, J. Ballet, P. Laurent, L. Salotti, A. Claret, J. F. Olive, M. Denis, P. Mandrou, & J. P. Roques.* 424, 395, 66-F14 (1994)

Disk-Overflow Accretion in GK Persei? *Coel Hellier & Mario Livio.* 424, L57, 69-G12 (1994)

Observations of Cygnus X-1 by COMPTEL during 1991. *M. McConnell, D. Forrest, J. Ryan, W. Collmar, V. Schönfelder, H. Steinle, A. Strong, R. van Dijk, W. Hermsen, & K. Bennett.* 424, 933, 76-D1 (1994)

Localization and Spectrum of the X-Ray Transient Source GRS 1915+105. *A. Finoguenov, E. Churazov, M. Gilfanov, R. Sunyaev, A. Vikhlinin, A. Dyachkov, N. Khavenson, I. Tserenin, M. C. Schmitz-Fraysse, M. Denis, J. P. Roques, P. Mandrou, A. Claret, J. Ballet, B. Cordier, & A. Goldwurm.* 424, 940, 76-D10 (1994)

On the Nature of the X-Ray Emission from 1E 1024.0−5732/Wack 2134: The First X-Ray–selected Wolf-Rayet Star. *Sandro Mereghetti, Tomaso Belloni, Michael Shara, & Laurent Drissen.* 424, 943, 76-E1 (1994)

Transition in the X-Ray Light Curve of the AM Herculis System V834 Centauri (E1405−451): 1985–1986 *EXOSAT* Observations. *Rita M. Sambruna, Arvind N. Parmar, Lucio Chiappetti, Laura Maraschi, & Aldo Treves.* 424, 947, 76-E7 (1994)

1H 1752+081: An Eclipsing Cataclysmic Variable with a Small Accretion Disk. *Andrew D. Silber, Ronald A. Remillard, Keith Horne, & Hale V. Bradt.* 424, 955, 76-F3 (1994)

A Tool for Probing the Structure of Neutron Stars: Transient X-Ray Emission. *N. Chong & K. S. Cheng.* 425, 210, 82-G8 (1994)

ROSAT Observations of Cataclysmic Variables: A Search for the Boundary Layer Emission. *S. D. Vrtilek, A. Silber, J. C. Raymond, & J. Patterson.* 425, 787, 91-E8 (1994)

A Deep Imaging Survey of the Pleiades with *ROSAT*. *J. R. Stauffer, J.-P. Caillault, M. Gagné, C. F. Prosser, & L. W. Hartmann.* 91, 625, 28-A6 (1994)

1ES 1113+432: Luminous, Soft X-Ray Outburst from a Nearby Cataclysmic Variable (AR Ursae Majoris). *R. A. Remillard, J. F. Schachter, A. D. Silber, & P. Slane.* 426, 288, 99-F5 (1994)

Simultaneous Soft and Hard X-Ray Spectroscopy of AM Herculis with *EXOSAT*: Discovery of Photospheric Absorption Features. *Frits Paerels, John Heise, & André van Teeseling.* 426, 313, 100-A10 (1994)

Spherical Accretion onto Neutron Stars Revisited: Are Hot Solutions Possible? *R. Turolla, L. Zampieri, M. Colpi, & A. Treves.* 426, L35, 103-E1 (1994)

Formation and Evolution of Luminous Supersoft X-Ray Sources. *S. Rappaport, R. Di Stefano, & J. D. Smith.* 426, 692, 107-A13 (1994)

ROSAT All-Sky Survey Observations of X-Ray Variability in Cool Giant Stars. *Bernhard Haisch & J. H. M. M. Schmitt.* 426, 716, 107-C13 (1994)

Evidence of Circumstellar Matter Surrounding the Hercules X-1 System. *C. S. Choi, T. Dotani, F. Nagase, F. Makino, J. E. Deeter, & K. W. Min.* 427, 400, 114-G5 (1994)

A New Transient Pulsar in the Small Magellanic Cloud with an Unusual X-Ray Spectrum. *John P. Hughes.* 427, L25, 117-D8 (1994)

Coronal X-Ray Sources in the Hyades: A 40 Kilosecond *ROSAT* Pointing. *Robert A. Stern, Jürgen H. M. M. Schmitt, John P. Pye, Simon T. Hodgkin, John R. Stauffer, & Theodore Simon.* 427, 808, 122-F6 (1994)

Detection of X-Ray Emission from the PSR 1259−63/SS 2883 Binary System. *Lynn Cominsky, Mallory Roberts, & Simon Johnston.* 427, 978, 124-G2 (1994)

Glitches in the X-Ray Pulsar 1E 2259+586. *V. V. Usov.* 427, 984, 124-G10 (1994)

Observation of Pulsed Hard X-Rays/γ-Rays from PSR 1509−58. *S. Gunji, M. Hirayama, T. Kamae, S. Miyazaki, Y. Sekimoto, T. Takahashi, T. Tamura, M. Tanaka, N. Yamasaki, T. Yamagami, M. Nomachi, H. Murakami, J. Braga, & J. A. Neri.* 428, 284, 131-F7 (1994)

The X-Ray Selected Cataclysmic Variables H0459+246 and H0857−242. *R. A. Remillard, H. V. Bradt, R. J. V. Brissenden, D. A. H. Buckley, D. A. Schwartz, A. Silber, B. A. Stroozas, & I. R. Tuohy.* 428, 785, 140-A11 (1994)

Variable Soft X-Ray Absorption and Excess of Vela X-1. *H. C. Pan, P. Kretschmar, G. K. Skinner, E. Kendziorra, R. A. Sunyaev, & K. N. Borozdin.* 92, 448, 37-F11 (1994)

Fast Optical Variability of GRO J0422+32. *C. Bartolini, A. Guarnieri, A. Piccioni, G. M. Beskin, & S. I. Neizvestny.* 92, 455, 37-G8 (1994)

Noise Variability of the Hard X-Ray Transient Nova Persei. *M. Denis, J.-F. Olive, P. Mandrou, J. P. Roques, J. Ballet, A. Goldwurm, Ph. Laurent, B. Cordier, A. Vikhlinin, E. Churazov, M. Gilfanov, R. Sunyaev, A. Dyachkov, N. Khavenson, R. Kremnev, & V. Kovtunenko.* 92, 459, 38-A1 (1994)

Compton Reflection in Scorpius X-1 and Cygnus X-3? *Michael Maisack, Eckhard Kendziorra, Hongchao Pan, Gerry Skinner, Jakob Englhauser, Claus Reppin, Valeri Efremov, & Rashid Sunyaev.* 92, 473, 38-B7 (1994)

Ionization Structure of Cygnus X-3: A Massive Iron-depleted Companion? *Nobuo Terasawa & Hiroshi Nakamura.* 92, 477, 38-B13 (1994)

Hard X-Ray Emission from Weakly Magnetized Neutron Stars. *Didier Barret & Gilbert Vedrenne.* 92, 505, 38-E7 (1994)

Light Curves of Close Binaries in TeV Energy Region. *I. V. Moskalenko & S. Karakula.* 92, 567, 39-D3 (1994)

ROSAT/Optical Observations of 2S 0114+65: A Study of the 2.8 Hour Periodic Outbursts. *John P. Finley, MaryJane Taylor, & Tomaso Belloni.* 429, 356, 148-D13 (1994)

ROSAT Observations of the Black Hole Candidate V404 Cygni in Quiescence. *R. Mark Wagner, S. G. Starrfield, R. M. Hjellming, S. B. Howell, & T. J. Kreidl.* 429, L25, 150-D3 (1994)

The Detection of Pulsed X-Ray Emission from a Nearby Radio Pulsar. *S. Yancopoulos, T. T. Hamilton, & D. J. Helfand.* 429, 832, 156-A9 (1994)

ROSAT Observation of the Decline of V838 Herculis (Nova Herculis 1991). *Paula Szkody & D. W. Hoard.* 429, 857, 156-C12 (1994)

A Volume-limited *ROSAT* Survey of Extreme Ultraviolet Emission from All Nondegenerate Stars within 10 Parsecs. *Brian E. Wood, Alexander Brown, Jeffrey L. Linsky, Barry J. Kellett, Gordon E. Bromage, Simon T. Hodgkin, & John P. Pye.* 93, 287, 45-E5 (1994)

Observations of 1E 1740.7−2942 with *ROSAT* and the VLA. *William A. Heindl, Thomas A. Prince, & John M. Grunsfeld.* 430, 829, 172-B12 (1994)

Emission Lines from X-Ray–heated Accretion Disks in Low-Mass X-Ray Binaries. *Yuan-Kuen Ko & Timothy R. Kallman.* 431, 273, 179-E4 (1994)

Neutron Star Cooling and Pion Condensation. *Hideyuki Umeda, Ken'ichi Nomoto, Sachiko Tsuruta, Takumi Muto, & Toshitaka Tatsumi.* 431, 309, 180-A3 (1994)

Spectral Variations in the Low-Mass X-Ray Binary 4U 0614+09. *K. P. Singh & K. M. V. Apparao.* 431, 826, 189-A1 (1994)

MACHOs and the Diffuse X-Ray Background. *V. Kashyap, R. Rosner, D. Schramm, & J. Truran.* 431, L87, 191-E2 (1994)

Multiwavelength Study of the Magnetically Active T Tauri Star HD 283447. *Eric D. Feigelson, Alan D. Welty, Catherine L. Imhoff, Jeffrey C. Hall, Paul B. Etzel, Robert B. Phillips, & Colin J. Lonsdale.* 432, 373, 197-G1 (1994)

ROSAT HRI Observations of Hot Stars in the Orion Nebula. *Jean-Pierre Caillault, Marc Gagné, & John R. Stauffer.* 432, 386, 198-A2 (1994)

ROSAT X-Ray Observations of Late-Type Evolved Stars: On the Relationship between Coronal Temperatures and Luminosities. *A. Maggio, S. Sciortino, & F. R. Harnden, Jr.* 432, 701, 204-F11 (1994)

Nonstandard Thermal Evolution of Neutron Stars. *Hideyuki Umeda, Sachiko Tsuruta, & Ken'ichi Nomoto.* 433, 256, 211-E1 (1994)

Correlation between X-Ray Intensity and Radio Outbursts of Cygnus X-3. *Hiroaki Watanabe, Shunji Kitamoto, Sigenori Miyamoto, R. L. Fiedler, E. B. Waltman, K. J. Johnston, & F. D. Ghigo.* 433, 350, 212-F1 (1994)

Evidence for a Soft X-Ray Excess in the Spectrum of GRS 1758−258. *S. Mereghetti, T. Belloni, & A. Goldwurm.* 433, L21, 214-F12 (1994)

Regimes of High-Energy Shock Emission from the Be Star/Pulsar System PSR 1259−63. *Marco Tavani, Jonathan Arons, & Victoria M. Kaspi.* 433, L37, 215-B1 (1994)

Episodic Mass Transfer in Binaries with X-Ray Heating. *A. Harpaz & S. Rappaport.* 434, 283, 229-C13 (1994)

The Pulsed Hard X-Ray Spectrum of PSR B1509−58. *S. M. Matz, M. P. Ulmer, D. A. Grabelsky, W. R. Purcell, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, M. S. Strickman, & G. V. Jung.* 434, 288, 229-D7 (1994)

Spectral Evolution during Pre-Eclipse Dips in Hercules X-1. *D. A. Leahy, A. Yoshida, & M. Matsuoka.* 434, 341, 230-B6 (1994)

The PSR 1800−21/G8.7−0.1 Association: A View from *ROSAT*. *John P. Finley & Hakki Ögelman.* 434, L25, 232-D11 (1994)

Generalized Comptonization Models and Application to the Recent High-Energy Observations. *Lev Titarchuk.* 434, 570, 235-F7 (1994)

The Early Ultraviolet, Optical, and Radio Evolution of the Soft X-Ray Transient GRO J0422+32. *C. R. Shrader, R. Mark Wagner, R. M. Hjellming, X. H. Han, & S. G. Starrfield.* 434, 698, 237-D4 (1994)

Searches for Millisecond Pulsations in Low-Mass X-Ray Binaries. II. *B. A. Vaughan, M. van der Klis, K. S. Wood, J. P. Norris, P. Hertz, P. F. Michelson, J. van Paradijs, W. H. G. Lewin, K. Mitsuda, & W. Penninx.* 435, 362, 248-D1 (1994)

Normalized Power Spectral Densities of Two X-Ray Components from GS 1124−683. *Sigenori Miyamoto, Shunji Kitamoto, Sayuri Iga, Kiyoshi Hayashida, & Kentaro Terada.* 435, 398, 248-G10 (1994)

X-Ray Emission from 4U 2129+47 (=V1727 Cygni) in Quiescence. *Michael R. Garcia.* 435, 407, 249-A9 (1994)

X-Ray Emission of the Pulsar–Be Star Binary PSR 1259−63. *Andrew King & Lynn Cominsky.* 435, 411, 249-B3 (1994)

Accretion Disk Coronae in High-Luminosity Systems. *Stephen D. Murray, John I. Castor, Richard I. Klein, & Christopher F. McKee.* 435, 631, 254-F13 (1994)

Disk-Instability Model for Black Hole Transients: Interplay of Thermal and Tidal Instabilities. *S. Ichikawa, S. Mineshige, & T. Kato.* 435, 748, 256-D2 (1994)

The Shadow Wind in High-Mass X-Ray Binaries. *John M. Blondin.* 435, 756, 256-D13 (1994)

The Hard X-Ray Emission Spectra from Accretion Columns in Intermediate Polars. *Insu Yi & Ethan T. Vishniac.* 435, 829, 257-E1 (1994)

Recurrence Times and Periodicities in 4U 1608−52 as Observed by *VELA 5B*. *James C. Lochner & Diane Roussel-Dupré.* 435, 840, 257-F1 (1994)

Is a Black Hole Accretion Disk in a Self-organized Critical State? *S. Mineshige, M. Takeuchi, & H. Nishimori.* 435, L125, 260-A10 (1994)

Ultraviolet Spectra of HZ Herculis/Hercules X-1 from *HST*: Hot Gas during Total Eclipse of the Neutron Star. *Scott F. Anderson, Stefanie Wachter, Bruce Margon, Ronald A. Downes, William P. Blair, & Jules P. Halpern.* 436, 319, 265-F5 (1994)

Line-dominated Eclipse Spectrum of Vela X-1. *Fumiaki Nagase, Gregory Zylstra, Takashi Sonobe, Taro Kotani, Hajime Inoue, & Jonathan Woo.* 436, L1, 268-C1 (1994)

ASCA Measurements of the Grain-scattered X-Ray Halos of Eclipsing Massive X-Ray Binaries: Vela X-1 and Centaurus X-3. *Jonathan W. Woo, George W. Clark, Charles S. R. Day, Fumiaki Nagase, & Toshiaki Takeshima.* 436, L5, 268-C9 (1994)

Is the Changing Orbital Period of EXO 0748−676 Evidence for a Triple System? *R. H. D. Corbet, K. Asai, T. Dotani, & F. Nagase.* 436, L15, 268-D13 (1994)

ASCA Observations of SS Cygni during an Anomalous Outburst. *John A. Nousek, Christopher J. Baluta, Robin H. D. Corbet, Koji Makai, Julian P. Osborne, & Manabu Ishida.* 436, L19, 268-E7 (1994)

Properties of M33 X-8, the Nuclear Source in the Nearby Spiral Galaxy. *M. Takano, K. Mitsuda, Y. Fukazawa, & F. Nagase.* 436, L47, 269-B1 (1994)

ASCA Observations of the Coronal X-Ray Emission of Algol. *A. Antunes, F. Nagase, & N. E. White.* 436, L83, 269-G3 (1994)

ASCA X-Ray Spectra of the Active Single Stars β Ceti and π^1 Ursae Majoris. *S. A. Drake, K. P. Singh, N. E. White, & Theodore Simon.* 436, L87, 269-G11 (1994)

ASCA Solid State Imaging Spectrometer Observations of O Stars. *M. F. Corcoran, W. L. Waldron, J. J. MacFarlane, W. Chen, A. M. T. Pollock, K. Torii, S. Kitamoto, N. Miura, M. Egoshi, & Y. Ohno.* 436, L95, 270-B1 (1994)

Einstein X-Ray Observations of Herbig Ae/Be Stars. *F. Damiani, G. Micela, S. Sciortino, & F. R. Harnden, Jr.* 436, 807, 276-F12 (1994)

Quiescent Accretion Disks in Black Hole X-Ray Novae. *Jerome A. Orosz, Charles D. Bailyn, Ronald A. Remillard, Jeffrey E. McClintock, & Craig B. Foltz.* 436, 848, 277-D3 (1994)

Discovery of the Quasi-periodic Oscillations from V0332+53. *Toshiaki Takeshima, Tadayasu Dotani, Kazuhisa Mitsuda, & Fumiaki Nagase.* 436, 871, 277-F7 (1994)

ROSAT Observations of Six Millisecond Pulsars. *R. Danner, S. R. Kulkarni, & S. E. Thorsett.* 436, L153, 281-E7 (1994)

X-Ray–induced Ionization in the Winds of Near–Main-Sequence O and B Stars. *J. J. MacFarlane, D. H. Cohen, & P. Wang.* 437, 351, 288-A11 (1994)

The Complete *Einstein Observatory* X-Ray Survey of the Orion Nebula Region. *Marc Gagné & Jean-Pierre Caillault.* 437, 361, 288-B10 (1994)

X-Ray Variability and Period Determinations in the Eclipsing Polar DP Leonis. *Craig R. Robinson & France A. Córdova.* 437, 436, 289-B4 (1994)

Iron Line Intensity Variations of Hercules X-1 over the Pulse Phase and the 35 Day Cycle. *C. S. Choi, F. Nagase, F. Makino, T. Dotani, S. Kitamoto, & S. Takahama.* 437, 449, 289-C6 (1994)

X-Ray Emission from PSR 0355+54. *Patrick Slane.* 437, 458, 289-D4 (1994)

Observations of the Small Magellanic Cloud by the *Vela 5B* X-Ray Monitor. *L. Whitlock & James C. Lochner.* 437, 841, 297-B7 (1994)

An *EXOSAT* Detection of the Transient X-Ray Pulsar GRO J1008−57. *D. J. Macomb, C. R. Shrader, & A. B. Schultz.* 437, 845, 297-C1 (1994)

Inertial Confinement of Astrophysical Jets. *W. Peter & D. Eichler.* 438, 244, 4-F11 (1995)

Determination of Plasma Temperatures and Luminosities Using Multiple Extreme-Ultraviolet and X-Ray Filters. *Brian E. Wood, Alexander Brown, & Jeffrey L. Linsky.* 438, 350, 6-C9 (1995)

Eclipse Timings of the Low-Mass X-Ray Binary EXO 0748−676: Statistical Arguments against Orbital Period Changes. *Paul Hertz, Kent S. Wood, & Lynn Cominsky.* 438, 385, 6-F13 (1995)

The Soft Gamma-Ray Spectrum of A0535+26: Detection of an Absorption Feature at 110 keV by OSSE. *J. E. Grove, M. S. Strickman, W. N. Johnson, J. D. Kurfess, R. L. Kinzer, C. H. Starr, G. V. Jung, E. Kendziorra, P. Kretschmar, M. Maisack, & R. Staubert.* 438, L25, 10-A9 (1995)

The Faint X-Ray Sources In and Out of ω Centauri: X-Ray Observations and Optical Identifications. *Adrienne M. Cool, Jonathan E. Grindlay, Charles D. Bailyn, Paul J. Callanan, & Paul Hertz.* 438, 719, 14-B2 (1995)

A Potential Cyclotron Line Signature in Low-Luminosity X-Ray Sources. *Robert W. Nelson, John C. L. Wang, E. E. Salpeter, & Ira Wasserman.* 438, L99, 20-B1 (1995)

The RIASS Coronathon: Joint X-Ray and Ultraviolet Observations of Normal F–K Stars. *Thomas R. Ayres, T. A. Fleming, T. Simon, B. M. Haisch, A. Brown, D. Lenz, W. Wamsteker, D. de Martino, C. Gonzalez, J. Bonnell, J. M. Mas-Hesse, C. Rosso, J. H. M. M. Schmitt, J. Trümper, W. Voges, J. Pye, R. C. Dempsey, J. L. Linsky, E. F. Guinan, G. M. Harper, C. Jordan, B. M. Montesinos, I. Pagano, & M. Rodonò.* 96, 223, 4-E7 (1995)

Low-Mass X-Ray Binaries in Globular Clusters: A New Metallicity Effect. *M. Bellazzini, A. Pasquali, L. Federici, F. R. Ferraro, & F. Fusi Pecci.* 439, 687, 34-A12 (1995)

Discovery of Candidate Cataclysmic Variables in the Post–Core-Collapse Globular Cluster NGC 6397. *Adrienne M. Cool, Jonathan E. Grindlay, Haldan N. Cohn, Phyllis M. Lugger, & Shawn D. Slavin.* 439, 695, 34-B10 (1995)

ROSAT X-Ray Sources Embedded in the ρ Ophiuchi Cloud Core. *Sophie Casanova, Thierry Montmerle, Eric D. Feigelson, & Philippe André.* 439, 752, 35-A7 (1995)

X-Ray Spectra from Neutron Stars Accreting at Low Rates. *Luca Zampieri, Roberto Turolla, Silvia Zane, & Aldo Treves.* 439, 849, 36-C12 (1995)

Balloon-borne Measurements of the SN 1987A Hard X-Ray Continuum. *Geoffrey N. Pendleton, William S. Paciesas, Gerald J. Fishman, Charles A. Meegan, & Robert B. Wilson.* 439, 963, 37-G13 (1995)

A Search for an X-Ray Scattering Halo around Scorpius X-1. *Dennis Gallagher, Webster Cash, & James Green.* 439, 976, 38-B2 (1995)

High-Mass X-Ray Binary Populations. I. Galactic Modeling. *William W. Dalton & Craig L. Sarazin.* 440, 280, 45-A11 (1995)

Oscillatory Modes in Near-critical Accretion Flows. *Guy S. Miller & Myeong-Gu Park.* 440, 771, 53-F11 (1995)

The Long-Period AM Herculis–like Cataclysmic Variable RXJ 051541+0104.6. *Frederick M. Walter, Scott J. Wolk, & Nancy R. Adams.* 440, 834, 54-E10 (1995)

EXOSAT Observations of the Low-Luminosity X-Ray Burster 4U 0614+091: Evidence for a Hard Power-Law Tail. *Didier Barret & Jonathan E. Grindlay.* 440, 841, 54-F6 (1995)

ROSAT PSPC Observations of the Symbiotic CH Cygni. *D. A. Leahy & K. Volk.* 440, 847, 54-G1 (1995)

Optical and Infrared Observations of SGR 1806−20. *S. R. Kulkarni, K. Matthews, G. Neugebauer, I. N. Reid, M. H. van Kerkwijk, & G. Vasisht.* 440, L61, 57-E12 (1995)

Minioutbursts from the Black Hole Candidate Nova Velorum 1993. *Charles D. Bailyn & Jerome A. Orosz.* 440, L73, 57-G8 (1995)

A Search for Pre–Main-Sequence Stars in High-Latitude Molecular Clouds. III. A Survey of the *Einstein* Database. *Jean-Pierre Caillault, Loris Magnani, & Chris Fryer.* 441, 261, 62-G12 (1995)

X-Ray Emission from the PSR B1259−63 System near Apastron. *J. Greiner, M. Tavani, & T. Belloni.* 441, L43, 67-B9 (1995)

Hard X-Ray Variability of X-Ray Nova Persei 1992: *Granat*/SIGMA Results. *A. Vikhlinin, E. Churazov, M. Gilfanov, R. Sunyaev, A. Finoguenov, A. Dyachkov, R. Kremnev, K. Sukhanov, J. Ballet, A. Goldwurm, B. Cordier, A. Claret, M. Denis, J. F. Olive, J. P. Roques, & P. Mandrou.* 441, 779, 72-F7 (1995)

Observations of the X-Ray Nova GRO J0422+32. I. Outburst and the Decay to Quiescence. *Paul J. Callanan, Michael R. Garcia, Jeffrey E. McClintock, Ping Zhao, Ronald A. Remillard, Charles D. Bailyn, Jerome A. Orosz, B. Alan Harmon, & William S. Paciesas.* 441, 786, 72-G3 (1995)

Accretion Disk Boundary Layers in Cataclysmic Variables. I. Optically Thick Boundary Layers. *Robert Popham & Ramesh Narayan.* 442, 337, 81-F10 (1995)

The Dim Inner Accretion Disk of the Quiescent Black Hole A0620−00. *Jeffrey E. McClintock, Keith Horne, & Ronald A. Remillard.* 442, 358, 82-A6 (1995)

Large Hysteretic Behavior of Stellar Black Hole Candidate X-Ray Binaries. *Sigenori Miyamoto, Shunji Kitamoto, Kiyoshi Hayashida, & Wataru Egoshi.* 442, L13, 84-F1 (1995)

The Very Low Mass X-Ray Binary Pulsars: A New Class of Sources? *S. Mereghetti & L. Stella.* 442, L17, 84-F9 (1995)

Discovery of a Transient MeV Range Gamma-Ray Source. *M. S. Briggs, D. E. Gruber, J. L. Matteson, & L. E. Peterson.* 442, 638, 88-F9 (1995)

RX J0515.6+0105: An Unusual, Eclipsing, Magnetic Cataclysmic Variable. *A. W. Shafter, K. Reinsch, K. Beuermann, K. A. Misselt, D. A. H. Buckley, V. Burwitz, & A. D. Schwope.* 443, 319, 99-E8 (1995)

Detection of the A1742−294 X-Ray Burster above 35 keV. *E. Churazov, M. Gilfanov, R. Sunyaev, B. Novickov, I. Chulkov, V. Kovtunenko, A. Sheikhet, K. Sukhanov, A. Goldwurm, B. Cordier, J. Paul, P. O. Petrucci, E. Jourdain, J. P. Roques, L. Bouchet, & P. Mandrou.* 443, 341, 99-G8 (1995)

A Unified Picture for High-Energy Emission in Spin-powered Pulsars. *T. Kamae & Y. Sekimoto.* 443, 780, 108-E7 (1995)

The Spectrum and Pulses of 1E 2259+586 from *ASCA* and BBXRT Observations. *R. H. D. Corbet, A. P. Smale, M. Ozaki, K. Koyama, & K. Iwasawa.* 443, 786, 108-F3 (1995)

An Extended Galactic Population of Low-Luminosity X-Ray Sources (CVs?) and the Diffuse X-Ray Background. *Eyal Maoz & Jonathan E. Grindlay.* 444, 183, 115-G11 (1995)

Coronal Heating in Flare Stars: Resonant MHD Absorption? *D. J. Mullan & M. Johnson.* 444, 350, 118-C12 (1995)

Geometry and Pulse Profiles of X-Ray Pulsars: Asymmetric Relativistic Fits to 4U 1538−52 and Vela X-1. *T. Bulik, H. Riffert, P. Mészáros, K. Makishima, T. Mihara, & B. Thomas.* 444, 405, 119-B3 (1995)

A Luminous Companion to SGR 1806−20. *M. H. van Kerkwijk, S. R. Kulkarni, K. Matthews, & G. Neugebauer.* 444, L33, 121-F1 (1995)

Mass Transfer Cycles in Cataclysmic Variables. *A. R. King, J. Frank, U. Kolb, & H. Ritter.* 444, L37, 121-F7 (1995)

Deep *ROSAT* HRI Observations of the Orion Nebula Region. *Marc Gagné, Jean-Pierre Caillault, & John R. Stauffer.* 445, 280, 136-D2 (1995)

Low-State Disks and Low-Beta Disks. *Shin Mineshige, Masaaki Kusunose, & Ryoji Matsumoto.* 445, L43, 140-G11 (1995)

ASCA and *ROSAT* Observations of NRAO 140 and IX Persei. *T. J. Turner, I. M. George, G. M. Madejski, S. Kitamoto, & T. Suzuki.* 445, 660, 144-B11 (1995)

On the Spectral Hardening Factor of the X-Ray Emission from Accretion Disks in Black Hole Candidates. *Toshiya Shimura & Fumio Takahara.* 445, 780, 146-A4 (1995)

A Study of Coronal X-Ray Emission from Short-Period Algol Binaries. *K. P. Singh, S. A. Drake, & N. E. White.* 445, 840, 146-F13 (1995)

Wind Dynamics in SMC X-1. I. Hydrodynamic Simulation. *John M. Blondin & Jonathan W. Woo.* 445, 889, 147-D13 (1995)

Wind Dynamics in SMC X-1. II. *Ginga* and *ROSAT* Observations. *Jonathan W. Woo, George W. Clark, John M. Blondin, Timothy R. Kallman, & Fumiaki Nagase.* 445, 896, 147-E10 (1995)

Extreme Ultraviolet Light Curves of UZ Fornacis: Evidence for Accretion Stream Absorption and Vertical Extent of the Accretion Spot. *John K. Warren, Martin M. Sirk, & John V. Vallerga.* 445, 909, 147-F13 (1995)

First Detection of X-Ray Variability of η Carinae. *M. F. Corcoran, G. L. Rawley, J. H. Swank, & R. Petre.* 445, L121, 151-C9 (1995)

RX J0045.4+4154: A Recurrent Supersoft X-Ray Transient in M31. *N. E. White, P. Giommi, J. Heise, L. Angelini, & S. Fantasia.* 445, L125, 151-D5 (1995)

An Objective Multicolor Method for the Characterization of Low-Resolution X-Ray Spectra. *A. Collura, G. Micela, S. Sciortino, F. R. Harnden, Jr., & R. Rosner.* 446, 108, 154-F7 (1995)

Einstein Observations of T Tauri Stars in Taurus-Auriga. I. Properties of X-Ray Emission. *F. Damiani, G. Micela, S. Sciortino, & F. R. Harnden, Jr.* 446, 331, 157-F10 (1995)

Einstein Observations of T Tauri Stars in Taurus-Auriga. II. Relationships between X-Ray Emission and Pre–Main-Sequence Activity. *F. Damiani & G. Micela.* 446, 341, 157-G11 (1995)

Accretion Disk Structure and Branch Behavior of Cygnus X-2. *Akira Hirano, Shunji Kitamoto, Tatsuya T. Yamada, Shin Mineshige, & Jun Fukue.* 446, 350, 158-A10 (1995)

Discovery of the 18.7 Second Accreting X-Ray Pulsar GRO J1948+32. *Deepto Chakrabarty, Towsian Koh, Lars Bildsten, Thomas A. Prince, Mark H. Finger, Robert B. Wilson, Geoffrey N. Pendleton, & Bradley C. Rubin.* 446, 826, 167-D8 (1995)

Orbital Parameters of the Candidate Black Hole Binary GRO J0422+32. *Jerome A. Orosz & Charles D. Bailyn.* 446, L59, 170-D12 (1995)

The Optical Counterpart to the Extremely Luminous X-Ray Source near Holmberg IX: A Possible Supershell in a Tidal Tail. *Bryan W. Miller.* 446, L75, 170-G4 (1995)

Emission-Line Pre–Main-Sequence Stars and X-Ray Sources in Orion. *Steven H. Pravdo & Lorella Angelini.* 447, 342, 177-B3 (1995)

VLBI Observations of Cygnus X-3 during the 1985 October Radio Outburst. *C. J. Schalinski, K. J. Johnston, A. Witzel, R. E. Spencer, R. Fiedler, E. Waltman, G. G. Pooley, R. Hjellming, & L. A. Molnar.* 447, 752, 186-D1 (1995)

The Synchrotron Self-Compton Model for X-Ray and γ-Ray Emission from Pulsars. *K. S. Cheng & D. M. Wei.* 448, 281, 196-B1 (1995)

ROSAT All-Sky Survey Observations of the Hyades Cluster. *Robert A. Stern, Jürgen H. M. M. Schmitt, & Peter T. Kahabka.* 448, 683, 204-B12 (1995)

The X-Ray Halo of Nova V1974 Cygni (Nova Cygni 1992) and the Nature of Interstellar Dust. *John S. Mathis, David Cohen, John P. Finley, & J. Krautter.* 449, 320, 214-E1 (1995)

Neon Line Emission in the X-Ray Spectrum of the Pulsar 4U 1626−67. *L. Angelini, N. E. White, F. Nagase, T. R. Kallman, A. Yoshida, T. Takeshima, C. Becker, & F. Paerels.* 449, L41, 216-F3 (1995)

ROSAT Observation of the Old Classical Nova CP Puppis. *Şölen Balman, Marina Orio, & Hakki Ögelman.* 449, L47, 216-F11 (1995)

Nonradial Oscillations in Neutron Star Oceans: A Source of Quasi-periodic X-Ray Oscillations? *Lars Bildsten & Curt Cutler.* 449, 800, 223-F12 (1995)

Exact and Approximate Radiative Transfer in Differentially Moving Media. *Wei-Wei Yin & Guy S. Miller.* 449, 826, 224-B8 (1995)

ROSAT Observations of Scattered X-Rays from LMC X-4 in Its Low State. *Jonathan W. Woo, George W. Clark, & Alan M. Levine.* 449, 880, 224-G7 (1995)

The *Einstein* Extended Medium-Sensitivity Survey Second Epoch: Results for the Stars. *Thomas A. Fleming, Silvano Molendi, Tommaso Maccacaro, & Anna Wolter.* 99, 701, 44-D12 (1995)

Spectral and Temporal Characteristics of X-Ray–bright Stars in the Pleiades. *Marc Gagné, Jean-Pierre Caillault, & John R. Stauffer.* 450, 217, 231-A11 (1995)

Five Eclipses of Hercules X-1 Observed by *Ginga*. *D. A. Leahy.* 450, 339, 232-F1 (1995)

The X-Ray View of the Low-Mass Stars in the Solar Neighborhood. *Jürgen H. M. M. Schmitt, Thomas A. Fleming, & Mark S. Giampapa.* 450, 392, 233-C13 (1995)

Luminous Supersoft X-Ray Sources and the Planetary Nebula Luminosity Function. *R. Di Stefano, F. Paerels, & S. Rappaport.* 450, 705, 240-D10 (1995)

The Role of Chaos in the Circularization of Tidal Capture Binaries. I. The Chaos Boundary. *Rosemary A. Mardling.* 450, 722, 240-F7 (1995)

The Role of Chaos in the Circularization of Tidal Capture Binaries. II. Long-Time Evolution. *Rosemary A. Mardling.* 450, 732, 240-G6 (1995)

Burstlike Events in the Z Source Cygnus X-2. *E. Kuulkers, M. van der Klis, & J. van Paradijs.* 450, 748, 241-A11 (1995)

Analyzing X-Ray Pulsar Profiles: Asymmetry as a Key to Geometry and Beam Pattern. *U. Kraus, H.-P. Nollert, H. Ruder, & H. Riffert.* 450, 763, 241-C4 (1995)

Geminga's Soft X-Ray Emission and the Structure of Its Surface. *Dany Page, Yu. A. Shibanov, & V. E. Zavlin.* 451, L21, 252-D4 (1995)

A Model of the Galactic X-Ray Binary Population. I. High-Mass X-Ray Binaries. *Icko Iben, Jr., Alexander V. Tutukov, & Lev R. Yungelson.* 100, 217, 49-B1 (1995)

A Model of the Galactic X-Ray Binary Population. II. Low-Mass X-Ray Binaries in the Galactic Disk. *Icko Iben, Jr., Alexander V. Tutukov, & Lev R. Yungelson.* 100, 233, 49-C5 (1995)

Old Isolated Accreting Neutron Stars: Contribution to the Soft X-Ray Background in the 0.5–2 keV Band. *Silvia Zane, Roberto Turolla, Luca Zampieri, Monica Colpi, & Aldo Treves.* 451, 739, 257-D2 (1995)

The Correlation of Solar Flare Temperature and Emission Measure Extrapolated to the Case of Stellar Flares. *U. Feldman, J. M. Laming, & G. A. Doschek.* 451, L79, 261-A8 (1995)

The Evolution of Accretion Disks with Coronae: A Model for the Low-Frequency Quasi-periodic Oscillations in X-Ray Binaries. *Marek A. Abramowicz, Xingming Chen, & Ronald E. Taam.* 452, 379, 267-C11 (1995)

Statistics of X-Ray Fluctuations from Cygnus X-1: Reservoirs in the Disk? *H. Negoro, S. Kitamoto, M. Takeuchi, & S. Mineshige.* 452, L49, 270-C1 (1995)

An Archival Study of *Hubble Space Telescope* Observations of Hercules X-1/HZ Herculis. *F. H. Cheng, S. D. Vrtilek, & John C. Raymond.* 452, 825, 276-A10 (1995)

Soft X-Ray Emission from Selected Isolated Pulsars. *Patrick Slane & Nicole Lloyd.* 452, L115, 280-A12 (1995)

Periodic Outbursts from the Ultrasoft X-Ray Transient 4U 1630−47. *A. N. Parmar, L. Angelini, & N. E. White.* 452, L129, 280-C10 (1995)

X-Ray Detection of PSR B1259−63 at Periastron. *V. M. Kaspi, M. Tavani, F. Nagase, M. Hirayama, M. Hoshino, T. Aoki, N. Kawai, & J. Arons.* 453, 424, 287-A1 (1995)

ROSAT Pointed Observations of Cool Magnetic White Dwarfs. Z *E. Musielak, J. G. Porter, & J. M. Davis.* 453, L33, 289-F8 (1995)

Two X-Ray Sources in 30 Doradus: Wolf-Rayet + Black Hole Binaries? *Q. Daniel Wang.* 453, 783, 294-F9 (1995)

A New Magnetic Cataclysmic Variable: WGA J1047.1+6335. *K. P. Singh, P. Szkody, P. Barrett, N. E. White, E. Fierce, A. Silber, D. W. Hoard, P. J. Hakala, V. Piirola, & K. Sohl.* 453, L95, 298-F4 (1995)

Accreting, Isolated Neutron Stars. III. Preheating of Infalling Gas and Cometary H II Regions. *Omer Blaes, Orlando Warren, & Piero Madau.* 454, 370, 304-D3 (1995)

New Features of the X-Ray Dip Source 1755−338. *Kwang-Il Seon, Kyoung-Wook Min, Kenji Yoshida, Fumiyoshi Makino, Michiel van der Klis, Jan van Paradijs, & Walter H. G. Lewin.* 454, 463, 305-F3 (1995)

ASCA and *GRO* Observations of GX 301−2. *Steven H. Pravdo, Charles S. R. Day, Lorella Angelini, B. Alan Harmon, A. Yoshida, & P. Saraswat.* 454, 872, 313-G6 (1995)

The Accretion Disk Limit Cycle Instability in Black Hole X-Ray Binaries. *John K. Cannizzo, Wan Chen, & Mario Livio.* 454, 880, 314-A3 (1995)

Radiation Hydrodynamic Models of Eclipsing Low-Mass X-Ray Binaries. *Stephen D. Murray, D. Tod Woods, John I. Castor, Richard I. Klein, & Christopher F. McKee.* 454, L133, 316-D2 (1995)

X-Ray Spectra of Z Sources. *Dimitrios Psaltis, Frederick K. Lamb, & Guy S. Miller.* 454, L137, 316-D9 (1995)

X-Ray Emission from Magnetic Cataclysmic Variables and White Dwarf Mass Estimates. *Kinwah Wu, G. Chanmugam, & G. Shaviv.* 455, 260, 321-F8 (1995)

Identification of the Soft X-Ray Source WGA J1802.1+1804 with a New Magnetic Cataclysmic Variable. *Paula Szkody, Andrew Silber, D. W. Hoard, E. Fierce, K. P. Singh, P. Barrett, E. Schlegel, & V. Piirola.* 455, L43, 325-A6 (1995)

Spectroscopic Identification of Probable Cataclysmic Variables in the Globular Cluster NGC 6397. *J. E. Grindlay, A. M. Cool, P. J. Callanan, C. D. Bailyn, H. N. Cohn, & P. M. Lugger.* 455, L47, 325-B1 (1995)

Photon Splitting in Strongly Magnetized Cosmic Objects—Revisited. *Günter Wunner, Robert Sang, & Dagmar Berg.* 455, L51, 325-B8 (1995)

The Softest X-Ray Sources in the *ROSAT* Pointed Catalog: WGACAT. *K. P. Singh, P. Barrett, N. E. White, P. Giommi, & L. Angelini.* 455, 456, 328-C2 (1995)

A Spin-down Variation in the 6 Second X-Ray Pulsar 1E 1048.1−5937. *Sandro Mereghetti.* 455, 598, 330-B6 (1995)

The Mass of the Probable Black Hole in the X-Ray Nova GRO J0422+32. *Alexei V. Filippenko, Thomas Matheson, & Luis C. Ho.* 455, 614, 330-D1 (1995)

X-Rays from SN 1993J and Structures of Ejecta and Circumstellar Medium. *Tomoharu Suzuki & Ken'ichi Nomoto.* 455, 658, 331-A8 (1995)

Stellar Activity at the End of the Main Sequence: GHRS Observations of the M8 Ve Star VB 10. *Jeffrey L. Linsky, Brian E. Wood, Alexander Brown, Mark S. Giampapa, & Carol Ambruster.* 455, 670, 331-B10 (1995)

A Black Hole in the X-Ray Nova GS 2000+25. *Alexei V. Filippenko, Thomas Matheson, & Aaron J. Barth.* 455, L139, 334-A4 (1995)

ZEEMAN EFFECT

On the Inference of Magnetic Field Vectors from Stokes Profiles. *John T. Jefferies & Donald L. Mickey.* 372, 694, 84-C9 (1991)

Vector Magnetic Fields in Sunspots. I. Stokes Profile Analysis Using the Marshall Space Flight Center Magnetograph. *K. S. Balasubramaniam & E. A. West.* 382, 699, 210-C11 (1991)

ZODIACAL LIGHT

Zodiacal Emission. II. Dust near the Ecliptic. *William T. Reach.* 369, 529, 44-C13 (1991)

Spatial Distribution of the Interplanetary Dust Deduced by Infrared Observations. *P. de Bernardis, F. Feminella, & G. Moreno.* 370, 396, 52-B10 (1991)